

Kemess North 2002 - Diamond Drill Log



Hole Number: **KN-02-30**

Northing: 15596.9 **Total Depth:** 450.16m
Easting: 8355.18 **Azimuth:** 360°
Elevation: 1726.6 **Dip:** -70°

Geologist: J. Mazvihwa
Logged Date: 8/19/2002

Survey Depth	Azimuth	Dip	Comments:
167 m	9 °	-70 °	
259 m	15 °	-71 °	
350 m	18 °	-70 °	
441 m	18 °	-71 °	

GEOLOGICAL SURVEY BRANCH
ASSESSMENT

27,083

Kemess North 2002 - Summary Drill Log



Hole Number: **KN-02-30**

From (m)	To (m)	Rock Type	Comments
0	3.05	CASING	No block with amount of casing left in hole.-10ft casing from drill log drillers.
3.05	3.66	OVERBURDEN	Overburden, very fine clay material, stained yellow with limonite. Portions with rounded rubble probably float-bed rock only from 3.66m.
3.66	39.62	INTERMEDIATE VOLCANIC FLOW	Medium green to brown yellow -due to limonite, goethite, and hematite staining. Fine grained fragments in fine grained matrix. fragments ghosted-boundaries barley visible ,protolith over printed by iron staining brecciation premineralization as both matrix and fragments in fine grained dissem py stringers. lim/goethite/hem infilling and lining jts. Local bkn zones.
39.62	63.44	MONZONITE	Medium green/gray fine grained fragments or xenoliths flow associated fine to medium grained porphyritic intrusive. Over 70% of lithology is the xenolith/fragment. Intrusive is randomly cut by zeolite/qtz veining, irregularly spaced. Local epidote and potassic alteration. Xenolith/fragments have a brecciated texture - local breccia - fragments have the same composition as the xenolith host. Potassic alteration, silicification, and epidote alteration - propylitic locally. Pyrite dissem throughout also present as aggregates. (In localized places the fragments appear to have two different Lithologies - qtz, mt, flow monzodiorite fragments which would indicate a PLT. But no qtz eyes were identified in the matrix, therefore, the unit is not Toodoggone. It is probably an intrusive in the Takla flows, with large brecciated/fragmented xenoliths). Several zeolite veins @ ~ 80 degrees t.c.a.
63.44	106.25	INTERMEDIATE VOLCANIC FLOW	Med to dark grained f.g. massive flow - Takla. Localized patchy epi and potassic alt. Qtz/zeo veining randomly oriented, irregularly spaced. Portions of increased veining up to ~ 20% locally btwn 64.03 - 64.13m at ~ 25 degrees t.c.a. Discontinuous qtz/zeo stringers ~ 30% (?), randomly oriented and irregularly spaced btwn 64.13 - 64.64m. Dissem py.
106.25	154.48	MONZONITE	Local potassic portions with porphyritic texture - possibly intrusive, protolith overprinted by potassic alt - increased zeo. veining in altered portions. Zeo. veining ~ 60 deg CA.
154.48	156.19	DIABASE	Dark green, mafic, fine grained dyke with qtz/carb phenocrysts in a fine grained matrix. Felsic, light gray, fine grained xenolith with finely diss. pyrite, qtz and carb veining between 155.13-155.31 m in the mafic dyke. Dyke is not mineralized (post- mineralization). Mottled locally. Footwall contact not visible- defined by broken zone.

Monday, November 04, 2002

450.16

EOH

Hole Number:

KV-02-30

From (m)	To (m)	Rock Type	Comments
156.19	197.9	MONZONITE	Fine to med. grained flow, medium to light green. Local pink staining- potassic alt'n +/- Fe staining. Weakly to moderately silicified. Plagioclase phenocrysts present locally in a chl and silicified matrix. Pyrite disseminated in flow; aggregates associated with qtz veining bound by pink potassic alt'n. Mottled appearance locally. Potassic altered portion with flow angular fragments between 157.19- 157.30m. Brown colouring locally- sericite +/- fine biotite alt'n.
197.9	201.29	INTERMEDIATE VOLCANIC FLOW	Fine grained medium to dark green Takla flow. Pyrite disseminated in flow, also present as aggregates. Zeolite veining, locally associated with epidote alteration; some portions contain plagioclase phenocrysts.
201.29	243.26	BLADED FELDSPAR PORPHYRY ANDESITE	Bladed feldspar phenocrysts in fine grained chloritic matrix. Bladed feldspar porphyry BFP. Local potassic and sericite +/- fine biotite altered portions. Brown stained matrix has been sericitized +/- fine biotite alt'n, feldspar phenocrysts not affected. Potassic altered portions have BFP matrix stained pink and the bladed feldspars are altered to K-spar- pink coloured as well. Zeolite/Qtz veining, randomly oriented and irregularly spaced.
243.26	254.5	INTERMEDIATE VOLCANIC FLOW	fine grained , light green Takla flow . Augite phenocrysts visible locally . Py diss in flow Brown colour in places possibly weak to moderate sericite +/- fine biotite alteration. Flow cut by Qtz/ Zeolite and Gypsum veining. Gypsum veining content is higher than that of zeolite
254.5	258.85	BLADED FELDSPAR PORPHYRY ANDESITE	Bladed feldspar phenocrysts visible in parts of unit in fine grained matrix; matrix is altered locally - pink stained potassic alteration. Brown stained- sericite +/- fine biotite alteration and yellow colouring indicating sericite alt'n. Protolith is overprinted by alt'n locally. Py stringers associated with mt aggregates. Disseminated pyrite.
258.85	261.97	INTERMEDIATE VOLCANIC FLOW	Fine grained light to medium gray/green Takla flow. Locally silicified, weak to moderate, pervasive. Brown colouring indicates sericite +/- . Disseminated py in flow also associated with quartz veining. Anhydrite vein between 260.49- 260.68. Pyrite veining at about 85 degrees t.c.a.
261.97	262.84	DIABASE	Mafic dyke , fine grained, dark green as seen through 261.12- 261.13 m in sample 112089. Carb/Qtz phenocrysts in mafic matrix- post mineralization. Irregularly oriented and randomly spaced Qtz stringers.
262.84	305.59	INTERMEDIATE VOLCANIC FLOW	Fine grained to medium grained in places with plagioclase and Qtz phenocrysts. Light to medium brown colour due to sericite +/- fine biotite alteration. Moderately sericitized locally. Moderately to lightly silicified. Alteration is pervasive. Disseminated pyrite. Protolith is overprinted by alteration . Qtz vein @ ~ 10 degrees t.c.a.

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From (m)	To (m)	Rock Type	Comments
305.59	306.5	MONZONITE	Pale colour, associated with diss. pyrite. Moderate to high potassic alteration, silicified locally. Brown colour due to sericite +/- fine biotite alt'n. Local increase in zeolite veining. Diss. magnetite present locally.
306.5	370.43	INTERMEDIATE VOLCANIC FLOW	Minor weak to moderate potassic alt'n. Local epidote alteration. Moly xtals between 347.61- 347.73 m associated with qtz/zeo veining, and epidote.
370.43	450.19	CROWDED FELSPAR PORPHYRY	Duncan Lake Pluton

Kemess North 2002 - Detail Drill Log



Hole Number: KN-02-30

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm		
0	3.05	CASING									
0.00	3.05					No block with amount of casing left in hole.-10ft casing from drill log drillers.	30	-2	-2		
3.05	3.66	OVERBURDEN									
3.05	3.66				0	Overburden, very fine clay material, stained yellow with limonite. Portions with rounded rubble probably float-bed rock only from 3.66m.	9489	0.009	0.074		
3.66	39.62	INTERMEDIATE VOLCANIC FLOW									
3.66	5.18	Fine-grained medium green brecciated quartz-sericite-pyrite	3.0	0.1	0	QLV	15	Medium green to brown yellow -due to limonite, goethite, and hematite staining. Fine grained fragments in fine grained matrix. fragments ghosted-boundaries barley visible ,protolith over printed by iron staining brecciation premineralization as both matrix and fragments in fine grained disseminated py stringers. lim/goethite/hem infilling and lining jts. Local bkn zones.	9490	0.009	0.125
5.18	6.71		3.0	0.1	0	QLV	15	Reduced Fe staining, fragment outline still ghosted, bladed feldspar phenocrysts present in fragments - possible BFP fragment.	9491	0.029	0.156
6.71	8.23		3.0	0.1	0	QLV	15	Veining has vuggy dissolution features.	9493	0.018	0.145
8.23	9.75		3.0	0.1	5	QLV	15	Veining has vuggy dissolution features, local BKN zones.	9494	0.012	0.095
9.75	11.28		3.0	0.1	1	QLV	15	Same as sample 9490.	9495	0.014	0.077
11.28	12.80		3.0	0.1	1	QLV	15	Veining stockwork - with vuggy dissolution features present locally. Stockwork vein = py/qtz.	9496	0.017	0.114
12.80	14.33		3.0	0.1	0	QLV	15	Reduced Fe staining. Pink stained - potassic altered portions.	9497	0.022	0.116
14.33	16.30		3.0	0.1	0	QLV	15	Acicular gypsum crystallized stained red+yellow with hem + limo respectively along jt plane at 15.36m.	9498	0.01	0.176
16.30	18.30		3.0	0.1	7	QLV	15	Pink stained potassic portions.	9499	0.023	0.204
18.30	19.10		3.0	0.1	7	QLV	15		9500	0.011	0.088

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
19.10	21.10	Fine-grained light grey brecciated quartz-sericite-pyrite	3.0	0.1	1 QCV	15 Light gray, fine grained matrix , with light gray fragments - brecciated. Breccia fragment outline are barely visible - fragments do not appear to vary in composition - possibly local breccia. Diss. py in matrix and fragments - py up to 3.47 locally. Local pink staining - possibly potassic alteration - zeolite flooding locally. Bleached zone - sericite and silicified. Protolith overprinted by silicification + seritization.	k67901	0.005	0.07
21.10	23.10		3.0	0.1	0 QCV	15 Local increase in qtz/zeo veining, randomly oriented, irregularly spaced, associated with potassic alteration.	k67902	0.002	0.05
23.10	25.10		3.0	0.1	0 QCV	15 Same as above.	k67903	0.006	0.103
25.10	27.10		3.0	0.1	0 QCV	15 Potassic altered portions.	k67904	0.003	0.068
27.10	29.10		3.0	0.1	3 QCV	15 Potassic portions with py content ~5%.	k67905	0.006	0.064
29.10	31.10		3.0	0.1	QCV	15 Potassic vuggy dissolution features.	k67906	0.009	0.073
31.10	33.08		3.0	0.1	0 QCV	15 Epidote altered portions associated locally with potassic altered portions. Local BKN.	k67907	0.004	0.047
33.08	35.01		3.0	0.1	0 QCV	15 Potassic altered portions, reduced epi. alteration Moly stringers assoc. with qtz. vein bound by pot. altn at- 34.98m.	k67908	0.002	0.087
35.01	37.02		3.0	0.1	0 QCV	15 Potassic moly stringers assoc. with qtz veining bound by potassic altered portions at ~ 36.86m	k67909	0.005	0.097
37.02	38.71		3.0	0.1	1 QCV	15 Same as above.	k67910	0.005	0.087
38.71	39.62		3.0	0.1	1 QCV	15 Potassic reduced seritization - gradual increase in the green colour indicates a gradual contact btwn the quartz/sericite/pyrite zone and the relatively unaltered zone. The protolith is still overprinted by silicification and the outline of the fragments in xenoliths are difficult to make out.	k67911	0.008	0.111

39.62 63.44 **MONZONITE**

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
39.62	41.62	Fine-medium-grained medium green brecciated silicic potassic	3.0	0.1	3 QVN 80 10	Medium green/gray fine grained fragments or xenoliths flow associated fine to medium grained porphyritic intrusive. Over 70% of lithology is the xenolith/fragment. Intrusive is randomly cut by zeolite/qtz veining, irregularly spaced. Local epidote and potassic alteration. Xenolith/fragments have a brecciated texture - local breccia - fragments have the same composition as the xenolith host. Potassic alteration, silicification, and epidote alteration - propylitic locally. Pyrite dissem throughout also present as aggregates. (In localized places the fragments appear to have two different Lithologies - qtz, mt, flow monzodiorite fragments which would indicate a PLT. But no qtz eyes were identified in the matrix, therefore, the unit is not Toodoggone. It is probably an intrusive in the Takla flows, with large brecciated/fragmented xenoliths). Several zeolite veins @ ~ 80 degrees t.c.a.	k67912	0.008	0.084
41.62	43.62		3.0	0.1	1 5 QVN 35 10	Qtz/zeolite/mt/py veining, bound by pink staining, hardness > 6 - possibly potassic alt or zeo assoc with qtz and epidote alteration along the veining at ~ 35 degrees t.c.a.	k67913	0.011	0.082
43.62	45.62		3.0	0.1	1 QVN 50 10	One qtz vein bound by potassic alt at ~ 50 degrees t.c.a. Slight brown colouring, probably seri alt +/- fine biotite.	k67914	0.008	0.086
45.62	47.62		3.0	0.1	0 QVN 45 10	Brown colour - seri alt +/- fine biotite alt. Qtz vein ~ 2-5 mm thick, 45 degrees t.c.a. assoc with py aggregates.	k67915	0.006	0.094
47.62	48.85		3.0	0.1	2 QVN 10	Local potassic altered portions. Qtz/py/mt veining bound by potassic alt locally. Randomly oriented.	k67916	0.006	0.087
48.85	50.00		3.0	0.1	0 QVN 45 10	Qtz veining, sample pink stained - potassic altered, portions of seri alteration.	k67917	0.004	0.076
50.00	52.00		3.0	0.1	0 QVN 50 10	Intrusive visible btwn 60.83-60.90m. Qtz/zeo veining at ~ 50 degrees t.c.a.	k67919	0.018	0.126
52.00	54.00		3.0	0.1	5 QVN 10	Local potassic altered portions.	k67920	0.024	0.156
54.00	56.00		3.0	0.1	4 QVN 30 7	Reduced veining locally. Fragment outline barely visible. Qtz/zeo vein ~ 30 degrees t.c.a.	k67921	0.02	0.139
56.00	58.00		3.0	0.1	12 QVN 30 10	Intrusive visible locally. 30 degrees t.c.a. qtz/zeo veining assoc with py.	k67922	0.017	0.169

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
58.00	60.00	Fine-medium-grained medium green brecciated silicic potassic	3.0	0.1	3 QVN 70 15	Intrusive evident from 59.04m - 60.00m. Porphyritic texture visible, protolith overprinted by potassic alt. Thin zeolite stringers at ~ 70 degrees t.c.a. Local increase in zeo veining in intrusive.	k67923	0.015	0.115
60.00	62.00		3.0	0.1	0 QVN 60 15	Intrusive visible btwn 60.00 - 62.00m. Minor xenoliths visible in the sample. Py stringers at 60 degrees t.c.a.	k67924	0.015	0.116
62.00	63.44		3.0	0.1	0 CTC 65 15	Intrusive visible locally. Contact btwn intrusive and Takla flow is sharp, ~ 60 degrees t.c.a.	k67925	0.023	0.151
63.44	106.25	INTERMEDIATE VOLCANIC FLOW							
63.44	65.44	Fine-grained medium green chloritic epidote	2.0	0.1	13 QVN 25 7	Med to dark grained f.g. massive flow - Takla. Localized patchy epi and potassic alt. Qtz/zeo veining randomly oriented, irregularly spaced. Portions of increased veining up to ~ 20% locally btwn 64.03 - 64.13m at ~ 25 degrees t.c.a. Discontinuous qtz/zeo stringers ~ 30% (?), randomly oriented and irregularly spaced btwn 64.13 - 64.64m. Dissem py.	k67827	0.028	0.154
65.44	67.44		2.0	0.1	0 QCV 45 10	45 degrees t.c.a. qtz/carb vein with dissolution features. Local increase in veining.	k67828	0.025	0.148
67.44	69.44		3.0	0.1	8 QVN 45 15	Pale gray/green slightly more silicified. Zeolite assoc with qtz and carb - dissolution features.	k67829	0.029	0.18
69.44	71.44		3.0	0.1	0 QVN 15	Portions with increased veining, randomly oriented.	k67830	0.031	0.381
71.44	73.44		3.0	0.1	0 QVN 15	Broken portions, fragments cemented by gyp + chl, pale green soft and gouge material.	k67831	0.02	0.231
73.44	75.44		3.0	0.1	0 QVN 45 20	Broken portions - zeolite and potassic altered 74.86 - 75.05m assoc with local increase in dissem py, ~ 4%. Mt vein @ 75.20m.	k67832	0.035	0.243
75.44	77.19		3.0	0.1	5 QVN 20 20	Chalcedonic qtz veining, locally assoc with py, epi and potassic alteration.	k67833	0.037	0.405
77.19	79.20		3.0	0.1	4 QVN 50 20	Zeolite/qtz veining at 50 degrees t.c.a.	k67834	0.054	0.706
79.20	81.16		3.0	0.1	2 QVN 20	Potassic and epi altered portion. Py + mt dissem. Epi vein btwn 80.25 - 80.95m. Vuggy dissolution features. Increased epi alt.	k67835	0.1	0.924

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
81.16	83.16	Fine-grained medium green silicic chloritic	3.0	0.1	5 QVN 45 15	Fine grained, med. to dark green Takla flow. Mod. to highly silicified, chloritic. Local potassic alteration- pink stained locally associated with zeolite veining. Qtz/zeo/py veining randomly oriented, irregularly spaced. Brown coloured portions indicating sericite alt. +/- fine biolite alt'n. Diss. pyrite, also present as stringers, locally assoc'd. with zeo and qtz veining. Potassic alt'n between 82.96 and 83.07 m.	k67836	0.027	0.189
83.16	84.85		3.0	0.2	3 QVN 60 20	smoky gray/blue chalcedonic qtz veining associated with pyrite stringers and aggregates at 83.97m (~1 cm thick @ 60 degrees t.c.a.), 84.13m (~3cm thick @ 45 degrees t.c.a.) and between 84.35- 84.53 m (4-5 cm thick @ ~10 degrees t.c.a.)	k67837	0.064	0.577
84.85	86.18		3.0	0.5	0 QVN 0 30	smoky/gray/blue chalcedonic qtz veining associated with pyrite stringers and aggregates between 84.85- 85.44m; chalcopyrite aggregates locally visible, // t.c.a..	k67838	0.107	1.45
86.18	88.18		3.0	0.1	0 QVN 50 50	Qtz flooding between 86.91- 87.07m. Pervasive weak to mod. potassic alt'n, local epidote alt'n. Minor broken zones. Quartz and zeolite veining between 87.48- 87.72m. Zeolite veining ~50 degrees t.c.a.	k67839	0.161	4.47
88.18	90.18		3.0	0.1	2 QVN 50	Potassic alt'n between 88.18- 88.59m. Pink staining out by zeolite veining.	k67840	0.019	0.122
90.18	92.18		3.0	0.1	1 QVN 45 10	Local potassic altered portions, local broken zones. Zeolite (?) veining @~ 45 degrees t.c.a.	k67841	0.023	0.207
92.18	94.16		3.0	0.1	3 QVN 50 10	Zeolite veining bound by potassic alt'n. +/- 50 degree CA. Diss py (?) is present as aggregate assoc. with qtz/zeo/chl veining.	k67842	0.028	0.195
94.16	96.16		3.0	0.1	5 QVN 60 7	Qtz/zeo/chl/py veining btwn 95.34m-95.40m with potassic altered portion in the footwall up to 95.45m. Zeolite veining at ~60 deg CA.	k67843	0.028	0.19
96.16	98.16		3.0	0.1	2 QVN 45 7	Potassic altered portions surrounding ~ 1 cm py vein ~ 45 deg. CA	k67845	0.029	0.16
98.16	100.25		3.0	0.1	21 QVN 45 5	Reduced veining, zeo. veining at ~ 45 deg CA. Diss py.	k67846	0.023	0.188
100.25	102.25		3.0	0.1	0 QVN 45 20	Local increase in qtz/zeo veining, randomly oriented, irregularly spaced.	k67847	0.024	0.165
102.25	104.25		3.0	0.1	0 QVN 20	Local potassic altered portions.	k67848	0.032	0.156
104.25	106.25		3.0	0.1	0 QVN 50 7	Local mafic dyke btwn 105.87m - 106.03m with carb/qtz phenocrysts. Hanging wall/ foot wall contact 50 deg CA.	k67849	0.031	0.218

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
106.25	154.48	MONZONITE							
106.25	108.25	Fine-grained medium green silicic chloritic	3.0	0.1	0 QVN 60 7	Local potassic portions with porphyritic texture - possibly intrusive, protolith overprinted by potassic alt - increased zeo. veining in altered portions. Zeo. veining ~ 60 deg CA.	k67850	0.014	0.114
108.25	110.25		3.0	0.1	0 QVN 10 10	Increase in zeo. veining btwn 109.5 m - 109.77m- potassic altered, broken bound by, gouge/clay material - possibly fault zone ~ 10deg CA zeo stringer.	112001	0.001	0.034
110.25	112.24		3.0	0.1	0 QVN 20	Increased zeo/qtz veining- discontinuous stringers~ 55 deg t.c.a. qtz veining with py aggregates.	112002	0.009	0.044
112.24	114.20		3.0	0.1	0 QVN 55 15	Zeolite vein btwn 114.13m - 114.19 m at ~55 deg CA assoc with diss py. qtz/zeo veining randomly oriented.	112003	0.044	0.272
114.20	116.20		3.0	0.1	0 QVN 15 20	Localized increase in qtz/zeo veining - stock worked locally/. Py diss -massive py vein at ~ 115.8m ~ 3-4 m thick. Zeo veining at ~15 deg CA.	112004	0.016	0.121
116.20	118.20		3.0	0.1	0 QVN 45 15	Brown colour due to seri alt +/- fine biotite alt. Zeo/qtz veining at ~45 deg to CA, closely spaced to each other btwn 116.5 m - 116.63m. Fault at ~35 deg at 116.88m infilled with gouge/clay material. Local increase in veining.	112005	0.062	0.282
118.20	120.20		3.0	0.1	0 QVN 80 7	Reduced veining, fault zones fragments cemented by gouge + clay material pale green- possibly chloritic ~80 deg CA.	112006	0.027	0.125
120.20	122.20		3.0	0.1	0 QVN 7	Zeolite veining at ~35 deg, fine diss py in flow.	112007	0.015	0.069
122.20	124.05		3.0	0.1	0 QVN 45 7	Brown specks in siliceous pale gray/brown portions- seri +/- fine by altn - soft. Zeo/qtz vein at about 45 deg CA. Increased zeo/qtz veining btwn 123.98-124.46 m. Seri alt +/-fine bt. pervasive locally. Minor epi.	112008	0.06	0.321
124.05	126.00		3.0	0.1	4 QVN 55 7	Fine grained, medium green/brown Takla Flow. Brown colour due to localized sericite +/- fine biotite alteration - weak to moderate pervasive, and patchy locally. Fine diss. Py lining jts locally. Pink stained - weak potassic alteration btwn 124.05m - 124.56 m - assoc. zeo veining.	112009	0.029	0.119
126.00	128.00		3.0	0.1	2 QVN 7	Porphyritic intrusive portion btwn 127.95 - 128.00m.	112010	0.034	0.082
128.00	130.00		3.0	0.1	37 QVN 60 7	Massive cubic pyrite lined joint ~ 60 deg ca. Plagioclase phenocrysts present locally in flow btwn 129.56 m - 130.00m. Diss cont, fine grained.	112011	0.012	0.032

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
130.00	132.00	Fine-grained medium green silicic chloritic	3.0	0.1	28 QZVN 10 7	Mt. assoc with py and epi. Increased with intrusive porphyritic textures. Qtz vein @ ~ 25 degrees t.c.a. Potassic altered portion associated with massive pyrite aggregates and epidote between 130.7- 130.81m. Py/mt vein bound by qtz @ ~ 131.03m, @ ~ 10 degrees t.c.a. Blue/black localized staining, hardness >6, associated with potassic alt'n (?). Petro. sample taken further down hole to identify alteration.	112012	0.021	0.047
132.00	133.56		3.0	0.1	51 QZVN 7	Porphyritic portion ~ 10 cm in flow. Slightly brown stained, sericite and fine biotite alt'n. Quartz stringers @ ~ 45 degrees t.c.a. Pyrite stringer @ ~ 10 degrees t.c.a.	112013	0.007	0.029
133.56	135.08		3.0	0.1	50 QZVN 7	Intrusive texture: plagioclase phenocrysts between 133.56- 135.08 m. Local potassic and sericite alt'n. Cubic massive pyrite @ 134.06m and 134.23m.	112014	0.031	0.062
135.08	136.18		3.0	0.1	17 QVN 45 7	Qtz stringer @ ~ 45 degrees t.c.a. Plagioclase phenocrysts present locally; massive.	112015	0.021	0.032
136.18	138.10		3.0	0.1	1 QVN 7	Increased plagioclase phenocrysts giving mottled texture. Matrix is brown coloured sericite and fine biotite alt'n. Epi, py/qtz veining between 137.38- 137.46m, locally vuggy.	112016	0.032	0.043
138.10	140.10		3.0	0.1	7 QVN 45 7	Reduced plagioclase phenocrysts in chlorite green matrix. Cubic pyrite lining joints ~ 45 degrees t.c.a., at ~ 138.23m and 138.32m.	112017	0.024	0.038
140.10	142.10		3.0	0.1	16 QVN 55 7	Increased plagioclase phenocrysts giving mottled texture. Blue/black siliceous "xenoliths" at 139.86 m and 139.48 m as identified in 1102012. Pyrite (cubic) lined joint @ ~ 55 degrees t.c.a. Quartz stockwork veining between 141.14- 141.50 m, locally vuggy. Brown stain in matrix indicates sericite and fine biotite alt'n.	112018	0.016	0.032
142.10	144.10		3.0	0.1	11 QVN 45 7	Pyrite veining @ ~ 45 t.c.a. Blue/black siliceous alt'n between 142.36- 142.41 m, associated with potassic alt'n. Plagioclase phenocrysts, matrix brown coloured, sericite and fine biotite alt'n. Qtz veining stockwork between 144.00- 144.10 m.	112019	0.013	0.027
144.10	146.10		3.0	0.1	9 QVN 50 7	Plagioclase phenocrysts not visible locally. Pyrite stringers/vein @ ~ 50 t.c.a. Brown colour due to sericite and fine biotite alt'n.	112021	0.019	0.028

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
146.10	148.10	Fine-grained medium green silicic chloritic	3.0 0.1	25 QVN	10 7	Quartz stringers- very fine, regularly spaced locally @ ~ 50 t.c.a., 1 cm apart. 10 degrees t.c.a. qtz veining. Plagioclase phenocrysts in brown sericite and fine biotite alteration.	112022	0.015	0.039
148.10	150.10		3.0 0.1	18 QVN	35 7	Quartz/pyrite/chlorite veining between 2- 3 cm thick, randomly oriented, locally vuggy, associated with epidote alteration locally. Pyrite stringers @ 35 degrees and 25 degrees t.c.a.	112023	0.023	0.068
150.10	151.44		3.0 0.1	24 QVN	7	Generally massive, rare plagioclase phenocrysts visible. Potassic altered BKN zone associated with increased qtz/zeo veining between 150.47- 150.86m; Blue/black siliceous xenolith @ ~ 151.18 m, ~ 3 cm wide.	112024	0.017	0.041
151.44	153.27		3.0 0.1	7 QVN	30 7	Blue/black siliceous altered portions as identified in 112012. Qtz veining slightly stock worked. Local potassic alt'n; Qtz lined veining @ ~ 30 degrees t.c.a.	112025	0.017	0.059
153.27	154.48		3.0 0.1	QVN	25 7	Fine qtz stringers @ ~ 25 degrees t.c.a. Hanging wall contact @ ~154.48 m. Chilled margin angle roughly // t.c.a.	112026	0.02	0.059
154.48	156.19	DIABASE							
154.48	156.19	Fine-medium-grained dark green porphyritic chloritic		26 QCV	45 7	Dark green, mafic, fine grained dyke with qtz/carb phenocrysts in a fine grained matrix. Felsic, light gray, fine grained xenolith with finely diss. pyrite, qtz and carb veining between 155.13- 155.31 m in the mafic dyke. Dyke is not mineralized (post- mineralization). Mottled locally. Footwall contact not visible- defined by broken zone.	112027	0.01	0.01
156.19	197.9	MONZONITE							
156.19	158.04	Fine-grained medium green porphyritic silicic potassic	3.0 0.1	2 QVN	50 7	Fine to med. grained flow, medium to light green. Local pink staining- potassic alt'n +/- Fe staining. Weakly to moderately silicified. Plagioclase phenocrysts present locally in a chl and silicified matrix. Pyrite disseminated in flow; aggregates associated with qtz veining bound by pink potassic alt'n. Mottled appearance locally. Potassic altered portion with flow angular fragments between 157.19- 157.30m. Brown colouring locally- sericite +/- fine biotite alt'n.	112028	0.015	0.07
158.04	159.97		3.0 0.1	1 QVN	35 7	Potassic alteration between 158.04- 158.49m. Pink stained, hardness > 4. Qtz vein vuggy locally.	112029	0.018	0.048

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
159.97	162.00	Fine-grained medium green porphyritic silicic potassic	3.0	0.1	6 QVN 40	7 Local potassic alteration. Epidote and qtz veining @ 160.63 m. Local increase in epidote alt'n. Plagioclase phenocrysts visible locally.	112030	0.018	0.035
162.00	164.00		3.0	0.1	12 QVN 30	7 Epidote associated with pyrite/chlorite; associated with zeolite veining in places. Massive locally. Increase in zeolite veining between 163.19- 163.34 m.	112031	0.008	0.026
164.00	165.90		3.0	0.1	16 QVN 45	7 Pyrite/magnetite veining @ ~ 45 degrees t.c.a. Locally potassic altered portion. Plagioclase phenocrysts present locally.	112032	0.017	0.031
165.90	168.02		3.0	0.1	25 QVN 20	7 Blue/black xenoliths/fragments as noted in sample 112012, siliceous. Petro sample marked between 165.90- 166.10 m. Local magnetite veining associated with qtz/py/epi veining. Pyrite stringer @ ~ 20 degrees t.c.a. Plagioclase phenocrysts giving mottled texture. See end of KN-02-06.	112033	0.015	0.029
168.02	170.10		3.0	0.1	10 QVN 45	7 Py/mt/epi/qtz veining between 168.17- 168.39. Associated with potassic alteration. Local potassic alteration.	112034	0.018	0.032
170.10	172.10		3.0	0.1	5 QVN 7	7 Blue/black siliceous fragments @ 170.40 m as seen in sample 112002. Local epidote and potassic alt. Cubic pyrite at 170.64 m bound by potassic alt'n ~ 1 cm on either side of joint. Intrusive between 171.43- 172.10 m.	112035	0.014	0.028
172.10	172.82		3.0	0.1	8 QVN 7	7 Intrusive texture between 172.47- 172.51 m. Brown coloured sericite +/- fine biotite alteration.	112036	0.014	0.024
172.82	174.65		3.0	0.1	39 QVN 50	7 Local potassic alt'n (i.e.: between 173.12- 173.35 m). Brown colour- sericite +/- fine biotite alt'n. Local epidote alt'n @ 174.10 m.	112037	0.016	0.033
174.65	175.87		3.0	0.1	10 QVN 7	7 Local potassic alt'n with blue/black fragments as in 112002. Brown sericite +/- fine biotite alt'n.	112038	0.009	0.02
175.87	177.19		3.0	0.1	0 QVN 7	7 Brown colour sericite +/- fine biotite alteration. Finely disseminated pyrite, as described above. Plagioclase phenocrysts.	112039	0.025	0.032
177.19	179.19		3.0	0.1	1 QVN 45	7 Ghost fragment outline visible. Epidote and potassic alt'n @ ~ 178.67 m. Fragments are felsic and siliceous in fine grained matrix. Disseminated pyrite and plagioclase phenocrysts in matrix.	112040	0.012	0.029

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
179.19	180.98	Fine-grained medium green porphyritic silicic potassic	3.0 0.1	3	QVN 45 7	Potassic/quartz portion between 180.16- 180.27m and 180.57- 180.64m associated with disseminated pyrite. Local increase in disseminated pyrite up to +/- 5% locally.	112041	0.013	0.062
180.98	183.05		3.0 0.1	1	QVN 7	Potassic alteration localized.	112042	0.01	0.039
183.05	185.18		3.0 0.1	9	QVN 0 7	Blue/black fragmental, siliceous xenoliths associated with zeolite veining. Qtz vein ~ // t.c.a. Potassic alteration locally.	112043	0.017	0.073
185.18	187.20		3.0 0.1	36	QVN 7	Local potassic alt'n; diss. pyrite and aggregates. Porphyritic texture associated with potassic zones.	112044	0.021	0.104
187.20	188.60		3.0 0.1	10	QVN 50 7	Potassic altered zones are more siliceous.	112045	0.022	0.144
188.60	189.86		3.0 0.1	15	QVN 7	Dark green mafic dyke, post-mineralization. Carbonate phenocrysts, chloritic phenocrysts. Carb veining between 189.16- 189.31m. Foot wall contact @ ~ 55 degrees t.c.a.; chill margin.	112047	0.009	0.011
189.86	191.90		3.0 0.1	20	QVN 45 7	Local increase in qtz/zeo veining. Diss. pyrite: Potassic altered portion associated with zeolite veining.	112048	0.02	0.063
191.90	193.90		3.0 0.1		QVN 7	Brown colour due to sericite +/- fine biotite alt'n.	112049	0.024	0.063
193.90	195.90		3.0 0.1	4	QVN 45 7		112050	0.018	0.05
195.90	197.90		3.0 0.1	6	QVN 0 15	Local increase in zeo/Qtz/py veining; pyrite mainly cubic. Qtz/carb veining between 196.70- 196.80m. Potassic altered portions. Local fragmented potassic zones. Qtz/zeo vein associated with pyrite aggregates is ~ // t.c.a.	112051	0.026	0.068
197.9	201.29	INTERMEDIATE VOLCANIC FLOW							
197.90	199.90	Fine-grained medium green silicic chloritic	3.0 0.1	14	QVN 35 10	Fine grained medium to dark green Takla flow. Pyrite disseminated in flow, also present as aggregates. Zeolite veining, locally associated with epidote alteration; some portions contain plagioclase phenocrysts.	112052	0.019	0.043
199.90	201.29		3.0 0.1	11	QVN 35 10	Same as 112052.	112053	0.019	0.046
201.29	243.26	BLADED FELDSPAR PORPHYRY ANDESITE							

Hole Number: KN-02-30

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
201.29	203.30	Fine-medium-grained medium brown silicic sericitic	2.0	0.1	7 QVN 10	Bladed feldspar phenocrysts in fine grained chloritic matrix. Bladed feldspar porphyry BFP. Local potassic and sericite +/- fine biotite altered portions. Brown stained matrix has been sericitized +/- fine biotite alt'n, feldspar phenocrysts not affected. Potassic altered portions have BFP matrix stained pink and the bladed feldspars are altered to K-spar- pink coloured as well. Zeolite/qtz veining, randomly oriented and irregularly spaced.	112054	0.016	0.033
203.30	205.30		2.0	0.1	7 QVN 80 10	Quartz vein, ~ 80 degrees t.c.a. Weak pyrite aggregates, pyrite stringer associated with magnetite.	112055	0.025	0.045
205.30	207.30		2.0	0.1	2 QVN 45 10	Zeolite lined joint @ ~ 45 degrees t.c.a.	112056	0.022	0.047
207.30	209.30		2.0	0.1	3 QVN 80 10	Pyrite and magnetite stringers @ ~ 80 degrees t.c.a. in potassic altered portion between 207.34- 207.40 m. Quartz fragments in BFP at ~ 208.14m. Qtz cross-cutting zeolite @ ~ 208.20 m. Protolith overprinted by silicification and sericitization +/- fine biotite. Brown stained between 208.10- 209.30 m.	112057	0.025	0.034
209.30	211.30		2.0	0.1	8 QVN 50 10	Protolith overprinted by silicification, sericitization and potassic alt'n. Bladed feldspar phenocrysts not visible. Locally associated with disseminated pyrite. Local brecciated portions. Potassic replacement of feldspars.	112058	0.022	0.057
211.30	213.30		2.0	0.1	11 QVN 45 10	Crenulated qtz/zeo veining between 211.30- 211.46 m. Local BKN zone. 45 degree joint associated with zeo/qtz veining. Zeolite veining ~ // t.c.a.	112059	0.03	0.083
213.30	215.30		2.0	0.1	0 QVN 80 10	Pyrite stringers @ ~ 80 degrees t.c.a. Portions where feldspar phenocrysts are not visible, protolith overprinted by alteration.	112060	0.012	0.052
215.30	216.67		2.0	0.1	0 QVN 10	Vuggy dissolution features between 215.83- 215.95 m in carb/qtz gray veining; fizzes with HCl. Vuggy dissolution is also between 216.47- 216.53 m.	112061	0.023	0.064
216.67	218.67		2.0	0.1	1 QVN 45 10	Matrix coloured brown due to sericite +/- fine biotite alt'n. Feldspar phenocrysts are potassic altered locally. Protolith overprinted locally.	112062	0.016	0.034
218.67	220.70		2.0	0.1	1 QVN 45 10	Local vuggy dissolution features.	112063	0.009	0.03
220.70	222.70		2.0	0.1	0 QVN 80 10	Zeolite/qtz vein @ ~ 80 degrees t.c.a. Matrix brown stained, sericite +/- fine biotite alt'n. Protolith overprinted.	112064	0.016	0.052
222.70	224.58		2.0	0.1	4 QVN 65 10	Zeolite veining @ ~ 65 degrees t.c.a. Brown colour, sericite +/- fine biotite alt'n. Diss. pyrite.	112065	0.023	0.049

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
224.58	225.62	Fine-medium-grained medium brown silicic sericitic	3.0	0.1	0 QVN 50 10	Pink stained potassic alteration associated with increase in disseminated pyrite, up to 5% locally. Zeolite veining @ ~ 50 degrees t.c.a.	112066	0.018	0.049
225.62	226.60				17 QVN 5 10	Mafic, dark green, fine grained dyke with carb/qtz phenocrysts (fizzes with HCl). Qtz vein between 225.78-226.18 m, with diss. pyrite cross-cut by gypsum veining-flow. Hanging wall and foot wall chilled margins @ ~ 5 degrees t.c.a.	112067	0.017	0.026
226.60	228.22		4.0	0.1	0 QZGV 80 10	Local increase in diss. and stringer pyrite. Local potassic alteration, patchy and pervasive- gray colour. Chlorite med. green and slightly mottled. Pyrite stringers and disseminations form 227.40- 228.22 m; Gypsum veining thereafter. Matrix is brown sericite +/- fine biotite alt'n. Protolith overprinted locally. Qtz veining @ ~ 80 degrees t.c.a.	112068	0.03	0.095
228.22	229.40		3.0	0.1	10 QZGV 80 10	Matrix coloured brown due to sericite +/- fine biotite alt'n. Protolith overprinted locally.	112069	0.014	0.041
229.40	231.40		3.0	0.1	0 QZGV 70 10	Pyrite stringers bound by chlorite +/- epidote veining. Local increase in pyrite veining ~ 5%.	112070	0.013	0.04
231.40	233.53		3.0	0.1	0 QZGV 70 10	Local BKN zones. Pyrite stringers ~ 70 degrees t.c.a.	112071	0.023	0.034
233.53	235.25		3.0	0.1	3 QZGV 80 10	BFP phenocrysts visible locally. Gypsum veining at ~ 80 degrees t.c.a.	112073	0.023	0.064
235.25	236.50		3.0	0.1	1 QZGV 5 15	Locally potassic altered- pink colouration. Local increase in diss. pyrite. Zeolite veining @ ~ 5 degrees t.c.a.	112074	0.02	0.049
236.50	238.50		3.0	0.1	0 QZGV 45 10	Local potassic alt'n., fragmental. Gradual contact between BFP and Takla flow. Gypsum vein @ ~ 45 degrees t.c.a.	112075	0.026	0.066
238.50	239.84		3.0	0.1	0 QVN 10 10	fine grained anhedral Takla flow locally brown coloured due to sericite +/- fine biotite alteration. unit is hard indication silification. local pink staining - potassic alteration -patchy weak to moderate bladed feldspar porphyry texture barely visible in places indicating gradual contact between BFP and Takla flow	112076	0.024	0.07
239.84	241.32		3.0	0.1	2 QVN 60 10	local increase in diss py up to +/- 4%	112077	0.03	0.095

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
241.32	242.43	Fine-medium-grained medium brown silicic sericitic	3.0 0.1	1	QVN 70 10	local increase in qtz/zeo veining associated with potassic alteration Augite phenocrysts visible locally . reduced seri +- fine Bt alteration unit is medium green coloured locally . local reduction in augite dissemination , aggregates = stringers /veining in potassic +silicified portion between 242.08-242.43	112078	0.018	0.164
242.43	243.26		3.0 0.1	0	QVN 10 10	brown ser+- fine biotite altered portion between 242.78-243.30	112079	0.016	0.073
243.26	254.5	INTERMEDIATE VOLCANIC FLOW							
243.26	245.30	Fine-medium-grained light green porphyritic silicic chloritic	2.0 0.1	7	QZGV 40 7	fine grained , light green Takla flow . Augite phenocrysts visible locally . Py diss in flow Brown colour in places possibly weak to moderate sericite +- fine biotite alteration. Flow cut by Qtz/ Zeolite and Gypsum veining. Gypsum veining content is higher than that of zeolite	112080	0	0
245.30	246.30		2.0 0.1	3	QZGV 70 7	Gypsum veining is at 70 degrees to core axis	112081	0.018	0.064
246.30	248.30		2.0 0.1	9	QZGV 40 7	Brown colour locally possibly seri+- fine biotite	112082	0.02	0.081
248.30	250.30		2.0 0.1	1	QZGV 50 7	Gypsum veining Gypsum then stringers crosscutting thin pyrite stringers gypsum veining at 45 degrees to core axis	112083	0.022	0.078
250.30	252.50		2.0 0.1	4	CTC 45 7	contact with potassic altered portion defined by 45 degree chalco qtz gyp vein	112084	0.018	0.063
252.50	254.50		2.0 0.1	0	QZGV 50 20	local increases in zeolite veining crenulated locally randomly oriented	112085	0.027	0.098
254.5	258.85	BLADED FELDSPAR PORPHYRY ANDESITE							
254.50	256.50	Fine-medium-grained medium green porphyritic potassic silicic	2.0 0.1	1	3 QZGV 10 10	Bladed feldspar phenocrysts visible in parts of unit in fine grained matrix; matrix is altered locally - pink stained potassic alteration. Brown stained- sericite +/- fine biotite alteration and yellow colouring indicating sericite alt'n. Protolith is overprinted by alt'n locally. Py stringers associated with mt aggregates. Disseminated pyrite.	112086	0.02	0.066
256.50	258.85		2.0 0.1	1	0 QZGV 40 10	smoky gray qtz vein between 257.06- 257.16 m. Increased diss. pyrite associated with brown sericite +/- fine biotite altered portions- locally on either side of qtz vein. Zeolite veining at ~ 40 degrees t.c.a.	112087	0.008	0.028
258.85	261.97	INTERMEDIATE VOLCANIC FLOW							

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
258.85	260.77	Fine-grained light green silicic chloritic	3.0	0.1	1 QZGV 85 10	Fine grained light to medium gray/green Takla flow. Locally silicified, weak to moderate, pervasive. Brown colouring indicates sericite +/- . Disseminated py in flow also associated with quartz veining. Anhydrite vein between 260.49- 260.68. Pyrite veining at about 85 degrees t.c.a.	112088	0.006	0.029
260.77	261.97		3.0	0.1	1 QZGV 45 7	Mafic dyke between 261.12- 216.13 m. Footwall and hanging wall contact are chilled margins @ ~ 45 degrees t.c.a.	112089	0.004	0.023
261.97	262.84	DIABASE							
261.97	262.84	Fine-grained dark green porphyritic chloritic			20 QZGV 7	Mafic dyke , fine grained, dark green as seen through 261.12- 261.13 m in sample 112089. Carb/qtz phenocrysts in mafic matrix- post mineralization. Irregularly oriented and randomly spaced qtz stringers.	112090	0.009	0.006
262.84	305.59	INTERMEDIATE VOLCANIC FLOW							
262.84	264.94	Fine-medium-grained medium brown silicic potassic	3.0	0.1	0 QZGV 10 10	Fine grained to medium grained in places with plagioclase and qtz phenocrysts. Light to medium brown colour due to sericite +/- fine biotite alteration. Moderately sericitized locally. Moderately to lightly silicified. Alteration is pervasive. Disseminated pyrite. Protolith is overprinted by alteration . Qtz vein @ ~ 10 degrees t.c.a.	112091	0.009	0.023
264.94	265.97		3.0	0.1	0 QZGV 10	Same as above.	112092	0.013	0.029
265.97	267.66	Fine-grained medium green chloritic silicic	2.0	0.1	0 QZGV 45 10	Fine grained, massive, medium gray/green/brown Takla flow. Brown colouring indicates sericite +/- fine biotite alteration. Finely diss. pyrite. Plagioclase phenocrysts visible in places. Qtz/zeo/gypsum veining randomly oriented.	112093	0.013	0.043
267.66	269.22		2.0	0.1	4 QZGV 45 30	Very finely diss. pyrite confined to stringers associated with qtz/zeo/clay gouge material between 267.66- 267.76 m and 268.25- 268.37 m @ 45 degrees t.c.a. (locally associated with epidote and chlorite); 268.73 m @ 45 degrees t.c.a.; 268.87 m @ 90 degrees t.c.a.; and 269.09 m @ 50 degrees t.c.a.	112094	0.008	0.034

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
269.22	271.22	Fine-grained medium green chloritic silicic	2.0	0.1	1 QGV 80 10	Fine to medium grained, plagioclase phenocrysts visible locally in fine grained matrix. Unit is medium to light green/brown in places- indicating sericite alt'n +/- fine biotite alt'n. Finely diss. pyrite in flow, also present as pyrite veins and stringers. Quartz/gypsum veining, randomly oriented, irregularly spaced. Portions with higher chalcopyrite, 0.3%, in places. Pyrite stringers @ ~ 80 degrees t.c.a. in places.	112095	0.008	0.023
271.22	273.22		2.0	0.1	0 QGV 45 10	Anhydrite vein between 271.22- 271.55 m, associated with pyrite stringers and diss. pyrite. Higher chalcopyrite @ ~ 0.3%. Qtz/gyp/py veining @ ~ 45 degrees t.c.a.	112096	0.004	0.015
273.22	275.22		2.0	0.1	2 QGV 80 10	Fragmental between 274.39- 274.61 m. Pyrite stringer @ ~ 80 degrees t.c.a.	112097	0.009	0.02
275.22	277.22		2.0	0.1	2 QGV 10 10	smoky gray qtz vein associated with py +/- cpy disseminations, aggregates and stringers; up to 5% py in places. High plagioclase phenocrysts content between 275.61- 275.72 m; felsic matrix , barely visible, also present between 276.77- 276.99 m- possible intrusive xenolith. Qtz vein between 277.00- 277.22 m, associated with py disseminations and aggregates.	112099	0.005	0.021
277.22	279.22		3.0	0.3	28 QGV 45 10	Local increase in diss. pyrite and stringers. Plagioclase phenocrysts present in places. Pyrite vein associated with magnetite aggregates in places up to ~ 5% py and 0.5% cpy in places. Brown colour due to sericite +/- fine biotite alt'n.	112100	0.016	0.041
279.22	281.22		3.0	0.1	2 QGV 85 10	Brown colour due to sericite +/- fine biotite alt'n. Qtz/anhydrite vein between 280.17- 280.19 m.	112101	0.009	0.022
281.22	283.22		3.0	0.1	1 QGV 10	Potassic alteration between 282.74- 283.10 m. Py/Qtz/mt vein between 283.08- 283.10 m. Mod. silicification.	112102	0.01	0.024
283.22	285.22		3.0	0.1	5 QGV 45 10	Brown colour due to sericite +/- fine biotite alt'n. Pyrite vein @ ~ 45 degrees t.c.a.	112103	0.014	0.035
285.22	287.20		3.0	0.1	25 QGZV 45 10	Sericite +/- fine biotite alt'n between 285.22- 285.82 m. Gyp/py/zeo veining @ ~ 285.90 m. Patchy chloritic alteration, associated with diss. pyrite and pyrite aggregates, give a a mottled appearance.	112104	0.012	0.033
287.20	289.20		3.0	0.1	11 QGV 0 10	Pyrite stringers // t.c.a. Gypsum veining @ ~ 80 degrees t.c.a., cross-cutting pyrite stringers. Gyp/py +/- cpy veining between 289.15- 289.20m.	112105	0.011	0.036

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
289.20	291.20	Fine-grained medium green chloritic silicic	3.0	0.1	6 QGV 30 10	Sericite +/- fine biotite alt'n between 289.20- 291.10 m. Pyrite aggregates associated with epidote @ ~ 290.63 m, bound by chloritic alteration.	112106	0.009	0.028
291.20	293.20		3.0	0.1	9 QGV 80 10	Qtz/py vein @ ~ 291.41 m. Qtz/py vein between 291.69- 291.93 m, cross-cut by gypsum veining. Pyrite +/- cpy aggregates bound by chlorite and minor magnetite.	112107	0.012	0.031
293.20	295.20		3.0	0.1	19 QGV 15	Gypsum veining @ ~ 80 degrees t.c.a. Pyrite stringers and aggregates bound by chl alt'n. Brown colour due to sericite +/- fine biotite alt'n. Weak potassic alt'n between 294.84- 295.17 m. Increased veining.	112108	0.014	0.035
295.20	297.20		3.0	0.1	20 QGV 70 15	Pyrite veining @ ~ 70 degrees t.c.a. Gypsum veining associated with feldspar alteration around the boundaries. Brown colour due to sericite +/- fine biotite alt'n in places, weak to moderate. Ch/epi bounding pyrite aggregates and stringers. Weak, mottled texture.	112109	0.026	0.038
297.20	299.20		3.0	0.1	7 QGV 80 15	Gypsum veining @ ~ 80 degrees t.c.a. Gyp/qtz veining @ ~ 30 degrees t.c.a.	112110	0.022	0.029
299.20	301.20		3.0	0.1	8 QGV 45 15	Barren qtz vein cross-cutting pyrite stringer. Local potassic alt'n.	112111	0.029	0.033
301.20	303.20	Fine-grained medium green silicic chloritic	3.0	0.1	11 QGV 45 15	Increase in silicification- moderate to strong in places. Patchy brown colour, sericite +/- fine biotite. Epidote.	112112	0.026	0.031
303.20	304.30		3.0	0.1	26 QGV 40 15	Pyrite veining @ ~ 40 degrees t.c.a. Aggregates locally associated with epidote.	112113	0.035	0.031
304.30	305.59		3.0	0.1	5 QGV 70 15	Gypsum/pyrite vein ~ 5 cm wide @ 305.20 m. Moderately silicified, weakly chloritic.	112114	0.021	0.03
305.59	306.5	MONZONITE							
305.59	306.50	Fine-medium-grained dark pink porphyritic potassic			6 ZVN 30 10	Potassic altered portion between 305.59- 306.50 m. Hanging wall and foot wall contacts defined by ~ 45 degrees and 30 degrees disseminated pyrite veining. Moderate to high alt'n. Dark pink coloured matrix with mafic phenocrysts, chlorite, biotite, and possibly muscovite. Post mineralization intrusion, no pyrite. Cross-cut by zeolite veining.	112115	0.011	0.006
306.5	370.43	INTERMEDIATE VOLCANIC FLOW							

Hole Number: KN-02-30

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
306.50	308.42	Fine-grained medium green chloritic silicic	2.0 0.1	10	QGV 45 7	Fine to med grained, med green/brown flow. Plagioclase phenocrysts present locally in medium green, fine grained matrix. Brown colour in places is due to sericite +/- fine biotite alt'n. Qtz/gypsum veining, randomly oriented. Pyrite is finely disseminated in flow. Qtz/gyp veining locally associated with pyrite aggregates.	112116	0.037	0.021
308.42	310.40		2.0 0.1	0	QGZV 80 10	Felsic intrusion, slight pink stain, probably zeolite veining. Local BKN zone. Felsic zone is between 308.42- 308.84 m. Zeolite veining present, associated with epidote in places; aggregate associated with pyrite aggregate locally.	112117	0.099	0.015
310.40	312.40		2.0 0.1	39	QGV 45 10	Chlorite aggregates associated with epidote and disseminated pyrite locally. Qtz vein associated with pyrite and magnetite in places @ ~ 45 degrees.	112118	0.046	0.032
312.40	314.20		2.0 0.1	1	6 QGV 70 10	Pyrite veining associated with magnetite locally. Intrusive between 313.35- 313.75 m, felsic, with chl aggregates associated with pyrite.	112119	0.038	0.035
314.20	316.40		2.0 0.1	3	QGV 90 10	Brown portions- sericite +/- fine biotite patchy alteration. Gypsum veining @ ~ 90 degrees t.c.a.	112120	0.021	0.028
316.40	318.58		2.0 0.1	10	QGZV 50 15	Zeolite veining , present locally, @ ~ 50 degrees t.c.a. @ 318.42 m. Brown colour- localized sericite +/- fine biotite alt'n.	112121	0.019	0.017
318.58	320.60		2.0 0.1	11	QGZV 70 10	Increased silicified, unit is a light green. Epi/chl associated with pyrite aggregates. Gypsum veining at ~ 80 degrees t.c.a. cross-cutting qtz/calcite vein // t.c.a.	112122	0.04	0.042
320.60	321.70		2.0 0.1	8	QGZV 45 7	Gypsum vein @ ~ 45 degrees t.c.a. Cross-cutting pyrite and chlorite veining- boundaries not visible. Pyrite stringers bound by chlorite veining. Local sericite +/- fine biotite alt'n.	112123	0.046	0.042
321.70	323.70		2.0 0.1	16	QGZV 80 7	Gypsum veining @ ~ 80 degrees t.c.a. Zeolite veining between 322.95- 323.07m.	112125	0.019	0.021
323.70	325.12		2.0 0.1	7	QGV 80 10	Gypsum veining @ ~ 80 degrees t.c.a. cross-cutting pyrite stringers in places.	112126	0.039	0.036
325.12	327.12		2.0 0.1	4	QVN 45 7	Pyrite vein @ ~ 45 degrees. Brown colour due to sericite +/- fine biotite alt'n. Minor potassic altered portions around py/gyp veining. Plagioclase phenocrysts present locally.	112127	0.034	0.026

Hole Number: KN-02-30

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
327.12	329.12	Fine-grained medium green chloritic silicic	2.0	0.1	7 QVN 60 7	Pyrite veining @ ~ 60 degrees t.c.a. bound by chlorite alt'n. Brown sericite +/- fine biotite alteration. Local potassic alt'n.	112128	0.062	0.038
329.12	331.12		2.0	0.1	8 QVN 70 7	Brown sericite +/- fine biotite alt'n. Gypsum veining @ ~ 70 degrees t.c.a. Local zeolite veining bound by potassic altered portions. Mottled texture due to chl and sericite +/- fine biotite patchy alt'n. Zeolite veining ranges from) degrees to 30 degrees t.c.a.	112129	0.047	0.025
331.12	333.12		2.0	0.1	13 QGZV 85 15	Portions of sericite +/- fine biotite alteration (brown) potassic alteration (pink) and epidote associated with pyrite veining. Pyrite generally disseminated, local increase, up to about 4% in places. Plagioclase phenocrysts. Clear gypsum veining- selenite between 332.44- 332.69 m, 0-5 degrees t.c.a. Quartz/gypsum veining between 332.69- 332.75 m @ 85 degrees t.c.a. Clear gypsum- selenite @ ~ 332.99 m.	112130	0.077	0.084
333.12	335.12		2.0	0.1	6 QGZV 45 10	Reduced gypsum veining, mainly qtz/zeo veining as seen between 333.94- 333.97 m. Plagioclase phenocrysts present locally. Potassic altered portions. Mafic xenolith or dyke between 333.54- 333.71 m contacts not defined, gradual.	112131	0.029	0.046
335.12	337.12		2.0	0.1	1 52 QVN 75 10	Local increase in zeolite veining associated with gypsum in places @ ~ 70 degrees t.c.a. and anhydrite veining. Local increase in disseminated pyrite. Brown colour due to sericite +/- fine biotite alteration. Disseminated magnetite between 336.25- 336.64 m. Kappa readings between 18 to 51.9 in that zone.	112132	0.039	0.063
337.12	339.12		2.0	0.1	1 QVN 60 7	Local potassic alteration, brown portions- sericite +/- fine biotite alteration. Patchy epidote alteration in potassic and sericite +/- fine biotite alt'n. Reduced gypsum veining. Disseminated magnetite between 339.44- 340.08 m. Kappa readings between 19.6- 70.5. Local increase in zeolite veining.	112133	0.091	0.073
339.12	341.26		2.0	0.1	1 24 QVN 50 15	Potassic altered intrusive between 341.02- 341.26 m. Gouge/chlorite/clay filled fault @ ~ 341.04- 341.06 m. Post mineralization.	112134	0.045	0.017
341.26	342.43		2.0	0.1	1 QVN 85 15	Chlorite , dark green/black. Fault zone between 341.26- 341.68 m, fragmental, locally cemented by chl/gouge/clay material. Fault planes @ ~ 85 degrees t.c.a. Zeo/qtz/py vein between 341.88- 342.43 m, less chlorite portions.	112135	0.17	0.038

Hole Number: KN-02-30

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
342.43	343.62	Fine-grained medium green chloritic silicic	2.0	0.1	5 QVN 15	Pale colour, associated with diss. pyrite. Moderate to high potassic alteration, silicified locally. Brown colour due to sericite +/- fine biotite alt'n. Local increase in zeolite veining. Diss. magnetite present locally.	112136	0.106	0.032
343.62	345.64		2.0	0.1	1 42 QVN 45 15	Minor weak to moderate potassic alt'n.	112137	0.075	0.035
345.64	347.73	Fine-medium-grained medium green chloritic silicic	2.0	0.1	2 QVN 80 15	Local epidote alteration. Moly xtals between 347.61-347.73 m associated with qtz/zeo veining, and epidote.	112138	0.184	0.029
347.73	349.61	Fine-medium-grained medium green silicic chloritic	3.0	0.1	4 QVN 45 7	Fine to medium grained, medium green Takla flow. Brown coloured in places of weak to moderate sericitization +/- fine biotite alt'n, and pink in places of places of weak to moderate potassic alteration. Epidote present in places associated with qtz/k-spar veining. Augite and plagioclase phenocrysts present in places. Local BKN zones. Portions of high sericite +/- fine biotite alt'n- pervasive. Diss. pyrite present as stringers as well.	112139	0.137	0.032
349.61	351.61		3.0	0.1	7 QVN 85 10	Mottled texture- chlorite and sericite +/- fine biotite aggregates, weakly fragmented. Epidote.	112140	0.08	0.042
351.61	353.60		3.0	0.1	17 QGZV 45 10	Augite phenocrysts present in silicified part of sample- light green/gray colour between 352.67- 353.60 m. Gypsum veining present in lower quantities than zeo veining. Mottled texture due to chl +/- py between 351.61-352.67 m. Pyrite vein @ ~ 45 degrees t.c.a. Gypsum veining cross-cutting pyrite stringers, bound by chlorite stringers.	112141	0.04	0.051
353.60	355.60		3.0	0.1	15 QVN 80 10	Moderately to lightly silicified between 353.60- 354.20 m- augite phenocrysts. Chl aggregates associated with increasing diss. pyrite between 354.06- 354.20 m. Pink potassic alt'd portions between 354.20- 355.02 m, 4% disseminated py in places. Dark green/brown chlorite/sericite +/- fine biotite alt'n @ 355.60 m. Local increase in diss. pyrite, augite phenocrysts barely visible in this portion.	112142	0.061	0.041
355.60	357.08		3.0	0.1	10 QVN 10	Dark green/chlorite cut by qtz/zeo veining. Local weak altered portions. BKN zones.	112143	0.033	0.026
357.08	358.89		3.0	0.1	2 37 QVN 90 10	Local increase in epidote alt'n; associated with py/mt/zeo veining and potassic alteration. Weak sericite +/- biotite alteration in places.	112144	0.084	0.067

Hole Number: KN-02-30

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
358.89	359.90	Fine-medium-grained medium green silicic chloritic	3.0	0.1	5 151 QVN 45 10	Dark green/black with finely diss. mt and mt veining ~ 358.70 m; associated with py/qtz. Kappa readings range from 4 to 162. Plagioclase phenocrysts barely visible. Brown stained- sericite +/- fine biotite all'n present locally.	112145	0.02	0.028
359.90	361.60		3.0	0.1	3 86 QVN 80 10	Magnetite disseminated; Kappa readings between 4-86. Epi locally associated with py veining @ ~ 80 degrees t.c.a. Gypsum veining cross-cutting smoky gray qtz vein. Local increase in diss. pyrite between 361.50- 361.60 m.	112146	0.021	0.014
361.60	363.60		3.0	0.1	4 QVN 80 10	Granitic intrusion between 361.60- 361.90 m. Qtz and feldspar phenocrysts are > 20%, boundaries are not visible, blending with siliceous/felsic matrix. Mafic dark green/black phenocrysts consisting of ~ < 10% of unit. Post mineralization- measuring 10.1 for Mag. sus. Flow has a peppered texture due to fine plagioclase phenocrysts in mafic matrix. Slight brown colour possibly due to Sericite +/- fine biotite all'n. Pyrite aggregates in qtz veining; finely disseminated pyrite in flow. Massive green chloritic portions with no plagioclase phenocrysts visible. Minor local potassic all'n.	112147	0.064	0.031
363.60	365.32		3.0	0.1	3 QVN 45 10	Plagioclase phenocrysts visible locally, peppered texture. Matrix is slightly brown, possibly due to sericite and +/- fine biotite all'n. Mafic, medium/dark green xenolith with chlorite specks bound by brown rim- possibly sericite +/- fine biotite all'n. Xenolith is between 364.06- 364.13 m. Chloritic green flow with augite phenocrysts visible locally, associated with pyrite aggregates. Minor qtz/zeo veining stockwork.	112148	0.033	0.025
365.32	367.36		2.0	0.1	1 30 QVN 45 15	Brown stained portions, possibly sericite +/- fine biotite. Chlorite altered portions. Plagioclase phenocrysts present locally. Pink potassic all'n in places, which is generally weak. Local BKN zone. Epidote all'n.	112149	0.049	0.028
367.36	369.68		2.0	0.1	6 QVN 25 15	Massive portions and extensive vuggy dissolution features between 368.45- 368.73 m due to erosion. K-spar veining @ ~ 369.01m and between 369.62- 369.63 m; associated with chl vein. Core loss. Epidote all'n.	112151	0.025	0.017
369.68	370.43		1.0		8 ZVN 50 7	Epidote all'n- weak, non-pervasive. Zeo veining, k-spar veining- pink/orange colour, hardness >6, defining hanging wall contact with intrusive.	112152	0.021	0.005

370.43 450.19 **CROWDED FELSPAR PORPHYRY**

Hole Number: KN-02-30

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
370.43	372.43	Fine-medium-grained orange pink homogeneous silicic potassic		28 QVN	45 7	Plagioclase, K-spar phenocrysts visible along with quartz and accessory biotite and muscovite (platey cleavage evident) and tabular hornblende in felsic siliceous matrix; visible in pristine, unaltered part of unit, which resembles CFP in places. More than ~ 20% of the unit is potassic-altered. Matrix stained pink, plagioclase altered to k-spar; qtz phenocrysts not visible; mafic phenocrysts pristine, not affected by alt'n. In some parts the pink staining is due to zeolite staining- hardness <3. Mafic- biotite, muscovite and hornblende being eroded out of matrix in places, giving the intrusion a vuggy appearance. Post mineralization dyke.	112153	0.001	-2
372.43	374.28			26 ZVN	50 7	Minor potassic altered portion- weak and generally associated with zeolite veining- possibly zeo/qtz staining. Moderately silicified, resembles CFP.	112154	0.001	-2
374.28	376.28			34 ZVN	80 10	Increase in potassic altered portions. Large mafic (possibly hornblende) phenocrysts about 1 cm long @ ~ 374.86 m. Vuggy between 375.07- 375.33 m where mafics were eroded out.	112155	0.001	-2
376.28	378.26			28 QVN	60 7	Felsic and qtz phenocryst outlines are not visible. About 30% of unit is mafic phenocrysts and >50% is quartz and feldspar. Plane @ ~ 60 degrees t.c.a. lined by chalcedonic quartz and zeolite, very hard, gray/pink colour.	112156	0.001	-2
378.26	380.26			30 ZVN	45 7	Mafic fine grained xenolith between 379.60- 379.64 m.	112157	0.001	-2
380.26	382.35			37 ZVN	45 10	Minor chlorite alt'd portion between 382.18- 382.25 m. Medium green colour.	112158	-2	-2
382.35	384.30			26 QVN	45 10	Chlorite portion between 382.35- 382.42 m, 382.77 m, and between 389.17- 384.30 m. Potassic and silicified alt'd portions. In places, cross-cutting zeolite veining.	112159	0.013	-2
384.30	386.30			30 ZVN	40 10	Quartz veining cross-cut by zeolite veining between 384.30- 384.52 m, chlorite portion with tabular and cubic dark green mafics. Mafic, fine grained xenolith with plagioclase phenocrysts between 385.54- 385.58 m.	112160	0.02	-2
386.30	388.30			30 ZVN	45 10	Mafic, green, fine grained xenolith @ ~ 387.46 m.	112161	-2	-2
388.30	390.30			31 ZVN	60 7	Mafic, green, fine grained xenolith @ ~ 389.14 m. Minor potassic alt'd portions between 388.65- 388.86 m and 389.62 m- weak to moderate, locally pervasive.	112162	0.003	-2

Hole Number: KN-02-30

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
390.30	392.30	Fine-medium-grained orange pink homogeneous silicic potassic		22	ZHVN 20 10	Increased potassic alt'n and zeolite staining.	112163	-2	-2
392.30	394.30			19	ZVN 30 7	Hematite/chl veining @ ~ 30 t.c.a. between 392.87-392.89 m. Potassic alt'n between 395.26- 394.30 m.	112164	-2	-2
394.30	396.28			30	ZVN 7	Minor potassic alt'd portions.	112165	-2	-2
396.28	398.30			31	ZVN 45 7	Increase in potassic alt'd portions	112166	0.002	-2
398.30	400.30			34	ZVN 7	Local potassic alt'd portions.	112167	0.002	-2
400.30	402.19			34	ZVN 7	> 50% quartz and feldspar. About 20-30% mafics- biotite, muscovite and hornblende. Granitoid, coarse.	112168	0.002	-2
402.19	404.18			14	QVN 70 7	Granitoid, coarse grained. Massive, fine grained, potassic altered portion between 402.19- 402.29 m. Different stage intrusive between 403.27- 403.54 m. Fine to medium grained, green/brown colour. Mafic green/brown phenocrysts- crowded in pink/brown fine grained possibly potassic altered matrix. More magnetic than intrusive in hanging wall and foot wall. Mag sus ~ 43.6.	112169	0.001	-2
404.18	406.42			28	QHVN 30 10	Potassic altered portions. Hem/zeo veining @ ~ 406.28 m. Local potassic alt'n.	112170	0.001	-2
406.42	408.42				QVN 40 10	Minor potassic alt'd portions.	112171	0.008	-2
408.42	410.40			32	QVN 10	Potassic alt'd portion between 408.98- 409.16 m. Mafic, fine grained xenolith @ ~ 410.75 m.	112172	0.003	-2
410.40	412.50			35	ZVN 45 10	Potassic alt'd portions.	112173	0.001	-2
412.50	414.40			30	ZVN 45 10		112174	0.001	-2
414.40	416.31			32	ZVN 50 10	Potassic alt'd portion between 415.75- 415.96 m.	112175	0.001	-2
416.31	418.30			31	ZVN 45 7	Plagioclase, k-spar phenocrysts visible with qtz and accessory biotite and muscovite (platey cleavage evident), tabular hornblende in felsic, siliceous matrix. Visible in pristine, unaltered part of unit; resembles CFP in places. More than 20% of the unit is strongly potassic altered- stained pink- matrix with felsic and qtz phenocrysts. Only mafics visible. Local hematite veining. Mainly zeolite veining- randomly oriented and irregularly spaced. Unit is generally weak to moderately silicified and potassic altered. In some places, pink staining is due to zeolite flooding. Rare carbonate associated with zeolite veining.	112177	0.001	-2

Hole Number: KN-02-30

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
418.30	420.30	Fine-medium-grained orange pink homogeneous silicic potassic		16	ZVN 45 7	Potassic alt'n between 418.49- 419.93 m. Zeolite veining. Rare carbonate aggregate associated with zeolite veining.	112178	0.002	-2
420.30	422.30			1	ZQVN 50 30	Iron or zeolite stained chalcedonic quartz vein between 421.07- 421.44 m. Hanging and foot wall contact @ ~ 50 degrees t.c.a.	112179	0.001	-2
422.30	424.30			33	ZVN 30 10	Potassic altered sample- pervasive, weak to moderately altered. Quartz vein between 422.12- 422.17 m, pink stained with zeolite. Mafic, green, fine grained xenolith @ 422.61 m.	112180	0.001	-2
424.30	426.30			22		Potassic altered between 424.30- 425.85 m. Chloritic between 425.85- 426.25 m. Sheared veining- zeo/qtz/chl- between 425.90- 426.04 m @ ~ 45 degrees t.c.a.	112181	0.001	-2
426.30	428.25			28	ZVN 50 7	Mainly silicified, minor pink-stained potassic zones. Resembles CFP.	112182	0.001	-2
428.25	430.25			15	ZVN 2 7	Local potassic altered zones, more potassic than previous sample. Zeolite vein ~ // to 2 degrees t.c.a.	112183	0.001	-2
430.25	432.25			30	ZVN 45 7	Local friable zone between 431.90- 431.95 m. Potassic altered portions.	112184	0.002	-2
432.25	434.25			27	ZQVN 50 10	Potassic altered portions ~ 50% of sample is pink stained. Qtz veining present between 432.41- 432.50 m, associated with zeolite veining.	112185	0.01	-2
434.25	436.30			22	ZVN 50 10	Potassic alt'n between 434.25- 435.50 m. Crenulated chl/zeo veining @ ~ 434.54 m.	112186	0.001	-2
436.30	438.30			26	ZVN 50 10	Minor potassic alt'd portions. Zeolite veining @ ~ 50 degrees t.c.a. Portions potassic with local increases in zeolite veining.	112187	0.001	-2
438.30	440.30			16	ZQTV 60 10	Talc/gypsum vein between 438.73- 438.85 m, blue/gray, pale, soft, white/gray streak, greasy. Local potassic altered portions. Minor hematite stained qtz vein associated with zeolite.	112188	0.001	-2
440.30	442.30			29	ZVN 70 10	Local potassic alt'n between 441.50- 441.84 m. Mafic, fine grained xenolith @ ~ 441.70 m.	112189	0.002	-2
442.30	444.30			24	ZVN 60 20	Minor potassic altered portion between 442.56- 442.68 m. Qtz/hem stained, cross-cut by hematite stringers between 442.98- 443.15 m.	112190	0.002	-2
444.30	446.30			29	ZHVN 60 15	Potassic altered and local hem. stained between 444.66- 445.46 m; hematite staining between 445.46- 445.60 m.	112191	0.002	-2

Hole Number: KN-02-30

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
446.30	448.30	Fine-medium-grained orange pink homogeneous silicic potassic		3	ZQHV 70 15	Zeo/qtz/hem/talc veining between 446.55- 446.59 m, low angle. Local BKN zones. Chloritic altered portions between 447.05- 447.50 m. Local potassic alt'n in portions.	112192	0.001	-2
448.30	450.19			14	ZQVN 10 15	Potassic alt'n between 448.70- 450.19 m. Weak chlorite in weakly potassic portion. Local increase in zeolite veining, randomly oriented, BKN in places.	112193	0.001	-2

450.19 EOH

Kemess North 2002 - Diamond Drill Log



Hole Number: **KN-02-31**

Northing: 16223.1 **Total Depth:** 325.85m
Easting: 9838.94 **Azimuth:** 360°
Elevation: 1649.5 **Dip:** -70°

Geologist: B. Mercer
Logged Date: 8/22/2002

Survey Depth	Azimuth	Dip	Comments:
161 m	9 °	-74 °	
233 m	9 °	-75 °	
325 m	13 °	-73 °	

Kemess North 2002 - Summary Drill Log



Hole Number: **KN-02-31**

From (m)	To (m)	Rock Type	Comments
0	7.62	CASING	Casing
7.62	84.8	BASALT BLADED FELDSPAR PORPHYRY	Poor ground 14m at core represented by about 30 pebbles. Sampling block to block. Very faint BFP texture
84.8	85.73	FAULT ZONE BLADED FELDSPAR PORPHYRY	Fault breccia and gouge. Weak fabric preserved in gouge.
85.73	88.39	BASALT BLADED FELDSPAR PORPHYRY	
88.39	90.1	FAULT ZONE BLADED FELDSPAR PORPHYRY	Fault breccia and gouge. Fault orientation probably low angle t.c.a.
90.1	93.63	BASALT BLADED FELDSPAR PORPHYRY	
93.63	95.67	FAULT ZONE BLADED FELDSPAR PORPHYRY	Ser/clay cemented breccia; either a series of parallel faults or the same structure undulating sub-parallel t.c.a.
95.67	98.53	BASALT BLADED FELDSPAR PORPHYRY	Clay is drying out but is intermittently present.
98.53	99.17	FAULT ZONE BLADED FELDSPAR PORPHYRY	Sericite cemented fault breccia. The lack of clay alt. results in a slightly darker color rock.
99.17	109	BASALT BLADED FELDSPAR PORPHYRY	Very faint BFP texture
109	109.45	FAULT ZONE BLADED FELDSPAR PORPHYRY	Mixture of chl/ser gouge @ the contact with a post mineral syenite dyke. Contact broken.
109.45	120.23	SYENITE	Broken feldspar-rich igneous-textured post-mineral syenite dyke with chlorite and hematite on fractures.

Hole Number:

KN-02-31

From (m)	To (m)	Rock Type	Comments
120.23	132.1	BASALT BLADED FELDSPAR PORPHYRY	Chloritic smears presumably after original mafic mineralogy. Disseminated pyrite and pyrite veinlets.
132.1	132.55	SYENITE	Feldspar porphyritic fine grained syenite. 1-2% 1mm wide white plag phenocrysts in a fine grained inter-locking crystalline igneous matrix.
132.55	133.29	BASALT BLADED FELDSPAR PORPHYRY	
133.29	137.16	SYENITE	Feldspar porphyritic fine grained syenite. 1-2% 1mm wide white plag phenocrysts in a fine grained inter-locking crystalline igneous matrix.
137.16	153	BASALT BLADED FELDSPAR PORPHYRY	Contains a 2 cm wide low angle quartz vein with massive pyrite/MT vein margins.
153	164.66	SYENITE	
164.66	165	SYENITE FAULT	Sheared contact @ post-mineral dyke.
165	166.2	INTERMEDIATE VOLCANIC FLOW	
166.2	167	FAULT ZONE	Gouge-cemented breccia. Upper contact is intact and can be measured. Lower contact is ground, and lost.
167	185	INTERMEDIATE VOLCANIC FLOW	Highly altered volcanic rock. The mottled texture hints at the protolith being probable BFP. Occasional ghost outlines of bladed plagioclase are evident, but only in very local occurrences. Sericite is very strong, while chlorite is weak and patchy.
185	195	BASALT BLADED FELDSPAR PORPHYRY	Can see BHP texture here for sure. Same style of veining as above.
195	197	BASALT	BFP texture not evident here. Very heavily disseminated pyrite.
197	208.9	INTERMEDIATE VOLCANIC FLOW	Pyrophyllite on slips; heavily disseminated pyrite and coarse grained massive pyrite veinlets.
208.9	209.2	FAULT ZONE	Greenish-gray pyrophyllitic gouge. Cannot measure orientation.

Hole Number: **KN-02-31**

From (m)	To (m)	Rock Type	Comments
209.2	235.95	INTERMEDIATE VOLCANIC TUFF	Strong ghost texture of lapilli tuff. Mottled with light and dark coloured alteration. Pyrite ranges from heavily disseminated to semi-massive semi-continuous stringers and coarse grained massive veinlets.
235.95	236.95	FAULT ZONE POLYLITHIC TUFF	Fault contact. Probable Toodogone rocks below here. Fault very steep (ie: low core axis angle) but cannot be measured precisely.
236.95	244.7	BRECCIA POLYLITHIC TUFF	Volcaniclastic textured (rounded frags) polyolithic breccia. Pale gray frags in a fine grained, mottled textured matrix.
244.7	245.32	MONZONITE	Contacts not evident. Coarse grained, mottled texture. 3- 6mm hornblende xtals in an aphanitic cream/tan matrix.
245.32	253.25	INTERMEDIATE VOLCANIC POLYLITHIC TUFF	Totally aphanitic flows with moderate chlorite alteration.
253.25	260.75	SYENITE	Unaltered pink feldspar porphyritic monzonite cut by very thin pink zeolite veinlets. Called syenite to be consistent with logging cases for post-mineral intrusions.
260.75	268.48	INTERMEDIATE VOLCANIC POLYLITHIC TUFF	Lapilli tuff with weak chlorite and patchy weak sericite alt'n. Predominantly mafic frags in a mafic matrix, but occasionally pale gray siliceous frags noted.
268.48	270.82	SYENITE	Intrusion similar to 119383. Upper contact @ 60 degrees t.c.a. Lower contact is broken and lost.
270.82	274	INTERMEDIATE VOLCANIC POLYLITHIC TUFF	
274	301.06	DACITE POLYLITHIC TUFF	This is Toodogone for sure, can see small, very dark, glossy qtz eyes.
301.06	305.8	SYENITE	Equigranular medium-grained to fine/medium-grained granitoid.
305.8	325.85	DACITE POLYLITHIC TUFF	Very fine-grained massive qtz-phyric flows. Occasional fragments. Chlorite alt'n basically just on fractures.

Kemess North 2002 - Detail Drill Log



Hole Number: KN-02-31

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
0	7.62	CASING							
0.00	7.62					Casing	31	-2	-2
7.62	84.8	BASALT BLADED FELDSPAR PORPHYRY							
7.62	21.34	Coarse-grained light grey sericitic chloritic	8.0	0.0	0	0	119241	0.286	0.343
21.34	22.86		8.0	0.0	0	0	119242	0.199	0.079
22.86	24.38		8.0	0.0	0	0	119243	0.184	0.157
24.38	25.91		8.0	0.0	0	0	119244	0.191	0.212
25.91	27.43		8.0	0.0	0	0	119245	0.231	0.284
27.43	29.91		8.0	0.0	0	0	119246	0.146	0.149
29.91	30.48		8.0	0.0	0	0	119247	0.158	0.183
30.48	32.00		8.0	0.0	0	0	119248	0.103	0.052
32.00	33.53		8.0	0.0	0	0	119249	0.077	0.03
33.53	35.05		8.0	0.0	0	0	119250	0.093	0.057
35.05	36.58		8.0	0.0	0	0	119251	0.095	0.1
36.58	38.10		8.0	0.0	0	0	119252	0.115	0.046
38.10	39.62		8.0	0.0	0	0	119253	0.085	0.088
39.62	41.15		8.0	0.0	0	0	119254	0.081	0.094
41.15	42.67		8.0	0.0	0	0	119255	0.107	0.171
42.67	44.20		8.0	0.0	0	0	119256	0.091	0.179
44.20	46.00		15.0	0.0	0	0 SVN 45 1	119257	0.135	0.232
46.00	48.00		15.0	0.0	0	0 SVN 45 1	119258	0.172	0.301

Hole Number: KN-02-31

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
48.00	50.00	Coarse-grained light grey sericitic chloritic	15.0 0.0	0	0 SVN 45 1	Rock is very soft with a pronounced soapy texture.	119259	0.02	0.037
50.00	52.00		15.0 0.0	0	0 SVN 45 1		119260	0.073	0.136
52.00	54.00	Coarse-grained light grey sericitic clay	15.0 0.0	0	0 SVN 30 2		119261	0.06	0.12
54.00	56.00		15.0 0.0	0	0 SVN 30 2		119262	0.037	0.068
56.00	58.00		15.0 0.0	0	0 SVN 30 3		119263	0.018	0.041
58.00	60.00		15.0 0.0	0	0 SVN 30 2		119264	0.04	0.072
60.00	62.00		15.0 0.0	0	0 SVN 30 3		119265	0.064	0.119
62.00	64.00		15.0 0.0	0	0 SVN 30 2		119267	0.07	0.151
64.00	66.00		15.0 0.0	0	0 SVN 30 2		119268	0.054	0.098
66.00	68.00		15.0 0.0	0	0 SVN 30 2		119269	0.066	0.119
68.00	70.00		15.0 0.0	0	0 SVN 30 2	One gypsum/anhydrite veinlet in addition to the py veinlets.	119270	0.067	0.146
70.00	72.00		15.0 0.0	0	0 SVN 30 2		119271	0.042	0.102
72.00	74.00		15.0 0.0	0	0 SVN 30 2		119272	0.079	0.136
74.00	76.00		7.0 0.0	0	0 QVN 20 0	Qtz veinlets with py @ margins.	119273	0.045	0.094
76.00	78.00		10.0 0.0	0	0 SVN 55 5		119274	0.018	0.062
78.00	80.00		10.0 0.0	0	0 SVN 55 5		119275	0.005	0.062
80.00	82.00		7.0 0.0	0	0 SVN 20 2		119276	0.024	0.046
82.00	84.00		7.0 0.0	0	0 SVN 40 3	Very thin (< 1mm) massive py veinlet.	119277	0.017	0.028
84.00	84.80		7.0 0.0	0	0 SVN 40 3		119278	0.016	0.03
84.8	85.73	FAULT ZONE BLADED FELDSPAR PORPHYRY							
84.80	85.73	Coarse-grained light grey sericitic clay	10.0 0.0	0	0 FLT 15 1	Fault breccia and gouge. Weak fabric preserved in gouge.	119279	0.029	0.079
85.73	88.39	BASALT BLADED FELDSPAR PORPHYRY							
85.73	88.00	Coarse-grained light grey sericitic clay	7.0 0.0	0	0		119280	0.033	0.071
88.00	88.39		7.0 0.0	0	0		119281	0.106	0.231
88.39	90.1	FAULT ZONE BLADED FELDSPAR PORPHYRY							

Hole Number: KN-02-31

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
88.39	90.10	Coarse-grained light grey sericitic clay	15.0 0.0	0	0 FLT	Fault breccia and gouge. Fault orientation probably low angle t.c.a.	119282	0.022	0.053
90.1	93.63	BASALT BLADED FELDSPAR PORPHYRY							
90.10	92.00	Coarse-grained light grey sericitic	5.0 0.0	0	0 SVN	40 1	119283	0.052	0.126
92.00	93.63		5.0 0.0	0	0 SVN	40 1	119284	0.098	0.16
93.63	95.67	FAULT ZONE BLADED FELDSPAR PORPHYRY							
93.63	95.67	Coarse-grained light grey brecciated sericitic	7.0 0.0	0	0 FLT	15 Ser/clay cemented breccia; either a series at parallel faults or the same structure undulating sub-parallel t.c.a.	119285	0.037	0.067
95.67	98.53	BASALT BLADED FELDSPAR PORPHYRY							
95.67	97.67	Coarse-grained green-grey sericitic	7.0 0.0	0	0 SVN	40 1 Clay is drying out but is intermittently present.	119286	0.04	0.092
97.67	98.53		7.0 0.0	0	0 SVN	40 1	119287	0.022	0.04
98.53	99.17	FAULT ZONE BLADED FELDSPAR PORPHYRY							
98.53	99.17	Coarse-grained green-grey brecciated sericitic	15.0 0.0	0	0 FLT	30 Sericite cemented fault breccia. The lack of clay alt. results in a slightly darker color rock.	119288	0.035	0.069
99.17	109	BASALT BLADED FELDSPAR PORPHYRY							
99.17	101.00	Coarse-grained green-grey sericitic	10.0 0.0	0	0 SVN	40 1 Very faint BFP texture	119289	0.046	0.067
101.00	103.00		10.0 0.0	0	0 SVN	55 3	119290	0.053	0.086
103.00	105.00		10.0 0.0	0	0 SVN	30 1	119292	0.072	0.123
105.00	107.00		7.0 0.0	0	0 SVN	30 1	119293	0.093	0.167
107.00	109.00		7.0 0.0	0	0 SVN	30 1	119294	0.099	0.186
109	109.45	FAULT ZONE BLADED FELDSPAR PORPHYRY							
109.00	109.45	Coarse-grained green brecciated sericitic chloritic	7.0 0.0	0	0 CHL	55 5 Mixture of chl/ser gouge @ the contact with a post mineral syenite dyke. Contact broken.	119295	0.014	0.046
109.45	120.23	SYENITE							
109.45	111.00	Medium-grained brown red chloritic hematitic	0.5 0.0	0	23 ZCV	30 5 Broken feldspar-rich igneous-textured post-mineral syenite dyke with chlorite and hematite on fractures.	119296	0.003	-2
111.00	113.00		0.0 0.0	1	11 ZCV	30 5 Individual mafic minerals are not indentifiable and are mostly chlorite. Very fine grained MT.	119297	0.002	-2
113.00	115.00		0.0 0.0	1	16 ZCV	30 5	119298	0.002	-2
115.00	117.00		0.0 0.0	1	12 ZCV	30 5	119299	0.003	-2
117.00	119.00		0.0 0.0	1	12 ZCV	30 5	119300	0.003	-2

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
119.00	120.23	Medium-grained brown red chloritic hematitic	0.0 0.0	1	7 ZCV 30 5	Lower contact broken and lost.	119301	0.004	-2
120.23	132.1	BASALT BLADED FELDSPAR PORPHYRY							
120.23	122.00	Coarse-grained green-grey sericitic chloritic	5.0 0.0	0	0 SVN 40 0	Chloritic smears presumably after original mafic mineralogy. Disseminated pyrite and pyrite veinlets.	119302	0.073	0.137
122.00	124.00		10.0 0.0	0	0 SVN 40 2		119303	0.093	0.168
124.00	126.00		5.0 0.0	0	0 SVN 40 0		119304	0.147	0.267
126.00	128.00	Coarse-grained green-grey sericitic	5.0 0.0	0	0 SVN 35 1		119305	0.138	0.237
128.00	130.00		5.0 0.0	0	0 SVN 35 3	Multiple 0.5 to 1.0 cm thick massive pyrite veins.	119306	0.102	0.17
130.00	132.10		5.0 0.0	0	0 SVN 35 1		119307	0.327	0.54
132.1	132.55	SYENITE							
132.10	132.55	Fine-grained dark green chloritic	0.0 0.0	1	12 ZCV 5 5	Feldspar porphyritic fine grained syenite. 1-2% 1mm wide white plag phenocrysts in a fine grained inter-locking crystalline igneous matrix.	119308	0.004	-2
132.55	133.29	BASALT BLADED FELDSPAR PORPHYRY							
132.55	133.29	Coarse-grained green-grey sericitic	3.0 0.0	0	0 SVN 20 0		119309	0.096	0.144
133.29	137.16	SYENITE							
133.29	135.00	Fine-grained dark green chloritic	0.0 0.0	1	9 ZCV 5 5	Feldspar porphyritic fine grained syenite. 1-2% 1mm wide white plag phenocrysts in a fine grained inter-locking crystalline igneous matrix.	119310	0.006	-2
135.00	137.16		0.0 0.0	1	6 ZCV 5 5		119311	0.003	-2
137.16	153	BASALT BLADED FELDSPAR PORPHYRY							
137.16	139.00	Coarse-grained green-grey sericitic	5.0 0.0	0	0 QSVN 15 1	Contains a 2 cm wide low angle quartz vein with massive pyrite/MT vein margins.	119312	0.146	0.251
139.00	140.10		5.0 0.0	0	0 SVN 25 0	Hairline pyrite veinlets.	119313	0.092	0.185
140.10	142.00	Coarse-grained green-grey brecciated sericitic	5.0 0.0	0	0 FLT	Badly broken core; fault gouge.	119314	0.105	0.192
142.00	144.00	Coarse-grained green-grey sericitic	10.0 0.0	0	0 SVN 60 5	Numerous 1-2 mm wide massive pyrite veinlets.	119315	0.08	0.152
144.00	144.78	Coarse-grained green-grey brecciated sericitic	5.0 0.0	0	0 FLT	Badly broken core; fault gouge.	119316	0.08	0.12
144.78	146.00	Coarse-grained green-grey sericitic	5.0 0.0	0	1 SVN 65 2	Same highly sericitized BFP with med. grained diss. pyrite and pyrite veinlets.	119318	0.116	0.204

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
146.00	148.00	Coarse-grained green-grey sericitic	5.0 0.0	0	1 SVN 65	2	119319	0.093	0.094
148.00	149.82		2.0 0.0	0	1 CTC 35	Contact sharp @ 35 degrees t.c.a.	119320	0.081	0.122
149.82	164.66	SYENITE							
149.82	151.00	Medium-grained brown red sericitic	0.0 0.0	1	26 ZCV 40	3 Weakly feldspathic porphyritic syenite- same as 199308. Unaltered.	119321	0.004	-2
151.00	153.00		0.0 0.0	1	13 ZCV 40	3	119322	0.002	-2
153.00	155.00	Medium-grained brown red porphyritic	0.0 0.0	1	17		119323	0.002	0.035
155.00	155.45		0.0 0.0	1	13	HQ ends.	119324	0.002	-2
155.45	157.45		0.0 0.0	1	13 ZCV 10	0 NQ starts.	119325	0.002	-2
157.45	159.45		0.0 0.0	1	24 ZCV 10	3	119326	0.002	-2
159.45	161.45		0.0 0.0	1	20 ZCV 10	3 Post-mineral dyke.	119327	0.002	0.018
161.45	163.45		0.0 0.0	1	15 ZCV 10	5	119328	0.002	-2
163.45	164.66		0.0 0.0	1	10 ZCV 10	3	119329	0.002	-2
164.66	165	SYENITE FAULT							
164.66	165.00	Coarse-grained brown red brecciated sericitic chloritic	0.5 0.0	0	0 FLT 20	Sheared contact @ post-mineral dyke.	119330	0.029	0.114
165	166.2	INTERMEDIATE VOLCANIC FLOW							
165.00	166.20	Coarse-grained grey-green mottled sericitic chloritic	5.0 0.0	0	0 SVN 35	2	119331	0.113	0.233
166.2	167	FAULT ZONE							
166.20	167.00	Coarse-grained grey-green brecciated sericitic chloritic	2.0 0.0	0	0 FLT 20	Gouge-cemented breccia. Upper contact is intact and can be measured. Lower contact is ground, and lost.	119332	0.044	0.103
167	185	INTERMEDIATE VOLCANIC FLOW							
167.00	169.00	Coarse-grained grey-green mottled sericitic chloritic	5.0 0.0	0	0 SVN 45	3 Highly altered volcanic rock. The mottled texture hints at the protolith being probable BFP. Occasional ghost outlines of bladed plagioclase are evident, but only in very local occurrences. Sericite is very strong, while chlorite is weak and patchy.	119333	0.077	0.176
169.00	171.00		5.0 0.0	0	0 QPVN 25	3	119334	0.05	0.097
171.00	173.00		10.0 0.0	0	0 SVN 45	1 In addition to pyrite veinlets there is one thin quartz/pyrite veinlet.	119335	0.126	0.283

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
173.00	175.00	Coarse-grained grey-green mottled sericitic chloritic	5.0 0.0	0	0 SVN 60 4		119336	0.074	0.127
175.00	177.00		5.0 0.0	0	0 QPVN 70 5	Includes one 8 cm wide qtz/py veinlet and several thinner ones with py @ margins and in center of vein.	119337	0.071	0.113
177.00	179.00		5.0 0.0	0	0 QPVN 70 3	Massive pyrite veins and/or pyrite >> qtz veins from 0.5-1.0 cm but averaging around 2- 3mm wide.	119338	0.103	0.147
179.00	181.00		5.0 0.0	0	0 QPVN 70 3		119339	0.053	0.094
181.00	183.00		7.0 0.0	0	0 QPVN 25 3		119340	0.078	0.173
183.00	185.00		4.0 0.0	0	0 QPVN 60 1		119341	0.078	0.127
185	195	BASALT BLADED FELDSPAR PORPHYRY							
185.00	187.00	Coarse-grained grey-green mottled sericitic chloritic	7.0 0.0	0	0 QPVN 60 2	Can see BHP texture here for sure. Same style of veining as above.	119342	0.07	0.07
187.00	189.00		4.0 0.0	0	0 QPVN 35 2	As above with very strong alteration.	119344	0.065	0.074
189.00	191.00		7.0 0.0	0	0 QPVN 40 2	Very strong alteration.	119345	0.096	0.124
191.00	193.00		20.0 0.0	0	0 QPVN 40 3	Heavily disseminated to semi-massive pyrite.	119346	0.04	0.081
193.00	195.00		15.0 0.0	0	0 SVN 40 4	Includes possible fault as evidenced by narrow gouge and breccia horizon from 197.65-197.70 m.	119347	0.069	0.206
195	197	BASALT							
195.00	197.00	Coarse-grained grey-green mottled sericitic pyritic	20.0 0.0	0	0 SVN 70 4	BFP texture not evident here. Very heavily disseminated pyrite.	119348	0.054	0.351
197	208.9	INTERMEDIATE VOLCANIC FLOW							
197.00	199.00	Coarse-grained grey-green mottled sericitic pyritic	15.0 0.0	0	0 SVN 40 4	Pyrophyllite on slips; heavily disseminated pyrite and coarse grained massive pyrite veinlets.	119349	0.058	0.236
199.00	201.22		15.0 0.0	0	0 SVN 80 1		119350	0.063	0.266
201.22	201.72	Medium-grained light green sericitic	2.0 0.0	0	0 FLT	Pure, pale green translucent coarse sericite. Cannot measure fault orientation.	119351	0.001	0.006
201.72	202.96	Medium-grained white grey mottled sericitic pyritic	5.0 0.0	0	0 SVN 80 0	Light gray to whitish-gray pyrophyllite-rich zone.	119352	0.032	0.129
202.96	205.00	Fine-grained blue green mottled sericitic pyritic	15.0 0.0	0	0 SVN 65 3	Dark blue-gray to dark green massive aphanitic flows. Slips are coated with pale gray/green/bluish-gray pyrophyllite. Very soapy texture. Abundant clots of heavily disseminated to semi-massive pyrite.	119353	0.006	0.036
205.00	207.00		15.0 0.0	0	0 SVN 75 3		119354	0.009	0.046

Hole Number: KN-02-31

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
207.00	208.90	Fine-grained blue green mottled sericitic pyritic	15.0 0.0	0	0 SVN	65 3	119355	0.018	0.076
208.9	209.2	FAULT ZONE							
208.90	209.20	Fine-grained dark green sericitic pyritic	0.0 0.0	0	0 FLT		119356	0.008	0.046
209.2	235.95	INTERMEDIATE VOLCANIC TUFF							
209.20	211.00	Coarse-grained dark green mottled sericitic pyritic	15.0 0.0	0	0 SVN	65 2	119357	0.038	0.142
211.00	213.00		15.0 0.0	0	0 SVN	65 2	119358	0.041	0.236
213.00	215.00		15.0 0.0	0	0 SVN	65 2	119359	0.03	0.121
215.00	217.00		15.0 0.0	0	0 SVN	65 2	119360	0.034	0.129
217.00	219.00		15.0 0.0	0	0 SVN	65 2	119361	0.03	0.134
219.00	221.00		15.0 0.0	0	0 SVN	65 5	119362	0.021	0.102
221.00	223.00		15.0 0.0	0	0 SVN	65 1	119363	0.053	0.189
223.00	225.00		15.0 0.0	0	0 SVN	80 5	119364	0.037	0.127
225.00	227.00		20.0 0.0	0	0 SVN	80 5	119365	0.031	0.123
227.00	229.00	Coarse-grained grey mottled sericitic chloritic	25.0 0.0	0	0 SVN	55 2	119366	0.017	0.056
229.00	230.38		25.0 0.0	0	0 SVN	55 1	119367	0.028	0.092
230.38	232.00	Coarse-grained grey mottled sericitic silicic	25.0 0.0	0	0		119368	0.009	0.051
232.00	234.00		15.0 0.0	0	0		119370	0.01	0.049
234.00	235.95	Coarse-grained grey fragmental sericitic silicic	10.0 0.0	0	1		119371	0.004	0.021
235.95	236.95	FAULT ZONE POLYLITHIC TUFF							
235.95	236.95	Coarse-grained grey brecciated sericitic chloritic	10.0 0.0	0	22 FLT		119372	0.003	0.02
236.95	244.7	BRECCIA POLYLITHIC TUFF							

Hole Number: KN-02-31

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
236.95	239.00	Coarse-grained grey fragmental sericitic chloritic	1.0 0.0	0 15		Volcaniclastic textured (rounded frags) polyolithic breccia. Pale gray frags in a fine grained, mottled textured matrix.	119373	0.003	-2
239.00	241.00		2.0 0.0	0 4			119374	0.009	0.02
241.00	243.00	Coarse-grained dark green fragmental sericitic chloritic	1.0 0.0	0 5			119375	0.021	0.035
243.00	244.70		1.0 0.0	0 13			119376	0.017	0.035
244.7	245.32	MONZONITE							
244.70	245.32	Coarse-grained tan equigranular chloritic	0.0 0.0	0 0		Contacts not evident. Coarse grained, mottled texture. 3-6mm hornblende xtals in an aphanitic cream/tan matrix.	119377	0.004	0.008
245.32	253.25	INTERMEDIATE VOLCANIC POLYLITHIC TUFF							
245.32	247.00	Fine-grained grey-green homogeneous chloritic	0.0 0.0	0 28 ZVN	20 0	Totally aphanitic flows with moderate chlorite alteration.	119378	0.009	-2
247.00	248.47		0.0 0.0	0 9 ZVN	20 0		119379	0.001	-2
248.47	250.47	Medium-grained grey tan mottled chloritic	0.0 0.0	0 22 ZVN	20 10	Approx. 20-30% cream to tan coloured anhedral feldspar in a dark gray aphanitic matrix. Not clear if this is a flow or an intrusive.	119380	-2	-2
250.47	252.47		0.0 0.0	0 26 ZVN	20 10		119381	0.001	-2
252.47	253.25		0.0 0.0	0 17 ZVN	20 40	Strong flooding of pink-coloured zeolite.	119382	-2	-2
253.25	260.75	SYENITE							
253.25	255.00	Coarse-grained grey orange porphyritic	0.0 0.0	0 16 ZVN	20 5	Unaltered pink feldspar porphyritic monzonite cut by very thin pink zeolite veinlets. Called syenite to be consistent with logging cases for post-mineral intrusions.	119383	0.001	0.011
255.00	257.00		0.0 0.0	0 8 ZVN	20 3		119384	0.001	-2
257.00	259.00		0.0 0.0	0 26 ZVN	20 3		119385	0.002	-2
259.00	260.75		0.0 0.0	0 9 ZVN	20 3		119386	-2	-2
260.75	268.48	INTERMEDIATE VOLCANIC POLYLITHIC TUFF							
260.75	262.00	Coarse-grained grey chloritic sericitic	0.0 0.0	0 15 ZVN	10 0	Lapilli tuff with weak chlorite and patchy weak sericite alt'n. Predominantly mafic frags in a mafic matrix, but occasionally pale gray siliceous frags noted.	119387	0.002	0.02
262.00	264.00		0.0 0.0	0 24 ZVN	10 0		119388	0.005	-2
264.00	266.00		0.5 0.0	0 16 ZVN	10 0		119389	0.008	0.01
266.00	268.00		0.0 0.0	0 23 ZVN	10 0		119390	0.003	-2

Hole Number: KN-02-31

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
268.00	268.48	Coarse-grained grey chloritic sericitic	0.0 0.0	0	22 ZVN 10 0		119391	0.002	-2
268.48	270.82	SYENITE							
268.48	270.00	Coarse-grained grey orange porphyritic	0.0 0.0	0	17 ZVN 40 2	Intrusion similar to 119383. Upper contact @ 60 degrees t.c.a. Lower contact is broken and lost.	119392	0.003	-2
270.00	270.82		0.0 0.0	0	7 ZVN 40 2		119393	0.003	-2
270.82	274	INTERMEDIATE VOLCANIC POLYLITHIC TUFF							
270.82	272.00	Fine-grained grey porphyritic chloritic	0.0 0.0	0	18		119394	0.005	0.006
272.00	274.00		0.0 0.0	0	18 ZVN 5 0	Very weakly chloritized plagioclase rich porphyritic flows. Up to 5% locally bright white, stubby plagioclase in a groundmass of fine grained plagioclase and mafic minerals. Occasional occidental frags with weak epidote alt'n.	119396	0.009	0.006
274	301.06	DACITE POLYLITHIC TUFF							
274.00	276.00	Fine-grained grey porphyritic chloritic	0.5 0.0	0	4 CCVN 30 2	This is Toadogone for sure, can see small, very dark, glossy qtz eyes.	119397	0.01	0.074
276.00	278.00		0.1 0.0	0	9 CCVN 30 2		119398	0.008	-2
278.00	280.00		0.0 0.0	0	15 CCVN 30 2		119399	0.006	0.075
280.00	282.00		0.0 0.0	0	16 CCVN 30 2		119400	0.009	0.018
282.00	284.00		0.0 0.0	0	17 CCVN 30 2		110501	0.001	0.035
284.00	286.00		0.0 0.0	0	22 CCVN 30 2	3 cm of epidote altered frags at top of sample.	110502	-2	0.058
286.00	288.00		0.0 0.0	0	43 CCVN 35 2	Same as for 119394.	110503	-2	0.114
288.00	290.00		0.0 0.0	0	18 CCVN 35 2		110504	-2	0.018
290.00	291.58		0.0 0.0	0	27 CCVN 35 2		110505	0.026	0.061
291.58	293.00	Fine-grained grey homogeneous chloritic	0.0 0.0	0	6 ZCV 35 2	Totally aphanitic dark gray flows. Very weak chlorite alteration, mostly on fractures. Can see very small, dark, translucent qtz eyes.	110506	0.014	0.023
293.00	295.00		0.0 0.0	0	18 ZCV 35 2		110507	0.005	0.031
295.00	297.00		0.0 0.0	0	7 ZCV 35 2		110508	0.005	0.007
297.00	299.00		0.0 0.0	0	23 ZCV 35 2		110509	0.007	0.006
299.00	301.06		0.0 0.0	0	12 ZCV 35 2		110510	0.003	0.01

Hole Number: KN-02-31

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
301.06	305.8	SYENITE							
301.06	303.00	Medium-grained green equigranular chloritic	0.1	0.0	0 28 ZCV 35 4	Equigranular medium-grained to fine/medium-grained granitoid.	110511	0.006	0.006
303.00	305.00		0.0	0.0	0 11 ZCV 35 4		110512	0.014	0.018
305.00	305.80		0.0	0.0	0 14 CTC 25	Lower contact very sharp.	110513	0.003	0.019
305.8	325.85	DACITE POLYLITHIC TUFF							
305.80	307.80	Fine-grained dark grey homogeneous chloritic	0.0	0.0	0 1 ZCV 35 1	Very fine-grained massive qtz-phyric flows. Occasional fragments. Chlorite alt'n basically just on fractures.	110514	0.023	0.253
307.80	309.00		0.0	0.0	0 15 ZCV 35 1		110515	0.002	0.009
309.00	311.00		0.1	0.0	0 13 ZCV 35 1		110516	0.015	0.058
311.00	313.00		0.1	0.0	0 26 ZCV 35 1		110517	0.008	0.013
313.00	315.00	Fine-grained dark grey homogeneous chloritic epidote	0.0	0.0	0 20 ZCV 35 1		110518	0.016	0.027
315.00	317.00	Fine-grained dark grey homogeneous chloritic	0.0	0.0	0 31 ZCV 35 1		110519	0.003	0.017
317.00	319.00		0.0	0.0	0 17 ZCV 35 1		110520	0.005	0.037
319.00	321.00		0.0	0.0	0 30 ZCV 35 1		110522	0.005	0.065
321.00	323.00	Coarse-grained dark grey brecciated chloritic	0.0	0.0	0 19 ZCV 35 1	Tuffaceous to qtz-phyric volcanoclastic, equivalent to flows above. Apperas to be reversely graded with cobble-sized clasts at the top.	110523	0.004	0.033
323.00	325.00		0.0	0.0	0 31 ZCV 35 1		110524	0.003	0.007
325.00	325.85	Medium-grained dark grey brecciated chloritic	0.0	0.0	0 17 ZCV 35 1	E.O.H	110525	0.003	-2
325.85	EOH								

Kemess North 2002 - Diamond Drill Log



Hole Number: **KN-02-32**

Northing: 15445.4	Total Depth: 469.39m
Easting: 11011.6	Azimuth: 180°
Elevation: 1852.2	Dip: -60°

Geologist: J. Mazvihwa
Logged Date: 8/30/2002

Survey Depth	Azimuth	Dip	Comments:
91 m	163 °	-64 °	Mechanical
183 m	168 °	-60 °	
274 m	-2 °	-2 °	Failed
366 m	165 °	-64 °	Mechanical
457 m	193 °	-61 °	

Kemess North 2002 - Summary Drill Log



Hole Number: **K.N-02-32**

From (m)	To (m)	Rock Type	Comments
0	7.62	CASING	25ft of casing left in hole
7.62	167.41	BASALT FLOW	Medium brown/ orange coloured fine grained massive unit. Unoxidized green portions, fine grained, massive - possibly flow - Takla rubble. Protolith overprinted by extensive oxidation. BKN fault planes lined by dark brown/ red/ black hematite, numerous joint sets, 5 degrees to core axis. Joint angle visible at about 9.14m.
167.41	170.27	BASALT POLYLITHIC TUFF	See sample 110164. Medium to dark brown polyolithic tuft consisting of siliceous, felsic fragments with mafic specks, making up about 60% of the fragments in the tuft and potassic pink stained fragments constituting about 30% of the tuft and mafic fragments about 10%. Size of fragments range from fine to over 10cm across - boundaries are ghost in place. Matrix is fine grained, brown - suggesting ser +/- fine bio alt. Pristine platy bt visible, local epi patchy alt. Zeo veining between 168.18-168.30m, with vuggy dissolution features in places. Unit is possibly PLT - xenolith.
170.27	254.6	BASALT FLOW	See sample 110164. Medium to dark green flow, possibly basalt. Augite and plag phenocrysts present in places. Hem lining joints, qtz/ zeo veining randomly oriented, irregularly spaced. Patchy epi alt portions. Rare fragments, possibly xenoliths, in flow. Local BKN portion. Rare diss py.
254.6	274	GRANODIORITE	Fine to medium grained intrusive granitoid, very siliceous. Plag, qtz. Qtz is more than 20% of unit and plag a dominant feldspar stained by potassic alt in places, difficult to determine if feldspars are plag or K-feldspar. Matrix is fine grained possibly consisting of feldspar and qtz fine grains. Granitoid is probably granodiorite. Veining is mainly qtz/ zeo randomly oriented and irregularly spaced. Weak patchy localized epi alt, also present as stringers. Local vuggy texture. Local BKN zones.
274	276.92	BASALT FLOW BRECCIA	Medium to dark green chloritic flow, brecciated in places. Weak epi alt and potassic alt, possibly iron staining. Qtz/ zeo veining randomly oriented. Plag phenocrysts barely visible.
276.92	288.2	BASALT FLOW	See sample 110230. Red hem stained flow, protolith overprinted, probably originally flow, difficult to tell. Hem stringers, randomly oriented, qtz/ epi veining - weak hem veining.

Hole Number: **KN-02-32**

From (m)	To (m)	Rock Type	Comments
288.2	289.63	BASALT QUARTZ-PYRITE ZONE	Qtz/ py zone. Cubic py units and aggregate up to 20% in qtz veining. Rare fuchsite veining at about 288.69m, assoc with gouge in faulted portion. Local BKN zone. Qtz vein between 288.97-289.55m
289.63	306.73	GRANODIORITE	Qtz vein defining contact between qtz/ py zone and intrusive between 289.63-289.79m. Fine (same as 110219) to medium grained plag/ qtz, elongated on long axis between 289.79-290.00m. Protolith mt visible between 290.00-290.90m. Crenulated chl and qtz veining at about 40 degrees to core axis between 290.52-290.77m and 291.29-291.44m. Very weak brown colour between 290.77-290.87m possibly due to weak seri +/- fine bio alt. Weak epi alt. Matrix is fine grained, siliceous.
306.73	315.83	BASALT FLOW	Fine grained flow, medium green, chloritic, weakly silicified. Rare diss py in flow. Weak epi alt at about 307.00-307.20m, assoc with an increase of qtz veining.
315.83	322.92	GRANODIORITE	Plag and qtz in sericitized fine grained matrix as seen in 110219 and in 110241. Plag in dominant feldspar and qtz consists of about 20% of unit. Veining is zeo/ qtz, randomly oriented. Black and secular hem present locally. Mt aggregate present in flow. Subhedral hornblende visible in places. Dark green/ black, nonmagnetic, soft about 2-3 hardness. Possible chl replacing mineral in granitoid between 316.51-317.24m.
322.92	325.37	BASALT FLOW	Fine to medium grained, chloritic and weakly to moderately silicified flow. Augite phenocrysts visible in places. Qtz/ zeo veining randomly oriented assoc with cal in places. Cpy aggregate visible at about 324.27 m. Py/cpy stringers.
325.37	326	GRANODIORITE	See sample 110435. Granitoid xenolith, pink/ brown stain possibly very weak seri +/- fine bio alt.
326	349.73	BASALT FLOW	See sample 110435. Augite phenocrysts. Py stringers, randomly oriented.
349.73	357.23	GRANODIORITE	See sample 110435. Plag and qtz in granitoid, granodiorite, feldspar is mainly plag and about 20% qtz in fine grained pot alt matrix. Qtz/ zeo veining, randomly oriented, irregularly spaced.
357.23	361	BASALT FLOW BRECCIA	Diss py +/- cpy, py stringers. Medium green, fine to medium grained flow, with fragments of composition as host, possibly insitu breccia. More than 4% py in places. Qtz/ zeo veining, randomly oriented. Augite phenocrysts visible in places.
361	375	BASALT FLOW	See sample 110455. Py stringers bound by silicified/ seri alt. Envelopes i.e. @ 361.53m at about 50 degrees to core axis. Granitoid xenolith, between 362.00-362.28m

Hole Number:

KN-02-32

From (m)	To (m)	Rock Type	Comments
375	377	BASALT FLOW BRECCIA	Increased diss py and aggregate +/- cpy. Mafic, highly chl portion between 375.20-375.33m. Fragments, chl dark green angular about 2cm across widest length, no diss py in fragments, insitu breccia.
377	392	BASALT FLOW	Dark green chl, granitoid xenolith between 378.85-379.02m and 378.00-378.03m.
392	469.39	QUARTZ MONZONITE	Qtz/ plag/ K-feldspar, hornblende phenocrysts in fine grained weak pot altered matrix. Zeo/ qtz veining, locally assoc with local epi alt. Rare diss py also present as aggregates. Local BKN zones.

Kemess North 2002 - Detail Drill Log



Hole Number: KN-02-32

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm	
0	7.62	CASING								
0.00	7.62					25ft of casing left in hole	32	-2	-2	
7.62	167.41	BASALT FLOW								
7.62	10.67	Fine-grained medium brown massive oxidized		0	LHVN 5	Medium brown/ orange coloured fine grained massive unit. Unoxidized green portions, fine grained, massive - possibly flow - Takla rubble. Protolith overprinted by extensive oxidation. BKN fault planes lined by dark brown/ red/ black hematite, numerous joint sets, 5 degrees to core axis. Joint angle visible at about 9.14m.	110082	0.023	0.102	
10.67	12.19			0	LHVN 45	see above sample	110083	0.013	0.088	
12.19	13.72	Fine-grained medium green massive chloritic silicic		0	LHVN	Reduced oxidation level. Protolith visible locally. Medium to light green/ gray, fine grained Takla flow. Joint planes lined by red/ black hematite and yellow/ brown limonite/ goethite. BKN in places. Chlorite matrix, dark green phenocrysts visible in flow matrix in some places. Py mainly as fine disseminations in flow. Weak to moderate epidote, patchy alterations.	110084	0.028	0.033	
13.72	15.24		2.0	0.1	0	LHVN 50	Pyrite veining visible cut by hematite veining in places. Also present as aggregates and fine disseminations	110085	0.014	0.045
15.24	16.76				0	LHVN 0	see sample 110085. Several joint planes parallel to core axis. Subhedral mafic phenocrysts visible locally. BKN portions.	110086	0.021	0.062
16.76	18.29				0	LHVN 0	see sample 110085. Fine disseminated pyrite visible places.	110087	0.117	0.08
18.29	19.81		2.0	0.5	0	LHVN 45	Reduced joint planes lined with hematite and/ or limonite, indicating less oxidization with depth. Zeolite/ pale pink lined joints. Covellite speck, blue plates soft, 1 to 2 hardness, chalcopyrite (could be bornite, not covellite) iridescence. Copper sulphate at about 19.90m. Increased epidote alteration and disseminated pyrite. Epidote lined joints.	110088	0.102	0.077

Hole Number: KN-02-32

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
19.81	21.77	Fine-grained medium green massive chloritic silicic	7.0 0.3	0	QLZVN 60 30	Medium to light green, fine grained. Takla flow. Moderately chloritic and weak to moderate epidote alteration. Planes lined by chlorite, zeolite and epidote. Local BKN zones. Pyrite present as fine dissemination and aggregates in flow, and veining associated with quartz veining between 20.91-21.77m. Portions of flow have high pyrite content, up to about 10%.	110089	0.051	0.49
21.77	22.76		5.0 0.1	0	QLZVN 50 10	Portions of flow have high pyrite content, up to about 10%. High pyrite content near 21.77-22.76m, present as aggregates, fine disseminations and as veining. Bright yellow, nonmagnetic, hardness 4-6, euhedral to subhedral pyrite. Paler yellow, cubic euhedral pyrite visible on joint plane, associated with quartz vein.	110090	0.298	0.472
22.76	24.76		2.0 0.1	0	QZV 50 10	Light to medium green coloured, fine grained Takla flow. With mafic darker green chlorite and pyroxene - augite phenocrysts in fine mafic matrix. Epidote alteration is weak to moderate, pervasive in places and confined to fine stringers locally. Silicified generally moderate. Zeolite/ epidote/ pyrite/ quartz veining, randomly oriented, associated in places (calcite thin discontinuous stringers from 23.55-24.38m).	110091	0.009	0.062
24.76	26.76			0	QVN 70	BKN zones	110092	0.038	0.097
26.76	28.76			0	QHAVN 30 10	K-feldspar/ quartz vein between 27.43-27.51m. Rare joints lined by hematite and limonite, BKN	110094	0.003	0.011
28.76	30.76		1.0 0.1	0	QHAVN 50	Fault zone, very broken, moderate epidote alteration.	110095	0.002	0.061
30.76	32.72		2.0 0.1	0	QHAVN 60	Fault zone, moderate epidote alteration, highly broken. Competent portions.	110096	0.01	0.109
32.72	34.76		2.0 0.1	0	QCV 50	Increased epidote alterations, patchy appearance of apple green chlorite portion, and dark green portions. chlorite stringers.	110097	0.014	0.066
34.76	36.45		1.0 0.1	0	QZCV 45 15	Zeolite veining between 34.95-35.17m and near 36.05-36.45m. Slightly reduced epidote alteration. Augite phenocrysts visible. Increase in disseminated pyrite from 36.21m.	110098	0.018	0.05
36.45	38.10	Fine-grained medium green massive silicic sericitic	3.0 0.1	0	QZV 60 10	Moderate patchy epidote alteration. BKN zone. Quartz/ zeolite veining. Slightly bleached, light green/ gray, moderate to highly silicified, possibly sericitized. Patchy local zeolite veining. Pyrite aggregates and dissemination found by quartz veining in places.	110099	0.001	0.098

Hole Number: KN-02-32

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
38.10	40.10	Fine-grained medium green massive silicic sericitic	3.0	0.1	0 QZV	Slightly bleached, light green/ gray, moderate to highly silicified, possibly sericitized. Patchy local zeolite veining. Pyrite aggregates and dissemination found by quartz veining in places.	110100	0.004	0.083
40.10	42.10	Fine-grained light green massive silicic sericitic	4.0	0.1	0 QZCV 45 20	Fine grained, light green/ gray Takla flow. Moderate to highly silicified, moderate to weak sericitized. Alteration is pervasive, sericite alteration is patchy in places. Moderate chloritic portions. Quartz/ zeolite with minor calcite veining, randomly oriented, irregularly spaced. Pyrite and chalcopyrite stringers form in places at about 45 degrees to core axis. Finely disseminated in flow and veining. Quartz veining stockwork. Augite phenocrysts in places. Local BKN.	110101	0.018	0.05
42.10	43.26		3.0	0.1	0 QZV 30 15	See above sample. Pyrite and chalcopyrite present, mainly as disseminations and aggregates, minor veining.	110102	0.008	0.07
43.26	45.33	Fine-grained dark green massive chloritic silicic	3.0	0.1	0 QZV 50 30	Fine grained, dark to medium green chloritic, moderately silicified. Weak epidote alteration. Zeolite/ quartz veining, randomly oriented, irregularly spaced. Pyrite present as massive aggregates, cubic. Local BKN zone. Light green slightly bleached, silicified/ sericitized portion between 44.20-44.60m. Quartz vein between 44.80-45.23m.	110103	0.003	0.019
45.33	46.41		1.0	0.1	0 QVN 40 10	Highly silicified portions. Patchy epidote alteration, giving mottled texture. Reduced pyrite content. chlorite lined joints.	110104	0.001	0.029
46.41	48.40	Fine-medium-grained dark green massive chloritic	10.0	0.1	0 QVN 45 50	Increased quartz and pyrite veining. High pyrite present as euhedral massive crystals in pristine flow and quartz veining. Pyrite zone with no bleached cap above it suggesting iron for pyrite zone was brought in from elsewhere. Calcite lining slickensided planes. Local BKN zones	110105	0.002	0.25
48.40	49.80		20.0	0.1	0 QVN 30 50	See sample 110105. Increased pyrite content.	110106	0.001	0.284
49.80	51.82		15.0	0.1	0 QVN 2 20	See sample 110105. Pyrite/ quartz veining almost parallel to core axis. Local BKN zone. Epidote lining joint plane. Fault zone between about 51.50-51.82m. Fragments cement by gouge material. Minor zeolite veining.	110107	0.002	0.365

Hole Number: KN-02-32

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
51.82	53.82	Fine-medium-grained dark green massive chloritic	7.0	0.1	0 QVN 50 10	See sample 110105. Local BKN portions. Pyrite, cubic as described earlier, locally associated with quartz veining. Joint planes lined with chlorite, pyrite and quartz.	110108	0.001	0.472
53.82	55.80	Fine-grained medium green massive chloritic silicic	3.0	0.1	0 QVN 20 10	Fine grained, medium to light green flow - Takla. Moderate to high chlorite alteration and moderate epidote alteration silicification. Pyrite present as stringers, fine disseminations and aggregates associated with quartz veining in places. Propylitic zone (chlorite, epidote, and chlorite)	110109	0.002	0.113
55.80	57.08		3.0	0.1	1 QVN 5 10	See sample 110109. Epidote present as stringers and locally pervasive. chlorite lining joint planes in places.	110110	0.001	0.195
57.08	58.94		2.0	0.1	1 QVN	See sample 110109. Increased quartz/ calcite veining between 58.00-58.90m, randomly oriented irregularly spaced.	110111	0.001	0.057
58.94	60.96	Fine-grained light green massive epidote silicic	2.0	0.1	0 QZV 30 15	High epidote alteration, pervasive, giving Takla flow unit an apple green colour. Augite phenocrysts present in propylitic zone. Unit is strongly propylitic. Pyrite present as fine disseminations, aggregates and veining. Zeolite veining present in places. Chlorite rich portions (for example between 60.11-60.35m, associated with quartz vein and about 5% pyrite aggregate). Local increase in pyrite, fine disseminations locally. Chlorite lining joint planes.	110112	0.001	0.086
60.96	62.48		3.0	0.1	1 QVN 60 10	See sample 110112. BKN zone between about 62.00-62.48m. Increase in disseminated pyrite.	110113	0.014	0.037
62.48	64.01		2.0	0.1	1 QZV 30 7	High to moderate epidote alteration, light green.	110114	0.032	0.059
64.01	66.00		2.0	0.7	11 QZV 80 10	Slightly less epidote alteration, more chloritic, darker green, more magnetic. Increase in zeolite veining chalcopyrite aggregates accompanied by smoky gray quartz vein with chlorite and epidote.	110115	0.072	0.089
66.00	67.85		2.0	0.5	43 QCHV 80 15	Hematite/ quartz veining. Chalcopyrite aggregates bound by epidote.	110116	0.023	0.068
67.85	69.85		2.0	0.1	0 QCHV 30 15	Increased epi alteration. 30 degrees to core axis, chlorite veining, minor hematite veining.	110117	0.003	0.015

Hole Number: KN-02-32

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
69.85	71.80	Fine-grained light green massive epidote silicic	1.0	0.1	1 QCHV 45 10	Fine grained, medium to light green Takla flow. Apple green colour where epi alteration is high, propylitic zone. Augite phenocrysts visible in chloritic, dark green portions. Qtz/ zeo veining randomly oriented, irregularly spaced. Rare red hem veining. Portions with propylitic texture, possibly monzodiorite intrusive where plag and K-feldspar phenocrysts have been overprinted by epi. Matrix appears siliceous, pale pink suggesting weak potassic alteration (as seen between 70.70-71.80m)	110118	0.025	0.031
71.80	73.80		1.0	0.1	0 QZV 0 15	Qtz vein parallel to core axis - 0 degrees C.A. Local increase in Qtz/ zeo stringer forming stockwork in places. Zeo vein between 73.36-73.33m at about 5 degrees to core axis.	110120	0.006	0.011
73.80	75.90		1.0	0.1	0 QZV 80 15	Epidote alteration between 73.80-74.24m. Weak to moderate pot alteration between 74.24-75.90m. Chl and epi aggregates in pot matrix, possibly altered, intrusive, protolith overprinted by pot and epi alterations.	110121	0.004	0.006
75.90	77.61		1.0	0.1	0 QZV 15	Porphyritic texture, plagioclase phenocrysts overprinted with epi alteration. Pot alteration in matrix, possibly intrusive with mafic phenocrysts present locally. Epi alteration high in places between 75.90-76.74m	110122	0.01	0.013
77.61	78.83		1.0	0.1	1 QZV 80 7	Intrusive feature between 77.92-78.67m and 78.52-78.70m possibly epi slot monzodiorite. Amygdules infilled with Qtz and chl.	110123	0.003	-2
78.83	80.62		1.0	0.1	0 QZV 50 7	Moderately to highly silicified, pervasive, patchy mottled epi alteration. Qtz/ zeo stringers, local pot alteration - generally weak and pervasive.	110124	0.003	0.006
80.62	83.19		1.0	0.1	1 QCHV 80 7	Epi altered - light green between 80.62-81.10m. Dark green, highly chloritic between 81.10-82.00m. Augite phenocrysts visible. Zeo/ Qtz/ cal veining at about 80 degrees to core axis. Epi alteration from 82.00-82.76m.	110125	0.013	0.007
83.19	84.80		1.0	0.1	12 QCHV 10 7	Hem/ Qtz/ zeo veining at about 10 degrees to core axis, banding of 3 veining sets. Hem stringer cross cutting epi veining. Joints lined by hem. Pyroxene assoc with py aggregate.	110126	0.016	0.046
84.80	85.74		1.0	0.1	1 QZV 60 7	Dark green, highly chloritic. Augite phenocrysts. Qtz/ zeo veining 70 degrees to core axis.	110127	0.008	-2
85.74	86.94		1.0	0.1	QZV 7		110128	0.016	-2

Hole Number: KN-02-32

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
86.94	88.94	Fine-grained light green massive epidote silicic	1.0 0.5	0	QCHV 45 15	Epi stringers, zeo veining, increase locally. Red hem lining joints in places. Calcite stringers randomly oriented. Cpy aggregate accompanied by py aggregate.	110129	0.042	0.007
88.94	90.99		2.0 0.5	7	QZV 70 15	See sample 110129. Zeo veining cross cutting qtz/ epi/ cal veining.	110130	0.036	0.01
90.99	93.55		2.0 0.5	2	QZV 80 15	See sample 110129. Local increase in qtz/ cal veining between about 91.30-91.55m - BKN - Epi alteration between 91.69-92.88m. Increased chl from 92.88-93.55m, accompanied by epi stringers. Amygdules infilled with secondary epi and py replacing epi in some vesicles.	110131	0.019	0.012
93.55	95.55	Fine-grained light green brecciated epidote silicic	1.0 0.1	5	QZV 80 7	BKN portion qtz/ zeo veining at 80 degrees to core axis in places. Brecciated fragments appear to be the same composition as matrix, insitu breccia, fragments are angular indicating minimal to no transportation. Epi alteration, moderate confined to matrix. 95% of fragments are of same composition as matrix, moderate chlorite, medium green varying sizes. 5% of fragments are ultramafic, dark green, aphanitic texture - possibly from post mineralization ultramafic dyke.	110132	0.015	-2
95.55	97.54		1.0 0.1	3	QZV 45 7	See sample above. Ultramafic dyke. Hem/ zeo lining joints.	110133	0.015	-2
97.54	99.55	Fine-grained medium green brecciated silicic epidote	1.0	2	QHVN 30 5	Fine to medium grained flow, Takla brecciated. Fragments are similar composition as matrix. Unit is medium to apple green colour. Matrix is moderate to strongly epidote altered. Fragments 95% similar to unaltered matrix, augite phenocrysts present in fragments, not visible in matrix, protolith overprinted by epi alteration. Fragments are angular varying size from about 10cm to fine size. Fragments touching in places. 5% of the fragments are ultramafic, dark green. Py aggregate present in fragments in same places. Cut by ultramafic dykes in places aphanitic, dark green, possibly post mineralization, rare py mineralization, high magnetic susceptibility between 20-60.	110134	0.012	0.005
99.55	101.55		1.0	56	QHVN 50 7	See sample 110134. Ultramafic dyke, post mineralization approx between 100.30-100.45m, cut by qtz/ cal/ hem +/- moly, blue reflections from hem veining at approx 100.45m	110135	0.005	0.012

Hole Number: KN-02-32

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
101.55	103.55	Fine-grained medium green brecciated silicic epidote	2.0	0.5	9 QCHV 45 10	See sample 110134. Slight increase in hem/ cal veining, accompanying qtz veins. Increase in py and cpy, accompanied by qtz vein in places.	110136	0.014	0.027
103.55	105.50		1.0	0.5	2 QCHV 40 5	See sample 110134. Ultramafic dyke between 104.86-105.18m, 57.3 Mag S. Amygdules filled with secondary epi and py +/- cpy between 105.18-105.27m. Thin hem stringers lining qtz veins.	110137	0.034	0.028
105.50	107.50		1.0	0.5	1 QHVN 50 10	See sample 110134. Py lining joints, cpy accompanying py aggregate in places. Py and cpy aggregate in pot vein between 107.05-107.10m. Qtz/ hem vein 0 degrees to core axis between 107.05-107.21m.	110138	0.053	0.682
107.50	109.55		1.0	0.5	0 QCHV 0 15	See sample 110134. Qtz/ hem/ cal vein between 107.89-108.40m. Py and cpy aggregate associated with qtz stringers. Small amount of zeo infilling joint. Significant amount of hem lining joints between 108.40-108.80m.	110139	0.034	0.174
109.55	111.50		2.0	0.1	3 QHVN 30 10	See sample 110134. Large fragmentation between 109.94-110.07m and between 110.68-110.80m with augite phenocrysts. Diss py in flow breccia matrix, rare cpy associated. Qtz/ hem/ cal veining between 111.11-111.15m and approx at 111.28m. Smaller fragment size than 0.5-1cm diameter, angular, seldom touching. Qtz/ hem/ cal veining post brecciation, cross-cutting hem stringer.	110140	0.014	0.141
111.50	113.50		3.0	1.0	1 QHVN 30 10	K-feldspar vein at about 111.70m. Fragment size in breccia varies between .5cm to 10cm across large cpy aggregation. smoky gray qtz vein between 113.02-113.04m. Increased hem lining joints. Increased py aggregate in breccia - present in fragments and matrix indicating that mineralization is possibly post brecciation.	110141	0.029	0.029
113.50	115.50		2.0	1.0	2 QHVN 60 10	Cpy aggregate associated with qtz veining btwn 114.95-115.01m. Increased mafic/ ultramafic portions - possibly dykes chill margins not visible, gradual contact.	110142	0.049	0.223
115.50	117.50		2.0	1.0	4 QHVN 45 10	Local BKN portions, several joint planes lined by hem. Cpy aggregate at about 116.10m and 116.30m associated with qtz veining and hem veining respectively. Cpy aggregate at about 116.70m assoc with epi alt and hem.	110143	0.028	0.062
117.50	119.50		1.0		2 QCHV 70 7	Ultramafic dyke btwn 118.54-118.71m. Minor py assoc with epi for example at about 119.15m and in flow breccia.	110144	0.035	0.012

Hole Number: KN-02-32

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
119.50	121.57	Fine-grained medium green brecciated silicic epidote	2.0 0.5	1	QCHV 80 15	Vesicles infilled with secondary epi, in places being replaced by py. Very true diss py +/- cpy in flow breccia. Cpy visible at about 120.49m in flow breccia. Qtz/ hem/ cal veining between 120.54-120.65m. Fragments are large towards ultramafic dyke, hanging wall contact, less epi alt matrix visible. Aphanitic, ultramafic dyke between 120.86-121.57m. Local increase in veining qtz/ hem/ cal. Minor zeo veining at about 80 degrees to core axis.	110146	0.023	0.029
121.57	123.55		1.0 0.5	4	QHVN 50 10	Fine to medium, grained flow, Takla brecciated. The composition of about 95% of the fragments are similar to the unaltered matrix. Matrix has moderate epi alt, giving it an apple green colour. Fragments are angular indicating minimal to no transportation - insitu breccia. About 5% of the fragments are of similar composition as the ultramafic post mineralization dykes. Unit has qtz/ hem/ cal veining, randomly oriented and irregularly spaced. Intruded by ultramafic, post mineralization, aphanitic dykes, contacts are generally gradual, drill margins not evident, high MagS ranking between 20-50.	110147	0.024	0.015
123.55	125.44		1.0 0.1	79	QHVN 45 7	See sample 110147. MagS measured in mafic dyke between 123.55-123.92m, cut by chalcedonic qtz veining. Qtz/ hem/ cal vein between 124.90-125.03m.	110148	0.013	0.009
125.44	127.55		1.0 0.1	1	QCHV 50 7	See sample 110147. Zeo veining present in places, cross-cutting qtz/ hem veining. Diss py present in fragments and in epi alt matrix. Dark green mafic dyke between 125.44-126.15m, gradual contacts.	110149	0.051	0.021
127.55	129.55		4.0 0.1	0	QCHV 45 20	See sample 110147. Mafic post mineralized dyke between 127.55-127.70m. Increase in py aggregate between 128.02-128.40m, assoc with qtz/ zeo veining and increased chlorite. Fault plane with clay 129.17m. Mafic dyke with epi fragments between 128.95-129.17m	110150	0.015	0.742
129.55	131.12		1.0 0.1	6	QZV 40 7	See sample 110147. Local BKN portions. High py content between 130.05-130.14m assoc with qtz/zeo vein, approx 10%. High epi alt between 130.40-130.50m.	110151	0.014	0.387
131.12	132.00		1.0 0.5	3	QCHV 50 10	See sample 110147. Cpy assoc with qtz vein, bound by red hem. Local BKN zone.	110152	0.019	1.74

Hole Number: KN-02-32

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
132.00	134.22	Fine-grained medium green brecciated silicic epidote	7.0 0.5	41	QZV 30 40	See sample 110147. High py content between 132.00-132.56m. Sample has brown/ pink - possibly potassic alt fragments in dark green/ black mafic matrix, MagS high of 40.8 and 70.2. Striated joint plane lined by fine clay/ gouge material, suggesting minor fault plane. Increased zeo veining between 133.07-133.09m and increased py aggregate assoc with qtz vein between 133.39-133.49m. Cpy aggregate at about 133.63m. Plag and augite phenocrysts present between 133.63-134.22m, barely visible.	110153	0.012	0.777
134.22	136.12		5.0 0.3	0	QZV 60 15	See sample 110147. Brown/ pink possibly potassic altered fragments in dark green/black matrix, qtz fragments also present. Py diss and aggregate present in breccia matrix. Local increase in zeo/ qtz veining. Py vein assoc with zeo veining in places.	110154	0.016	0.232
136.12	138.22		10.0 0.1	0	QZCV 50 30	See sample 110147. See sample 110155. Increase in py content, up to about 50% in places. Rare K-fsp and pale green, very soft hardness <2 - possibly gypsum, assoc with high py content.	110155	0.012	3.67
138.22	140.03		3.0 0.1	24	QZCV 60 10	See sample 110147. See sample 110155. Gouge/ clay filled fault at about 138.77m Plag phenocrysts present in places with epi.	110156	0.028	0.385
140.03	142.10		3.0 0.1	49	QCHV 50 10	See sample 110147. See sample 110155. Dark green mafic, plag and augite phenocrysts visible. Brecciation texture visible only locally. Weak patchy epi alt. Gradual contact between flow breccia and breccia.	110157	0.004	0.418
142.10	143.09	Fine-medium-grained medium green porphyritic silicic epidote	3.0 0.7	0	QZV 50 15	See sample 110147. Medium to dark green/ brown, fine to medium grained Takla flow. Augite and plag phenocrysts present, plag covered by epi alt. Qtz/ zeo/ hem veining, random cpy aggregate assoc with py. Weak to moderate epi alt.	110158	0.662	3.13
143.09	146.08		1.0 0.1	30	QCHV 20 7	Local BKN zones, patchy weak to moderate epi alt.	110159	0.001	0.052
146.08	148.14		0.5		QCHV 7	See sample 110159. Potassic and hem between 147.66-147.79m.	110160	0.007	0.071
148.14	150.06		1.0 0.1	22	QCHV 50 7	See sample 110159. Increased hem lining joints. Increase in py between 148.63-148.76m about 3%. Augite phenocrysts. Cal stringers.	110161	0.044	0.037

Hole Number: KN-02-32

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
150.06	152.08	Fine-medium-grained medium green porphyritic silicic epidote	0.5	37	QCHV 0 5	See sample 110159. Qtz/ hem stringer at about 0 degrees to core axis. Weak to moderate epi alt. Core loss.	110162	0.018	0.008
152.08	154.10		2.0	0.1	0 QCHV 70 10	See sample 110159. Portions with increased fine diss py. Diss py between 152.58-152.69m and 152.95-153.04m. Augite phenocrysts. Qtz/ zeo veining randomly oriented. Weak to moderate epi alt.	110163	0.013	0.036
154.10	156.10				26 QHVN 50 7	Fine to medium grained, medium to light apple green epi alt and silicified Takla flow. Augite phenocrysts present. Weak to moderate epi alt, patchy in places, generally pervasive. Qtz/ zeo/ hem veining randomly oriented and irregularly spaced. Local BKN zone. Rare py mineralization.	110164	0.005	-2
156.10	158.10		1.0	0.1	13 QZV 50 7	See sample 110164. Local BKN zone. Fragmental between 157.25-157.49m. Flow fragments angular, fine to 2cm across in size, in pink possibly potassic alt matrix. Cpy aggregate assoc with py present in Fragmentation. Fragmentation is possibly a xenolith - py and cpy content, content is about 2% py and about 0.7% cpy. Host in footwall of xenolith is the same as that in the hanging wall of the host. Flow in footwall of xenolith is moderate to highly epi alt.	110165	0.013	0.013
158.10	160.15				31 QCHV 65 7	See sample 110164. Weak to moderate epi alt. High between 159.30-159.37m. Augite and plag phenocrysts present between about 160.10-160.15m. Local BKN zone.	110166	0.014	0.01
160.15	162.14				37 QHVN 45 7	See sample 110164. Local BKN zone. Hem lining joints. Increased mt content between 161.54-162.14m indicated by MagS readings ranging from 20.0-36.8 in that portion, but no mt visible, possibly very fine grained.	110167	0.011	0.019
162.14	164.14				24 QHVN 50 5	See sample 110164. Augite/ plag phenocrysts present locally.	110168	0.004	0.058
164.14	166.10		1.0	0.5	29 QHVN 35 7	See sample 110164. Py and cpy present between 165.16-165.29m assoc with potassic altered portion, local BKN portions. Rare fragments, similar composition as host.	110169	0.016	0.045
166.10	167.41		0.1		31 QHVN 80 7	See sample 110164. Augite/ plag phenocrysts, minor potassic altered portion.	110170	0.017	0.013
167.41	170.27	BASALT POLYLITHIC TUFF							

Hole Number: KN-02-32

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
167.41	169.00	Fine-medium-grained medium brown fragmental silicic k-felspar	0.5	18	QZV 50 10	See sample 110164. Medium to dark brown polyolithic tuft consisting of siliceous, felsic fragments with mafic specks, making up about 60% of the fragments in the tuft and potassic pink stained fragments constituting about 30% of the tuft and mafic fragments about 10%. Size of fragments range from fine to over 10cm across - boundaries are ghost in place. Matrix is fine grained, brown - suggesting ser +/- fine bio alt. Pristine platy bt visible, local epi patchy alt. Zeo veining between 168.18-168.30m, with vuggy dissolution features in places. Unit is possibly PLT - xenolith.	110172	0.031	0.256
169.00	170.27		1.0	3	QZV 90 10	See sample 110172. About 2cm thick py vein at about 169.40m. Matrix brown colour ser +/- fine bio alt, no fragments between 169.75-169.93m. Footwall contact defined by py aggregate between 170.12-170.17m at about 90 degrees to core axis.	110173	0.009	3.46
170.27	254.6	BASALT FLOW							
170.27	172.26	Fine-medium-grained medium green porphyritic chloritic silicic		42	QCHV 80 10	See sample 110164. Medium to dark green flow, possibly basalt. Augite and plag phenocrysts present in places. Hem lining joints, qtz/ zeo veining randomly oriented, irregularly spaced. Patchy epi alt portions. Rare fragments, possibly xenoliths, in flow. Local BKN portion. Rare diss py.	110174	0.004	0.251
172.26	174.30		0.5	18	QCHV 20 15	See sample 110174. Vuggy dissolution features in qtz/ zeo veining, flooding between 172.40-172.56m. Cpy aggregate in qtz vein assoc with hem veining at about 173.40m.	110175	0.037	0.077
174.30	176.38		1.0	20	QHVN 60 10	See sample 110174. Mafic, dark green dyke - possibly post mineralization. Increase epi alt in flow with augite phenocrysts. Minor diss py. Amygdules infilled with secondary epi between 176.03-176.19m. Epi replaced by py in some vesicles. Appears fragmented in places - overprinted by alteration.	110176	0.023	0.062
176.38	177.93	Fine-medium-grained light green porphyritic chloritic epidote		7	QZV 55 7	See sample 110174. Appears fragmented in places, overprinted by alteration - epi.	110177	0.006	0.01

Hole Number: KN-02-32

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
177.93	179.83	Fine-medium-grained light green porphyritic chloritic epidote	1.0	3	QZV 45 10	Fine to medium grained, light to medium apple green generally massive. Augite phenocrysts visible in less epi alt portion. Epi alt is generally moderate to highly pervasive. Qtz/ zeo veining is randomly oriented and irregularly spaced. Zeo/ qtz veining between 179.68-179.71m and are at about 60 degrees to core axis, then at 30 degrees to core axis between 179.47-179.56m. Rare py aggregate and diss.	110178	0.008	0.01
179.83	181.83			25	QZV 50 10	See sample 110178. Dark green, fine grained, mafic dyke - post mineralization, gradual contact. HW contact defined by increase in qtz stringers between 108.84-108.94m assoc with py aggregate. FW contact defined by epi veining at about 181.13m.	110179	0.016	0.036
181.83	183.85		2.0	1	QZV 80 15	See sample 110178. Increased qtz/ zeo veining between 182.06-182.66m. Fragments visible near 182.66m, in epi alt matrix, with diss and aggregate py. Local BKN zone.	110180	0.031	0.208
183.85	185.85		0.5	1	QCHV 30 10	See sample 110178. Fragments, pale green, chloritic in epi alt matrix - insitu breccia. Qtz/ zeo veining. Augite phenocrysts in matrix. Qtz/ hem veining at about 30 degrees to core axis. Py aggregate and diss in cracks assoc with epi.	110181	0.015	0.015
185.85	187.85		0.5	8	QZV 60 7	See sample 110178. Dark green, fine grained mafic portions, possibly post mineralization dykes.	110182	0.025	0.012
187.85	189.85			56	QZV 70 7	See sample 110178. Dark green, fine grained mafic portion between 189.00-189.14m - possibly post mineralization dyke.	110183	0.01	0.008
189.85	191.84			6	QZV 0 15	See sample 110178. Mafic, fine grained portions - possibly mafic dykes between 190.18-190.30m assoc with qtz/ zeo veining. Qtz/ zeo veining at about 0 degrees to core axis at about 190.60m, 190.88m and 191.10m. Zeo veining at about 191.21m and 90 degrees to core axis. Potassic altered portion between 191.40-191.50m possibly a fragment.	110184	0.017	0.017
191.84	193.97			64	QZV 50 10	See sample 110178. Increase in number of mafic fine grained portions, possibly mafic post mineralization dykes cut by zeo veining. Py and cpy aggregate at about 193.33-193.38m	110185	0.019	0.019

Hole Number: KN-02-32

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
193.97	196.00	Fine-medium-grained light green porphyritic chloritic epidote		1	QCHV 45 15	See sample 110178. Qtz/ zeo veining at about 45 degrees to core axis between 193.97-194.05m and 194.08-194.15m, assoc with cal and hem in last interval. Weak epi alt assoc with Qtz/ hem veining at about 194.40m. Zeo vein also at 0 degrees to core axis. Increased epi alt near 195.70m, pervasive and confined to stringers. Augite phenocrysts present locally. Qtz/ zeo/ hem veining between 195.67-195.71m.	110186	0.041	0.023
196.00	198.00			3	QCHV 80 15	See sample 110178. Local BKN zones. Epi veining between 196.35-196.37m. Hem lined joint planes in places. Qtz/ epi veining at about 198.54m at about 30 degrees to core axis. Dark green/ black mafic portion with discontinuous Qtz stringers. Localized increase in zeo veining.	110187	0.037	0.097
198.00	200.00			3	QZV 30 15	See sample 110178. Qtz/ epi veining at about 198.54m at about 30 degrees to core axis. Dark green/ black mafic portion with discontinuous Qtz stringers. Localized increase in zeo veining.	110188	0.011	0.013
200.00	202.00			31	QCHV 70 15	See sample 110178. Increase in chlorite content, unit is darker green. Augite phenocrysts barely visible in places. Rare hem stringers, lining joint places in places.	110189	0.012	0.008
202.00	204.00			3	QZCV 35 10	See sample 110178. Epi rich portions, apple green colour, chlorite rich portions, dark green colour. Plag and augite phenocrysts in epi alt portions.	110190	0.032	0.062
204.00	206.05			15	QZV 30 10	See sample 110178. See sample 110190. Qtz/ zeo/ hem veining between 205.15-205.85m.	110191	0.013	0.024
206.05	208.00			9	QCHV 30 30	See sample 110178. See sample 110190. Hem vein between 206.63-207.00m assoc with Qtz angular fragments and a 10cm Qtz vein in the FW contact.	110192	0.016	0.054
208.00	209.56			21	QCHV 50 15	See sample 110178. Sample has high zeo/ Qtz/hem veining, randomly oriented, irregularly spaced.	110193	0.012	0.011
209.56	211.06			24	QVN 80 7	See sample 110178. Decreased zeo veining. Local BKN zones. Plag phenocrysts rarely visible.	110194	0.014	0.012
211.06	213.00			28	QZV 50 50	See sample 110178. High zeo veining percentage - flooding in friable portion. Plag and augite phenocrysts visible. Vuggy textures where friable apple green chloritic flow has been washed away in between the zeo veining. 3cm wide xenolith, felsic matrix with mafic phenocrysts - augite at about 212.18m.	110195	0.009	0.007

Hole Number: KN-02-32

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
213.00	215.02	Fine-medium-grained light green porphyritic chloritic epidote		15	QCHV 0 20	Medium to light apple green flow - Takla chloritic, with epi alt portions, weak to moderate, locally pervasive and confined to stringers in places. Silicification of unit varies from very weak to strong. Plag and augite phenocrysts visible in places. Qtz/ zeo/ hem veining, randomly oriented, irregularly spaced. Hem locally lining joints.	110196	0.004	0.029
215.02	216.36			0	QZV 0 50	See sample 110196. Increased qtz veining between 215.02-215.69m and about 216.20-216.36m. Minor zeo veining. Plag and augite phenocrysts locally visible. Local BKN zones.	110198	0.036	0.055
216.36	218.30			26	QZV 90 50	See sample 110196. Chloritic portion between 216.36-216.71m - dark green with plag phenocrysts. Qtz/ zeo veining between 216.71-217.85m, randomly oriented and irregularly spaced. Veining assoc moderate epi, poor chloritic portion. More zeo veining present than in previous sample.	110199	0.023	0.024
218.30	220.27			34	QCHV 50 10	See sample 110196. Weak to moderate epi alt with zeo/ qtz veining, rare hem - randomly oriented. Friable, weakly silicified, plag and augite phenocrysts visible. Local BKN zone.	110200	0.011	0.012
220.27	222.07			9	QZV 10 15	See sample 110196. Massive silicified portion between 220.27-220.66m, dark green, chloritic, also similar between 221.16-221.70m. Plag and augite phenocrysts between 220.66-221.16m. Qtz/ zeo veining between 221.70-222.07m in friable, weakly silicified portion with vuggy features where epi alt flow has been eroded.	110201	0.025	0.02
222.07	224.04			19	QZV 30 20	See sample 110196. Moderate epi alt between 222.07-222.80m with plag and augite phenocrysts visible. Moderately silicified from 222.80-224.04m.	110202	0.006	-2
224.04	226.00			22	QZV 0 10	See sample 110196. Qtz/ zeo veining is moderately silicified, competent. Augite and plag phenocrysts visible locally. Zeo veining at about 0 degrees to core axis.	110203	0.03	0.02
226.00	228.00				QZV	See sample 110196 and above sample.	110204	0.021	0.024
228.00	230.00			18	QCHV 50 10	See sample 110196. About 5cm qtz/ zeo vein between 228.69-228.74m at 50 degrees to core axis. Zeo/ hem vein at about 228.89m and 30 degrees to core axis. Qtz/ zeo thin veining at about 50 degrees to core axis between 229.19-229.27m, about 2cm apart, equidistant.	110205	0.016	0.059

Hole Number: KN-02-32

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
230.00	232.00	Fine-medium-grained light green porphyritic chloritic epidote		26	QZV 30 7	See sample 110196. Very weak epi alt. Augite and plag phenocrysts. Moderately silicified.	110206	0.012	0.015
232.00	234.00			42	QZV 60 7	See sample 110196. See sample 110206. Qtz/ zeo veining between 233.25-233.27m.	110207	0.009	0.017
234.00	236.00				QZV 0	See sample 110196. See sample 110206. Qtz/ zeo veining between 234.08-234.13m. Zeo veining at 0 degrees to core axis cutting zeo veins at 80 degrees to core axis.	110208	0.016	0.033
236.00	238.00			23	QZV 90 10	See sample 110196. See sample 110206. Weakly silicified, between 236.92-237.52m, friable, slightly more epi alt and assoc with an increase in zeo veining.	110209	0.009	0.012
238.00	240.00			26	QZV 90 7	See sample 110196. See sample 110206. Qtz vein at about 80-90 degrees to core axis and about 2cm thick.	110210	0.01	0.017
240.00	242.00			23	QZV 90 10	See sample 110196. See sample 110206. Weakly silicified between 241.55-241.75m, assoc with qtz/ zeo veining as in 110209.	110211	0.002	0.005
242.00	244.00			36	QCHV 85 7	See sample 110206. Weakly silicified between 242.00-242.10m assoc with qtz/ zeo/ hem veining, slightly friable. Hem lining joint plane. Patchy epi alt.	110212	0.016	0.016
244.00	246.00			29	QZV 65 7	See sample 110206. Patchy epi alt.	110213	0.015	0.031
246.00	248.00			35	QZV 70	See sample 110206. Qtz vein between 247.79-248.00m assoc with epi.	110214	0.013	0.021
248.00	250.00			34	QZV 90	See sample 110206. Patchy epi alt.	110215	0.021	0.086
250.00	252.00			43	QZV 0	See sample 110206. Local increase in zeo veining.	110216	0.012	0.051
252.00	252.98			24	QZV 85 10	See sample 110206.	110217	0.011	0.026
252.98	254.60			22	QZV 50 15	Massive, dark green chloritic unit with qtz stringers randomly oriented. Local increase in veining, possibly chill margin defining contact with granitoid. Fragments barely visible at about 254.18m.	110218	0.008	0.025

254.6	274	GRANODIORITE
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Hole Number: KN-02-32

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
254.60	256.66	Fine-medium-grained massive silicic medium grey		6	QZV 80 10	Fine to medium grained intrusive granitoid, very siliceous. Plag, qtz. Qtz is more than 20% of unit and plag a dominant feldspar stained by potassic alt in places, difficult to determine if feldspars are plag or K-feldspar. Matrix is fine grained possibly consisting of feldspar and qtz fine grains. Granitoid is probably granodiorite. Veining is mainly qtz/ zeo randomly oriented and irregularly spaced. Weak patchy localized epi alt, also present as stringers. Local vuggy texture. Local BKN zones.	110219	0.016	0.036
256.66	258.35			45	QZV 90 10	See sample 110219. Fine diss py at about 257.55m assoc with, black, magnetic vein at about 90 degrees to core axis, also assoc with zeo vein.	110220	0.003	0.026
258.35	260.31			1	QZV 0 10	See sample 110206. Local increase in qtz vein between 260.17-260.31m, smoky gray and assoc with pot alt.	110221	0.011	0.024
260.31	262.40		0.5	1	QZV 90 15	See sample 110206. Veining package between 261.50-261.70m consisting of smoky gray qtz, mt, minor diss py, zeo/ K-feldspar - pink, hardness 4-5 with vuggy dissolution features. Potassic, pink staining in FW contact of vein unit in granitoid between 261.70-261.80m. Epi stringers randomly oriented.	110222	0.002	0.023
262.40	264.40		0.5	1	QVN 80 10	See sample 110206. Rare mt stringers, also bounding Toodoggone xenolith in granitoid. Fragment between 263.06-263.29m is medium green, mafic matrix with feldspar and qtz eyes in matrix - possibly Toodoggone. Fine diss py assoc with fragment. Also present between 264.11-264.27m.	110224	0.002	0.021
264.40	266.40			0	QVN 30 7	See sample 110206. Local potassic alt portion assoc with sericite alt portion. Local BKN zone.	110225	0.001	0.016
266.40	268.22			0	QZV 90 30	See sample 110206. Increased qtz/ zeo veining between 266.69-266.86m and between 267.22-267.70m. Fault zone lined by gouge/ clay material at about 268.15m.	110226	0.011	0.05
268.22	270.00	Fine-medium-grained massive silicic k-felspar medium grey		4	QZV 80 7	See sample 110206. Weak epi alt at about 269.00m. Qtz/ zeo veining, randomly oriented.	110227	0.002	0.008
270.00	272.00	Fine-medium-grained massive silicic epidote medium grey		0	QZV	See sample 110206. Massive chloritic Takla flow xenolith between 270.87-271.00m. Qtz/ py/ zeo/ epi vein at about 271.76m.	110228	0.009	0.016

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
272.00	274.00	Fine-medium-grained medium grey massive silicic sericitic	1.0	0	QZV 80 10	See sample 110206. Brown colouration due to seri +/- fine bio alt - weak to moderate, patchy. Weak local potassic alt.	110229	0.002	0.012
274	276.92	BASALT FLOW BRECCIA							
274.00	275.00	Fine-medium-grained dark green massive chloritic epidote		0	QZV 90 5	Medium to dark green chloritic flow, brecciated in places. Weak epi alt and potassic alt, possibly iron staining. Qtz/ zeo veining randomly oriented. Plag phenocrysts barely visible.	110230	0.001	-2
275.00	276.92			0	QZV 30 10	See sample 110230. Red hem lining joint planes. Plag phenocrysts at about 276.00m, sericitized. Increased zeo veining from about 276.40m. Fault zone between 276.40-276.92. Brecciated fragments cemented by clay material.	110231	0.001	-2
276.92	288.2	BASALT FLOW							
276.92	278.00	Fine-medium-grained red massive hematitic silicic		0	QZV 20 7	See sample 110230. Red hem stained flow, protolith overprinted, probably originally flow, difficult to tell. Hem stringers, randomly oriented, qtz/ epi veining - weak hem veining.	110232	0.007	-2
278.00	279.40			0	QZV 60 5	See sample 110230. Same as above, reduced epi alt; rare zeo veining.	110233	0.01	0.006
279.40	281.94	Fine-medium-grained medium grey massive silicic hematitic	1.0	4	QZV 20 7	See sample 110230. Moderate to highly silicified between 279.40-280.29m. Hem stained between 280.29-280.74m. gray opaque metallic lustre, red when scratched, hardness 4-5, hem assoc with py aggregate at about 280.74m.	110234	0.014	0.218
281.94	283.07	Fine-medium-grained medium green massive chloritic hematitic		0	QZCV 20 7	See sample 110230. Local BKN portions and hem stained, weakly silicified. Qtz/ zeo +/- cal veining.	110235	0.009	0.021
283.07	284.14	Fine-medium-grained light green massive chloritic sericitic	0.5	0	QZV 60 10	See sample 110230. Qtz/ zeo veining, randomly oriented. Fault zones infilled with gouge materials. Weak to moderate sericite alt.	110236	0.023	0.018
284.14	286.00	Fine-grained light green massive silicic sericitic	1.0	0	QZV 10 15	Fine grained, moderately to highly silicified. Weak to moderate sericitized. Joint planes lined by sericite. Qtz/ zeo veining randomly oriented, irregularly spaced. Black, earthy, nonmagnetic, fairly hard (4-5) stringers between 284.33-284.45m. Protolith overprinted by silicification - possibly altered flow.	110237	0.002	0.014

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
286.00	286.88	Fine-grained light green massive	0.5	0	QZV 90 7	See sample 110237. Blade veining in previous sample present at about 286.71m. Qtz veining. Rare py stringers.	110238	0.019	0.054
286.88	288.20		0.5	0	QZV 40 10	See sample 110237. Qtz veining between 287.00-287.10m Chloritic portions between 287.35-287.50m. Qtz vein between 287.50-287.67m, local vuggy features.	110239	0.005	0.08
288.2	289.63	BASALT QUARTZ-PYRITE ZONE							
288.20	289.63	Fine-grained light green massive silicic	20.0	0	QVN 60 30	Qtz/ py zone. Cubic py units and aggregate up to 20% in Qtz veining. Rare fuchsite veining at about 288.69m, assoc with gouge in faulted portion. Local BKN zone. Qtz vein between 288.97-289.55m	110240	0.005	0.269
289.63	306.73	GRANODIORITE							
289.63	291.60	Fine-medium-grained light green massive silicic epidote		5	QZV 80 7	Qtz vein defining contact between Qtz/ py zone and intrusive between 289.63-289.79m. Fine (same as 110219) to medium grained plag/ Qtz, elongated on long axis between 289.79-290.00m. Protolith mt visible between 290.00-290.90m. Crenulated chl and Qtz veining at about 40 degrees to core axis between 290.52-290.77m and 291.29-291.44m. Very weak brown colour between 290.77-290.87m possibly due to weak seri +/- fine bio alt. Weak epi alt. Matrix is fine grained, siliceous.	110241	0.021	0.275
291.60	292.69	Fine-medium-grained light green massive silicic chloritic		1	QZV 60 10	See sample 110241. Plag/ Qtz more visible, weak to moderate dark alt.	110242	0.008	0.036
292.69	294.60	Fine-medium-grained light green massive silicic epidote		1	QZV 50 10	See sample 110241. Epi alt appears to be replacing plag.	110243	0.02	0.721
294.60	300.00	Fine-medium-grained light green massive silicic k-felspar	0.5	5	27 QZV 5 15	See sample 110241. Pot alt or iron staining between 299.12-299.54m. Increased mt veining in chloritic portion between 299.69-299.81m. Rare py veining.	110244	0.081	0.357
300.00	302.00	Fine-medium-grained light green massive silicic chloritic		0	QZV 80 10	Chloritic between 300.61-300.68m. Zeo veining at about 80 degrees to core axis. Equidistant about 1-2cm - banding.	110245	0.046	0.309
302.00	304.00	Fine-medium-grained light green massive silicic epidote	0.5	10	0 QZV 70 15	See sample 110241. Mt veining between 302.04-302.44m assoc with weak epi and pot alt. Minor vuggy structures. Weak sericite alt. Silicification varying from moderate to high.	110246	0.022	0.248
304.00	305.42	Fine-medium-grained light green massive silicic	0.5	2	QZV 60 10	See sample 110241. Rare diss py in granitoid matrix.	110247	0.001	0.015

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
305.42	306.73	Fine-medium-grained light green massive silicic chloritic	0.5	0	QZV 70 10	See sample 110241. Chl veining at about 306.34m. Increased diss py near hanging wall with flow at 306.73m.	110248	-2	0.006
306.73	315.83	BASALT FLOW							
306.73	308.00	Fine-grained medium green massive chloritic silicic	0.5	0	QZV 60 7	Fine grained flow, medium green, chloritic, weakly silicified. Rare diss py in flow. Weak epi alt at about 307.00-307.20m, assoc with an increase of qtz veining.	110250	0.073	0.054
308.00	310.00		1.0	8	QVN 80 5	See sample 110250. Slight increase in diss py. Augite phenocrysts visible between 309.90-310.00m.	110426	0.012	0.033
310.00	312.00		0.5	1	34 QVN 45 5	See sample 110250. Py stringer assoc with qtz veining.	110427	0.04	0.011
312.00	314.00		1.0	1	5 QVN 90 3	See sample 110250. Mt stringers randomly oriented, irregularly spaced, at about 312.68m. Py vein at about 312.86m. At 313.14-313.54m gouge filled fault zone, locally assoc with py veining.	110428	0.006	0.044
314.00	315.83			1	QVN 80 3	See sample 110250. Local BKN zones. Gradual hanging wall contact with granitoid intrusive.	110429	0.027	0.031
315.83	322.92	GRANODIORITE							
315.83	317.33	Fine-medium-grained light green massive silicic k-felspar	1	27	QHVN 60 7	Plag and qtz in sericitized fine grained matrix as seen in 110219 and in 110241. Plag in dominant feldspar and qtz consists of about 20% of unit. Veining is zeo/ qtz, randomly oriented. Black and secular hem present locally. Mt aggregate present in flow. Subhedral hornblende visible in places. Dark green/ black, nonmagnetic, soft about 2-3 hardness. Possible chl replacing mineral in granitoid between 316.51-317.24m.	110430	0.064	0.229
317.33	319.00	Fine-medium-grained pink massive silicic	2.0	26	QZV 40 15	See sample 110430. Pink staining is possibly zeo flooding, recrystallization visible in vuggy structures, might be assoc with weak pot alt, occurring with chl.	110431	0.011	0.333
319.00	321.00		2.0	2	QZV 20 10	See sample 110430. Pink staining as above. Vuggy structures as above.	110432	0.01	0.192
321.00	321.74		1.0	3	QZV 50 10	321.40m cal veining assoc with black hem and cubic py. Specular hem between 321.00-321.20m.	110433	0.004	0.132
321.74	322.92	Fine-medium-grained light green massive silicic k-felspar		1	QZV 40 7	Weak pot alt in granitoid. Vuggy in places.	110434	0.012	0.115
322.92	325.37	BASALT FLOW							

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
322.92	325.37	Fine-medium-grained medium green massive chloritic silicic	1.0 0.5	20	QZCV 40 7	Fine to medium grained, chloritic and weakly to moderately silicified flow. Augite phenocrysts visible in places. Qtz/ zeo veining randomly oriented assoc with cal in places. Cpy aggregate visible at about 324.27 m. Py/cpy stringers.	110435	0.019	0.04
325.37	326	GRANODIORITE							
325.37	326.00	Fine-medium-grained medium brown massive silicic		6	QZV 0 10	See sample 110435. Granitoid xenolith, pink/ brown stain possibly very weak seri +/- fine bio alt.	110436	0.014	0.124
326	349.73	BASALT FLOW							
326.00	328.00	Fine-medium-grained medium green massive chloritic silicic	1.0	37	QZCV 40 10	See sample 110435. Augite phenocrysts. Py stringers, randomly oriented.	110437	0.01	0.032
328.00	330.00	Fine-medium-grained massive chloritic silicic	2.0	25	QCV 0 7	See sample 110435. See sample 110437. More silicified portions.	110438	0.015	0.026
330.00	332.00		2.0 0.5	31	QVN 50 10	See sample 110435. Dark green/ black chloritic fragments with plag phenocrysts present in flow. Weak local epi alt. Rare cpy aggregate.	110439	0.011	0.022
332.00	334.00		2.0	25	QZV 5 10	See sample 110435. See above sample. Granitoid fragments present. Rare red hem stringers assoc with qtz veining.	110440	0.013	0.026
334.00	336.00		1.0	14	QZV 60 5	See sample 110435. Qtz/ epi veining at about 334.00m. Amygdules infilled with secondary chl and qtz between 334.10-334.20m. Diss py. Augite phenocrysts visible.	110441	0.008	0.038
336.00	338.00		1.0	9	QCHV 0 7	See sample 110435. Dark green/ black fragments in flow, diss py.	110442	0.014	0.027
338.00	340.00		0.5	12	QCHV 0 15	See sample 110435. See sample 110442. Hem veining assoc with epi.	110443	0.016	0.029
340.00	342.00		0.5	29	QCHV 50 7	See sample 110435. See sample 110442. Granitoid fragments.	110444	0.018	0.029
342.00	344.00			12	QZV 80 7	See sample 110435. See sample 110442. Epi alt, aggregate. Diss py.	110445	0.019	0.039
344.00	346.00			8	QZV 40 5	See sample 110435. See sample 110442. Local BKN zone.	110446	0.019	0.052
346.00	348.00			7	QZV 70 7	See sample 110435. Dark green/ black fragments in flow. Local BKN zones.	110447	0.017	0.074
348.00	349.73		1.0	3	QZV 50 7	See sample 110435. Less dark green/ black fragments present.	110448	0.023	0.115

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm	
349.73	357.23	GRANODIORITE								
349.73	352.00	Fine-medium-grained brown massive silicic k-felspar		6	QZV 5 7	See sample 110435. Plag and qtz in granitoid, granodiorite, feldspar is mainly plag and about 20% qtz in fine grained pot alt matrix. Qtz/ zeo veining, randomly oriented, irregularly spaced.	110449	0.006	0.067	
352.00	354.00	Fine-medium-grained light grey massive silicic k-felspar	2.0	0	QZV 70 7	Very fine diss py aggregate also present. Qtz/ zeo randomly oriented, Weak pot alt.	110451	0.006	0.149	
354.00	356.00	Fine-medium-grained massive silicic k-felspar	3.0	0	QZV 60 15	Fuchsite between 355.61-355.73m assoc with qtz/ zeo veining. Rare K-fsp veining.	110452	0.002	0.201	
356.00	357.23	Fine-medium-grained massive silicic	1.0	0	QZV 60 10	Qtz/ zeo veining at about 60 degrees to core axis, banding, varying is equidistant.	110453	0.001	0.131	
357.23	361	BASALT FLOW BRECCIA								
357.23	359.33	Fine-medium-grained medium green massive silicic chloritic	4.0	0.1	0	QZV 30 5	Diss py +/- cpy, py stringers. Medium green, fine to medium grained flow, with fragments of composition as host, possibly insitu breccia. More than 4% py in places. Qtz/ zeo veining, randomly oriented. Augite phenocrysts visible in places.	110454	0.011	0.163
359.33	361.00	Fine-medium-grained massive chloritic silicic	3.0	17	QZV 80 7	See sample 110455. Fragmented, insitu breccia, fragment composition similar to chloritic host, fragment boundary not visible.	110455	0.022	0.209	
361	375	BASALT FLOW								
361.00	363.00	Fine-medium-grained massive chloritic silicic	3.0	53	QZV 50 10	See sample 110455. Py stringers bound by silicified/ seri alt. Envelopes i.e. @ 361.53m at about 50 degrees to core axis. Granitoid xenolith, between 362.00-362.28m	110456	0.028	0.282	
363.00	365.00		2.0	11	QZV 70 10	See sample 110455. Locally reduced py, diss and stringers. Augite phenocrysts visible. Diss py assoc with sili + seri portions.	110457	0.007	0.109	
365.00	367.00		3.0	41	QZV 60 15	See sample 110455. Same as above. Qtz/ py veining enveloped with sili + seri alt between 366.65-366.70m.	110458	0.013	0.077	
367.00	369.00		4.0	0.1	4	QZV 30 15	See sample 110455. Same as above. Qtz/ cal vein between 368.25-368.36m. Increased silicification and seri between 368.36-369.00m.	110459	0.011	0.14
369.00	371.00		1.0		QZV 5 10	See sample 110455. Qtz/ zeo veining forming bands at about 40 degrees to core axis, equidistant. Weakly seri portions assoc with increased zeo veining.	110460	0.012	0.189	

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From	To	Rock Type	Py-Cpy-Mt Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
371.00	373.00	Fine-medium-grained massive chloritic silicic	1.0	QZV 45 7	See sample 110455. See sample 110460. Weakly seri portions assoc with increased zeo/ qtz veining between 372.10-373.00m. Weak epi alt.	110461	0.013	0.114
373.00	375.00		2.0	QZV 50 10	Increased qtz/ py veining, diss py.	110462	0.012	0.101
375	377	BASALT FLOW BRECCIA						
375.00	377.00	Fine-medium-grained massive chloritic silicic	4.0 0.5	QZV 60 7	Increased diss py and aggregate +/- cpy. Mafic, highly chl portion between 375.20-375.33m. Fragments, chl dark green angular about 2cm across widest length, no diss py in fragments, insitu breccia.	110463	0.022	0.33
377	392	BASALT FLOW						
377.00	379.02	Fine-medium-grained dark green massive chloritic silicic	2.0 0.1	QZV 45 10	Dark green chl, granitoid xenolith between 378.85-379.02m and 378.00-378.03m.	110464	0.044	0.146
379.02	381.03		3.0 0.1	QZV 20 15	Local increase in zeo veining. Py +/- cpy aggregate assoc with qtz vein between 379.92-380.00m. Brown colour due to weak seri +/- fine bio alt, assoc with increased diss py +/- cpy. Mt/ zeo/ py veining.	110465	0.054	0.148
381.03	382.63		3.0 0.1	QZV 60 10	Same as above.	110466	0.136	0.465
382.63	384.61		3.0 0.1	QZCV 0 20	Weak epi alt, cross-cut by barren zeo veining, randomly oriented, assoc with rare hem.	110467	0.076	0.206
384.61	386.60		2.0 0.1	QCHV 70 15	Fine to medium grained chloritic flow, weakly silicified. Py diss and aggregate +/- cpy. Qtz/ zeo veining randomly oriented, irregularly spaced. Weak epi alt, present as veining cross-cut by qtz/ zeo veins. Rare hem veining.	110468	0.038	0.056
386.60	388.00		0.5	QZV 20 7	Zeo veining at about 50 degrees to core axis, equidistant forming banding.	110469	0.02	0.043
388.00	390.00			QZV 80 10	Local increase in qtz/ zeo veining between 389.77-390.00m	110470	0.039	0.249
390.00	392.00			QZV 50 10	Hanging wall contact with granitoid, defined by fault zone between 391.80-392.00m qtz fragments cemented by gouge material. Local increase in zeo veining.	110471	0.051	0.065
392	469.39	QUARTZ MONZONITE						
392.00	394.00	Fine-medium-grained medium brown porphyritic silicic k-feldspar	0.5	20 QZV 70 15	Qtz/ plag/ K-feldspar, hornblende phenocrysts in fine grained weak pot altered matrix. Zeo/ qtz veining, locally assoc with local epi alt. Rare diss py also present as aggregates. Local BKN zones.	110472	0.006	0.008

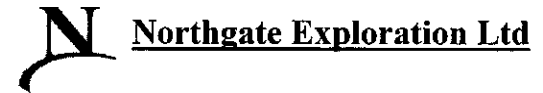
Hole Number: KN-02-32

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
394.00	396.00	Fine-medium-grained medium brown porphyritic silicic k-felspar		14	QCHV 0 10	See sample 110472. Reduced py aggregate and epi alt.	110473	0.001	-2
396.00	398.00			22	QZV 80 7	See sample 110472. Very weak epi alt lining fault plane.	110474	0.001	-2
398.00	400.00			12	QZV 5 7	See sample 110472. Phenocrysts not clearly visible, protolith overprinted by silicification and pot alt.	110475	0.001	-2
400.00	402.00			19	QZV 50 10	See sample 110472. Portions with increased pot alt. Vuggy dissolution in zeo veining at about 401.21m.	110477	0.002	-2
402.00	404.00	Fine-medium-grained medium brown porphyritic k-felspar silicic		11	QZV 70 15	See sample 110472. Moderate to high pot alt. Very weak epi veining at about 403.71m. Increased mafic phenocrysts.	110478	0.002	-2
404.00	406.00			12	QZV 0 15	See sample 110472. Moderate to high pot alt. .	110479	0.002	-2
406.00	408.00	Fine-medium-grained medium brown porphyritic silicic k-felspar		18	QZV 90 10	See sample 110472. Very weak epi alt, less pot altered portion, increased silicified, moderate to high silicification	110480	0.002	-2
408.00	410.00			16	QCHV 20 7	See sample 110472. Rare red hem lining joint plane, assoc with moderate to high pot alt portion.	110481	0.002	-2
410.00	412.00			14	QZV 50 5	See sample 110472. Very weak pot alt, highly silicified.	110482	0.002	-2
412.00	414.00			10	QZV 70 5	See sample 110472. Very weak epi alt, in joint planes, slight increase in pot alt.	110483	0.002	-2
414.00	416.00			16	QZV 30 5	See sample 110472. Very weak pot and epi alt.	110484	0.002	-2
416.00	418.00	Fine-medium-grained medium brown porphyritic k-felspar silicic		15	QZV 20 7	See sample 110472. Increased epi veining assoc with hem at about 417.15m. Muscovite phenocrysts.	110485	0.001	-2
418.00	420.00			15	QZV 80 5	See sample 110472. Same as above. Epi veining at about 419.00 and 419.80m.	110486	0.001	-2
420.00	422.00		1	12	QZV 80 7	See sample 110472. Highly silicified and pot alt portion. Qtz/ zeo veining. Weak epi veining, mt at about 421.62m.	110487	0.001	-2
422.00	424.00			3	QZV 20 10	See sample 110472. Epi veining between 422.71-422.86m. Moderate to high pot alt.	110488	0.001	-2
424.00	426.00			12	QZV 70 15	See sample 110472. Increased epi veining between 425.10-425.25m. Highly silicified between 425.35-425.98m.	110489	0.002	-2
426.00	428.00	Fine-medium-grained medium brown porphyritic silicic k-felspar		4	QZV 50 15	See sample 110472. Local BKN zone. Increased silicified zone. Weak epi veining, lining joint planes.	110490	0.004	0.005
428.00	430.00			13	QZV 0 10	See sample 110472. Weak epi alt, lining joint planes at about 428.50m and 0 degrees to core axis.	110491	0.002	-2
430.00	432.00			4	QZV 50 10	See sample 110472. Mainly silicified, weak to moderate pot alt.	110492	0.011	0.008

Hole Number: KN-02-32

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
432.00	434.00	Fine-medium-grained medium brown porphyritic silicic k-felspar		11	QZV 90 15	See sample 110472. Mainly silicified, weak to moderate pot alt.	110493	0.002	-2
434.00	436.00			21	QZV 10 15		110494	0.004	-2
436.00	438.00			12	QZV 80 10	See sample 110472. 80 degrees to core axis qtz/ zeo veining, equidistant from each other.	110495	0.002	-2
438.00	440.00			9	QZV 80 7	See sample 110472. Local pot alt portions.	110496	0.004	-2
440.00	442.00			19	QZV 60 10	See sample 110472. Epi lining joint planes, BKN portions.	110497	0.002	-2
442.00	444.00			13	QZV 50 15	See sample 110472. Muscovite phenocrysts.	110498	0.005	0.005
444.00	446.00			17	QZV 40 15	See sample 110472. Weak epi veining.	110499	0.002	-2
446.00	448.00			19	QZV 50 7	See sample 110472. Weak to moderate pot alt portion.	110500	0.003	-2
448.00	450.00			14	QZV 30 10	See sample 110472. Weak red hem staining. Weak pot alt portions.	113001	0.052	0.083
450.00	452.00			13	QZV 20 10	See sample 110472. Weak pot alt portions.	113003	0.003	-2
452.00	454.00			13	QZV 50 10	Qtz/ plag/ K-feldspar phenocrysts in fine grained silicified and pot matrix. Appear crowded in places. Mafic phenocrysts visible in places, probably homblende. Randomly oriented qtz/ zeo veining irregularly spaced. Portions of abundant moderate silicification and portions of dominant moderate pot alt. Local BKN zones.	113004	0.009	0.01
454.00	456.00			15	QZV 80 7	See sample 113004. Qtz/ zeo veining confined to pot alt portions.	113005	0.015	0.019
456.00	458.00			12	QZV 90 7	See sample 113004. Increased mafic phenocrysts, decreased pot alt portions.	113006	0.022	0.014
458.00	460.00			17	QZV 90 10	See sample 113004. Decreased pot alt portions.	113007	0.008	0.006
460.00	462.00			8	QZV 50 10	See sample 113004. Increased pot alt portions assoc with qtz/ zeo veining.	113008	0.007	0.009
462.00	464.00			15	QZV 70 7	See sample 113004. Increased silicified portion, weak epi alt.	113009	0.006	0.005
464.00	466.00			8	QZV 80 10	See sample 113004. Increase moderate pot alt portions.	113010	0.005	-2
466.00	468.00			16	QZV 40 10	See sample 113004. Dominantly silicified.	113011	0.007	-2
468.00	469.39			16	QZV 30 7	See sample 113004 and above.	113012	0.011	0.01
469.39	EOH								

Kemess North 2002 - Diamond Drill Log



Hole Number: **KN-02-33**

Northing: 16120.8	Total Depth: 508.1m
Easting: 9960.68	Azimuth: 0°
Elevation: 1663.7	Dip: -90°

Geologist: E. Ramsay
Logged Date: 8/26/2002

Survey Depth	Azimuth	Dip	Comments:
106 m	0 °	-90 °	
206 m	0 °	-90 °	
307 m	0 °	-90 °	
408 m	0 °	-90 °	
508 m	0 °	-90 °	

Kemess North 2002 - Summary Drill Log



Hole Number: **KN-02-33**

From (m)	To (m)	Rock Type	Comments
0	6.1	CASING	Casing, no recovery.
6.1	15.85	BLADED FELDSPAR PORPHYRY	Broken/rubble core, hard to identify. A few coarser fragments show preserved primary texture, allowing identification as bladed feldspar porphyry (Takla Volcanic). Color is homogenous but dark grey overall. Rock shows waxy/soapy feeling, greenish grey sericite alteration throughout with patchy brownish-black biotite alteration. Traces to 1% pyrite, both disseminated and in fracture filling/veinlets. No visible chalcopyrite. Weak yellowish-brown staining in top 10 meters caused by limonite. Poor recovery, samples are taken from run block to run block to maximize accuracy and ensure sufficient sample size for assaying and checks.
15.85	18.9	LOST CORE	
18.9	28.04	BLADED FELDSPAR PORPHYRY	
28.04	40.23	LOST CORE	
40.23	43.28	BLADED FELDSPAR PORPHYRY	
43.28	57.7	LOST CORE	
57.7	137	BLADED FELDSPAR PORPHYRY	Competent/unbroken core strongly altered to waxy/soapy sericite but still locally recognizable as bladed feldspar porphyry. Weak, local patchy biotite/chlorite alteration. Rock is greenish gray, showing up to 5% veins of anhydrite+gypsum+pyrite (light gray to light pink) and anhydrite+fluorite+pyrite (purple to violet) +/- gypsum.
137	140.45	BASALT	
140.45	175	BLADED FELDSPAR PORPHYRY	
171	172.82		Fractured/broken core near lower contact, obscuring contact orientation.

Hole Number: **KN-02-33**

From (m)	To (m)	Rock Type	Comments
175	248.65	BASALT	
248.65	250	BASALT FLOW BRECCIA	Monomictic (flow) breccia composed of basalt fragments in a basalt matrix.
250	328	BASALT	
328	329.5	BASALT PILLOW	Pillow basalt? Rock shows pillow-rind like selvages w/ varioles coalescing near selvages. Minor brittle fault at bottom of interval.
329.5	330.6	BLADED FELDSPAR PORPHYRY	Faint sericitized pseudomorphs after feldspar are recongizable. Contacts not clear.
330.6	402	BASALT	
402	404	BASALT FLOW BRECCIA	Flow breccia showing clasts of basalt in basalt matrix Bottom of interval is fractured with gouge.
404	508.1	BASALT	

Kemess North 2002 - Detail Drill Log



Hole Number: KN-02-33

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
0	6.1	CASING							
	0.00	6.10				Casing, no recovery.	33	-2	-2
6.1	15.85	BLADED FELDSPAR PORPHYRY							
	6.10	8.23	1.0	0		Broken/rubblery core, hard to identify. A few coarser fragments show preserved primary texture, allowing identification as bladed feldspar porphyry (Takla Volcanic). Color is homogenous but dark grey overall. Rock shows waxy/soapy feeling, greenish grey sericite alteration throughout with patchy brownish-black biotite alteration. Traces to 1% pyrite, both disseminated and in fracture filling/veinlets. No visible chalcopyrite. Weak yellowish-brown staining in top 10 meters caused by limonite. Poor recovery, samples are taken from run block to run block to maximize accuracy and ensure sufficient sample size for assaying and checks.	110526	0.495	0.378
	8.23	9.75	0.1	1			110527	0.396	0.216
	9.75	11.28	1.0	0			110528	0.267	0.191
	11.28	14.33	0.5	0			110529	0.255	0.19
	14.33	15.85	1.0	0			110530	0.24	0.205
15.85	18.9	LOST CORE							
	15.85	18.90					-33	0	0
18.9	28.04	BLADED FELDSPAR PORPHYRY							
	18.90	28.04	1.0	0		Fine-coarse grained dark grey porphyritic sericitic biotite	110531	0.197	0.223
28.04	40.23	LOST CORE							
	28.04	40.23					-333	0	0
40.23	43.28	BLADED FELDSPAR PORPHYRY							
	40.23	43.28	1.0	0		Fine-coarse grained dark grey porphyritic sericitic biotite	110532	0.125	0.144
43.28	57.7	LOST CORE							

Hole Number: KN-02-33

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm	
43.28	57.70						-3333	0	0	
57.7	137	BLADED FELDSPAR PORPHYRY								
57.70	59.00	Fine-coarse grained dark grey porphyritic sericitic biotite	2.0	0	AVN	2 Competent/unbroken core strongly altered to waxy/soapy sericite but still locally recognizeable as bladed feldspar porphyry. Weak, local patchy biotite/chlorite alteration. Rock is greenish gray, showing up to 5% veins of anhydrite+gypsum+pyrite (light gray to light pink) and anhydrite+fluorite+pyrite (purple to violet) +/- gypsum.	110533	0.152	0.218	
59.00	61.00		2.0	0.2	0	AVN	10	110534	0.114	0.181
61.00	63.00	Fine-coarse grained dark grey porphyritic sericitic chloritic	0.5	0.1	0	AVN	2	110535	0.134	0.203
63.00	65.00		1.0		0	FVN	5	110536	0.138	0.206
65.00	67.00		1.0	0.1	0	FVN	2	110537	0.12	0.186
67.00	69.00	Fine-coarse grained dark grey porphyritic sericitic biotite	0.5		0	FVN	3	110538	0.125	0.192
69.00	71.00	Fine-coarse grained dark grey porphyritic sericitic chloritic	0.5		3			110539	0.109	0.148
71.00	73.15		0.5	0.1	6	AVN	2	110540	0.123	0.168
73.15	75.00		2.0		3			110541	0.16	0.248
						Core downsized from HQ to NQ at 73.15 m. Biotite disappears completely. Replaced by greenish black chlorite.				
75.00	77.00		1.5		0	FVN	7	110542	0.196	0.329
77.00	79.00		1.0		38	FVN	7	110543	0.125	0.179
79.00	81.00		0.5		3	FVN	2	110544	0.156	0.236
81.00	83.00		1.0		3	AVN	2	110545	0.143	0.249
83.00	85.00		1.0		15	AVN	3	110546	0.156	0.264
85.00	87.00		1.0		8	FVN	5	110547	0.196	0.292
87.00	89.00		0.5		11	FVN	5	110548	0.17	0.319
89.00	91.00		1.0		11	FVN	1	110549	0.208	0.372
91.00	93.00		1.0		8	FVN	2	110550	0.159	0.231
93.00	95.00		1.0		3	FVN	1	110552	0.117	0.22
						Core breaks down along gypsum-filled fracture/veinlets. Slickensides indicating some movement along these fractures.				

Hole Number: KN-02-33

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
95.00	97.00	Fine-coarse grained dark grey porphyritic sericitic chloritic	1.0	4 FVN	5		110553	0.063	0.085
97.00	99.00		1.0	10			110554	0.107	0.157
99.00	101.00		1.0	0 FVN	4		110555	0.152	0.225
101.00	103.00		0.1	0 AVN	15		110556	0.114	0.184
103.00	105.00		1.0	0 FVN	3		110557	0.185	0.274
105.00	107.00		0.5 0.1	1			110558	0.117	0.284
107.00	109.00		1.0	1 FVN	1		110559	0.138	0.232
109.00	111.00		1.0 0.0	0 9	0 0		110560	0.109	0.163
111.00	113.00		0.5 0.0	0 1	0 0		110561	0.089	0.124
113.00	115.00		0.5	14 AVN	3		110562	0.101	0.147
115.00	117.00		0.5 0.0	0 10	0 0		110563	0.096	0.102
117.00	119.00		1.0 0.0	0 18	0 0		110564	0.138	0.145
119.00	121.00		1.0	10			110565	0.119	0.165
121.00	123.00		1.0 0.2	11 AVN	1		110566	0.159	0.164
123.00	125.00		1.0	1 FVN	4		110567	0.076	0.121
125.00	127.00		0.5	1 FVN	1		110568	0.105	0.167
127.00	129.00		0.5	2 SHR	40 5	Minor shear between 127.94-128.04.	110569	0.107	0.157
129.00	131.00		0.5	1			110570	0.106	0.164
131.00	133.00		1.0	18 AVN	25 6		110571	0.111	0.169
133.00	135.00		1.0	2			110572	0.126	0.186
135.00	137.00		0.5	4			110573	0.148	0.224
137	140.45	BASALT							
137.00	139.00	Fine-grained green-grey massive sericitic chloritic	0.5	7			110574	0.144	0.224
139.00	140.45		1.0	8			110575	0.148	0.339
140.45	175	BLADED FELDSPAR PORPHYRY							
140.45	143.00	Fine-coarse grained dark grey porphyritic	1.0	0 AVN	2		110576	0.13	0.182
143.00	145.00	Fine-coarse grained dark grey porphyritic sericitic chloritic	1.0	0 AVN	2		110578	0.177	0.257

Hole Number: KN-02-33

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
145.00	147.00	Fine-coarse grained dark grey porphyritic sericitic chloritic	2.0	0	AVN 5		110579	0.137	0.249
147.00	149.00		0.5	0			110580	0.157	0.225
149.00	151.00		1.5	1	AVN 2		110581	0.243	0.412
151.00	153.00		1.0	1	AVN 5		110582	0.191	0.357
153.00	155.00		1.0	15	AVN 2		110583	0.204	0.281
155.00	157.00		1.0	5			110584	0.195	0.247
157.00	159.00		1.0	11	AVN 1		110585	0.134	0.222
159.00	161.00		1.0	1	AVN 2		110586	0.253	0.393
161.00	163.00		1.0	0.0	0 4 0 0		110587	0.215	0.329
163.00	165.00		1.0	2	AVN 1		110588	0.189	0.314
165.00	167.00		1.0	2	AVN 2		110589	0.248	0.382
167.00	169.00		0.5	0.1	2 AVN 3		110590	0.394	0.578
169.00	171.00		1.0	22	AVN 1		110591	0.134	0.265
171.00	172.82		0.5	5		Fractured/broken core near lower contact, obscuring contact orientation.	110592	0.134	0.236
172.82	175.00	Fine-medium-grained green-grey porphyritic chloritic sericitic	0.5	3		Augite-phyric mafic volcanic rock, probably basalt. Core is broken/fractured (low-RQI). Rock shows up to 15% euhedral to subhedral, mm-sized phenocrysts in an aphanitic matrix. Color varies locally from dark grey to grayish green sericite alteration locally predominates and destroys primary textures. Local brittle faults w/ gouge.	110593	0.111	0.228
171.00	172.82	Fine-coarse grained dark grey porphyritic sericitic chloritic	0.5	5		Fractured/broken core near lower contact, obscuring contact orientation.	110592	0.134	0.236
175	248.65	BASALT							
175.00	177.00	Fine-medium-grained green-grey porphyritic chloritic sericitic	0.5	15			110594	0.059	0.069
177.00	179.00		0.5	8	FLT 30 16	Brittle fault w/ gouge between 178.60 - 178.92 @ 30 degrees to ca.	110595	0.07	0.069
179.00	181.00	Fine-medium-grained green-grey porphyritic sericitic biotite	1.0	17		Broken core w/ minor gouge near 179.3 - 179.8 and 180.5 m.	110596	0.127	0.133
181.00	181.97		3.0	1	AVN 4		110597	0.149	0.274

Hole Number: KN-02-33

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
181.97	184.10	Fine-medium-grained green-grey porphyritic sericitic biotite	1.0	1		Broken core with minor gouge near 183.90 m and 184.10 m	110598	0.161	0.25
184.10	186.00		0.1	32	FLT 10 2	Minor fault @ low angle to ca	110599	0.01	0.012
186.00	187.00		0.1	2	FLT 10 5	Minor fault w/ breccia @ low angle to ca	110600	0.081	0.111
187.00	188.40	Fine-grained dark grey massive chloritic	0.1	51	CON 45	Aphyric mafic dyke @ 45 degrees to ca	110601	0.009	0.006
188.40	190.00	Fine-medium-grained orange grey porphyritic sericitic biotite	0.5	10	ZVN 2	Orange zeolite veinlets, broken core w/ gouge near 188.67 m.	110602	0.079	0.102
190.00	192.00	Fine-medium-grained orange grey porphyritic sericitic chloritic	0.5	1	FLT 30 10	Minor fault w/ gouge @ 30 deg to ca near 190.0 m greenish clay along fracture near 191.80 m.	110604	0.15	0.321
192.00	194.00	Fine-medium-grained green-grey porphyritic sericitic chloritic	0.5	0	AVN 5	Greenish clay alteration between 192.80 - 193.2 m, vuggy texture.	110605	0.087	0.223
194.00	196.00		0.5	4	AVN 2		110606	0.084	0.072
196.00	198.00		1.0	1	QVN 30 2		110607	0.13	0.092
198.00	200.00		1.0	2	AVN 0		110608	0.152	0.194
200.00	202.00		1.0	2	AVN 3		110609	0.118	0.08
202.00	204.00		1.0	1	QVN 3	Minor faults @ 40 degrees to ca near 203.50 m, broken core over last 40 cm of interval.	110610	0.137	0.106
204.00	206.00		1.0	4	QVN 30 2		110611	0.123	0.072
206.00	208.00		1.0	7			110612	0.192	0.153
208.00	210.00		1.0	5	AVN 5	Anhydrite +/- pyrite in vuggy veinlets	110613	0.185	0.191
210.00	212.00		1.0	0	10 AVN 2		110614	0.117	0.063
212.00	214.00		0.5	8	AVN 1		110615	0.117	0.065
214.00	216.00		0.5	14			110616	0.163	0.088
216.00	218.00		0.5	0	17 QVN 3	Vuggy qtz+py+mt veins	110617	0.146	0.111
218.00	220.00		0.5	1	10		110618	0.179	0.235
220.00	222.00		1.0	19	QVN 20 5		110619	0.134	0.223
222.00	224.00		0.5	1	13 MVN 20 1		110620	0.17	0.132
224.00	226.00		0.5	21			110621	0.105	0.095
226.00	228.00		1.0	1	14		110622	0.131	0.119
228.00	230.25		0.5	9			110623	0.071	0.075

Hole Number: KN-02-33

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
230.25	231.00	Fine-medium-grained orange grey porphyritic sericitic clay	1.0	1		Vuggy interval w/ green clay	110624	0.103	0.239
231.00	233.00	Fine-medium-grained green-grey porphyritic sericitic chloritic	1.0	16			110625	0.07	0.068
233.00	235.00		1.0	7			110626	0.09	0.079
235.00	237.00		0.5	24			110627	0.152	0.112
237.00	239.00		1.0	1			110628	0.105	0.097
239.00	241.00		0.5	27			110630	0.113	0.131
241.00	243.00		0.5	11			110631	0.121	0.143
243.00	245.00		1.0	17			110632	0.097	0.107
245.00	247.00		2.0	17			110633	0.135	0.135
247.00	248.65		2.0	9			110634	0.078	0.091
248.65	250	BASALT FLOW BRECCIA							
248.65	250.00	Fine-coarse grained green-grey broken sericitic chloritic	1.0	15		Monomictic (flow) breccia composed of basalt fragments in a basalt matrix.	110635	0.081	0.085
250	328	BASALT							
250.00	252.00	Fine-medium-grained green-grey porphyritic sericitic chloritic	1.0	19			110636	0.123	0.111
252.00	254.00		0.5	12			110637	0.093	0.078
254.00	256.00		0.5	0	21	Disseminated pyrite blebs start showing magnetite rims.	110638	0.166	0.256
256.00	258.00	Fine-medium-grained green-grey porphyritic chloritic sericitic	0.5	0	21	Rock becomes more chloritic, greenish gray to grayish green, zeolite + carb veinlets are common.	110639	0.135	0.093
258.00	260.00		1.0	0	6		110640	0.178	0.159
260.00	262.00		1.0	0.1	0	21	110641	0.214	0.213
262.00	264.00		1.0		14		110642	0.182	0.21
264.00	266.00		0.5		13 QVN	10 4	110643	0.173	0.302
266.00	268.00		0.5	1	12		110644	0.091	0.043
268.00	270.00		1.0	1	7 QVN	60 2	110645	0.191	0.194
270.00	272.00		0.1	1	5		110646	0.151	0.091
272.00	274.00		0.5	1	9 QVN	2	110647	0.269	0.396
274.00	276.00		0.5	0.1	0	3	110648	0.714	0.702

Hole Number: KN-02-33

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
276.00	278.00	Fine-medium-grained green-grey porphyritic chloritic sericitic	1.0	1	16		110649	0.203	0.115
278.00	280.00		0.5	0	12		110650	0.172	0.203
280.00	282.00		2.0	0	14 PVN	10 2	110651	0.152	0.149
282.00	284.00		0.5	1	13		110652	0.114	0.176
284.00	286.00		0.5	0	12 AVN		110653	0.098	0.088
286.00	288.00		0.1	0	6		110654	0.086	0.057
288.00	290.00	Fine-medium-grained grey porphyritic sericitic chloritic	0.1	1	18		110656	0.128	0.196
290.00	292.00		0.1	0	14		110657	0.161	0.166
292.00	294.00		0.5	1	5		110658	0.204	0.39
294.00	296.00		0.1	0	1 CVN	7 Coarse grained calcite veins (white) with vugs	110659	0.13	0.08
296.00	298.00		0.5	0	6		110660	0.141	0.161
298.00	300.00		0.5	0.1	0	6	110661	0.19	0.305
300.00	302.00		0.1	0.1	1	42	110662	0.212	0.329
302.00	304.00		0.5	1	11		110663	0.1	0.058
304.00	306.00		0.1	1	11		110664	0.106	0.216
306.00	308.00		0.1	1	9		110665	0.131	0.198
308.00	310.00		0.1	0	9 QVN	1	110666	0.189	0.273
310.00	312.00		0.5	1	4		110667	0.195	0.194
312.00	314.00		0.5	1	16 QVN	2	110668	0.28	0.401
314.00	316.00	Fine-medium-grained orange grey porphyritic sericitic chloritic	0.1	0	14		110669	0.147	0.169
316.00	318.00	Fine-medium-grained grey porphyritic sericitic biotite	0.5	1	12		110670	0.144	0.141
318.00	320.00		0.1		5	Brownish grey (biotite).	110671	0.104	0.068
320.00	322.00		0.1	1	15 QVN	4 Two quartz +/- pyrite veins @ 45 degrees to c.a. and @ 30 degrees to c.a.	110672	0.225	0.268
322.00	324.00		0.1		2		110673	0.145	0.133
324.00	326.00		0.1		2		110674	0.161	0.243
326.00	328.00		0.1		9		110675	0.13	0.162

Hole Number: KN-02-33

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
328	329.5	BASALT PILLOW							
328.00	329.50	Fine-grained green-grey variolitic chloritic	0.5	0	8 FLT 30 2	Pillow basalt? Rock shows pillow-rind like selvages w/ varioles coalescing near selvages. Minor brittle fault at bottom of interval.	110676	0.12	0.069
329.5	330.6	BLADED FELDSPAR PORPHYRY							
329.50	330.60	Fine-coarse grained brown grey porphyritic sericitic biotite	0.5		7	Faint sericitized pseudomorphs after feldspar are recognizable. Contacts not clear.	110677	0.148	0.177
330.6	402	BASALT							
330.60	332.00	Fine-medium-grained brown grey porphyritic sericitic biotite	0.5		7		110678	0.163	0.138
332.00	334.00	Fine-medium-grained brown grey porphyritic chloritic sericitic	1.0	1	12 ZVN 15	Abundant zeolite (pink) veining.	110679	0.173	0.179
334.00	336.00	Fine-medium-grained green-grey porphyritic chloritic sericitic	0.5	1	10 FLT 20 15		110680	0.142	0.078
336.00	338.00	Fine-medium-grained green-grey porphyritic chloritic	1.0	1	15		110682	0.087	0.076
338.00	340.00	Fine-medium-grained green-grey porphyritic chloritic biotite	0.1	1	11 QVN 50 2		110683	0.096	0.079
340.00	342.00		0.5	0	18		110684	0.14	0.102
342.00	344.00	Fine-medium-grained orange grey porphyritic sericitic chloritic	0.1	0	20 QVN 5	Qtz - zeolite veinlets w/ minor py + mt.	110685	0.171	0.139
344.00	346.00		3.0	2	11 QVN 2		110686	0.451	0.534
346.00	348.00	Fine-medium-grained green-grey porphyritic chloritic sericitic	1.0	0.1	0 1 QVN 60 0	Qtz - cpy vein.	110687	0.26	0.559
348.00	350.00		0.1		3 QVN 3	Quartz + pink zeolite veins.	110688	0.182	0.274
350.00	352.00		5.0	2	4 QVN 10		110689	0.285	0.226
352.00	354.00	Fine-medium-grained green-grey porphyritic chloritic	0.5	0	8		110690	0.268	0.274
354.00	356.00		0.5	1	4		110691	0.154	0.133
356.00	358.00		0.5	0	11		110692	0.159	0.141
358.00	360.00		0.5	1	4 KVN 40 2	Pink (potanic?) feldspar vein.	110693	0.151	0.092
360.00	362.00		0.1	0	7 FLT 20 10	Brittle fault w/ breccia and gouge @ 20 degrees to c.a.	110694	0.139	0.195
362.00	364.00		0.5	0.5	2 29 QVN 5	Qtz + mt + py +/- cpy veins and veinlets.	110695	0.291	0.699
364.00	366.00		0.1	1	8		110696	0.172	0.306

Hole Number: KN-02-33

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
366.00	368.00	Fine-medium-grained green-grey porphyritic chloritic	0.5	0	7		110697	0.176	0.197
368.00	370.00	Fine-medium-grained brown grey porphyritic sericitic chloritic	0.5	1	9		110698	0.216	0.427
370.00	372.00		0.1		19		110699	0.188	0.196
372.00	374.00	Fine-medium-grained green-grey porphyritic chloritic sericitic	0.1		6 SHR	5 0 Minor shear sub-parallel to c.a.	110700	0.214	0.218
374.00	376.00	Fine-medium-grained brown grey porphyritic sericitic chloritic	0.5		7		110701	0.21	0.177
376.00	378.00		0.5	1	7 QVN	5 10 Vuggy qtz + carbonate + mt + pyrite vein, sub-parallel to c.a.	110702	0.28	0.306
378.00	380.00	Fine-medium-grained orange grey porphyritic sericitic chloritic	0.1	0	6 QVN	40 1	110703	0.254	0.297
380.00	382.00	Fine-medium-grained brown grey porphyritic sericitic	0.1	0	12		110704	0.207	0.203
382.00	384.00	Fine-medium-grained orange grey porphyritic sericitic	0.5	0	48		110705	0.412	0.832
384.00	386.00		1.0	1	50		110706	0.155	0.271
386.00	388.00	Fine-medium-grained grey porphyritic sericitic	0.1	1	17		110708	0.151	0.207
388.00	390.00		0.1	1	11		110709	0.193	0.223
390.00	392.00		1.0	0.1	1	11	110710	0.182	0.282
392.00	394.00		0.1	0	204		110711	0.102	0.056
394.00	396.00		0.5	0.1	1	25	110712	0.15	0.115
396.00	398.00		0.5	0	13		110713	0.133	0.099
398.00	400.00		0.5	0	37		110714	0.093	0.047
400.00	402.00	Fine-medium-grained green-grey porphyritic chloritic	0.1		10	Fault breccia zone with gouge, injected by calcite @ low angle to c.a.	110715	0.125	0.217
402	404	BASALT FLOW BRECCIA							
402.00	404.00	Fine-medium-grained green-grey porphyritic chloritic	0.1		1	Flow breccia showing clasts of basalt in basalt matrix Bottom of interval is fractured with gouge.	110716	0.181	0.05
404	508.1	BASALT							
404.00	406.00	Fine-medium-grained grey porphyritic sericitic	0.1	0	6		110717	0.136	0.133

Hole Number: KN-02-33

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
406.00	408.00	Fine-medium-grained grey porphyritic sericitic	1.5 0.1	0	13		110718	0.183	0.112
408.00	410.00		0.1 0.1	1	5		110719	0.142	0.14
410.00	412.00		0.1	0	3	Minor fault w/gouge and injected w/ calcite.	110720	0.206	0.292
412.00	414.00		0.1		5		110721	0.169	0.147
414.00	416.00		0.1	0	12		110722	0.154	0.186
416.00	418.00		0.1	0	14		110723	0.199	0.169
418.00	420.00		0.1	0	8		110724	0.212	0.136
420.00	422.00		0.1	0	12		110725	0.13	0.062
422.00	424.00		1.0	2	50		110726	0.191	0.154
424.00	426.00		0.1	0	0		110727	0.149	0.063
426.00	428.00		0.1	1	4		110728	0.181	0.131
428.00	430.00		0.1	0	4		110729	0.154	0.096
430.00	432.00		0.5	0	14		110730	0.195	0.267
432.00	434.00		0.1	0	1		110731	0.107	0.059
434.00	436.00	Fine-medium-grained green-grey porphyritic chloritic	0.1	0	0		110732	0.104	0.076
436.00	438.00		0.1	0	0		110734	0.24	0.492
438.00	440.00	Fine-medium-grained grey porphyritic sericitic	0.1	0	7		110735	0.131	0.077
440.00	442.00		0.1	1	5		110736	0.095	0.107
442.00	444.00		0.5	0	24		110737	0.135	0.103
444.00	446.00		1.0	0	13		110738	0.137	0.069
446.00	448.00		1.0	0	11		110739	0.243	0.365
448.00	450.00		0.5	0	35		110740	0.155	0.125
450.00	452.00		0.1	0	18		110741	0.115	0.073
452.00	454.00		0.1	0	7		110742	0.119	0.106
454.00	456.00		0.5	0	13		110743	0.144	0.134
456.00	458.00		0.5	1	24 QVN	60 1 Qtz - carb + minor py vein.	110744	0.137	0.117
458.00	460.00	Fine-medium-grained orange grey porphyritic sericitic carbonate	0.5	1	16	Diffuse orange carbonate alteration, mostly centered around qtz-carb veins.	110745	0.126	0.083

Hole Number: KN-02-33

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
460.00	462.00	Fine-medium-grained grey porphyritic sericitic carbonate	0.5	0	5 QVN 90 1	Qtz-py-carb vein.	110746	0.131	0.103
462.00	464.00		2.0	1	13 QVN 5 15	Qtz-pyrite-carbonate vein.	110747	0.168	0.086
464.00	466.00		0.1	0	12		110748	0.128	0.116
466.00	468.00		0.1	0	5		110749	0.118	0.101
468.00	470.00		0.5	0	12 QVN 5		110750	0.189	0.188
470.00	472.00		0.5		3		110751	0.242	0.267
472.00	474.00	Fine-medium-grained orange grey porphyritic sericitic carbonate	0.1 0.1	0	5 CVN 5	Carbonate vein.	110752	0.221	0.267
474.00	476.00		0.1	0	11		110753	0.133	0.083
476.00	478.00		0.1	0	7		110754	0.111	0.06
478.00	480.00		0.1	0	8		110755	0.13	0.069
480.00	482.00		0.1		3		110756	0.081	0.068
482.00	484.00		0.1	0	7		110757	0.17	0.147
484.00	486.00		0.1	0	13		110758	0.188	0.27
486.00	488.00		0.1	0	14		110760	0.145	0.057
488.00	490.00		0.1	0	9 QVN 2	Qtz-carbonate veins. Last 30cm of interval is broken.	110761	0.2	0.26
490.00	492.00		0.1	2	114		110762	0.166	0.161
492.00	494.00		0.5	0	35		110763	0.166	0.164
494.00	496.00		0.1	1	28 FLT 25 5	Minor fault w/ breccia @ 25 degrees to c.a. near 495.00m, qtz - carb + py vein.	110764	0.201	0.318
496.00	498.00	Fine-medium-grained grey porphyritic sericitic	0.1	1	7		110765	0.12	0.07
498.00	500.00		0.5	0	12		110766	0.172	0.221
500.00	502.00		0.1	0	55		110767	0.14	0.075
502.00	504.00		0.5	1	23		110768	0.185	0.131
504.00	506.00		0.1	0	22		110769	0.148	0.099
506.00	508.10		0.5	0	13	EOH 508.1	110770	0.14	0.072

508.1 EOH

Kemess North 2002 - Diamond Drill Log



Hole Number: **KN-02-34**

Northing: 15036.1 **Total Depth:** 815.95m
Easting: 8332.29 **Azimuth:** 360°
Elevation: 1755.7 **Dip:** -70°

Geologist: J. Mazvihwa
Logged Date: 9/9/2002

<u>Survey Depth</u>	<u>Azimuth</u>	<u>Dip</u>	<u>Comments:</u>
79 m	1 °	-71 °	
170 m	7 °	-70 °	
262 m	13 °	-70 °	
354 m	13 °	-67 °	
445 m	20 °	-70 °	
537 m	23 °	-70 °	
628 m	26 °	-70 °	
720 m	26 °	-68 °	
811 m	17 °	-69 °	

Kemess North 2002 - Summary Drill Log



Hole Number: **KN-02-34**

From (m)	To (m)	Rock Type	Comments
0	1.52	CASING	
1.52	123.4	BASALT FLOW	Medium to dark green flow- Takla, fine grained with medium sized augite phenocrysts. No qtz eyes visible. Pyrite aggregates in flow, also present lining joints accompanied by limonite and hem. Local BKN zones, places lined by limonite and hematite, red and yellow. Several joint plane sets.
123.4	125.45	BASALT	Amygdules w.d. ; Locally banded, calcitic throughout. Sharp lower contact.
125.45	129	BASALT FLOW	Locally magnetic (very weak).
129	129.65	BASALT	Same as 123.40 to 125.45
129.65	294	BASALT FLOW	Variable form weak to strongly magnetic with calcite as patchy infill. Dark gray/green/black.
294	296	BASALT FAULT ZONE	Mottled form mixture of chlorite/sericite alt'n.; Weak to mod. developed fault shear with calcic infill.
296	606.2	BASALT FLOW	One thin epidote veinlet.
606.2	609.68	BASALT BLADED FELDSPAR PORPHYRY	Bladed feldspar phenocrysts about 1 cm long on average in very fine grained, silicified matrix; brown colouration possibly due to sericite +/- fine biotite alt'n; bladed feldspar phenocrysts near veining appear to be oriented at the angle of veining, suggesting a possible shear/movement at plane before vein material infilling (i.e.: 607.41 metres); pyrite as disseminations and aggregates.
609.68	632.7	BASALT FLOW	Fine to med grained, med. green flow; Brown portions due to sericite +/- biotite alt'n, weak to moderate in strength; pyrite present as disseminations, aggregates, and veining bound by magnetite veining @ ~ 610.58 metres; augite phenocrysts visible in places, though unit is generally massive.

Hole Number:

KN-02-34

From (m)	To (m)	Rock Type	Comments
632.7	635.96	BASALT BLADED FELDSPAR PORPHYRY	Bladed feldspar phenocrysts in a fine grained green/brown matrix; phenocrysts are randomly oriented; unit is cut by qtz/zeolite veining, enveloped in places by potassic staining; magnetite veining associated with pyrite veining between 634.54 to 634.59 metres.
635.96	657	BASALT FLOW	Fine to medium grained green moderately chloritic and moderately silicified flow; rare anhydrite veining associated with qtz; magnetite and pyrite veining randomly oriented and irregularly spaced; rare zeolite veining; plagioclase and augite phenocrysts visible in places.
657	666.4	BASALT BLADED FELDSPAR PORPHYRY	Bladed feldspar phenocrysts in a fine grained dark brown matrix; associated with disseminated pyrite and aggregates; feldspar phenocrysts appear to be aligned to veining in places (magnetite/Qtz/pyrite veining is @ ~ 70 deg t.c.a. and long axis of blades are parallel to 70 deg t.c.a. @ ~ 657.80 metres; dark brown colouration indicates moderate to strong sericitic +/- fine biotite alt'n.
666.4	808	BASALT FLOW	Fine to medium grained green chloritic flow; brown colouration due to sericite +/- fine biotite alt'n; augite and plagioclase phenocrysts visible in chloritic and silicified portions; Qtz/pyrite +/- magnetite veining, randomly oriented, irregularly spaced; disseminated pyrite, locally associated with weak epidote.
808	815.95	BASALT FLOW BRECCIA	Fragment outline- barely visible- composition similar to that of flow with augite and plagioclase phenocrysts; brown colour possibly due to sericite +/- fine biotite alt'n; magnetite/pyrite/epidote veining.

Kemess North 2002 - Detail Drill Log



Hole Number: KN-02-34

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
0	1.52	CASING							
0.00	1.52						34	-2	-2
1.52	123.4	BASALT FLOW							
1.52	3.66	Fine-medium-grained medium green porphyritic chloritic silicic	1.0	10	QHVN 50 7	Medium to dark green flow- Takla, fine grained with medium sized augite phenocrysts. No qtz eyes visible. Pyrite aggregates in flow, also present lining joints accompanied by limonite and hem. Local BKN zones, places lined by limonite and hematite, red and yellow. Several joint plane sets.	112194	0.015	0.046
3.66	5.18		2.0	5	QHVN 60 10	Local increase in fine disseminated pyrite and aggregates.	112195	0.028	0.112
5.18	6.17		1.0	0	QHVN 20 10	qtz vein stained limonite, locally accompanied by pyrite veining. Local epi altered portion.	112196	0.052	0.259
6.17	8.23		2.0	20	QZHV 85 10	augite and plagioclase phenocrysts at about 6.80m. Potassic stained portion from about 7.1 m - 7.2m portion is also associated epidote alterations.	112197	0.016	0.052
8.23	9.75		2.0	10	QHVN 45 10	weak epidote staining on qtz vein. Augite and plagioclase phenocrysts present in places.	112198	0.028	0.105
9.75	11.28		2.0	5	QHVN 50 10	qtz stringers at about 50 deg CA, forming banding. Qtz veining 1 cm thick pyrite aggregates. Local BKN zones planes lined limonite and hematite.	112199	0.034	0.085
11.28	12.80		1.0	31	QHVN 60 10	fragments of similar composition in flow, boundaries barely visible. 11.85m - fragment about 1 cm across, felsic matrix and mafic phenocrysts- augite and possibly chlorite. Local BKN zones planes lined hematite and limonite.	112200	0.026	0.055
12.80	14.33		2.0	8	QZHV 70 15	pale green/gray, epidote altered portion btwn 13.39m-13.52m. X-cut by vuggy qtz vein, dissolution features. Portion has increased pyrite veining assoczed and epi. Weak epi alteration btw 13.75m - 14.24m minor red hem staining. Augite and plagioclase phenocrysts present. Qtz/carb/chi veining btwn 14.10m - 14.16m about 5cm thick.	112201	0.036	0.112

Hole Number: KN-02-34

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
14.33	15.85	Fine-medium-grained medium green porphyritic chloritic silicic	1.0	3	QZHV 20 10	qtz/py/zeo vein +/- pyrite of about 14.58m, at about 60 deg CA. Crowded intrusive btwn 14.84m. 14.97m augite, plagioclase and qtz phenocrysts. Matrix is pale green, epidote altered. Pyrite disseminations in intrusive, about 4% in places - confined to matrix.	112203	0.034	0.204
15.85	17.37		2.0	30	QZHV 70 15	same intrusive noted in sample 112203, present btwn 15.88m to 16.19m. Py stringers, py aggregates. Fragmental, boundaries ghosted, assoc. disseminated pyrite in places btwn 16.19m - 17.00m. Mafic, magnetic btwn 17.00m - 17.37m, dark green/black, 11.4 MagS reading on karameter.	112204	0.027	0.079
17.37	18.90	Fine-grained dark green massive chloritic silicic	2.0	5	QHAV 20 10	dark green/black fine grained, mafic unit. Augite and plagioclase phenocrysts btwn 17.94m - 18.00m. Py stringers accompanied by mt aggregates. Local py/qtz veining stock work.	112205	0.025	0.069
18.90	20.50		3.0	10	QHAV 10 10	py stringers. Hematite lining joint planes, about 20 deg CA. Local BKN zones, augite phenocrysts in places. Epi alteration btwn 19.88m - 20.50m, lighter apple green colour.	112206	0.012	0.036
20.50	21.95		2.0	13	QZHV 0 10	qtz/zeo lining joints, BKN zone. Py veining. 0 deg CA planes lined by epi. Weak epi alteration.	112207	0.026	0.116
21.95	23.95		2.0	33	QZHV 90 20	possibly brecciated in places, outline of fragments barely visible in the dark green/black unit at about 23.40m. Epi, alteration btwn 22.63m - 23.53m weak epidote alteration and weakly silicified an increase in epidote alteration. Qtz/hem veining btwn 22.83m - 23.28m.	112208	0.011	0.032
23.95	26.00		0.5	60	QHAV 30 5	local BKN zone, sample consists mainly of the massive, homogenous, dark green/ black magnetic unit, Takla. Ghost outline fragments barely visible - possibly insitu breccia.	112209	0.006	0.014
26.00	28.00		1.0	10	QHAV 65 15	minor epi altered portion btwn 26.00m - 26.14m. Qtz/zeo veining accompanied by py aggregates. Increased zeo. Veining forming stock work btwn 26.78 m - 27.42 m. Py aggregates and qtz veining associated the zeo veining.	112210	0.01	0.025

Hole Number: KN-02-34

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
28.00	30.00	Fine-grained dark green massive chloritic silicic	1.0	36	QZV 65 10	Dark green/ black, mafic, massive, homogenous, fine grained flow - Takla. Possibly associated with magnetic, mafic post mineralization dyke (dolerite). Local BKN zone. Planes lined by zeo/epi Py aggregates present in places. Epi altered portions (28.74m - 28.87m) locally assoc. with an increase in veining. Py veining (29.48m-29.50m). Fine disseminated mt in flow, not visible, magnetic.	112211	0.009	0.022
30.00	32.00		2.0	24	QVN 85 7	Less mafic, medium green/gray siliceous portions. Py stringers and aggregates.	112212	0.013	0.03
32.00	32.73	Fine-grained dark brown massive sericitic chloritic	4.0		15	Increase in diss. pyrite, aggregates in stringers. Ghost fragment outline barely visible, possibly insitu breccia.	112213	0.016	0.041
32.73	34.70	Fine-grained dark brown massive chloritic silicic	5.0	0	QZV 50 7	Medium to dark brown, fine grained, massive flow - Takla. Brown colour due to sericite +/- fine biotite alteration. Faint fragment outline barely visible. Py aggregates and veining randomly oriented. Qtz/zeo. veining. Qtz/zeo veining increased btwn 33.60m - 33.82m assoc. with py aggregates. Local BKN zones.	112214	0.037	0.087
34.70	36.70	Fine-grained medium green massive chloritic silicic	3.0	1	1 QVN 75 7	Same as above, but reduced seri +/- fine bt alteration, unit is green, slightly brown. Reduced veining and pyrite content. Mt stringers.	112215	0.019	0.041
36.70	38.70		3.0	0.5	2 6 QZV 85 10	Medium to dark green/gray, fine grained. Takla Flow. Py disseminated, aggregates are in stringers, running about 80 deg CA in places. Local weakly potassic and epi +/- fine bt altered btwn 37.90m-38.06m. Fragments present locally; boundaries barely visible, possibly insitu breccia. Cpy aggregate at about 38.24m -rare.	112216	0.019	0.039
38.70	40.70		2.0	0.5	5 2 QVN 60 5	mt veining btwn 40.19m - 40.44m. Partially cut by epi+cpy aggregates at about 40.40m. Pyrite stringer at about 70 deg CA, 60 deg CA and 50 deg CA. Minor brown staining. Seri +/- fine bt.	112217	0.037	0.103
40.70	41.70		2.0	0.1	QVN 45 7	45 deg angled fault zone btwn 40.70m plane lined by gouge/clay material, qtz/zeo veining. Py vein at about 41.04m. Amygdules btwn 41.25m - 41.39m infilled with secondary chl and pyrite.	112218	0.025	0.057
41.70	43.70		2.0		9 QHVN 25 7	qtz/zeo veining. Pyrite stringers at about 50 deg CA. Minor hem lining jts, light green/gray silicified portions.	112219	0.019	0.044
43.70	45.45		1.0		5 QVN 50 7	minor fragments visible, dark green/gray.	112220	0.016	0.041

Hole Number: KN-02-34

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
45.45	46.62	Fine-grained medium green massive chloritic silicic	2.0	1	QZV 30 10	brown/yellow sample - possibly sericite alteration +/- fine bt. Potassic altered portions. Qtz/zeo/epi veining btwn 45.75m-45.80m. Diss py. Fragmental, fragment boundaries barely visible, overprinted by alteration. Py/qtz vein.	112221	0.024	0.064
46.62	48.60		2.0	2	QZV 30 10	fragmental, fragments outline barely visible. Brown coloured portions due to sericite alteration +/- fine by. Diss and aggregate py. Randomly oriented veining.	112222	0.03	0.062
48.60	50.60			3	QZV 0 10	Zeolite veining at about 5 deg CA, parallel to core axis. Dark green/black mafic magnetic portions.	112223	0.021	0.043
50.60	52.60				QZV 15	slight brown coloration due to sericite +/- fine bt alteration. Fragments evident in some parts.	112224	0.03	0.086
52.60	53.64		2.0	5	QVN 90 25	qtz stringers, small discontinuous veining, assoc with py veining. BKN zones.	112225	0.013	0.037
53.64	55.55			3	QZHV 50 15	portions with increased qtz/zeo veining. Amygdules infilled with secondary qtz incr. Qtz/carb stringers btwn 54.58m - 54.91m assoc with increase in py aggregates.	112226	0.016	0.042
55.55	57.09		3.0	7	QZV 70	fragmental portions with py aggregates and disseminations in cracks.	112227	0.042	0.063
57.09	59.06				QZV 15	no fragments visible, more black mafic, dark/green/black portions visible. Amygdules btwn 58.54m - 58.98m. Mt disseminations at ~58.62m.	112229	0.017	0.034
59.06	60.97		1.0	2	44 QZV 30 7	Medium to light green, fine grained flow, massive. Qtz/zeo veining irregularly spaced and randomly oriented. Darker green/black portions, mafic rich, magnetic. High MagS reading - 44.1. Pyrite diss and aggregates in flow present as fine stringers as well - assoc. with mt aggregates locally.	112230	0.021	0.037
60.97	62.95		1.0	3	QZV 30 7	Qtz/zeo stringers at about 30 deg CA. Evenly distributed, about 2 cm apart forming banded appearance btwn 60.97m - 61.59m. Zeo/py vein at about 61.68m.	112231	0.021	0.043
62.95	64.12	Fine-grained medium green massive chloritic		12	QZV 85 7	Py aggregates, mt stringers. Zeo. veining, epidote alteration - 63.76m lining jt assoc with zeo.	112232	0.015	0.049
64.12	65.80	Fine-grained grey massive chloritic sericitic	3.0	1	3 QCV 35 3	(LaPeare starts here) Silicified, wkly magnetic locally; py mostly as rounded modules. Infill of amygdules.	112233	0.02	0.052
65.80	67.80	Fine-grained grey massive chloritic	3.0	3	35 QVN 1	As above, but locally flow bx w/ significant inc in mag - py also common as stringers.	112234	0.011	0.032

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
67.80	71.00	Fine-grained grey massive chloritic epidote	1.0	1	11 QCV 50 5	As above, - patchy, epidote w.r altn w/ 10 cm of calcic unit.	112235	0.009	0.024
71.00	72.00	Fine-grained grey massive chloritic sericitic	3.0	2	3 QCV 55 3	One py + mag unit.	112236	0.009	0.037
72.00	74.00	Fine-grained grey massive chloritic epidote	3.0		2 QCCGV 50	Rare gypsum - py mostly as nodules and stringers.	112237	0.012	0.068
74.00	76.00		5.0	3	16 QCV 5	Carb is slightly pink - patchy, mag with local epidote (75.05 m).	112238	0.018	0.07
76.00	78.00	Fine-grained grey massive chloritic	3.0	3	5 QCV 50 2	Mod is magnetic locally.	112239	0.019	0.042
78.00	80.00	Fine-grained grey massive chloritic epidote	2.0	1	3 QCV 7	Mostly carb units - locally vuggy - epi wk/diffuse locally with veinlets.	112240	0.016	0.042
80.00	82.00	Fine-grained grey massive chloritic sericitic	4.0	1	6 ZCCV 35 4	Zeo is laumontite - py as nodules - infill.	112241	0.03	0.108
82.00	84.00	Fine-grained grey massive chloritic mt-anhydrite-gypsum	3.0	2	4 ZCCV 50 3	Carb units x cut local py = mag units - py also with carb + mag units - py also with carb+zeo units - patchy mag.	112242	0.011	0.031
84.00	86.00	Fine-grained grey massive chloritic epidote	4.0	1	3 QCV 30 7	Local qtz + kfsp (?) w/ patchy epi - bx'd in calc infill - local < 1 cm py + mag units.	112243	0.023	0.052
86.00	88.00		2.0	1	5 ZCCV 3	Locally ghosted plagiocrysts <1 mm.	112244	0.01	0.018
88.00	90.00		3.0	1	5 ZCCV 3	Py mostly as units with either carb or mag.	112245	0.014	0.026
90.00	92.00		2.0	4	17 ZCCV 2	Increased in chl altn - locally bx'd/fragmental - mod magnetic throughout.	112246	0.014	0.052
92.00	94.00		2.0	4	10 CCVN 2	Exact as above - except no zeolite.	112247	0.013	0.033
94.00	96.00		2.0	3	4 CCVN 2	One well developed nodules at cpy - no particular - association	112248	0.022	0.059
96.00	98.00		2.0	0.5	2 2 CCVN 2	Locally phyric - decrease in mag locally	112249	0.012	0.033
98.00	100.00		2.0	3	11 CCVN 1	Locally phyric - fragmental texture locally well, developed	112250	0.017	0.045
100.00	102.00	Fine-grained grey massive chloritic hematitic	1.0	5	40 CCVN 2	Locally phyric - msv flow through - increased in mag thru out.	112251	0.004	0.011
102.00	104.00	Fine-grained grey massive chloritic epidote	3.0	3	11 CCZV 2	Locally patchy orange hematite (?) staining w/ patchy py over 30 cm	112252	0.013	0.024
104.00	106.00	Fine-grained grey massive chloritic	3.0	2	5 CCZV 2	Py mostly as stringers.	112253	0.022	0.086
106.00	108.00	Fine-grained grey massive chloritic sericitic	3.0	3	4 CCZV 7	increased in random carb +/- zeo stringers - locally amygdules - patchy	112255	0.032	0.132
108.00	110.00	Fine-grained grey massive chloritic epidote	2.0	5	52 CCZV 3	Mag increases down hole	112256	0.02	0.071

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
110.00	112.00	Fine-grained grey massive chloritic epidote	2.0	7	14 CCZV	3 Patchy epidote AND x-cutting units/stringers of mag.	112257	0.017	0.074
112.00	114.00		2.0	1	5 CCZV	35 7 Local patchy, carb infill with well developed epidote - mag mostly absent.	112258	0.02	0.044
114.00	116.00		2.0		3 CCZV	40 7 One 8 cm wide carb vein w/ epidote altn.	112259	0.006	0.013
116.00	118.00		2.0	2	1 CCZV	2 Minor patchy mag - very local.	112260	0.002	0.012
118.00	120.00		2.0		2 CCZV	2 One pyrite + magnetite veinlet	112261	0.013	0.038
120.00	122.00		3.0	3	36 CCVN	45 3 Epidote +/- pyrite as irregular infill throughout. Magnetite increases down hole.	112262	0.01	0.024
122.00	123.40		2.0	2	10 CCVN	15 4 As above with increase in epidote but decrease in pyrite. Magnetite decreases down hole.	112263	0.009	0.068
123.4	125.45	BASALT							
123.40	125.45	Fine-medium-grained amygdular		3	24 CCVN	2 Amygdules w.d. ; Locally banded, calcitic throughout. Sharp lower contact.	112264	0.008	0.027
125.45	129	BASALT FLOW							
125.45	127.40	Fine-grained grey massive chloritic epidote	2.0	1	3 CCVN	5 Locally magnetic (very weak).	112265	0.014	-2
127.40	129.00	Fine-grained grey massive chloritic sericitic	3.0		3 CCZV	15 Pyrite as patchy infill and with calcite stringers. Mottled texture from sericite altn.	112266	0.009	0.039
129	129.65	BASALT							
129.00	129.65	Fine-medium-grained amygdular		4	22 CCVN	3 Same as 123.40 to 125.45	112267	0.008	-2
129.65	294	BASALT FLOW							
129.65	131.50	Fine-grained dark grey massive chloritic epidote	20.0	7	10 CCVN	10 Variable form weak to strongly magnetic with calcite as patchy infill. Dark gray/green/black.	112268	0.019	0.077
131.50	133.00	Fine-grained grey massive chloritic sericitic	5.0		2 CCZGV	5 Wispy, mottled texture ; locally phyrlic; variable styles of pyrite; random gypsum veinlets.	112269	0.011	0.037
133.00	135.00	Fine-grained grey massive chloritic silicic	3.0		1 QCV	2 Similar to above with patchy silicification	112270	0.017	0.018
135.00	136.25	Fine-grained grey massive chloritic biotite	5.0	1	4 CCVN	30 4 Massive with local weak, pale dark brown colour; possible biotite; wispy calcite with pyrite in lower 25 cm of interval.	112271	0.01	0.025
136.25	138.00	Fine-grained grey massive chloritic sericitic	4.0		0 QCV	7 Pyrite blebs with high white qtz and calcite	112272	0.016	0.076

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
138.00	139.30	Fine-grained grey porphyritic chloritic	4.0	1	8 QCV 60	4 Felsic equant plag. phenocrysts, bladed; cross-cut by qtz and pyrite veinlets	112273	0.017	0.047
139.30	140.90		4.0	1	10 QCV 60	4 As above.	112274	0.016	0.023
140.90	143.00	Fine-grained grey massive chloritic	2.0	2	10 CCVN 50	3 Porphyritic texture disappears; More rounded crystals; phytic; pyrite decreases.	112275	0.02	0.044
143.00	145.00		2.0	1	6 CCZV	7 Increase in random calcite +/- zeolite stringers.	112276	0.007	0.012
145.00	147.00		3.0	2	13 CCZGV	5 Pyrite + magnetite veinlets locally cross-cut by calcite veinlets; but pyrite also with calcite veinlets.	112277	0.02	0.036
147.00	149.00		3.0	1	10 CCZGV 20	5 One low angle pyrite and magnetite veinlet.	112278	0.025	0.045
149.00	151.00	Fine-grained grey massive chloritic sericitic	3.0	4	59 CCZV 45	7 Three pyrite and magnetite veinlets, approx. 1 cm; lower 50 cm of volcanic is mod/strongly magnetic.	112279	0.02	0.039
151.00	153.00	Fine-grained grey massive chloritic	3.0	1	3 CCVN	5 Weak shear with calcite infill @ 151.40 to 151.85 m; shear @ 25 degrees t.c.a.; local sericite alt'n with calcite veinlets.	112281	0.021	0.037
153.00	155.00		3.0	1	8 QCV	3 Pinkish calcite veinlets; local pyrite + magnetite veinlets/stringers.	112282	0.009	0.015
155.00	157.00		3.0	1	2 QCV	4 Pyrite + magnetite stringers.	112283	0.014	0.036
157.00	159.00		3.0	2	27 CCZV	4 Pyrite and pyrite + magnetite veinlets/stringers.	112284	0.022	0.067
159.00	160.70		3.0	1	5 CCZV	4 Locally porphyritic with pyroxene clasts mixed with plag. fine-grain blades; pyrite + magnetite stringers.	112285	0.016	0.043
160.70	162.00		3.0	2	33 CCZV	4 Pyrite + magnetite veinlets; locally magnetic (moderate) within volcanic.	112286	0.028	0.055
162.00	164.00		3.0	2	34 CCZV	4 As above.	112287	0.019	0.035
164.00	166.00		3.0	2	38 QCV	4 Two pyrite + magnetite veinlets.	112288	0.015	0.03
166.00	168.00		4.0	2	13 CCVN	3 Phytic but locally porphyritic; pyrite + magnetite veinlets.	112289	0.019	0.031
168.00	170.00		3.0	3	29 QCV	1 Two pyrite + magnetite veinlets.	112290	0.017	0.022
170.00	172.00	Fine-grained grey massive chloritic epidote	3.0	2	17 QCV	1 Local patchy epidote; three pyrite + magnetite veinlets.	112291	0.019	0.031
172.00	174.00	Fine-grained grey massive chloritic	4.0	2	10 QCV	3 Four pyrite + magnetite veinlets; one calcite + black chlorite (serpentine?) veinlet.	112292	0.026	0.043
174.00	176.00		3.0	2	10 CCVN	1 Two pyrite + magnetite veinlets.	112293	0.022	0.029
176.00	178.00		3.0	2	9 CCZV	2 Pyrite + magnetite veinlets and patchy pyrite and magnetite over 10 cm.	112294	0.017	0.017

Hole Number: KN-02-34

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
178.00	180.00	Fine-grained grey massive chloritic sericitic	2.0	1	3 CCZV	3 Only one thin pyrite + magnetite veinlet; locally mottled by sericite alt'n; one pink iron carbonate veinlet.	112295	0.007	0.019
180.00	182.00	Fine-grained grey massive chloritic	2.0	4	198 CCZV	35 15 Magnetite + calcite veinlets; only minor pyrite with magnetite but pyrite stringers and disseminated pyrite with no magnetite.	112296	0.005	0.007
182.00	184.00		1.0	3	115 CCZV	10 Further decrease in magnetite, but still locally very well-developed associated with calcite/zeolite veinlets but no pyrite.	112297	0.008	0.006
184.00	186.00	Fine-grained grey massive chloritic sericitic	2.0	2	1 CCZGV	7 Pyrite + gypsum + magnetite as infill over 20 cm; sericite alt'n from calcite/zeolite infilling; one pyrite veinlet with no magnetite.	112298	0.053	0.046
186.00	188.00	Fine-grained grey massive chloritic	5.0		5 QCV	3 Magnetite is absent; presence of qtz; pyrite as stringers and disseminated nodules.	112299	0.051	0.052
188.00	190.00		5.0	1	2 QCV	4 Pyrite as above AND locally with magnetite.	112300	0.03	0.041
190.00	192.00		5.0	1	6 QCV	5 Pyrite as above but only very rare magnetite; qtz with iron carbonate or FeO.	112301	0.032	0.053
192.00	194.00		5.0	1	1 QCV	4 Disseminated pyrite nodules and pyrite stringers; two pyrite + weak magnetite veinlets.	112302	0.043	0.064
194.00	196.00		4.0		1 QCV	4 No magnetite or pyrite + magnetite veinlets.	112303	0.034	0.02
196.00	198.00		5.0	2	1 CCZV	3 Three pyrite and magnetite veinlets.	112304	0.044	0.059
198.00	200.00		5.0	2	0 QCV	5 No magnetite.	112305	0.042	0.067
200.00	202.00		5.0	2	3 QCV	4 Patchy magnetite with local pyrite veinlets; random iron carbonate.	112307	0.02	0.035
202.00	204.00		5.0	2	17 QCV	1 Three pyrite + magnetite veinlets.	112308	0.019	0.019
204.00	206.00		5.0	1	1 QCV	2 Pyrite as veinlets +/- weak magnetite.	112309	0.023	0.031
206.00	208.00	Fine-grained grey massive chloritic sericitic	2.0		0 CCZGV	60 20 Locally extensive pinkish iron carbonate with zeolite (?); rare patchy pyrite.	112310	0.011	0.08
208.00	210.00	Fine-grained grey massive chloritic	4.0	1	1 QCV	40 3 Disseminated nodules (NOT amygdules) of pyrite throughout.	112311	0.031	0.046
210.00	212.00		4.0	1	2 QCV	3 As above.	112312	0.028	0.033
212.00	214.00		4.0	1	1 QCV	50 5	112313	0.024	0.047
214.00	216.00		5.0	1	0 QCV	50 2 Pyrite mostly as irregular nodules and two pyrite + magnetite veinlets.	112314	0.02	0.023
216.00	218.00	Fine-grained grey massive chloritic sericitic	5.0		1 QCV	60 7 No magnetite + pyrite veinlets; one vuggy qtz + calcite veinlet with crystalline infill.	112315	0.02	0.035

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
218.00	220.00	Fine-grained grey massive chloritic sericitic	7.0	1	0 QCV 60 3	Two magnetite + pyrite veinlets; patchy phyllic alt'n (fragments?) included in pyrite nodules.	112316	0.019	0.047
220.00	222.00		3.0		1 QCV 50 5	Patchy ??? veinlet; pyrite with qtz infill (no magnetite); alt'n is patchy.	112317	0.022	0.036
222.00	224.00	Fine-grained grey massive chloritic	3.0	1	1 QCV 60 3	Three pyrite + magnetite veinlets; nodular disseminated pyrite; no patchy sericite or silica.	112318	0.018	0.022
224.00	226.00	Fine-grained grey massive chloritic silicic	3.0	1	0 QCV 50 2	Two pyrite + magnetite veinlets; moderately siliceous and silicified.	112319	0.015	0.022
226.00	228.00		3.0	1	3 QCV 40 2	Three pyrite + magnetite veinlets; moderately siliceous and silicified.	112320	0.019	0.026
228.00	230.00		7.0	2	16 QCV 50 2	Five pyrite + magnetite veinlets included in pyrite + magnetite, but without magnetite as stringers and patchy silicification.	112321	0.026	0.034
230.00	232.00		12.0	0.5	2 2 QCV 50 2	Significant increase in irregular and patchy pyrite; one qtz + magnetite + pyrite + chalcopyrite veinlet.	112322	0.169	0.336
232.00	234.00		7.0		0 QCV 2	Locally bladed plagioclase; patchy qtz infill with associated pyrite; no magnetite.	112323	0.046	0.03
234.00	236.00		5.0	1	12 QCV 2	Similar to above but decrease in qtz and pyrite; has one pyrite + magnetite veinlet.	112324	0.023	0.029
236.00	238.00	Fine-grained grey massive chloritic	5.0	1	2 QCV 45 2	Silicification absent ; one pyrite + magnetite veinlet.	112325	0.031	0.055
238.00	240.00		3.0	1	2 QCV 10	20 cm of iron carbonate and qtz with pyrite and magnetite; possible k-spar with qtz (hematite?).	112326	0.015	0.025
240.00	242.00		3.0	1	10 QCV 15 15	Low angle pink iron carb veinlets and as patchy infill; one pyrite + magnetite veinlet.	112327	0.014	0.025
242.00	244.00		2.0	1	5 QCV 40 3	Two pyrite + magnetite veinlets; pyrite only with veinlets.	112328	0.013	0.022
244.00	246.00		2.0	2	12 QCV 0	Three pyrite + magnetite veinlets; one is 3 cm wide with epidote w.r. alt'n.; pyrite rare elsewhere.	112329	0.015	0.028
246.00	248.00		3.0	2	22 QCV 35 3	Three pyrite + magnetite veinlets @ variable angles.	112330	0.029	0.04
248.00	250.00	Fine-grained grey massive chloritic silicic	3.0	2	15 QCV 45 3	Disseminated, irregular pyrite @ lower 50 cm with weak silicification and disseminated magnetite.	112331	0.022	0.026
250.00	252.00	Fine-grained grey massive chloritic	3.0	2	5 QCV 45 4	Magnetite with local pyrite veinlets; magnetite is also disseminated locally.	112333	0.023	0.04
252.00	254.00		3.0	2	24 QCV 2	Weak magnetite with local disseminated pyrite; one pyrite/magnetite veinlet.	112334	0.026	0.042

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
254.00	256.00	Fine-grained grey massive chloritic sericitic	5.0	2	8 QCV	0 Patchy sericite with iron staining; siliceous with silicification throughout; thin local pyrite + magnetite stringers.	112335	0.017	0.029
256.00	258.00	Fine-grained grey massive chloritic silicic	3.0	2	6 QCV	4 Patchy phyllic alt'n; one magnetite veinlet (no pyrite); planer to irregular pink iron carbonate.	112336	0.033	0.065
258.00	260.00		3.0		4 QCV	15 15 Locally moderate pinkish iron carbonate with rare high angle qtz veinlets; magnetite locally, with pyrite.	112337	0.022	0.029
260.00	262.00		3.0	2	5 QCV	10 10 As above.	112338	0.014	0.021
262.00	264.00	Fine-grained grey massive chloritic sericitic	4.0	2	3 QCV	30 10	112339	0.02	0.035
264.00	266.00	Fine-grained grey massive chloritic biotite	3.0	2	3 QCV	4 Locally weakly magnetic with disseminated nodules of pyrite; one pyrite + magnetite + calcite veinlet; locally dark gray.	112340	0.039	0.065
266.00	268.00	Fine-grained grey massive chloritic	2.0	1	1 QCV	5 Iron staining from weathering of alt'n of iron carbonate +/- qtz veinlets; patchy; one pyrite + magnetite veinlet.	112341	0.029	0.044
268.00	270.00		2.0	1	7 QCV	2 As above; one pyrite + magnetite stringer; locally very weakly magnetic.	112342	0.052	0.071
270.00	272.00		5.0	1	0 QCV	10 30 cm of qtz and pinkish iron carbonate flooding with one band of magnetite; no pyrite with magnetite.	112343	0.062	0.078
272.00	274.00	Fine-grained grey massive chloritic silicic	3.0	1	4 QCV	7 Patchy phyllic alt'n; two pyrite = magnetite stringers; locally irregular pinkish iron carbonate.	112344	0.065	0.068
274.00	276.00	Fine-grained grey massive chloritic sericitic	3.0	1	8 QCV	65 3 Decrease in silicification; three pyrite + magnetite stringers.	112345	0.06	0.055
276.00	278.00		2.0	1	8 QCV	75 3 Qtz rich with patchy magnetite fragments (?).	112346	0.047	0.08
278.00	280.00		2.0	1	2 QCV	60 4 Veinlets mostly qtz.	112347	0.072	0.134
280.00	282.00		2.0		8 QCV	3 Weak pyrite, mostly as very thin stringers.	112348	0.029	0.033
282.00	284.00		3.0	1	4 QCV	2 Five pyrite + magnetite stringers.	112349	0.046	0.06
284.00	286.00		2.0	1	6 QCV	1 One pyrite + magnetite veinlet.	112350	0.037	0.057
286.00	288.00		2.0	1	8 CCVN	65 5 Locally magnetic; white to pinkish carbonate +/- minor magnetite.	112351	0.044	0.041
288.00	290.00		3.0		0 CCVN	20 4 Increase in pyrite, as local dissemination.	112352	0.047	0.037
290.00	292.00		0.5	2	QZCV	65 50 Qtz infill zone with patchy sericite and clay alt'n. cross-cut by zeolite/iron carbonate stringers.	112353	0.012	0.034
292.00	294.00		0.5		1 QZCV	65 70 As above.	112354	0.034	0.069

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
294	296	BASALT FAULT ZONE							
294.00	296.00	Fine-grained grey massive chloritic sericitic	0.5		4 FZ 50 25	Mottled form mixture of chlorite/sericite alt'n.; Weak to mod. developed fault shear with calcic infill.	112355	0.044	0.062
296	606.2	BASALT FLOW							
296.00	298.00	Fine-grained grey massive chloritic	2.0		6 CCZV 10	One thin epidote veinlet.	112356	0.035	0.062
298.00	300.00		2.0	1	2 CCVN 10	Two thin pyrite + magnetite stringers.	112357	0.026	0.033
300.00	302.00		2.0	1	4 QCZV 5	Three pyrite + magnetite stringers; one qtz + magnetite stringer @ 90 deg. t.c.a.	112359	0.032	0.048
302.00	304.00		2.0	2	9 QCZV 5	One pyrite + magnetite veinlet but also local patchy pyrite and weak magnetite.	112360	0.021	0.031
304.00	306.00		2.0	3	23 CCZV 10 7	Pinkish iron carbonate (veinlets) at low angle; Locally disseminated pyrite; moderate magnetite at lower half of sample.	112361	0.027	0.03
306.00	308.00		3.0	1	6 CCZV 35 7	Local moderate calcite flooding with pyrite + magnetite.	112362	0.039	0.049
308.00	310.00		2.0	2	35 QCZV 5	Local calcite with weak magnetite and no pyrite; very thin pyrite + magnetite stringers.	112363	0.026	0.038
310.00	312.00		2.0	2	22 QCZV 4	Local qtz +/- calcite flooding with moderate pyrite and minor magnetite; the magnetite is also disseminated in the volcanics.	112364	0.038	0.051
312.00	314.00		2.0	1	3 CCZV 3	Magnetite throughout; one pyrite + magnetite veinlet.	112365	0.018	0.019
314.00	316.00		2.0	1	2 CCZV 35 3	Diffuse, locally porphyritic; one very thin pyrite + magnetite stringer.	112366	0.047	0.053
316.00	318.00		2.0	3	18 CCZV 45 3	Pyrite, mostly disseminated locally; magnetite with local calcite; % cm wide fault zone @ 317.80 m.	112367	0.041	0.043
318.00	320.00	Fine-medium-grained grey massive chloritic	2.0	3	22 CCZV 40 3	Siliceous/silicified (?); moderate magnetite throughout.	112368	0.051	0.109
320.00	322.00		2.0	3	27 QCV 40 2	Locally magnetic; minor thin pyrite stringers.	112369	0.088	0.162
322.00	324.00		1.0	3	21 QCV 50 2	Magnetic throughout; local fragments -siliceous- possibly Toadoggon (??) but no qtz eyes. Silicified Takla.	112370	0.022	0.045
324.00	326.00		2.0	3	30 QCV 2	As above but no fragments. Rare patchy pyrite + magnetite with calcite.	112371	0.022	0.049
326.00	328.00		1.0	3	46 CCZV 2	As above, but no patchy pyrite.	112372	0.029	0.052
328.00	330.00		1.0	3	46 CCZV 2	Fragments (?) are highly siliceous with qtz eyes (rounded glassy fragments); not a tuff; unique texture.	112373	0.013	0.027

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
330.00	332.00	Fine-medium-grained grey massive chloritic	2.0	3	33 CCZV	2 As above- very highly mixed texture- diatrema ??; rounded fragments may be amygdules.	112374	0.033	0.06
332.00	334.00		1.0	3	40 CCZV 50	2 Siliceous, but no fragments or rounded glassy amygdules; locally augite phyric.	112375	0.021	0.047
334.00	336.00		1.0	3	31 CCZV	2 As above, but also very fine grained locally.	112376	0.038	0.074
336.00	338.00		1.0	3	23 CCZV 50	1 As above.	112377	0.027	0.07
338.00	340.00		2.0	3	2 CCZV	1 Phyric, but very rounded to very euhedral; local mica.	112378	0.028	0.05
340.00	342.00		1.0	3	23 CCZV	1 As above.	112379	0.021	0.04
342.00	344.00		1.0	3	13 CCZGV 40	2 Local qtz + calcite + iron carbonate (?) with patchy epidote.	112380	0.009	0.028
344.00	346.00	Fine-medium-grained grey massive chloritic sericitic	1.0	3	14 CCZV 50	3 Local sericitic alt'n shows pyroxene crystals.	112381	0.032	0.05
346.00	348.00		0.5	3	34 CCZV 50	3 Local highly irregularly shaped, coarse, black, very fine grained clasts.	112382	0.014	0.023
348.00	350.00		2.0	2	5 CCZV 60	2 Slight increase in pyrite, decrease in magnetite.	112383	0.037	0.041
350.00	352.00	Fine-medium-grained grey massive chloritic	0.5	3	10 CCZV 60	2 Massive and siliceous, with moderate magnetite throughout.	112385	0.037	0.06
352.00	354.00		0.5	2	6 CCZV	7 As above, with an increase in calcite veinlets.	112386	0.038	0.043
354.00	356.00		2.0	2	11 CCZV 55	5 Locally phyric augite- rounded; one pyrite + magnetite veinlet.	112387	0.071	0.086
356.00	358.00		2.0	2	1 QCZV	5 Qtz +/- weak, patchy magnetite plus locally disseminated magnetite.	112388	0.064	0.067
358.00	360.00	Fine-medium-grained grey massive chloritic sericitic	1.0	2	7 CCZV	15 Mottled from sericitic and dull orange iron oxide staining (K??); rare pyrite stringers.	112389	0.066	0.072
360.00	362.00		2.0	2	2 QCZV 45	7 As above; one qtz veinlet with one thin parallel magnetite stringer.	112390	0.04	0.051
362.00	364.00		2.0	1	4 QCV	2 Epithermal texture; highly irregular "amoeba" clasts; disseminated pyrite, and thin pyrite stringers.	112391	0.044	0.039
364.00	366.00	Fine-medium-grained grey massive chloritic	2.0	2	10 QCV	3 Local moderate magnetite; black irregular shaped clasts.	112392	0.051	0.05
366.00	368.00		2.0	2	1 QCV	3 As above.	112393	0.055	0.109
368.00	370.00		2.0	2	1 QCV	5 Local qtz infill +/- magnetite; qtz cross-cut by iron carb and zeolite; magnetite and pyrite locally, but rarely.	112394	0.061	0.375

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
370.00	372.00	Fine-medium-grained grey massive chloritic sericitic	4.0	1	9 QCV 70	3 Increase in disseminated pyrite; only weakly magnetic locally; one very small bleb of chalcopyrite with patchy pyrite.	112395	0.117	0.394
372.00	374.00	Fine-medium-grained grey massive chloritic silicic	1.0	2	0 ZQCCV	10 Weak to moderately magnetic; weathered phyllic alt'n in lower 75 cm with vuggy zeolite.	112396	0.118	0.269
374.00	376.00		1.0	1	2 QCZV	5 Carb/zeolite cross-cuts qtz locally; veinlets very random; local qtz flooding is non-magnetic.	112397	0.226	0.587
376.00	378.00	Fine-medium-grained grey massive chloritic sericitic	0.5	2	41 QCCZV	25 Mottled from zeolite veinlets, qtz infill and sericite alt'n; locally magnetic where infilled and altered.	112398	0.125	0.252
378.00	380.00		0.5	2	22 QCZV	7 Highly irregular, magnetic black clasts and rare amygduloidal clasts.	112399	0.043	0.116
380.00	382.00		0.5	2	0 QCCZV	7 Locally pitted volcanics where highly chloritized (secondary) and sericite altered; associated with zeolite veinlets.	112400	0.068	0.147
382.00	384.00		0.5	1	7 QCCZV 60	7 Locally mottled.	112401	0.109	0.227
384.00	386.00	Fine-medium-grained grey massive chloritic	1.0	2	0 QCCZV 60	7	112402	0.059	0.053
386.00	388.00		0.5	2	2 ZQCCV	10 En echelon whitish zeolite stringers cross-cut qtz infill locally.	112403	0.118	0.231
388.00	390.00	Fine-medium-grained grey massive chloritic sericitic	2.0	2	0 QZCV	15 One molybdenite veinlet cross-cuts iron oxide stained qtz infill; 3% disseminated pyrite in unalt'd part; highly random infill.	112404	0.149	0.35
390.00	392.00	Fine-medium-grained grey massive chloritic	1.0	2	6 QCCZV	5 Mostly unaltered- dark gray with weakly disseminated pyrite.	112405	0.099	0.207
392.00	394.00	Fine-medium-grained grey massive chloritic sericitic	1.0	2	7 QCCZV	7 Weak, patchy sericite alt'n ; locally disseminated pyrite and rare, thin (<1 mm) stringers.	112406	0.082	0.121
394.00	396.00	Fine-medium-grained grey massive chloritic	10.0	2	2 QCCZV	5 Massive fine grained grading to fine to med. grained rounded phyruc augite flow (lapillis??); rare pyrite stringers.	112407	0.069	0.283
396.00	398.00	Fine-medium-grained grey massive chloritic silicic	2.0	3	39 QCV	3 Locally med/coarse grained rounded phyruc pyroxene (?).	112408	0.04	0.041
398.00	400.00		2.0	3	54 QCV	3 As above plus one veinlet with epidote alteration.	112409	0.035	0.081
400.00	402.00		4.0	1	15 QCV	5 Mostly calcite veinlets; dark brownish gray from biotite (?) alt'n; only weakly magnetic locally.	112411	0.09	0.132
402.00	404.00	Fine-medium-grained medium green massive chloritic silicic	3.0		14 QCCZV 80	7 Qtz/calcite veining, locally assoc. with zeolite veining. Pyrite aggregates and disseminations in flow. Qtz and potassic fragments bound by mafic halos.	112412	0.203	0.606

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
404.00	406.00	Fine-medium-grained medium green massive chloritic silicic	2.0	55	QZV 60 3	Vesicles infilled with secondary mafics, qtz and pyrite.	112413	0.078	0.105
406.00	408.00		1.0	66	QZV 70 5	Vesicles infilled with secondary mafics, qtz and pyrite; aphanitic and massive.	112414	0.041	0.084
408.00	410.00		1.0	1 19	QZV 50 5	Epidote associated with qtz, calcite and zeolite veining, randomly oriented; minor hematite; Vesicles infilled with mafics; rare magnetite associated with qtz veining.	112415	0.026	0.064
410.00	412.00		1.0	55	QVN 50 5	In situ brecciated portions, fragments outlined by dark green/black mafics; pyrite disseminated in flow; rare vesicles.	112416	0.066	0.08
412.00	413.00		1.0	1 52	QZV 80 7	Vesicles infilled with dark green/black mafic material; Qtz/zeolite veining; magnetite associated with zeolite veining.	112417	0.033	0.089
413.00	414.00			30	QZV 80 5	Potassic/qtz/epidote veining between 413.69 to 413.77 metres; aphanitic, siliceous, primary; less siliceous between 412.19 to 413.13 metres.	112418	0.016	0.021
414.00	416.00			57	QZV 60 7	Vesicles infilled with dark green/black mafics; qtz/epidote veining; augite phenocrysts visible locally.	112419	0.035	0.075
416.00	418.00		0.5	34	QZV 35 7	Larger vesicles, about 0.5 cm in diameter, infilled with qtz and dark mafics; rare finely disseminated pyrite.	112420	0.019	0.026
418.00	420.00		0.5	39	ZQHV 70 7	Hematite/zeolite/qtz veining; massive, aphanitic, minor vesicles infilled with qtz.	112421	0.031	0.077
420.00	422.00		1.0	1 51	QZV 60 10	Pyrite aggregates associated with zeolite/qtz veining; minor epidote associated with qtz/zeolite veining.	112422	0.022	0.032
422.00	424.00		1.0	23	QZV 55 15	Local broken zone; zeolite veining @ 55 deg. t.c.a., equidistant in places; rare vesicles infilled with mafics; increased zeolite veining.	112423	0.027	0.053
424.00	426.00		1.0	33	ZQV 70 15	Local broken zone; molybdonite stringers associated with qtz veining between 424.24 to 424.35 metres; Less siliceous portions.	112424	0.026	0.094
426.00	428.00		2.0	1 7	QZV 65 10	Augite phenocrysts; Pyrite and chalcopyrite aggregates and disseminations; qtz/magnetite veining between 425.47 to 425.56 metres.	112425	0.023	0.037
428.00	430.00		1.0	33	QZV 90 7	Augite phenocrysts; rare disseminated pyrite.	112426	0.012	0.021
430.00	432.00		1.0	35	QZV 40 5	Minor vuggy dissolution features at ~ 431.95 metres; Qtz/zeolite veining; disseminated pyrite associated with zeolite veining.	112427	0.017	0.012

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
432.00	434.00	Fine-medium-grained medium green massive chloritic silicic	2.0	28	QZV 70 7	Disseminated pyrite associated with zeolite/qtz in places.	112428	0.038	0.024
434.00	436.00		1.0	42	QZV 30 7	Vesicles infilled with secondary mafics, accompanied by epidote and pyrite in places.	112429	0.035	0.025
436.00	438.00		2.0	31	ZQCCV 70 7	Aphanitic; disseminated pyrite and aggregates; qtz/calcite veining; vesicles infilled with mafics and secondary pyrite.	112430	0.044	0.035
438.00	440.00		2.0	1 81	QZV 30 5	Flow is magnetic, finely disseminated; disseminated pyrite, and pyrite aggregates.	112431	0.026	0.014
440.00	442.00		1.0	52	QZV 80 7	Vesicles filled with secondary mafic material; rare potassic veining.	112432	0.013	0.007
442.00	444.00		1.0	64	QZV 75 5	Less silicified portions, bound by qtz/zeolite veining; vesicles infilled with secondary mafics.	112433	0.031	0.018
444.00	446.00		1.0	17	QZV 30 5	Epidote/qtz/hematite associated with zeolite at ~ 445.00 metres; Finely disseminated pyrite.	112434	0.03	0.028
446.00	448.00		2.0	44	QVN 80 5	Discontinuous qtz stringers; pyrite present as disseminations and aggregates; vesicles infilled with mafics and pyrite.	112435	0.033	0.064
448.00	450.00		1.0	35	QVN 70 7	Vuggy dissolution features in qtz veining; Vesicle infilled with mafics; vesicles vuggy in places.	112437	0.022	0.043
450.00	452.00		2.0	41	QZV 80 10	Vesicles infilled with dark green/black mafic material; zeolite lining a slickensided plane.	112438	0.036	0.09
452.00	454.00		1.0	0.5 63	QZV 0 7	Chlorite veining associated with qtz; vesicles infilled with mafics and secondary pyrite; local increase in zeolite veining, gypsum and epidote.	112439	0.026	0.036
454.00	456.00		2.0	0.5 48	QZV 30 10	Vesicles infilled with qtz, mafics and pyrite; Chalcopyrite aggregates associated with pyrite and qtz veining.	112440	0.051	0.171
456.00	458.00		1.0	0.5 1	12 QVN 60 10	Qtz veining associate with magnetite stringers in places; Vesicles infilled with mafics; Chalcopyrite associated with epidote.	112441	0.059	0.099
458.00	460.00		0.5	28	QZV 20 10	Local broken zone; Vesicles infilled with qtz with slight hematite/potassic staining; rare k-spar veining.	112442	0.013	0.024
460.00	462.00		0.5	20	ZQGV 0 15	Gypsum veining, locally accompanied by zeolite veining; K-spar as discontinuous stringers.	112443	0.012	0.013
462.00	464.00		0.5	29	QGVN 85 5	Aphanitic, massive; qtz/gypsum veining.	112444	0.023	0.049
464.00	466.00		0.5	32	QZV 60 5	Siliceous; qtz stringers and gypsum veining; Pyrite as disseminations and aggregates, rare but also associated with veining.	112445	0.02	0.033

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
466.00	468.00	Fine-medium-grained medium brown massive chloritic silicic	2.0	11	QZV 75 10	Slight brown colour possibly due to biotite +/- sericite; increased disseminated pyrite and pyrite aggregates; rare, discontinuous k-spar veining.	112446	0.072	0.059
468.00	470.00	Fine-medium-grained medium green massive chloritic silicic	2.0	1	22 QZV 30 10	Finely disseminated magnetite, not visible to the naked eye; flow is magnetic, with disseminated pyrite.	112447	0.021	0.028
470.00	472.00		1.0	48	QVN 50 10	Slight brown colour indicates sericite alteration +/- biotite. Vesicles infilled with mafics; local increase in disseminated pyrite and pyrite veining.	112448	0.049	0.054
472.00	474.00		2.0	1	50 QVN 90 7	Pyrite aggregates accompanied by magnetite veining.	112449	0.024	0.02
474.00	476.00		2.0	1	63 QVN 70 5		112450	0.021	0.015
476.00	478.00		1.0	1	33 QVN 60 7	Magnetite aggregates associated with qtz veining; slight brown colour possibly due to sericite +/- fine biotite.	112451	0.017	0.012
478.00	480.00		2.0	2	17 QVN 30 7	Slight brown colour possibly due to sericite +/- fine biotite alt'n; magnetite aggregates associated with qtz veining.	112452	0.062	0.038
480.00	482.00		2.0	1	28 QZV 0 7	Same as above with vesicles infilled with mafics and qtz.	112453	0.031	0.023
482.00	484.00		2.0	1	70 QZV 80 7	Same as above.	112454	0.015	0.015
484.00	486.00		2.0	1	51 QZV 45 7	Vesicles infilled with mafics; pyrite stringers and aggregates associated with zeolite and qtz veining; magnetite aggregates present within the qtz/zeo veining; local broken portions.	112455	0.032	0.026
486.00	488.00		3.0	1	48 QVN 90 7	Vesicles infilled with mafics and pyrite; epidote alt'n associated with pyrite and qtz veining; Magnetite and epidote aggregates associated with qtz vein @ ~ 487.91 metres.	112456	0.032	0.027
488.00	490.00		2.0	1	31 QVN 30 7	Vesicles infilled with qtz, epidote, magnetite and pyrite, zoning going out toward circumference of vesicles in places; qtz/gypsum veining @ ~ 488.30 metres, about 3 cm thick; Weak epidote alt'n.	112457	0.019	0.018
490.00	492.00		1.0	1	24 QVN 80 5	Weak epidote alt'n between 490.00 to 490.70 metres; peppered texture between 490.70 to 492.00 metres, possibly due to plag phenocrysts; vesicles infilled with pyrite and qtz.	112458	0.027	0.022
492.00	494.00		2.0	2	7 QVN 0 5	Pyrite veining @ ~ 0 deg. t.c.a. cross-cutting a qtz vein @ ~ 90 deg. t.c.a.; plag phenocrysts visible; magnetite veining associated with qtz veining in places, and pyrite.	112459	0.057	0.046

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
494.00	496.00	Fine-medium-grained medium green massive chloritic silicic	1.0	1	37 QZV 50 5	Slight brown colour due to sericite +/- fine biotite- very weak alt'n; brown coloured portions associated with increase in plag phenocrysts.	112460	0.015	0.014
496.00	497.08		1.0		40 QVN 60 30	Qtz vein between 496.82 to 497.08 metres, defining hanging wall contact with moderate to high sericite + fine biotite alt'n; qtz veining is vuggy- calcitic dissolution features; Disseminated pyrite and moly. in qtz vein; plag phenocrysts between 496.71 to 496.82 metres.	112461	0.033	0.04
497.08	499.00	Fine-medium-grained medium brown porphyritic chloritic sericitic	3.0		9 QZV 30 10	Brown colour due to sericite alt'n +/- fine biotite alt'n; plag phenocrysts visible in places; disseminated pyrite in altered flow; very weak silicification; qtz/zeolite veining, randomly oriented and irregularly spaced; vuggy dissolution features present locally in biotite altered flow; sericite +/- fine biotite is mod to strong, pervasive overprinting of protolith.	112463	0.051	0.104
499.00	501.00		3.0		3 QVN 80 15	Qtz vein between 499.55 to 499.65 metres; minor zeolite veining; brown colour due to mod to strong sericite +/- fine biotite alt'n, pervasive and overprinting the protolith; pyrite is disseminated and also present as aggregates in the flow; plag phenocrysts present, giving porphyritic texture; local massive portions, with no plag phenocrysts.	112464	0.057	0.09
501.00	503.00		3.0	1	2 QVN 90 10	As above plus vesicles infilled with pyrite and magnetite; massive texture between 502.24 to 503.00 metres, with no plag phenocrysts visible in this portion.	112465	0.033	0.075
503.00	505.00	Fine-medium-grained medium brown porphyritic chloritic silicic	2.0		10 QVN 80 7	Vesicles infilled with magnetite and pyrite; reduced brown colouration, indicating weak sericite +/- fine biotite alt'n; moderate sericite altered portions associated with augite and plag phenocryst-rich portions between 504.17 to 504.33 metres and 504.60 to 504.80 metres; slight increase in silicification with rare zeolite veining between 505.17 to 504.33 metres and 504.60 to 504.80 metres; slight increase in silicification; rare zeolite veining.	112466	0.037	0.055
505.00	507.00	Fine-medium-grained medium green massive chloritic silicic	3.0		6 QZV 0 7	Disseminated pyrite and pyrite aggregates present in flow; augite phenocrysts present but barely visible in flow; very weak sericite +/- fine biotite alt'n.	112467	0.053	0.04
507.00	509.00	Fine-medium-grained medium green massive chloritic sericitic	2.0		4 QZV 30 10	Augite and plag phenocrysts visible locally; broken zones; k-spar phenocrysts present in places; increased zeolite veining.	112468	0.066	0.051

Hole Number: KN-02-34

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
509.00	511.00	Fine-medium-grained medium green porphyritic chloritic silicic	2.0	3	QZV 10 15	Increased qtz and zeolite veining; plag and augite phenocrysts, vesicles infilled with secondary potassic alt'n; slight brown colour due to sericite +/- fine biotite alt'n.	112469	0.038	0.041
511.00	513.00	Fine-medium-grained medium green massive chloritic silicic	2.0	1	QZV 0 7	Less augite and plag phenocrysts; slightly less sericite +/- fine biotite alt'n; bkn zones.	112470	0.04	0.044
513.00	515.00		2.0	6	QZV 85 7	Broken fault zone between 513.10 to 513.46 metres with gouge and clay fill; pyrite present as disseminations and aggregates.	112471	0.035	0.029
515.00	517.00		4.0	19	QVN 35 7	Increase in disseminated pyrite and pyrite aggregates between 516.35 to 516.96 metres; rare zeolite veining.	112472	0.054	0.056
517.00	519.00		3.0	1	7 ZQCCV 50 5	Augite phenocrysts present, barely visible in places; pyrite disseminations and aggregates, and also present as veining; slight brown colouration possibly due to sericite +/- fine biotite alt'n; rare calcite associated with qtz veining.	112473	0.045	0.036
519.00	521.00		3.0	15	ZQV 50 5	Moly stringers bound by qtz/zeolite veining; disseminated pyrite, also present as aggregates and veins associated with qtz veining and bound by sericite +/- fine biotite alt'n with plag phenocrysts.	112474	0.033	0.028
521.00	523.00		2.0	6	QZV 85 5	Very weak epidote alt'n associated with pyrite aggregates; pyrite aggregates and disseminations in flow; augite phenocrysts.	112475	0.023	0.02
523.00	525.00		2.0	8	ZQCCV 90 7	As above plus epidote/qtz/pyrite between 523.60 to 523.75 metres and 524.21 to 524.28 metres.	112476	0.019	0.02
525.00	527.00		2.0	1	8 QZV 90 10	Qtz veining @ 90 deg t.c.a. accompanied by magnetite/epidote/pyrite @ ~ 525.72 metres; sericitized between 526.70 to 526.89 metres, with visible augite phenocrysts.	112477	0.021	0.02
527.00	529.00	Fine-medium-grained medium green porphyritic chloritic sericitic	3.0	7	QZV 70 15	Brown colour due to sericite alt'n +/- fine biotite alt'n, associated with epidote alt'n and zeolite; augite and plag phenocrysts visible in places; increased qtz/zeo veining; vesicles infilled with pyrite.	112478	0.055	0.059
529.00	531.00	Fine-medium-grained medium green porphyritic chloritic silicic	1.0	3	QZV 20 10	Minor brown colouration due to sericite +/- fine biotite alt'n between 529.00 to 530.17 metres and 530.40 to 530.52 metres; augite and plag phenocrysts visible in places.	112479	0.034	0.037

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
531.00	533.00	Fine-medium-grained medium green porphyritic chloritic silicic	1.0	1	15 QVN 80 7	Weak epidote alt'n associated with qtz/py/magnetite veining @ ~ 531.90 metres and between 532.30 to 532.44 metres; augite and plag phenocrysts visible in places.	112480	0.023	0.022
533.00	535.00		2.0		2 QVN 50 7	Slight brown colour due to sericite +/- fine biotite alt'n; augite phenocrysts, potassic alt'n enveloping qtz/pyrite veins.	112481	0.031	0.04
535.00	537.00		2.0		8 QZV 0 7	Disseminated pyrite and pyrite aggregates; augite and plag phenocrysts; qtz/pyrite vein parallel t.c.a. enveloped by potassic alt'n, locally associated with epidote; very weak epidote alt'n; Local pervasive, weak potassic alt'n associated with plag phenocrysts altered to k-spar.	112482	0.017	0.025
537.00	539.00		3.0		10 QZV 60 10	Increased qtz/zeolite veining between 537.15 to 537.94 metres with mod to strong sericite +/- fine biotite alt'n, also associated with 2-4% pyrite aggregates and disseminations; potassic veining between 538.12 to 538.31 metres.	112483	0.025	0.03
539.00	541.00	Fine-medium-grained medium green porphyritic chloritic sericitic	4.0	1	1 QZV 30 10	Slightly increased brown colouration indicating weak to mod sericite +/- fine biotite alt'n; potassic alt'n between 539.71 to 539.86 metres; qtz vein between 540.00 to 540.30 metres, associated with potassic and epidote alt'n and increased pyrite disseminations.	112484	0.029	0.032
541.00	543.00	Fine-medium-grained medium green porphyritic chloritic silicic	2.0		25 QVN 50 7	Qtz/magnetite/pyrite/epidote vein between 542.30 to 542.33 metres, hanging wall of vein has increased plagioclase phenocrysts; very weak epidote alt'n; qtz veining (possibly late stage) cross-cutting pyrite/magnetite veining, qtz is milky white.	112485	0.016	0.022
543.00	545.00		2.0		31 QGVN 80 7	Rare gypsum veining associated with qtz and pyrite/zeolite veining; plag and augite phenocrysts visible locally; disseminated pyrite also present as aggregates; very weak epidote alt'n.	112486	0.019	0.02
545.00	547.00		2.0	1	18 QGVN 80 7	Gypsum veining cross-cutting earlier pyrite/magnetite veining; pyrite/Qtz/magnetite veining bound by epidote alt'n; plag and augite phenocrysts visible in places.	112487	0.019	0.017
547.00	549.00	Fine-medium-grained medium green massive chloritic silicic	2.0	2	18 QVN 50 7	Disseminated pyrite and pyrite veining; magnetite vein @ ~ 547.57 metres, bound by potassic alt'n; weak epidote alt'n.	112489	0.032	0.034

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
549.00	551.00	Fine-medium-grained medium green porphyritic chloritic silicic	2.0	8	QZV 30 7	Rare zeolite veining cross-cutting pyrite/qtz veining; qtz/pyrite vein; augite and plag phenocrysts. Pyrite/qtz vein @ ~ 549.91 metres, enveloped by weak potassic alt'n.	112490	0.025	0.032
551.00	553.00		2.0	1	2 QVN 20 7	Qtz veining stockwork @ ~ 551.20 metres bound by potassic alt'n, plag altered to k-spar; plag and augite phenocrysts; very weak epidote alt'n.	112491	0.019	0.022
553.00	555.00		1.0		30 QZV 40 10	K-spar/qtz/magnetite/pyrite vein between 553.35 to 553.45 metres; local increase in qtz/zeolite veining; plag altered to k-spar in places.	112492	0.016	0.019
555.00	557.00		2.0	1	22 QGVN 50 7	Rare gypsum veining associated with qtz veining; gypsum vein flanked by pyrite aggregates in foot wall; magnetite/pyrite vein @ ~ 556.58 metres, associated with weak epidote alt'n; augite and plag phenocrysts.	112493	0.018	0.019
557.00	559.00	Fine-medium-grained medium green porphyritic chloritic sericitic	3.0		46 QGVN 5 15	Brown colouration between 557.86 to 558.60 metres, possibly due to sericite +/- fine biotite alt'n, associated with increased pyrite aggregates and disseminated, weak epidote alt'n and increased qtz veining.	112494	0.029	0.033
559.00	561.00		4.0		32 QVN 30 10	Brown colour as above due to sericite +/- fine biotite alt'n associated with increased disseminated pyrite, pyrite aggregates and qtz veining; weak to mod epidote alt'n between 560.16 to 561.04 metres.	112495	0.036	0.041
561.00	563.00	Fine-medium-grained medium green porphyritic chloritic silicic	3.0		17 QVN 0 10	Weak epidote alt'n associated with potassic alt'n; qtz/epidote veining between 562.24 to 562.40 metres.	112496	0.024	0.034
563.00	565.00		2.0		ZQGV 80 7	Gypsum veining cross-cutting qtz veining; weak epidote alt'n associated with increased qtz veining.	112497	0.031	0.035
565.00	567.00		2.0		2 QGVN 80 10	Weak potassic alt'n; generally massive with augite phenocrysts visible in places.	112498	0.012	0.029
567.00	569.00		3.0		6 QGVN 80 10	Zeolite/epidote/pyrite veining between 567.62 to 567.85 metres. Slight brown colour due to sericite +/- fine biotite alt'n, associated with increase in disseminated pyrite and pyrite aggregates.	112499	0.025	0.036
569.00	571.00		2.0		11 QGVN 70 10	Brown colouration between 569.59 to 569.75 metres indicating weak sericite +/- fine biotite alt'n, associated with increased plag phenocrysts enveloping qtz vein; Weak epidote alt'n enveloping qtz/pyrite/magnetite veining.	112500	0.016	0.025

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
571.00	573.00	Fine-medium-grained medium green porphyritic chloritic silicic	3.0	18	QZV 90 7	Augite phenocrysts visible in places; Disseminated pyrite and pyrite veining; rare zeolite/gypsum veining.	112501	0.025	0.037
573.00	575.00		2.0	7	QGVN 70 7	As above.	112502	0.023	0.035
575.00	577.00		2.0	1	59 QZV 80 10	Pyrite/magnetite veining associated with weak epidote alt'n; disseminated pyrite and pyrite stringers.	112503	0.021	0.029
577.00	579.00	Fine-medium-grained medium green massive chloritic silicic	2.0	1	9 ZQGV 80 7	Medium green, fine to medium grained flow with disseminated pyrite and pyrite aggregates associated with qtz veining; qtz/zeolite vein between 577.75 to 577.95 metres associated with epidote/magnetite/pyrite; slight brown possibly colour due to sericite +/- fine biotite alt'n.	112504	0.017	0.025
579.00	581.00		3.0	1	6 QZV 0 10	Increased brown colouration due to sericite +/- fine biotite alt'n, associated with an increase in plag phenocrysts; zeolite/Qtz veining, randomly oriented, irregularly spaced; rare magnetite associated with pyrite/Qtz/zeolite veining @ 580.31 metres, 580.58 metres, and 580.82 metres.	112505	0.048	0.037
581.00	582.65	Fine-medium-grained medium green massive chloritic sericitic	3.0	2	QZV 70 15	Potassic alt'n between 581.71 to 581.87 metres; disseminated pyrite and pyrite aggregates; Qtz/pyrite vein @ ~ 582.20 metres; brown colouration possibly due to sericite +/- fine biotite alt'n.	112506	0.02	0.063
582.65	584.07	Fine-medium-grained medium pink massive chloritic	4.0	2	ZVN 60 30	Zeolite flooding associated with finely disseminated pyrite; local vuggy dissolution features at @ ~ 582.66 metres.	112507	0.023	0.04
584.07	586.00	Fine-medium-grained medium brown massive chloritic sericitic	5.0	6	QZV 60 10	Brown colouration possibly due to sericite +/- fine biotite alt'n; local increases in zeolite/Qtz veining between 584.17 to 584.34 metres and 584.40 to 584.55 metres; disseminated pyrite and pyrite aggregates; plag and k-spar phenocrysts in places.	112508	0.025	0.028
586.00	588.00		4.0	12	QZV 30 7	Green portions with less sericite +/- fine biotite alt'n and less disseminated pyrite; augite phenocrysts visible.	112509	0.041	0.04
588.00	590.00	Fine-medium-grained medium green massive chloritic silicic	3.0	13	QZV 90 7	Reduced sericite +/- fine biotite alt'n; Qtz/magnetite/pyrite veining bound by weak epidote alt'n and enveloped by very weak potassic alt'n in places between 588.00 to 588.25 metres and 589.22 to 589.35 metres; Qtz/gypsum vein cross-cutting Qtz/magnetite vein and displacing ~ 1 cm into footwall between 589.60 to 588.83 metres.	112510	0.012	0.013

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
590.00	592.00	Fine-medium-grained medium green massive chloritic silicic	2.0	1	10 QZV 5 7	Augite phenocrysts visibly locally in flow; Plag phenocrysts visible in weak sericite +/- fine biotite altered portions; Pyrite veining associated with magnetite and zeolite/qtz in places.	112511	0.017	0.018
592.00	594.00		2.0	2	19 QZV 85 7	Slight brown colouration possibly due to weak sericite +/- fine biotite alt'n; qtz/zeolite/magnetite veining @ ~ 592.02 metres, associated with pyrite aggregates; broken zone.	112512	0.015	0.019
594.00	596.00		2.0		3 QZV 30 30	Zeolite/qtz veining between 594.10 to 594.25 metres; augite phenocrysts visible vuggy qtz/cubic pyrite/epidote vein between 594.76 to 595.09 metres enveloped by vesicles infilled with secondary qtz in the hanging wall between 594.51 to 594.60 metres; light coloured sericite altered portion with an increase in augite and plag phenocrysts; light coloured portion with augite and plag also present in foot wall of veining; remainder of sample is generally massive.	112513	0.018	0.009
596.00	598.00		0.5	1	22 QZV 80 7	Augite phenocrysts barely visible; local increase in qtz/zeolite veining between 597.56 to 597.90 metres.	112515	0.008	0.008
598.00	600.00		0.5		24 QZV 5 10	Increased qtz/zeolite veining between 598.00 to 598.69 metres; local broken zones; discontinuous zeolite/qtz stringers; rare pyrite as disseminations, aggregates and stringers.	112516	0.028	0.02
600.00	602.00		1.0		25 QZV 50 15	Zeolite/qtz veining with rare moly @ ~ 600.53 metres; qtz/zeolite veining between 601.47 to 601.57 metres; magnetite/pyrite vein @ ~ 601.79 metres; rare pyrite as disseminations and aggregates.	112517	0.025	0.017
602.00	604.00		0.5	1	34 QZV 50 7	Augite phenocrysts visible throughout sample; plag and augite phenocrysts between 603.25 to 603.60 metres; rare pyrite.	112518	0.015	0.014
604.00	606.20		1.0	1	8 QZV 0 10	Augite phenocrysts, brown coloured between 605.00 to 605.40 metres, possibly due to sericite +/- fine biotite alt'n; rare pyrite present as aggregates and veining, associated with magnetite and zeolite between 605.41 to 605.43 metres.	112519	0.034	0.033

606.2

609.68

BASALT BLADED FELDSPAR PORPHYRY

Hole Number: KN-02-34

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
606.20	608.10	Fine-coarse grained medium brown porphyritic chloritic sericitic	2.0	3	QZV 80 10	Bladed feldspar phenocrysts about 1 cm long on average in very fine grained, silicified matrix; brown colouration possibly due to sericite +/- fine biotite alt'n; bladed feldspar phenocrysts near veining appear to be oriented at the angle of veining, suggesting a possible shear/movement at plane before vein material infilling (i.e.: 607.41 metres); pyrite as disseminations and aggregates.	112520	0.033	0.035
608.10	609.68		2.0	1	28 QZV 70 10	As above, except bladed feldspar phenocrysts are randomly oriented; pink stained potassic altered portions; magnetite associated with qtz veining; foot wall contact defined by zeolite veining.	112521	0.033	0.053
609.68	632.7	BASALT FLOW							
609.68	611.70	Fine-medium-grained medium green massive chloritic silicic	3.0	1	38 QVN 80 7	Fine to med grained, med. green flow; Brown portions due to sericite +/- biotite alt'n, weak to moderate in strength; pyrite present as disseminations, aggregates, and veining bound by magnetite veining @ ~ 610.58 metres; augite phenocrysts visible in places, though unit is generally massive.	112522	0.041	0.043
611.70	613.70		1.0		54 QGVN	Gypsum veining associated with qtz vein enveloped by brown, possibly sericite +/- fine biotite, alt'n; reduced pyrite.	112523	0.016	0.019
613.70	615.70		1.0	1	14 QVN 70 5	Magnetite associated with pyrite veining enveloped by epidote alt'n; increased plag phenocrysts; slight brown colour possibly due to sericite +/- fine biotite alt'n.	112524	0.02	0.023
615.70	617.70		2.0	1	28 QZV 60 7	Pyrite veining associated with magnetite, also disseminated in flow; epidote veining @ ~ 617.00 metres enveloped with potassic alt'n between 616.93 to 617.06 metres.	112525	0.027	0.031
617.70	619.70		3.0	2	7 QZV 70 10	Slight increase in pyrite veining associated with magnetite veining; slight brown colour due to weak sericite +/- fine biotite alt'n; zeolite/qtz/magnetite/pyrite between 619.51 to 619.57 metres.	112526	0.035	0.03
619.70	621.70		3.0	1	141 QVN 80 7	Local increase in brown colouration indicating moderate sericite +/- fine biotite alt'n in places; reduced magnetite/pyrite veining, present @ ~ 620.19 metres and 620.30 metres; late stage qtz vein cross-cutting qtz/pyrite vein enveloped with sericite +/- fine biotite alt'n.	112527	0.024	0.021

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
621.70	622.25	Fine-medium-grained medium green massive chloritic silicic	1.0	39	QVN 30 7	Patchy sericite +/- fine biotite alt'n enveloping qtz/pyrite veining.	112528	0.02	0.022
622.25	623.84	Fine-medium-grained medium brown porphyritic chloritic sericitic	2.0	67	QVN 85 7	Increased brown colour, moderate to strong sericite +/- fine biotite alt'n; plag and augite phenocrysts present locally.	112529	0.025	0.025
623.84	624.78	Fine-medium-grained medium green massive chloritic silicic	3.0	60	QZV 60 15	Increased qtz/zeolite veining, randomly oriented and discontinuous; slight brown colouration due to weak to moderate sericite alt'n +/- fine biotite alt'n; minor epidote alt'n associated with qtz veining.	112530	0.024	0.024
624.78	626.80		4.0	1 26	QZV 70 7	Weak to moderate sericite +/- fine biotite alt'n; increased in disseminated pyrite, pyrite veining and aggregates, magnetite associated with zeolite/pyrite veining.	112531	0.025	0.026
626.80	628.80		3.0	19	QZV 60 5	Patchy, weak sericite +/- fine biotite alt'n; disseminated pyrite present in flow.	112532	0.028	0.038
628.80	630.80		3.0	1 12	QZV 60 7	Patchy, weak to moderate sericite +/- fine biotite alt'n; magnetite aggregates associated with zeolite veining and pyrite veining.	112533	0.035	0.032
630.80	632.70		2.0	1 10	QZV 50 7	Slightly reduced pyrite veining, locally associated with pyrite and magnetite; very weak, patchy sericite +/- fine biotite alteration.	112534	0.021	0.019
632.7	635.96	BASALT BLADED FELDSPAR PORPHYRY							
632.70	634.70	Fine-coarse grained medium green porphyritic chloritic silicic	2.0	1 41	QZV 80 7	Bladed feldspar phenocrysts in a fine grained green/brown matrix; phenocrysts are randomly oriented; unit is cut by qtz/zeolite veining, enveloped in places by potassic staining; magnetite veining associated with pyrite veining between 634.54 to 634.59 metres.	112535	0.036	0.028
634.70	635.96		2.0	1 12	QVN 40 5	Bladed feldspar phenocrysts decreasing toward foot wall contact, defined by 40 deg t.c.a.	112536	0.022	0.021
635.96	657	BASALT FLOW							
635.96	638.00	Fine-medium-grained medium green massive chloritic silicic	2.0	1 20	QAVN 70 7	Fine to medium grained green moderately chloritic and moderately silicified flow; rare anhydrite veining associated with qtz; magnetite and pyrite veining randomly oriented and irregularly spaced; rare zeolite veining; plag and augite phenocrysts visible in places.	112537	0.033	0.024

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
638.00	640.00	Fine-medium-grained medium green massive chloritic silicic	3.0	23	QZV 60 7	Brown sericite +/- fine biotite alt'n from 639.54 to 640.00 metres; local increase in zeolite veining; disseminated pyrite and pyrite stringers increase in association with the sericite +/- fine biotite alt'n.	112538	0.032	0.028
640.00	640.98	Fine-medium-grained medium brown massive chloritic silicic	4.0	5 543	QZV 80 15	Increase in zeolite/qtz veining in brown, moderate to strongly sericitized (+/- fine biotite) alt'n, also associated with an increase in plag phenocrysts; 5 cm wide pyrite vein between 640.05 to 640.13 metres.	112539	0.074	0.025
640.98	643.00	Fine-medium-grained medium green massive chloritic silicic	3.0	13	QZV 60 10	Patchy sericite +/- fine biotite alt'n enveloping qtz veining and associated with an increase in plag phenocrysts.	112541	0.031	0.027
643.00	645.00	Fine-medium-grained medium brown massive chloritic silicic	3.0	2	QZV 80 10	Increase in brown colouration possibly indicating mod to strong sericite +/- fine biotite alt'n.	112542	0.034	0.026
645.00	647.00		2.0	3 205	QZV 70 10	Fine to medium grained moderately chloritic and silicified flow; disseminated and aggregate pyrite also lining planes; local broken zones; plag and augite phenocrysts present locally; brown colouration due to weak sericite +/- fine biotite alt'n.	112543	0.024	0.025
647.00	649.00		2.0	2 74	ZQAHG 70 15	Brown colouration due to mod sericite +/- fine biotite alt'n; zeolite/magnetite veining bound by plag phenocrysts; zeolite/qtz veining increases locally and is discontinuous, randomly oriented and irregularly spaced; anhydrite/gypsum/pyrite veining between 648.84 to 690.00 metres and is enveloped by weak epidote alt'n.	112544	0.032	0.028
649.00	651.00		1.0	2 7	ZQAHG 50 10	Anhydrite/gypsum veining between 649.00 to 649.19 metres associated with potassic alt'n accompanied by zeolite/qtz/pyrite; weak sericite +/- fine biotite alt'n; magnetite/pyrite vein @ ~ 649.65 metres.	112545	0.029	0.018
651.00	653.00		1.0	1 45	QZV 0 7	Zeolite veining cross-cutting qtz/pyrite vein; magnetite/pyrite veining 0 deg t.c.a. bound by qtz vein forming stockwork in places; augite phenocrysts visible in places.	112546	0.02	0.029
653.00	655.00		1.0	1 52	QZV 10 7	Zeolite/qtz veining, local stockwork; magnetite/pyrite veining randomly oriented; local weakly altered potassic portions.	112547	0.014	0.009
655.00	657.00		2.0	1 16	QZV 80 10	Brown moderate sericite +/- fine biotite alt'n between 655.62 to 656.00 metres, associated with an increase in disseminated pyrite and aggregates; foot wall of sample forms a gradual contact with BFP.	112548	0.021	0.016

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
657	666.4	BASALT BLADED FELDSPAR PORPHYRY							
657.00	659.00	Fine-coarse grained dark brown porphyritic chloritic sericitic	3.0	2	114 QVN 70	7 Bladed feldspar phenocrysts in a fine grained dark brown matrix; associated with disseminated pyrite and aggregates; feldspar phenocrysts appear to be aligned to veining in places (magnetite/qtz/pyrite veining is @ ~ 70 deg t.c.a. and long axis of blades are parallel to 70 deg t.c.a. @ ~ 657.80 metres; dark brown colouration indicates moderate to strong sericitic +/- fine biotite alt'n.	112549	0.037	0.022
659.00	661.00		3.0	1	46 QVN 10	5 Bladed feldspars are silicified locally; weak epidote alt'n confined to veining associated with pyrite aggregates; pyrite/magnetite vein enveloped by weak to mod sericitic alt'n and very weak epidote;.	112550	0.037	0.023
661.00	663.00		2.0	5	59 QVN 7	7 Magnetite vein 1 cm wide @ ~ 662.67 metres bound by potassic alt'n, also present at 662.88 metres.	112551	0.025	0.034
663.00	665.00		1.0		1 QVN 30	7 Potassic alt'n between 663.50 to 663.78 and 663.92 to 664.05 metres, and at 664.27 metres; plag phenocrysts in potassic altered portions are altered themselves to k-spar.	112552	0.029	0.028
665.00	666.40		1.0	2	4 QVN 30	7 Gradual contact from 665.46 to 666.40 metres indicated by isolated bladed feldspar phenocrysts at 665.70 and 666.32 metres.	112553	0.026	0.021
666.4	808	BASALT FLOW							
666.40	668.40	Fine-medium-grained medium green massive chloritic silicic	2.0		4 QVN 80	7 Fine to medium grained green chloritic flow; brown colouration due to sericite +/- fine biotite alt'n; augite and plag phenocrysts visible in chloritic and silicified portions; qtz/pyrite +/- magnetite veining, randomly oriented, irregularly spaced; disseminated pyrite, locally associated with weak epidote.	112554	0.047	0.043
668.40	670.40		1.0		47 QVN 20	7 Augite phenocrysts visible locally.	112555	0.021	0.019
670.40	672.52		1.0		32 QZV 50	15 Local weak potassic alt'n, associated with epidote in places; increased zeolite veining between 672.06 to 672.52 metres, randomly oriented, irregularly spaced and discontinuous locally; local broken zones.	112556	0.021	0.03
672.52	674.50		0.5		24 QZV 70	7 Potassic alt'n between 672.52 to 673.04 metres, associated with zeolite; weak epidote alt'n and potassic alt'n between 673.58 to 673.68 metres.	112557	0.013	0.042

Hole Number: KN-02-34

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
674.50	676.46	Fine-medium-grained medium green massive chloritic silicic	0.5	18	QZV 30 10	Less chloritic and siliceous between 676.12 to 676.30 metre-; augite phenocrysts visible in this portion; Minor patchy potassic altered portions.	112558	0.029	0.029
676.46	678.50		0.5	2	26 QZV 0 10	Increased magnetite/qtz veining, locally bound by potassic altered portions; weak epidote alt'n associated with zeolite veining.	112559	0.026	0.038
678.50	680.50		1.0	1	32 QZV 70 7	Zeolite veining enveloped by epidote alt'n and potassic alt'n; increased zeolite veining between 680.32 to 680.42 metres; increased plag phenocrysts associated with potassic alt'n (i.e.: 678.95 metres).	112560	0.026	0.032
680.50	682.58		1.0	1	26 QZV 50 7	Potassic alteration between 680.50 to 680.74 metres, 680.95 to 681.04 metres, and 681.22 to 682.25 metres.	112561	0.043	0.1
682.58	684.43		1.0	1	QZV 40 7	Magnetite/zeolite veining between 684.12 to 684.16 metres.	112562	0.014	0.02
684.43	686.40		2.0	2	47 QVN 50 7	Fine to medium grained chloritic, siliceous flow; plag and augite phenocrysts visible in places; pyrite disseminated and in aggregate form, also present as stringers and veins; magnetite/pyrite veining between 685.83 to 685.95 associated with weak epidote alt'n.	112563	0.035	0.031
686.40	688.00		2.0	1	24 QVN 50 5	Weak epidote alt'n, reduced qtz veining; pyrite veining associated with epidote locally.	112564	0.019	0.024
688.00	690.00		3.0	1	41 QVN 90 10	Local increase in qtz veining between 689.50 to 689.54 metres, associated with pyrite and epidote.	112565	0.029	0.026
690.00	692.00		3.0		3 QVN 70 5	Disseminated pyrite and veining @ ~ 690.17 metres, locally associated with magnetite aggregates; massive-no plag or augite phenocrysts visible.	112567	0.015	0.013
692.00	694.00	Fine-medium-grained light green massive silicic chloritic	2.0		8 QVN 30 7	Weakly chloritic, more siliceous.	112568	0.012	0.009
694.00	696.00	Fine-medium-grained medium green massive chloritic silicic	2.0		3 QGVN 90 15	Qtz/gypsum veining associated with pyrite between 695.00 to 695.08 metres, bound by weak sericite +/- biotite alt'n which is associated with increased plag phenocrysts; pyrite/magnetite veinlets @ 694.45 metres and 694.64 metres.	112569	0.043	0.028
696.00	698.00		2.0	1	14 QZV 80 10	Qtz/epidote/magnetite/pyrite vein bound by sericite +/- fine biotite, potassic and epidote alt'n between 696.78 to 696.98 metres.	112570	0.019	0.018

Hole Number: KN-02-34

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
698.00	700.00	Fine-medium-grained medium green massive chloritic silicic	2.0	1	16 QCV 50 10	Augite phenocrysts visible in places; qtz/carb veining @ ~ 699.02 metres; qtz/zeolite veins between 699.54 to 699.60 metres; slight brown colour due to sericite +/- fine biotite alt'n .	112571	0.02	0.02
700.00	702.00		3.0	2	28 QVN 80 10	Patchy brown colouration possibly due to weak sericite +/- fine biotite alt'n; magnetite/pyrite alt'n bound by epidote alt'n; local increase in disseminated pyrite and stringers associated with magnetite aggregates and veining.	112572	0.03	0.028
702.00	704.00		4.0	1	7 QVN 50 7	Brown colouration due to sericite +/- fine biotite alt'n; local increase in disseminated pyrite and stringers; weak epidote alt'n; augite phenocrysts present locally.	112573	0.029	0.034
704.00	706.00	Fine-medium-grained medium green massive chloritic sericitic	3.0		2 QZV 70 15	Reduced silica content from 704.50 metres, increased sericite +/- fine biotite alt'n associated with increased zeolite veining randomly oriented and irregularly spaced; plag phenocrysts associated with increased zeolite/qtz veining.	112574	0.034	0.045
706.00	708.00	Fine-medium-grained medium green massive chloritic silicic	2.0		12 QZV 80 7	Reduced silica content between 706.00 to 706.28 metres- after that the silica content increases; qtz/gypsum veining between 707.17 to 707.37 metres; augite and plag phenocrysts visible; vuggy in places.	112575	0.025	0.035
708.00	710.00		2.0		7 QZV 0 10	Augite and plag phenocrysts visible in places; qtz/gypsum-selenite between 709.40 to 709.74 meters associated with weak epidote alt'n and local vuggy structures.	112576	0.031	0.029
710.00	712.00		1.0		11 QVN 80 7	Local broken zones; weak to mod brown sericite +/- fine biotite alt'n associated with plag and augite phenocrysts in places.	112577	0.037	0.027
712.00	714.00		2.0		13 QVN 90 5	Dark brown colour in places- sericite +/- fine biotite; plag and augite phenocrysts; disseminated pyrite and aggregates.	112578	0.01	0.018
714.00	716.00				18 QGVN 0 10	Qtz/gypsum veining between 714.61 to 715.40 metres, locally vuggy and associated with pyrite and epidote and calcite in places; plag and augite phenocrysts.	112579	0.021	0.022
716.00	718.00		2.0	2	34 QGVN 5 10	Qtz/gypsum veining; magnetite veining bound by qtz/zeolite veining @ ~ 717.46 metres.	112580	0.024	0.021
718.00	720.00		2.0	2	9 QGVN 10 10	Qtz/gypsum veining between 718.45 to 718.57 metres associated with magnetite aggregates; disseminated pyrite with hematite stringers @ ~ 718.81 metres.	112581	0.052	0.025

Hole Number: KN-02-34

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
720.00	722.00	Fine-medium-grained medium green massive chloritic silicic	2.0	15	QZV 90 10	Local broken zones; plag phenocrysts slightly larger than further uphole, in brown, weakly sericite +/- fine biotite altered matrix.	112582	0.029	0.023
722.00	724.00		2.0	2	11 QVN 90 7	Magnetite/pyrite veining cross-cut by late stage non-mineralized qtz vein; plag phenocrysts as in previous sample.	112583	0.063	0.043
724.00	726.00		4.0	3	4 QZV 85 7	Increase in pyrite/magnetite veining between 725.36 to 725.53 metres; patchy potassic alt'n between 724.95 to 725.00 metres; plag phenocrysts as in sample 112582.	112584	0.075	0.054
726.00	728.00		2.0	23	ZQGV 50 10	Plag phenocrysts as in sample 112582; potassic alt'n between 726.41 to 720.70 metres; slight brown colour due to weak sericite +/- biotite alt'n.	112585	0.036	0.033
728.00	730.00		1.0	3	QZV 0 7	Weak brown colouration possibly due to weak sericite +/- biotite alt'n in places; weak, patchy epidote alt'n.	112586	0.033	0.036
730.00	732.00		3.0	5	QVN 50 10	Moderate sericite +/- fine biotite alt'n associated with an increase in pyrite aggregates; weak epidote alt'n.	112587	0.043	0.042
732.00	734.00		2.0	1	14 QZV 30 5	Fine to medium grained flow with weak to mod sericite +/- fine biotite alt'n indicated by brown colour; weak epidote alt'n; portions with plag and augite phenocrysts; qtz/zeolite veining randomly oriented and irregularly spaced; magnetite/pyrite cross-cut by non-mineralized qtz veining; disseminated pyrite, aggregates and veining.	112588	0.042	0.048
734.00	736.00		3.0	17	QVN 20 7	Qtz vein, potassic alt'n between 735.26 to 735.31 metres; slight increase in disseminated pyrite.	112589	0.036	0.043
736.00	738.00	Fine-medium-grained medium green massive chloritic sericitic	4.0	8	QZV 90 7	Increase in brown colour indicating mod to strong sericite +/- fine biotite alt'n; increase in disseminated pyrite; qtz/pyrite/magnetite/epidote veining between 737.78 to 737.86 metres.	112590	0.044	0.053
738.00	740.00		3.0	4	ZQGV 50 10	Vuggy dissolution in places; rare gypsum veining; local potassic alt'n associated with qtz flooding.	112591	0.039	0.054
740.00	742.00		2.0	2	121 QZV 0 10	Reduced disseminated pyrite and pyrite veining; mod sericite +/- fine biotite alt'n, protolith overprinted; augite phenocrysts covered with sericite +/- fine biotite alt'n; zeolite/Qtz vein @ ~ 741.81 metres.	112593	0.049	0.043
742.00	744.00	Fine-medium-grained medium green massive chloritic silicic	1.0	1	2 QZV 60 7	Qtz/epidote/magnetite vein between 742.02 to 742.05 metres; local broken zones; augite phenocrysts visible; very weak potassic altered portions.	112594	0.02	0.031

Hole Number: KN-02-34

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
744.00	746.00	Fine-medium-grained medium green massive chloritic silicic	1.0	1	26 QZV 90 10	Increase in zeolite/qtz veining and pyrite/magnetite veining; zeolite/pyrite veining @ ~ 745.22 metres; augite as in previous sample; plag phenocrysts visible in some places.	112595	0.036	0.044
746.00	748.00		2.0	1	5 QZV 80 15	Local increase in qtz/zeolite veining; pyrite/magnetite as veining and disseminated in flow; brown colour due to sericite +/- fine biotite alt'n.	112596	0.053	0.057
748.00	750.00		2.0		5 QZV 90 10	Potassic alt'n between 749.20 to 749.40 metres, and highly siliceous (possibly qtz vein) between 749.40 to 749.63 metres; slight brown colour due to weak sericite +/- fine biotite alt'n; pyrite disseminated in flow.	112597	0.033	0.046
750.00	752.00		2.0		17 QZV 70 7	Patchy potassic alt'n; disseminated pyrite and pyrite stringers; plag phenocrysts present in place.	112598	0.038	0.036
752.00	754.00		1.0		12 QZV 30 7	Augite phenocrysts, local potassic altered portions; disseminated pyrite and stringers; bkn zone.	112599	0.025	0.023
754.00	756.15		1.0		42 QZV 40 7	Qtz vein between 754.03 to 754.08 metres; augite phenocrysts; qtz/calcite and gypsum veining @ ~ 754.64 metres; discontinuous qtz/calcite stringers between 754.46 to 754.64 metres; brown colour due to sericite +/- fine biotite alt'n and possibly weak potassic alt'n; augite and plag phenocrysts.	112600	0.019	0.018
756.15	758.00	Fine-medium-grained medium green massive chloritic sericitic	2.0		4 QZV 5 7	Weak epidote alt'n; brown colour possibly due to weak to mod sericite +/- fine biotite alt'n; potassic alt'n between 757.36 to 757.55 metres.	112601	0.079	0.044
758.00	760.00		3.0	1	3 QZV 30 7	Localized brown colour indicating weak to mod sericite =?- fine biotite as in previous sample; patchy potassic alt'n; pyrite veining enveloped by epidote alt'n in places; local increase in disseminated pyrite.	112602	0.051	0.029
760.00	762.00	Fine-medium-grained medium green massive chloritic silicic	2.0	1	39 QZV 45 10	Weak sericite +/- fine biotite alt'n plus potassic alt'n; weak epidote alt'n; augite phenocrysts in places.	112603	0.051	0.033
762.00	764.00		2.0		61 QZV 60 10	Broken zones; generally massive and homogenous; few porphyritic portions with augite phenocrysts.	112604	0.018	0.014
764.00	766.00	Fine-medium-grained medium green porphyritic chloritic silicic	1.0		7 QZV 70 7	Increased potassic alt'n (weak to mod); weak epidote alt'n; porphyritic texture due to plag phenocrysts.	112605	0.031	0.023
766.00	768.00	Fine-medium-grained medium green massive chloritic silicic	1.0		18 QZV 30 10	Decrease in potassic alt'n- very weak; qtz/zeolite veining; plag and augite phenocrysts, locally porphyritic; generally massive.	112606	0.031	0.026

Hole Number: KN-02-34

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
768.00	770.00	Fine-medium-grained massive chloritic silicic	medium green	1.0	48 QZV 70 7	Augite and plag phenocrysts associated with weak sericite +/- fine biotite alt'n (brown coloured portions); weak epidote @ 769.67 metres.	112607	0.027	0.025
770.00	772.00			1.0	22 QZV 80 10	Increased qtz veining between 771.34 to 771.71 metres, randomly oriented and irregularly spaced; weak, patchy potassic alt'n.	112608	0.018	0.013
772.00	774.00			1.0	35 QZV 5 10	Pyrite aggregates associated with epidote and potassic alt'n- also associated with zeolite veining; pyrite is also disseminated; broken zones.	112609	0.009	0.009
774.00	776.00	Fine-medium-grained porphyritic chloritic silicic	medium green	1.0	29 QZV 5 7	Broken; massive; plag and augite phenocrysts-porphyritic; qtz vein between 775.35 to 775.41 metres; weak sericite +/- fine biotite alt'n.	112610	0.031	0.023
776.00	778.00			2.0	4 QZV 90 10	Pyrite aggregates associated with zeolite/qtz veining; weak sericite +/- fine biotite alt'n; pal and augite phenocrysts.	112611	0.02	0.012
778.00	780.00			2.0	33 QZV 50 10	Increased zeolite/qtz veining; brown colour possibly due to weak sericite +/- fine biotite alt'n +/- potassic alt'n; plag phenocrysts in altered portions.	112612	0.028	0.02
780.00	782.00			3.0	24 QZV 70 7	Disseminated pyrite increases in brown/pink weak sericite +/- fine biotite +/- potassic alt'n.	112613	0.032	0.025
782.00	784.00			1.0	23 QZV 80 10	Increased zeolite veining, augite and plag phenocrysts; disseminated pyrite in flow; pyrite stringers associated with zeolite veining.	112614	0.024	0.017
784.00	786.00			1.0	4 QZV 50 10	Fine to medium grained porphyritic flow with augite and plag phenocrysts visible in places; slight brown colouration possibly due to weak sericite +/- biotite +/- potassic alt'n; qtz/zeolite veining randomly oriented and irregularly spaced, associated with weak epidote alt'n; disseminated pyrite in flow, also present as aggregates.	112615	0.019	0.017
786.00	788.00	Fine-medium-grained porphyritic chloritic sericitic	medium green	2.0	24 QZV 90 15	Slight increase in sericite +/- fine biotite alt'n associated with an increase in disseminated pyrite and pyrite stringers @ ~ 50 deg t.c.a.; weak epidote alt'n associated with potassic alt'n, with pyrite.	112616	0.021	0.02
788.00	790.00			1.0	21 QZV 70 7	Increased zeolite veining between 788.41 to 788.46 metres; sericite +/- fine biotite alt'n as in previous sample.	112617	0.025	0.032

Hole Number: KN-02-34

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
790.00	792.00	Fine-medium-grained medium green porphyritic chloritic silicic	1.0	1	8 QZV 40 5	K-spar veining between 790.10 to 790.20 metres associated with weak epidote alt'n; weak sericite +/- fine biotite alt'n between 790.00 to 790.27 metres; patchy, weak, pink/brown staining, possibly potassic alt'n.	112619	0.028	0.023
792.00	794.00		1.0		QZV 30 7	Increased qtz stringers between 792.00 to 792.40 metres associated with weak pink/brown staining, possibly sericite +/- fine biotite alt'n o potassic alt'n; qtz veining enveloped by plag phenocryst rich portions @ 792.72 metres and between 792.97 to 793.20 metres.	112620	0.019	0.018
794.00	796.00		0.5		QZV 80 7	weak brown colour between 794.60 to 795.16 possibly due to weak sericite +/- fine biotite alt'n; plag phenocrysts slightly larger in places; weak epidote alt'n associated with zeolite veining.	112621	0.022	0.018
796.00	798.00		0.5		QZV 30 7	Pyrite/magnetite/epidote veining @ ~ 796.20 metres bound by potassic or sericitic +/- fine biotite alt'n.	112622	0.019	0.015
798.00	800.00		0.5		QZV 70 7	Qtz/calcite between 799.53 to 799.59 metres; rare pyrite veins associated with magnetite and weak epidote; local increase in discontinuous zeolite stringers.	112623	0.013	0.012
800.00	802.00		1.0		QZV 40 7	Weak pink/brown staining possibly due to sericite +/- fine biotite alt'n and potassic alt'n accompanied by weak epidote alt'n between 800.69 to 800.78 metres; also associated with increasing disseminated pyrite.	112624	0.024	0.026
802.00	804.00		3.0		QZV 90 30	Qtz/calcite vein and minor zeolite between 802.70 to 802.98 metres; fragment @ ~ 803.80 metres, 3 cm across, with augite phenocrysts- has the same composition as the flow.	112625	0.022	0.169
804.00	806.00		4.0	1	QZV 70 7	Increase in pyrite aggregates; rare epidote associated with pyrite stringers @ ~ 805.30 metres; magnetite/pyrite/qtz/epidote vein @ ~ 804.60 metres ; weak brown colouration due to sericite +/- fine biotite alt'n; plag phenocrysts in places.	112626	0.044	0.045
806.00	808.00		3.0	1	QZV 60 7	Magnetite and pyrite associated with epidote alteration; qtz vein bound by potassic alt'n; augite and plag phenocrysts.	112627	0.022	0.041

808

815.95

BASALT FLOW BRECCIA

Hole Number: KN-02-34

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
808.00	809.40	Fine-medium-grained medium green porphyritic chloritic silicic	2.0	1	QZV 70 7	Fragment outline- barely visible- composition similar to that of flow with augite and plag phenocrysts; brown colour possibly due to sericite +/- fine biotite alt'n; magnetite/pyrite/epidote veining.	112628	0.011	0.014
809.40	810.92	Fine-medium-grained medium brown porphyritic chloritic silicic	3.0	3	QZV 50 15	Brown colour due to mod sericite +/- fine biotite alt'n; increased zeolite/qtz veining ; pyrite/magnetite veining enveloped by epidote alt'n; plag phenocrysts; weak to mod epidote alt'n.	112629	0.068	0.064
810.92	813.00	Fine-medium-grained medium green porphyritic sericitic silicic	1.0	2	QZV 70 10	Porphyritic texture between 812.33 to 813.00 metres, plag phenocrysts, weak to mod epidote alt'n; magnetite/pyrite veining between 812.73 to 812.91 metres associated with weak to mod sericite +/- fine biotite alt'n.	112630	0.01	0.014
813.00	815.00	Fine-medium-grained medium brown porphyritic chloritic silicic	3.0	3	QZV 70 15	Brown colour due to sericite +/- fine biotite alt'n; fragmental- frags appear to have the same composition as flow but not sericitized (+/- fine biotite); Magnetite/pyrite vein associated with epidote between 813.50 to 813.78 metres.	112631	0.045	0.018
815.00	815.95		1.0	1	QZV 90 7	Fragment outline- barely visible; rare pyrite/magnetite veining bound by weak epidote alt'n @ ~ 815.20 metres.	112632	0.008	0.01
815.95 EOH									

Kemess North 2002 - Diamond Drill Log



Hole Number: **KN-02-35**

Northing: 16132.9	Total Depth: 580.64m
Easting: 9859.2	Azimuth: 0°
Elevation: 1665.3	Dip: -90°

Geologist: E. Ramsay
Logged Date: 9/2/2002

Survey Depth	Azimuth	Dip	Comments:
61 m	83 °	-88 °	
122 m	0 °	-88 °	
213 m	0 °	-88 °	
305 m	53 °	-88 °	
396 m	63 °	-88 °	
488 m	43 °	-88 °	
579 m	53 °	-88 °	

Kemess North 2002 - Summary Drill Log



Hole Number: **KN-02-35**

From (m)	To (m)	Rock Type	Comments
0	4.57	CASING	Casing, no recovery.
4.57	24.38	BASALT	Broken/rubbly core. Limonite - stained greenish grey porphyritic basalt. Lost core between 9.14 - 12.19m.
24.38	33.53	LOST CORE	
33.53	35.05	BASALT	Broken/rubbly core. Limonite - stained greenish grey porphyritic basalt.
35.05	57.91	LOST CORE	
57.91	69.4	BASALT BLADED FELDSPAR PORPHYRY	Broken/rubbly core down to 65.25 m. Downsized from HQ to NQ at 65.25 m. Greenish gray (locally brownish), sericitized bladed feldspar porphyry. Well - developed stockwork of gypsum veinlets suggest rock was altered to anhydrite, which is breaking up the rock as it hydrates to gypsum. Patchy local biotite giving a brownish grey colour to core. Pyrite is mostly observed as veinlets with minor disseminations.
69.4	71.07	QUARTZ MONZONITE	Millimetric wide veins of white anhydrite.
71.07	97.55	BASALT BLADED FELDSPAR PORPHYRY	
97.55	100.05	SYENITE	Fine grained porphyritic post mineral syenite.
100.05	369	BASALT BLADED FELDSPAR PORPHYRY	
369	503	BASALT	Light gray, strongly sericitized basalt, aphanitic grained and massive (textures obliterated)
503	521.2	BASALT POLYLITHIC TUFF	Fragmental unit/poly lithic tuff, greenish gray, showing centimetric to decimetric angular to sub-angular fragments of basalt and bladed feldspar porphyry in a mafic, sericitized and chloritized matrix. Probably not Toodoggone, as it looks too mafic and lacks quartz eyes.

Hole Number: **KN-02-35**

From (m)	To (m)	Rock Type	Comments
521.2	527.2	QUARTZ MONZONITE	Light gray with 2% millimetric chlorite specks, aphanitic to medium grained phaneritic sericite-altered felsic intrusive rock, possibly monzonite.
527.2	529	BASALT TUFF	Massive, tuffaceous but without visible fragments.
529	540.2	BASALT POLYLITHIC TUFF	
540.2	540.85	SYENITE	Porphyritic syenite dyke, post-mineral, unaltered, unmineralized.
540.85	541.8	BASALT TUFF	Massive, tuffaceous but without visible fragments.
541.8	560.45	SYENITE	Porphyritic, post-mineral syenite, unaltered, unmineralized.
560.45	562	BASALT TUFF	Massive, tuffaceous, fine-grained
562	571.1	BASALT POLYLITHIC TUFF	Poly lithic tuff.
571.1	574.35	QUARTZ MONZONITE	Porphyritic qtz-monzonite, very weakly chloritized with core basalt xenoliths
574.35	577.6	BASALT POLYLITHIC TUFF	Poly lithic tuff with qtz monzonite dykelet between 574.70-574.95 m

Kemess North 2002 - Detail Drill Log



Hole Number: KN-02-35

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
0	4.57	CASING							
	0.00	4.57				Casing, no recovery.	35	-2	-2
4.57	24.38	BASALT							
	4.57	24.38		12		Broken/rubbly core. Limonite - stained greenish grey porphyritic basalt. Lost core between 9.14 - 12.19m.	110771	0.052	0.067
24.38	33.53	LOST CORE							
	24.38	33.53					-35	0	0
33.53	35.05	BASALT							
	33.53	35.05	0.1	29		Broken/rubbly core. Limonite - stained greenish grey porphyritic basalt.	110772	0.054	0.047
35.05	57.91	LOST CORE							
	35.05	57.91					-355	0	0
57.91	69.4	BASALT BLADED FELDSPAR PORPHYRY							
	57.91	66.00	0.1	1		Broken/rubbly core down to 65.25 m. Downsized from HQ to NQ at 65.25 m. Greenish gray (locally brownish), sericitized bladed feldspar porphyry. Well - developed stockwork of gypsum veinlets suggest rock was altered to anhydrite, which is breaking up the rock as it hydrates to gypsum. Patchy local biotite giving a brownish grey colour to core. Pyrite is mostly observed as veinlets with minor disseminations.	110773	0.082	0.101
	66.00	68.00	0.1	6			110774	0.059	0.081
	68.00	69.40	2.0	3	AVN	4 Centimetric wide veins of white anhydrite.	110775	0.117	0.163
69.4	71.07	QUARTZ MONZONITE							
	69.40	71.07	0.1	12	CVN	5 Millimetric wide veins of white anhydrite.	110776	0.021	0.019
71.07	97.55	BASALT BLADED FELDSPAR PORPHYRY							
	71.07	73.00	0.5	0			110777	0.081	0.096

Hole Number: KN-02-35

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
73.00	75.00	Fine-coarse grained green-grey porphyritic sericitic anhydrite	0.5	4			110778	0.071	0.088
75.00	77.00		0.1	1			110779	0.137	0.172
77.00	79.00		0.5	15			110780	0.142	0.171
79.00	81.00		0.5	7			110781	0.083	0.08
81.00	83.00		0.1	10			110782	0.064	0.072
83.00	85.00		0.1	16			110783	0.058	0.071
85.00	87.00		0.5	2			110784	0.115	0.186
87.00	89.00		0.5	2	FVN	0	110786	0.108	0.132
89.00	91.00		0.5	6	FVN	0	110787	0.065	0.084
91.00	93.00		0.1	7			110788	0.059	0.075
93.00	95.00		0.1	2			110789	0.058	0.079
95.00	97.00		0.1	2			110790	0.095	0.131
97.00	97.55		0.1	4			110791	0.091	0.117
97.55	100.05	SYENITE							
97.55	100.05	Fine-medium-grained orange grey porphyritic		12		Fine grained porphyritic post mineral syenite.	110792	0.002	0.005
100.05	369	BASALT BLADED FELDSPAR PORPHYRY							
100.05	102.00	Fine-coarse grained green-grey porphyritic sericitic anhydrite	0.5	3			110793	0.06	0.066
102.00	104.00		0.5	1			110794	0.064	0.07
104.00	106.00		0.1	3			110795	0.066	0.077
106.00	108.00		1.0	3			110796	0.045	0.059
108.00	110.00		0.1	4			110797	0.053	0.054
110.00	112.00		0.1	4			110798	0.049	0.055
112.00	114.00		0.5	7			110799	0.085	0.099
114.00	116.00		0.1	5			110800	0.1	0.109
116.00	118.00		0.1	2			110801	0.092	0.093
118.00	120.00		0.1	8			110802	0.074	0.081
120.00	122.00		0.1	10			110803	0.08	0.089

Hole Number: KN-02-35

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
122.00	124.00	Fine-coarse grained green-grey porphyritic sericitic anhydrite	0.1	3			110804	0.07	0.073
124.00	127.00		0.1	1			110805	0.077	0.089
127.00	129.00		0.1	2			110806	0.068	0.086
129.00	131.00		0.1	2			110807	0.081	0.114
131.00	133.00		0.1	7			110808	0.063	0.079
133.00	135.00		0.1	5 FLT	5 20	Entering a sub-vertical fault zone. Rock shows strong fabric parallel t.c.a., defined by slip-planes & shear planes, locally gougy and/or injected with gypsum. Core is brittle and soft, locally crumbling in your hand.	110809	0.073	0.098
135.00	137.00		0.1	5			110810	0.075	0.095
137.00	139.00		0.1	0 FLT	50	Broken core.	110812	0.099	0.133
139.00	141.00	Fine-coarse grained orange grey porphyritic sericitic anhydrite	0.5	0 FLT	100	Brownish orange anhydrite-pyrite vein, abundant gouge.	110813	0.078	0.111
141.00	143.00		1.0	0 FLT	100		110814	0.099	0.128
143.00	145.00	Fine-coarse grained brown grey porphyritic sericitic anhydrite	0.1	0 FLT	100		110815	0.13	0.232
145.00	147.00	Fine-coarse grained orange grey porphyritic sericitic anhydrite	0.1	1 FLT	100		110816	0.068	0.139
147.00	149.00	Fine-coarse grained green-grey porphyritic sericitic anhydrite	0.1	1 FLT	100		110817	0.057	0.092
149.00	151.00	Fine-coarse grained brown grey porphyritic sericitic anhydrite	0.1	1 FLT	100		110818	0.073	0.134
151.00	153.00	Fine-coarse grained green-grey porphyritic sericitic anhydrite	0.1	1 FLT	100		110819	0.075	0.079
153.00	155.00		0.1	5 FLT	100		110820	0.082	0.104
155.00	157.00		0.1	6 FLT	100		110821	0.073	0.075
157.00	159.00	Fine-coarse grained orange grey porphyritic sericitic anhydrite	0.1	1 AVN	13	Brownish orange to violet anhydrite.	110822	0.033	0.046
159.00	161.00		0.1	2 AVN	10		110823	0.06	0.105
161.00	163.00	Fine-coarse grained green-grey porphyritic sericitic anhydrite	0.1	0			110824	0.067	0.102
163.00	165.00		0.1	0			110825	0.044	0.065
165.00	167.00		0.1	0			110826	0.085	0.128

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
167.00	169.00	Fine-coarse grained green-grey porphyritic sericitic anhydrite	0.1	0			110827	0.11	0.168
169.00	171.00		0.1	0			110828	0.088	0.128
171.00	173.00		0.5	0			110829	0.132	0.205
173.00	175.00		0.1	0			110830	0.059	0.095
175.00	177.00		0.1	0			110831	0.081	0.131
177.00	179.00		0.1	0			110832	0.116	0.199
179.00	181.00		0.5	0			110833	0.07	0.118
181.00	183.00		1.0	0			110834	0.034	0.113
183.00	185.00		3.0	0 AVN	20	Three decimetric anhydrite and anhydrite + pyrite veins.	110835	0.038	0.09
185.00	187.00		0.1	0			110836	0.056	0.096
187.00	189.00		0.5	0			110838	0.003	-2
189.00	191.00		0.5	0			110839	0.187	0.295
191.00	193.00		0.1	0 AVN	3		110840	0.061	0.099
193.00	195.00		0.1	3 AVN	3		110841	0.059	0.081
195.00	197.00		2.0	0 PVN	2		110842	0.086	0.111
197.00	199.00		1.0	0			110843	0.034	0.049
199.00	201.00		1.0	5 AVN	10		110844	0.03	0.025
201.00	203.00		0.5	2			110845	0.072	0.093
203.00	205.00		0.1	3			110846	0.081	0.061
205.00	207.00		0.1	13			110847	0.11	0.124
207.00	209.00		0.1	3			110848	0.099	0.115
209.00	211.00		0.5	3			110849	0.068	0.087
211.00	213.00		0.5	5			110850	0.098	0.13
213.00	215.00		0.5	2			110851	0.053	0.064
215.00	217.00		0.1	5			110852	0.079	0.094
217.00	219.00		0.5	6			110853	0.077	0.095
219.00	221.00		0.5	4			110854	0.047	0.056
221.00	223.00		0.5	4			110855	0.054	0.065

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
223.00	225.00	Fine-coarse grained green-grey porphyritic sericitic anhydrite	0.5	10			110856	0.066	0.082
225.00	227.00		0.5	7			110857	0.079	0.092
227.00	229.00		0.5	5			110858	0.046	0.048
229.00	231.00		0.5	10			110859	0.067	0.088
231.00	233.00		0.5	3			110860	0.05	0.07
233.00	235.00		0.5	2			110861	0.05	0.059
235.00	237.00		0.5	8			110862	0.069	0.095
237.00	239.00		0.1	9			110864	0.063	0.077
239.00	241.00		0.1	16	QVN	45 2	110865	0.056	0.084
241.00	243.00		0.5	5			110866	0.058	0.058
243.00	245.00		0.1	9			110867	0.047	0.069
245.00	247.00		1.0	8			110868	0.076	0.088
247.00	249.00		0.1	3			110869	0.064	0.093
249.00	251.00		0.5	9			110870	0.047	0.063
251.00	253.00		0.1	9			110871	0.041	0.048
253.00	255.00		0.1	7			110872	0.049	0.065
255.00	257.00		0.1	1			110873	0.055	0.067
257.00	259.00		0.5	2			110874	0.044	0.067
259.00	261.00		1.0	17			110875	0.055	0.077
261.00	263.00		1.0	1			110876	0.048	0.067
263.00	265.00		0.1	3			110877	0.03	0.04
265.00	267.00		1.0	7			110878	0.04	0.043
267.00	269.00		0.5	8	AVN	90 4 Purple anhydrite vein.	110879	0.056	0.077
269.00	271.00		0.5	6			110880	0.053	0.063
271.00	273.00		0.5	6			110881	0.055	0.068
273.00	275.00		0.5	7			110882	0.08	0.108
275.00	277.00		0.1	4			110883	0.05	0.063
277.00	279.00		0.1	11			110884	0.052	0.083

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
279.00	281.00	Fine-coarse grained green-grey porphyritic sericitic anhydrite	0.1	6			110885	0.053	0.073
281.00	283.00		0.1	17			110886	0.051	0.068
283.00	285.00	Fine-coarse grained green-grey porphyritic sericitic biotite	1.0	5	QVN 50 4	White qtz + py vein.	110887	0.071	0.089
285.00	287.00		0.1	2			110888	0.086	0.101
287.00	289.00		0.5	2			110890	0.083	0.117
289.00	291.00		0.1	5			110891	0.077	0.093
291.00	293.00		0.1	2			110892	0.088	0.122
293.00	295.00		0.5	6			110893	0.123	0.184
295.00	297.00		0.1	7			110894	0.136	0.195
297.00	299.00		0.1	12			110895	0.084	0.098
299.00	301.00		0.5	39			110896	0.087	0.14
301.00	303.00		0.1	2			110897	0.117	0.178
303.00	305.00		1.0	3			110898	0.132	0.252
305.00	307.00		0.5	2			110899	0.102	0.133
307.00	309.00		0.1	10			110900	0.148	0.264
309.00	311.00		0.5 0.1	7			114001	0.151	0.222
311.00	313.00		0.1	5			114002	0.112	0.171
313.00	315.00		0.1	14			114003	0.129	0.195
315.00	317.00		0.1	3			114004	0.115	0.141
317.00	319.00		1.0	7			114005	0.101	0.116
319.00	321.00		0.1	5			114006	0.095	0.143
321.00	323.00		0.1	11			114007	0.102	0.114
323.00	325.00		0.1	12			114008	0.125	0.136
325.00	327.00		0.1	6			114009	0.096	0.101
327.00	329.00		0.1	6			114010	0.093	0.101
329.00	331.00		0.1	8			114011	0.111	0.127
331.00	333.00		0.5	13			114012	0.1	0.115
333.00	335.00		0.1	4			114013	0.103	0.194

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
335.00	337.00	Fine-coarse grained green-grey porphyritic sericitic biotite	0.1	11			114014	0.087	0.09
337.00	339.00	Fine-coarse grained green-grey porphyritic sericitic chloritic	0.1	19			114016	0.076	0.071
339.00	341.00		0.1	12			114017	0.07	0.07
341.00	343.00		0.5	4			114018	0.102	0.098
343.00	345.00		0.5	27			114019	0.096	0.11
345.00	347.00		0.5	4			114020	0.085	0.111
347.00	349.00		0.2	8			114021	0.078	0.115
349.00	351.00		0.5	9			114022	0.072	0.091
351.00	353.00		0.1	11			114023	0.062	0.073
353.00	355.00		0.1	9			114024	0.065	0.079
355.00	357.00		0.1	14			114025	0.092	0.119
357.00	359.00		0.2	6			114026	0.077	0.096
359.00	361.00	Fine-coarse grained green-grey porphyritic sericitic biotite	1.0	9			114027	0.073	0.113
361.00	363.00		0.5	9			114028	0.096	0.132
363.00	365.00		0.1	4			114029	0.062	0.09
365.00	367.00		0.1	2			114030	0.093	0.161
367.00	369.00		0.1	2			114031	0.117	0.222
369	503	BASALT							
369.00	371.00	Fine-grained light grey massive sericitic chloritic	0.1	14		Light gray, strongly sericitized basalt, aphanitic grained and massive (textures obliterated)	114032	0.081	0.136
371.00	373.00	Fine-medium-grained green-grey porphyritic chloritic	0.1	13		Greenish-gray porphyritic basalt showing up to 10% medium-grained phenocrysts of subhedral to euhedral augite (now chloritized) in a fine grained matrix. Common carbonate veins.	114033	0.075	0.089
373.00	375.00		0.1	0 22			114034	0.066	0.047
375.00	377.00		0.1	5			114035	0.054	0.049
377.00	379.00		0.1	0 20		Colours darken slightly to brownish-gray (biotite?)	114036	0.062	0.063
379.00	381.00		0.5	0 29			114037	0.099	0.126
381.00	383.00		0.1	16			114038	0.102	0.099

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
383.00	385.00	Fine-medium-grained green-grey porphyritic chloritic	0.1	11			114039	0.112	0.109
385.00	387.00		0.1	13		Drusy white to pink carbonate veins	114040	0.097	0.089
387.00	389.00		0.1	0 25			114042	0.12	0.131
389.00	391.00		1.0	0 22			114043	0.174	0.138
391.00	393.00		0.1	0 25			114044	0.141	0.091
393.00	395.00		0.1	0 13			114045	0.078	0.054
395.00	397.00		0.2	0 17			114046	0.079	0.063
397.00	399.00		0.1	0 19			114047	0.077	0.096
399.00	401.00		0.5	0 13			114048	0.094	0.072
401.00	403.00		1.0	0 24			114049	0.085	0.053
403.00	405.00		0.5	0 27			114050	0.094	0.058
405.00	407.00		0.1	5		Light greenish gray locally showing dark greenish black salvages reminiscent of pillows	114051	0.096	0.059
407.00	409.00		0.1	3 SHR	40 10	Two decimetric - width shear zones @ 40 degrees t.c.a.	114052	0.137	0.16
409.00	411.00		0.5	7		Phenocryst percentage increases up to 30% locally	114053	0.063	0.048
411.00	413.00		0.1	7			114054	0.067	0.042
413.00	415.00		0.1	9			114055	0.07	0.041
415.00	417.00		0.5	9 PVN	30 0		114056	0.065	0.044
417.00	419.00		0.5	5			114057	0.057	0.049
419.00	421.00		1.0	7			114058	0.064	0.055
421.00	423.00		0.5	11			114059	0.09	0.068
423.00	425.00	Fine-medium-grained grey porphyritic chloritic	0.1	19		Colour change to neutral gray, weak chlorite alteration	114060	0.074	0.063
425.00	427.00		0.5	1 31			114061	0.077	0.067
427.00	429.00		1.0	14			114062	0.089	0.074
429.00	431.00		0.5	1 48			114063	0.075	0.063
431.00	433.00		0.1	0 12			114064	0.056	0.041
433.00	435.00		0.1	11			114065	0.059	0.043
435.00	437.00		0.1	8			114066	0.062	0.041

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
437.00	439.00	Fine-medium-grained green-grey porphyritic chloritic	0.1	5			114068	0.09	0.065
439.00	441.00		0.5	4			114069	0.091	0.057
441.00	443.00		0.1	2			114070	0.097	0.043
443.00	445.00		0.1	10			114071	0.082	0.036
445.00	447.00		0.1	5			114072	0.075	0.04
447.00	449.00	Fine-medium-grained green-grey porphyritic chloritic silicic	0.1	16		Qtz-monzonite dykelet between 448.50-448.80 m upper contact unclear. Lower contact @ 40 degrees t.c.a.	114073	0.048	0.027
449.00	451.00	Fine-medium-grained green-grey porphyritic chloritic	0.1	7			114074	0.072	0.042
451.00	453.00		0.1	9			114075	0.075	0.047
453.00	455.00		0.1	3			114076	0.053	0.038
455.00	457.00		0.1	11			114077	0.058	0.041
457.00	459.00		0.1	8			114078	0.067	0.052
459.00	461.00		0.1	11			114079	0.055	0.044
461.00	463.00	Coarse-fine-grained green-grey flow brecciated chloritic	0.1	3		Monogenic flow breccia showing basalt fragments in basalt matrix.	114080	0.063	0.039
463.00	465.00	Fine-coarse grained green-grey flow brecciated chloritic	0.5	1 30			114081	0.067	0.032
465.00	467.00	Fine-medium-grained green-grey porphyritic chloritic	0.5	4			114082	0.075	0.038
467.00	469.00		0.1	10			114083	0.073	0.033
469.00	471.00		0.1	8		Chlorite gradually disappears down hole.	114084	0.063	0.015
471.00	473.00	Fine-medium-grained green-grey porphyritic sericitic	3.0	0		Sericite and pyrite, observing primary textures. Protolith still locally recognizable as augite-phyric basalt and minor intervals of flow breccia.	114085	0.03	0.076
473.00	475.00	Fine-medium-grained grey porphyritic sericitic	5.0	0			114086	0.061	0.085
475.00	477.00		5.0	1			114087	0.08	0.165
477.00	479.00		7.0	0			114088	0.087	0.166
479.00	481.00		5.0	0			114089	0.072	0.119
481.00	483.00		5.0	0			114090	0.013	0.025
483.00	485.00		5.0	0			114091	0.022	0.011

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
485.00	487.00	Fine-medium-grained grey porphyritic sericitic	3.0	0			114092	0.002	0.005
487.00	489.00		5.0	0			114094	0.002	-2
489.00	491.00		3.0	0		Qtz and pyrite vein @ 45 deg. t.c.a	114095	0.003	0.005
491.00	493.00		3.0	0			114096	0.001	-2
493.00	495.00		3.0	0			114097	0.004	0.013
495.00	497.00		3.0	0			114098	-2	-2
497.00	499.00		5.0	0		Qtz vein @ 85 deg. t.c.a.	114099	0.001	-2
499.00	501.00		3.0	0			114100	0.002	0.006
501.00	503.00		3.0	0		Qtz and pyrite vein @ go deg. t.c.a.	114101	0.002	0.009
503	521.2	BASALT POLYLITHIC TUFF							
503.00	505.00	Coarse-fine-grained green-grey fragmental sericitic	3.0	1		Fragmental unit/poly lithic tuff, greenish gray, showing centimetric to decimetric angular to sub-angular fragments of basalt and bladed feldspar porphyry in a mafic, sericitized and chloritized matrix. Probably not Toodoggone, as it looks too mafic and lacks quartz eyes.	114102	0.084	0.142
505.00	507.00		2.0	0			114103	0.052	0.186
507.00	509.00	Coarse-fine-grained green-grey fragmental sericitic biotite	1.0	0			114104	0.062	0.101
509.00	511.00	Coarse-fine-grained green-grey fragmental sericitic chloritic	0.5	0			114105	0.142	0.224
511.00	513.00		1.0	1			114106	0.114	0.216
513.00	515.00		0.1	3			114107	0.082	0.101
515.00	517.00	Coarse-fine-grained orange grey fragmental sericitic	0.1	7 CVN	5	Calcite & Fe-carbonate veins and veinlets. Fragments are more sub-angular to sub-rounded	114108	0.007	0.012
517.00	519.00	Coarse-fine-grained green-grey fragmental sericitic chloritic	0.1	10			114109	0.005	0.006
519.00	520.50		0.1	2			114110	0.003	0.008
520.50	521.20	Coarse-fine-grained green-grey fragmental chloritic sericitic	0.1	20		Dykelet or block of qtz-monzonite within the tuff.	114111	0.001	-2
521.2	527.2	QUARTZ MONZONITE							
521.20	523.00	Fine-medium-grained light grey chloritic sericitic	0.1	1		Light gray with 2% millimetric chlorite specks, aphanitic to medium grained phaneritic sericite-altered felsic intrusive rock, possibly monzonite.	114112	0.002	0.008

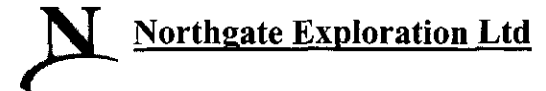
Hole Number: KN-02-35

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
523.00	525.00	Fine-medium-grained light grey chloritic sericitic	0.1	0			114113	0.004	0.025
525.00	527.20		0.1	2			114114	0.001	0.053
527.2	529	BASALT TUFF							
527.20	529.00	Fine-grained dark grey massive chloritic	0.5	24		Massive, tuffaceous but without visible fragments.	114115	0.009	0.022
529	540.2	BASALT POLYLITHIC TUFF							
529.00	531.00	Fine-coarse grained dark grey fragmental chloritic	0.5	26			114116	0.002	0.049
531.00	533.00		0.1	30			114117	0.002	0.008
533.00	535.00		0.1	27			114118	0.008	0.007
535.00	537.00	Fine-medium-grained dark grey fragmental chloritic	0.1	29			114120	0.007	0.008
537.00	539.00			28			114121	0.002	2.04
539.00	540.20			3			114122	0.003	0.012
540.2	540.85	SYENITE							
540.20	540.85	Medium-fine-grained dark grey porphyritic		14		Porphyritic syenite dyke, post-mineral, unaltered, unmineralized.	114123	0.003	-2
540.85	541.8	BASALT TUFF							
540.85	541.80	Fine-grained dark grey massive chloritic	0.1	3		Massive, tuffaceous but without visible fragments.	114124	0.005	0.012
541.8	560.45	SYENITE							
541.80	544.00	Medium-fine-grained dark grey porphyritic		17		Porphyritic, post-mineral syenite, unaltered, unmineralized.	114125	0.003	-2
544.00	546.00			14			114126	0.003	-2
546.00	548.00			17			114127	0.003	-2
548.00	550.00			15			114128	0.002	-2
550.00	552.00			15			114129	0.002	-2
552.00	554.00			16			114130	0.002	-2
554.00	556.00			17			114131	0.002	-2
556.00	558.00			18			114132	0.003	-2
558.00	560.45			11			114133	0.003	-2

Hole Number: KN-02-35

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
560.45	562	BASALT TUFF							
560.45	562.00	Fine-grained dark grey massive chloritic	0.1	0		Massive, tuffaceous, fine-grained	114134	0.003	0.007
562	571.1	BASALT POLYLITHIC TUFF							
562.00	564.00	Fine-medium-grained orange grey fragmental sericitic clay	2.0	0		Poly lithic tuff.	114135	0.092	0.022
564.00	566.00		1.0	2			114136	0.01	-2
566.00	567.30		1.0	24			114137	0.021	0.01
567.30	569.00		1.0	4			114138	0.002	-2
569.00	571.10	Fine-medium-grained dark grey fragmental chloritic	0.1	23			114139	0.002	0.011
571.1	574.35	QUARTZ MONZONITE							
571.10	573.00	Medium-fine-grained dark grey porphyritic chloritic	0.1	7		Porphyritic qtz-monzonite, very weakly chloritized with core basalt xenoliths	114140	0.011	0.262
573.00	574.35		0.5	18			114141	0.042	0.124
574.35	577.6	BASALT POLYLITHIC TUFF							
574.35	576.00	Fine-coarse grained dark grey fragmental chloritic	0.1	14		Poly lithic tuff with qtz monzonite dykelet between 574.70-574.95 m	114142	0.004	0.031
576.00	577.60		0.1	19			114143	0.002	0.012
577.6 EOH									

Kemess North 2002 - Diamond Drill Log



Hole Number: **KN-02-36**

Northing: 16218.4	Total Depth: 586.89m
Easting: 9929.73	Azimuth: 0°
Elevation: 1653.0	Dip: -90°

Geologist: E. Ramsay
Logged Date: 9/3/2002

Survey Depth	Azimuth	Dip	Comments:
107 m	0 °	-89 °	
207 m	0 °	-89 °	
305 m	0 °	-90 °	
396 m	0 °	-89 °	
488 m	0 °	-89 °	
587 m	143 °	-89 °	

Kemess North 2002 - Summary Drill Log



Hole Number: **KN-02-36**

From (m)	To (m)	Rock Type	Comments
0	6.1	CASING	
6.1	9	DIORITE	Broken /rubby core, greenish grey porphyritic diorite or andesite w/ disseminated pyrite orientation of contact w/ next unit unknown.
9	46.27	SYENITE	Porphyritic, post mineral syenite, orange-grey, showing 1% medium to coarse grained biotite books in a medium grained feldspar-rich matrix. Rock is unaltered and unmineralized.
46.27	347.55	BASALT BLADED FELDSPAR PORPHYRY	Greenish grey, soapy-looking, sericite-altered bladed feldspar porphyry, showing patchy local biotite alteration. 0.5% pyrite mostly as veinlets and minor dissemination. Brittle faulted contact w/ gouge with previous unit, probably due to high rheological contrast.
347.55	350	BASALT	Greenish gray, fine to medium grained porphyritic basalt. Broken core- contacts unclear.
350	360.3	BASALT BLADED FELDSPAR PORPHYRY	Minor fault with gouge near 351.85 metres. Broken core- orientation unknown.
360.3	364.1	BASALT	Grayish green, fine to coarse grained porphyritic basalt with euhedral to subhedral chloritized augite (up to 25%) in an aphanitic matrix.
364.1	369.5	BASALT BLADED FELDSPAR PORPHYRY	Bladed feldspar porphyry.
369.5	403	BASALT	Augite-phyric basalt, greenish gray, showing up to 30% euhedral to subhedral phenocrysts (0.5 to 10 mm) in an aphanitic matrix. Dark chloritic selvages around veins and fractures, reminiscent of pillows. Traces of pyrite throughout, mostly in veinlets.
403	412	BASALT BLADED FELDSPAR PORPHYRY	
412	415	BASALT	
415	420.6	BASALT BLADED FELDSPAR PORPHYRY	

Hole Number:

KN-02-36

From (m)	To (m)	Rock Type	Comments
420.6	429.35	BASALT	
429.35	453	BASALT BLADED FELDSPAR PORPHYRY	Strongly altered, primary texture mostly obliterated but locally recognizable.
453	459	BASALT	
459	487	BASALT BLADED FELDSPAR PORPHYRY	
487	503	BASALT TUFF	Massive, tuffaceous-looking unit (crystal tuff?). Mafic-looking (andesite).
503	519.5	BASALT POLYLITHIC TUFF	Poly lithic tuff showing angular fragments of basalt/andesite and quartz- monzonite.
519.5	559	QUARTZ MONZONITE	Medium grained quartz-monzonite porphyry, weakly chloritized, showing 1 to 3% quartz + pyrite +/- magnetite veins and veinlets.
559	568.7	BASALT POLYLITHIC TUFF	Minor shear @ 20 degrees to core axis. Fragmental, poly lithic (tuff?).
568.7	586.74	QUARTZ MONZONITE	Quartz-monzonite porphyry, strongly fractured and injected by pink carbonate/zeolite.

Kemess North 2002 - Detail Drill Log



Hole Number: KN-02-36

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
0	6.1	CASING							
0.00	6.10						36	-2	-2
6.1	9	DIORITE							
6.10	9.00	Medium-fine-grained green-grey porphyritic chloritic sericitic	0.1	2		Broken /rubby core, greenish grey porphyritic diorite or andesite w/ disseminated pyrite orientation of contact w/ next unit unknown.	116001	0.064	0.105
9	46.27	SYENITE							
9.00	11.00	Medium-coarse-grained orange grey porphyritic		10		Porphyritic, post mineral syenite, orange-grey, showing 1% medium to coarse grained biotite books in a medium grained feldspar-rich matrix. Rock is unaltered and unmineralized.	116002	0.024	-2
11.00	13.00			13			116003	0.017	-2
13.00	15.00			11			116004	0.007	-2
15.00	17.00			14			116005	0.028	-2
17.00	19.00			24			116006	0.023	-2
19.00	21.00			24			116007	0.011	-2
21.00	23.00			24			116008	0.006	-2
23.00	25.00			26			116009	0.003	-2
25.00	27.00			26			116010	0.003	-2
27.00	29.00			26			116011	0.003	-2
29.00	31.00			27			116012	0.002	-2
31.00	32.61			27			116013	0.003	-2
32.61	34.50			27			116014	0.003	-2
34.50	36.00			25			116015	0.003	-2
36.00	38.00			24			116016	0.003	-2
38.00	39.62			28			116017	0.002	-2
39.62	41.00			21			116018	0.005	-2

Hole Number: KN-02-36

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
41.00	42.00	Medium-coarse-grained orange grey porphyritic		24			116019	0.003	-2
42.00	45.00			17			116020	0.002	-2
45.00	46.27			16			116021	0.002	-2
46.27	347.55	BASALT BLADED FELDSPAR PORPHYRY							
46.27	48.00	Fine-coarse grained green-grey sericitic	1.0	1	FLT	45 5 Greenish grey, soapy-looking, sericite-altered bladed feldspar porphyry, showing patchy local biotite alteration. 0.5% pyrite mostly as veinlets and minor dissemination. Brittle faulted contact w/ gouge with previous unit, probably due to high rheological contrast.	116022	0.084	0.169
48.00	50.00		1.0	0			116023	0.037	0.077
50.00	52.00		0.5	0			116024	0.067	0.141
52.00	54.00	Fine-coarse grained green-grey sericitic biotite	0.5	1			116025	0.039	0.078
54.00	56.00		0.1	0			116027	0.101	0.171
56.00	58.00		1.0	0			116028	0.046	0.083
58.00	60.00		0.5	0			116029	0.061	0.123
60.00	62.00		0.5	0			116030	0.111	0.187
62.00	64.00		0.5	0			116031	0.088	0.17
64.00	66.00		0.5	0			116032	0.023	0.055
66.00	68.00		0.5	0			116033	0.055	0.147
68.00	70.00		1.0	0			116034	0.052	0.099
70.00	72.00		0.5	0		Orange iron-carbonate crystals, medium - grained, along fractures.	116035	0.088	0.174
72.00	74.00		1.0	0	FLT		116036	0.032	0.064
74.00	76.00	Fine-coarse grained green-grey sericitic	1.0	0	FLT		116037	0.021	0.043
76.00	78.00		0.5	0			116038	0.032	0.053
78.00	80.00	Fine-coarse grained green-grey sericitic biotite	1.0	0			116039	0.042	0.062
80.00	82.00	Fine-coarse grained green-grey sericitic	0.5	0			116040	0.045	0.086
82.00	84.00		1.0	0			116041	0.027	0.058

Hole Number: KN-02-36

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
84.00	86.00	Fine-coarse grained green-grey sericitic	0.5	0			116042	0.014	0.025
86.00	88.00	Fine-coarse grained green-grey sericitic biotite	0.5	0			116043	0.099	0.152
88.00	90.00	Fine-coarse grained green-grey sericitic	0.5	0			116044	0.056	0.1
90.00	92.00	Fine-coarse grained green-grey sericitic biotite	0.5	0			116045	0.054	0.119
92.00	94.00		1.0	0			116046	0.094	0.188
94.00	96.00		1.0	0			116047	0.086	0.1
96.00	98.00		0.5	1			116048	0.102	0.127
98.00	100.00		0.5	0			116049	0.09	0.101
100.00	102.00		0.5	0			116050	0.17	0.224
102.00	104.00		0.1	0			116051	0.065	0.101
104.00	106.00		0.5	0			116053	0.132	0.208
106.00	108.00		0.5	0			116054	0.076	0.127
108.00	110.00		0.1	2			116055	0.072	0.087
110.00	112.00		0.5	4			116056	0.088	0.114
112.00	114.00		1.0	0			116057	0.155	0.225
114.00	116.00	Fine-coarse grained green-grey sericitic	2.0	0	FLT 60 30	Gougy fault zone @ 60 degrees t.c.a.. w/ irregular - shaped pyrite masses in bleached hanging wall.	116058	0.088	0.125
116.00	118.00	Fine-coarse grained green-grey sericitic chloritic	0.5	1			116059	0.077	0.15
118.00	120.00	Fine-coarse grained green-grey sericitic	1.0	0			116060	0.052	0.116
120.00	122.00	Fine-coarse grained green-grey sericitic biotite	0.5	0			116061	0.124	0.205
122.00	124.00		1.0	2			116062	0.12	0.167
124.00	126.00		0.5	2			116063	0.133	0.176
126.00	128.00		1.0	0			116064	0.157	0.227
128.00	130.00		0.5	2			116065	0.085	0.125
130.00	132.00		0.5	0			116066	0.075	0.088
132.00	134.00		0.5	0			116067	0.119	0.164

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
134.00	136.00	Fine-coarse grained green-grey sericitic biotite	1.0	0			116068	0.093	0.125
136.00	138.00		0.5	0			116069	0.12	0.156
138.00	140.00		1.0	1			116070	0.105	0.138
140.00	142.00	Fine-coarse grained green-grey sericitic chloritic	0.5	0			116071	0.102	0.132
142.00	144.00	Fine-coarse grained green-grey sericitic	0.5	0		Monomictic flow breccia.	116072	0.108	0.135
144.00	146.00	Fine-coarse grained green-grey sericitic biotite	0.5	0	FLT	Crumbly/gougy interval.	116073	0.134	0.177
146.00	148.00		0.1	0			116074	0.102	0.129
148.00	150.00		1.0	16			116075	0.085	0.139
150.00	152.00	Fine-coarse grained green-grey sericitic chloritic	0.5	0			116076	0.097	0.133
152.00	154.00		0.5	0.1	0	FLT 30 5 Gougy fault zone.	116077	0.133	0.221
154.00	156.00	Fine-coarse grained green-grey sericitic biotite	0.5	1			116079	0.094	0.137
156.00	158.00		1.0	0	QVN 45 2		116080	0.102	0.152
158.00	160.00	Fine-coarse grained green-grey sericitic chloritic	1.0	0	QVN 1		116081	0.114	0.156
160.00	162.00	Fine-coarse grained green-grey sericitic biotite	0.1	0			116082	0.172	0.22
162.00	164.00		1.0	1			116083	0.044	0.063
164.00	166.00		0.1	0			116084	0.086	0.104
166.00	168.00	Fine-coarse grained green-grey sericitic chloritic	1.0	0			116085	0.09	0.124
168.00	170.00	Fine-coarse grained green-grey sericitic biotite	2.0	0			116086	0.066	0.134
170.00	172.00		2.0	0			116087	0.112	0.182
172.00	174.00		0.1	0			116088	0.071	0.113
174.00	176.00		0.1	6			116089	0.104	0.185
176.00	178.00		0.1	10			116090	0.088	0.091
178.00	180.00		2.0	1	QVN 20 2		116091	0.2	0.279
180.00	182.00		0.1	9			116092	0.127	0.18

Hole Number: KN-02-36

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
182.00	184.00	Fine-coarse grained green-grey sericitic biotite	0.1	9	QVN 3		116093	0.106	0.127
184.00	186.00		0.1	7			116094	0.115	0.17
186.00	188.00		0.5	17			116095	0.093	0.114
188.00	190.00		0.5	3	QVN 60 2		116096	0.11	0.151
190.00	192.00		0.5	6			116097	0.127	0.149
192.00	194.00		0.5	0	QVN 1		116098	0.135	0.167
194.00	196.00		0.5	1			116099	0.218	0.299
196.00	198.00		0.5	2			116100	0.15	0.147
198.00	200.00		0.5	0	5 QVN 45 2		116101	0.13	0.191
200.00	202.00		0.1	12			116102	0.11	0.115
202.00	204.00		0.1	0			116103	0.213	0.256
204.00	206.00	Fine-coarse grained green-grey sericitic chloritic	0.5	0	QVN 15	Locally broken core w/ some gouge indicating a brittle fault, orientation unknown.	116105	0.086	0.071
206.00	208.00		0.5	6	QVN 30 2		116106	0.132	0.214
208.00	210.00	Fine-coarse grained green-grey sericitic biotite	1.0	7			116107	0.098	0.128
210.00	212.00		0.5	0			116108	0.119	0.145
212.00	214.00		0.1	6		Fractured/broken core.	116109	0.114	0.192
214.00	216.00		0.1	0			116110	0.121	0.17
216.00	218.00	Fine-coarse grained green-grey sericitic chloritic	0.1	0			116111	0.125	0.127
218.00	220.00		0.1	3			116112	0.129	0.101
220.00	222.00		0.1	0			116113	0.116	0.138
222.00	224.00		1.0	0		Broken core w/gouge, brittle fault w/ unknown orientation, but likely low-angle.	116114	0.188	0.339
224.00	226.00		0.5	0			116115	0.14	0.192
226.00	228.00	Fine-coarse grained green-grey sericitic biotite	0.5	10			116116	0.115	0.135
228.00	230.00	Fine-coarse grained green-grey sericitic chloritic	0.5	2			116117	0.12	0.129
230.00	232.00		0.5	1	4		116118	0.126	0.142

Hole Number: KN-02-36

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
232.00	234.00	Fine-coarse grained green-grey sericitic chloritic	0.5	3			116119	0.125	0.13
234.00	236.00		0.5	0			116120	0.119	0.148
236.00	238.00		0.1	0			116121	0.094	0.096
238.00	240.00		0.5	2	FLT	10 50 Brittle fault with gouge @ low angle to core axis.	116122	0.131	0.216
240.00	242.00	Fine-coarse grained green-grey sericitic biotite	0.5	3			116123	0.111	0.151
242.00	244.00		0.5	6			116124	0.134	0.161
244.00	246.00		2.0	9			116125	0.193	0.271
246.00	248.00		0.1	15			116126	0.101	0.112
248.00	250.00		0.5	3			116127	0.088	0.07
250.00	252.00		0.5	26			116128	0.207	0.241
252.00	254.00		1.0	3	QVN	1	116129	0.255	0.322
254.00	256.00		0.1	3			116131	0.127	0.17
256.00	258.00		0.1	4			116132	0.15	0.201
258.00	260.00		0.5	0			116133	0.118	0.141
260.00	262.00		0.5	0			116134	0.097	0.147
262.00	264.00		0.5	18			116135	0.18	0.214
264.00	266.00		0.1	2			116136	0.119	0.123
266.00	268.00		0.5	6			116137	0.088	0.106
268.00	270.00		0.1	8			116138	0.147	0.171
270.00	272.00		0.5	8			116139	0.137	0.157
272.00	274.00		0.5	6			116140	0.137	0.166
274.00	276.00		0.1	6			116141	0.117	0.174
276.00	278.00		0.5	12			116142	0.112	0.132
278.00	280.00		0.5	3			116143	0.113	0.129
280.00	282.00		0.5	11			116144	0.117	0.134
282.00	284.00		0.1	0			116145	0.111	0.176
284.00	286.00		0.1	4			116146	0.094	0.116
286.00	288.00		0.1	1			116147	0.136	0.193

Hole Number: KN-02-36

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
288.00	290.00	Fine-coarse grained green-grey sericitic chloritic	0.2	20			116148	0.137	0.165
290.00	292.00		1.0	8	FLT	25 5 Minor fault with gouge @ 25 degrees to core axis.	116149	0.158	0.274
292.00	294.00		0.1	15			116150	0.349	0.545
294.00	296.00		0.1	16			116151	0.165	0.218
296.00	298.00	Fine-coarse grained green-grey sericitic biotite	0.1	6			116152	0.125	0.167
298.00	300.00		0.5	8			116153	0.151	0.215
300.00	302.00		0.5	4			116154	0.103	0.101
302.00	304.00	Fine-coarse grained orange grey sericitic biotite	0.5	5	QVN	5 20 Quartz-carbonate vein @ 25 degrees to core axis.	116155	0.14	0.25
304.00	306.00	Fine-coarse grained green-grey sericitic biotite	0.1	4			116157	0.123	0.199
306.00	308.00		0.5	14			116158	0.132	0.189
308.00	310.00		0.5	6			116159	0.146	0.172
310.00	312.00		0.1	2			116160	0.176	0.298
312.00	314.00		0.5	18			116161	0.175	0.243
314.00	316.00		0.5	10			116162	0.129	0.203
316.00	318.00		1.0	0.1	5		116163	0.245	0.372
318.00	320.00	Fine-coarse grained dark grey sericitic biotite	0.5	3			116164	0.128	0.183
320.00	322.00	Fine-coarse grained brown grey sericitic biotite	0.5	13			116165	0.16	0.304
322.00	324.00		1.0	2			116166	0.138	0.168
324.00	326.00		0.1	1			116167	0.176	0.229
326.00	328.00		1.0	0			116168	0.127	0.178
328.00	330.00		0.5	11			116169	0.135	0.178
330.00	332.00		0.5	24			116170	0.127	0.174
332.00	334.00		0.5	12			116171	0.15	0.25
334.00	336.00		0.5	5			116172	0.139	0.202
336.00	338.00		0.1	6			116173	0.107	0.198
338.00	340.00		0.5	9			116174	0.122	0.184

Hole Number: KN-02-36

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
340.00	342.00	Fine-coarse grained brown grey sericitic biotite	0.5	7			116175	0.114	0.228
342.00	344.00		0.1	6			116176	0.097	0.212
344.00	346.00		0.5	10			116177	0.106	0.144
346.00	347.55	Fine-coarse grained green-grey sericitic chloritic	0.5	1			116178	0.098	0.129
347.55	350	BASALT							
347.55	350.00	Fine-medium-grained green-grey porphyritic chloritic	0.5	1		Greenish gray, fine to medium grained porphyritic basalt. Broken core- contacts unclear.	116179	0.093	0.106
350	360.3	BASALT BLADED FELDSPAR PORPHYRY							
350.00	352.00	Fine-coarse grained green-grey sericitic chloritic	0.5	0 QVN	50 15	Minor fault with gouge near 351.85 metres. Broken core-orientation unknown.	116180	0.077	0.125
352.00	354.00		0.1	0			116181	0.13	0.211
354.00	356.00		0.1	5			116183	0.104	0.176
356.00	358.00		0.1	0			116184	0.148	0.245
358.00	360.30		0.1	0			116185	0.126	0.245
360.3	364.1	BASALT							
360.30	362.00	Fine-medium-grained green-grey porphyritic chloritic	0.5	0 CTC	60	Grayish green, fine to coarse grained porphyritic basalt with euhedral to subhedral chloritized augite (up to 25%) in an aphanitic matrix.	116186	0.088	0.118
362.00	364.10		0.5	5 CTC	90		116187	0.074	0.079
364.1	369.5	BASALT BLADED FELDSPAR PORPHYRY							
364.10	366.00	Fine-coarse grained green-grey sericitic chloritic	0.5	1		Bladed feldspar porphyry.	116188	0.117	0.112
366.00	368.00		0.1	1			116189	0.13	0.201
368.00	369.50		0.1	1			116190	0.132	0.113
369.5	403	BASALT							
369.50	371.00	Fine-medium-grained green-grey porphyritic chloritic	0.1	2		Augite-phyric basalt, greenish gray, showing up to 30% euhedral to subhedral phenocrysts (0.5 to 10 mm) in an aphanitic matrix. Dark chloritic selvages around veins and fractures, reminiscent of pillows. Traces of pyrite throughout, mostly in veinlets.	116191	0.124	0.108
371.00	373.00		0.1	6			116192	0.085	0.088

Hole Number: KN-02-36

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
373.00	375.00	Fine-coarse grained green-grey porphyritic chloritic	0.1	15			116193	0.103	0.099
375.00	377.00	Fine-medium-grained green-grey porphyritic chloritic	0.1	9			116194	0.084	0.068
377.00	379.00		0.1	5			116195	0.074	0.069
379.00	381.00		0.1	9			116196	0.068	0.086
381.00	383.00		0.1	7			116197	0.07	0.069
383.00	385.00		0.5	0	0 QVN	40 10	116198	0.101	0.073
385.00	387.00		0.1	16			116199	0.079	0.061
387.00	389.00		0.1	5			116200	0.069	0.059
389.00	391.00		0.5	6			116201	0.081	0.073
391.00	393.00		0.1	2			116202	0.081	0.071
393.00	395.00	Fine-medium-grained green-grey porphyritic chloritic sericitic	0.1	10			116203	0.077	0.056
395.00	397.00	Fine-medium-grained green-grey porphyritic chloritic	0.1	10			116204	0.098	0.094
397.00	399.00		0.1	12			116205	0.062	0.08
399.00	401.00		0.1	5			116206	0.084	0.076
401.00	403.00		0.1	14			116207	0.143	0.196
403	412	BASALT BLADED FELDSPAR PORPHYRY							
403.00	405.00	Fine-coarse grained green-grey sericitic chloritic	0.1	2			116209	0.153	0.127
405.00	407.00		0.1	0			116210	0.16	0.224
407.00	409.00		5.0	0	0 QVN	90 10 White quartz and pyrite vein.	116211	0.215	0.312
409.00	411.00		3.0	0			116212	0.203	0.322
411.00	412.00		1.0	0			116213	0.203	0.385
412	415	BASALT							
412.00	413.00	Fine-medium-grained green-grey porphyritic chloritic	4.0	2			116214	0.233	0.287
413.00	415.00		0.1	8			116215	0.26	0.28
415	420.6	BASALT BLADED FELDSPAR PORPHYRY							

Hole Number: KN-02-36

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
415.00	417.00	Fine-coarse grained green-grey sericitic chloritic	1.0	3			116216	0.35	0.688
417.00	419.00		1.0	3			116217	0.311	0.443
419.00	420.60		0.5	1			116218	0.41	0.563
420.6	429.35	BASALT							
420.60	423.00	Fine-medium-grained green-grey porphyritic sericitic chloritic	4.0	0			116219	0.207	0.283
423.00	425.00		2.0	0			116220	0.158	0.207
425.00	427.00		1.0	0			116221	0.172	0.25
427.00	429.35		4.0	0			116222	0.281	0.46
429.35	453	BASALT BLADED FELDSPAR PORPHYRY							
429.35	431.00	Fine-coarse grained green-grey sericitic chloritic	1.0	5		Strongly altered, primary texture mostly obliterated but locally recognizable.	116223	0.209	0.424
431.00	433.00		0.5	1			116224	0.264	0.393
433.00	435.00		1.0	1			116225	0.271	0.377
435.00	437.00		0.5	11 QVN	70 8	White quartz and pyrite vein.	116226	0.171	0.227
437.00	439.00		0.5	16			116227	0.22	0.337
439.00	441.00		0.5	12			116228	0.228	0.414
441.00	443.00		1.0	3			116229	0.185	0.401
443.00	445.00		0.5	5			116230	0.205	0.321
445.00	447.00		2.0	0			116231	0.17	0.303
447.00	449.00		0.1	1			116232	0.367	0.741
449.00	451.00		0.5	4			116233	0.193	0.364
451.00	453.00	Fine-coarse grained green-grey sericitic biotite	0.5	4			116235	0.242	0.269
453	459	BASALT							
453.00	455.00	Fine-medium-grained green-grey porphyritic sericitic biotite	1.0	7			116236	0.158	0.198
455.00	457.00		0.1	3			116237	0.161	0.191
457.00	459.00	Fine-medium-grained green-grey porphyritic sericitic chloritic	1.0	0 QVN	5	Quartz, calcite, pyrite and trace molybdenite.	116238	0.367	0.649

Hole Number: KN-02-36

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
459	487	BASALT BLADED FELDSPAR PORPHYRY							
459.00	461.00	Fine-coarse grained green-grey sericitic chloritic	2.0	1			116239	0.226	0.418
461.00	463.00		1.0	1			116240	0.436	0.868
463.00	465.00		1.0	0			116241	0.493	1.05
465.00	467.00		0.5	0.1	0		116242	0.241	0.357
467.00	469.00		1.5	8			116243	0.204	0.317
469.00	471.00		3.0	0			116244	0.217	0.27
471.00	473.00		2.0	0			116245	0.475	0.755
473.00	475.00		1.0	0			116246	0.757	0.965
475.00	477.00	Fine-coarse grained green-grey sericitic biotite	1.0	2			116247	0.324	0.634
477.00	479.00		1.0	5			116248	0.281	0.637
479.00	481.00		1.0	0.1	1		116249	0.251	0.569
481.00	483.00	Fine-coarse grained green-grey sericitic chloritic	1.0	0			116250	0.21	0.702
483.00	485.00		2.0	1			116251	0.362	0.656
485.00	487.00		1.5	6			116252	0.209	0.312
487	503	BASALT TUFF							
487.00	489.00	Fine-medium-grained dark grey massive biotite chloritic	1.0	3		Massive, tuffaceous-looking unit (crystal tuff?). Mafic-looking (andesite).	116253	0.181	0.272
489.00	491.00		2.0	4			116254	0.244	0.518
491.00	493.00	Fine-medium-grained dark grey massive chloritic	1.5	3			116255	0.294	0.644
493.00	495.00		0.5	3			116256	0.242	0.405
495.00	497.00		0.5	0			116257	0.208	0.32
497.00	499.00		0.5	0			116258	0.294	0.516
499.00	501.00		1.0	1			116259	0.212	0.247
501.00	503.00		3.0	0			116261	0.171	0.206
503	519.5	BASALT POLYLITHIC TUFF							

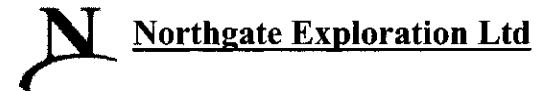
Hole Number: KN-02-36

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
503.00	505.00	Fine-coarse grained dark grey fragmental chloritic	1.0 0.1	1	19 QVN 70 5	Polyolithic tuff showing angular fragments of basalt/andesite and quartz- monzonite.	116262	0.069	0.046
505.00	507.00	Fine-coarse grained orange grey fragmental chloritic	0.1	1			116263	0.006	0.012
507.00	509.00	Fine-coarse grained green-grey fragmental chloritic	1.0	0	0 QVN 70 2	Broken core w/gouge.	116264	0.032	0.018
509.00	511.00		2.0 0.1	1	3 QVN 7	White quartz and pyrite veins with traces of chalcopyrite and molybdenite.	116265	0.057	0.018
511.00	513.00		0.5	0	4		116266	0.007	0.274
513.00	515.00		0.5	0	20		116267	0.007	0.361
515.00	517.00		0.1	0	18		116268	0.006	0.043
517.00	519.00		0.1	0	6		116269	0.007	0.019
519.00	519.50		0.1	0	10		116270	0.01	0.219
519.5	559	QUARTZ MONZONITE							
519.50	521.00	Medium-fine-grained orange grey porphyritic chloritic	0.1	1		Medium grained quartz-monzonite porphyry, weakly chloritized, showing 1 to 3% quartz + pyrite +/- magnetite veins and veinlets.	116271	0.011	0.045
521.00	523.00		1.0	0	17 PVN 45 1		116272	0.012	0.053
523.00	525.00		1.0	0			116273	0.012	0.05
525.00	527.00	Medium-fine-grained green-grey porphyritic chloritic	2.0 0.1	1	7		116274	0.026	0.045
527.00	529.00		1.5	0	2		116275	0.008	0.086
529.00	531.00		1.5	0	1		116276	0.012	0.282
531.00	533.00		2.0	0	1		116277	0.002	0.024
533.00	535.00		2.0	0	9 SHR 20 5		116278	0.003	0.029
535.00	537.00		2.0	0	14		116279	0.005	0.048
537.00	539.00		2.0	0	0		116280	0.001	0.01
539.00	541.00	Medium-fine-grained orange grey porphyritic sericitic carbonate	1.0	0	0		116281	0.008	0.009
541.00	543.00	Medium-fine-grained green-grey porphyritic chloritic sericitic	0.1	20			116282	0.002	0.05
543.00	545.00	Medium-fine-grained green-grey porphyritic chloritic	0.1	19			116283	0.003	0.007

Hole Number: KN-02-36

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
545.00	547.00	Medium-fine-grained orange grey porphyritic chloritic carbonate	0.5	16			116284	0.003	0.018
547.00	549.00	Medium-fine-grained green-grey porphyritic chloritic	0.1	23			116285	0.005	0.067
549.00	551.00		0.1	21			116287	0.012	0.005
551.00	553.00		0.1	1			116288	0.003	0.011
553.00	555.00		0.1	17			116289	0.001	0.008
555.00	557.00	Medium-fine-grained orange grey porphyritic chloritic sericitic	1.0	14			116290	-2	-2
557.00	559.00	Fine-coarse grained orange grey porphyritic chloritic sericitic	1.0	0	7 QVN	3 Contact zone- intrusive breccia (?) Fragmental texture dominated by quartz-monzonite, quartz and pyrite veins.	116291	0.012	0.016
559	568.7	BASALT POLYLITHIC TUFF							
559.00	561.00	Fine-coarse grained orange grey sericitic clay	0.1		3 SHR	20 3 Minor shear @ 20 degrees to core axis. Fragmental, polyolithic (tuff?).	116292	0.018	0.017
561.00	563.00		1.0	0			116293	0.002	0.025
563.00	565.00		1.0	0	5		116294	0.031	0.089
565.00	567.00		1.0	0	11		116295	0.02	0.046
567.00	568.70		0.5	3			116296	0.01	0.068
568.7	586.74	QUARTZ MONZONITE							
568.70	570.00	Medium-fine-grained orange grey porphyritic sericitic chloritic	0.1	4		Quartz-monzonite porphyry, strongly fractured and injected by pink carbonate/zeolite.	116297	0.009	0.033
570.00	572.00		0.1	12			116298	0.006	0.108
572.00	574.00		0.5	11			116299	0.007	0.038
574.00	576.00		0.1	3			116300	0.004	0.024
576.00	578.00		0.5	0			116301	0.011	0.018
578.00	580.00		1.0	9	QVN	20 4 White quartz and pyrite vein.	116302	0.001	-2
580.00	582.00		0.1	10			116303	0.004	-2
582.00	584.00		1.0	14			116304	0.007	0.006
584.00	586.00		0.1	0			116305	0.005	0.011
586.00	586.74		0.1	1			116306	0.015	0.022
586.74 EOH									

Kemess North 2002 - Diamond Drill Log



Hole Number: **KN-02-37**

Northing: 15156.7	Total Depth: 487.24m
Easting: 10094	Azimuth: 180°
Elevation: 1889.0	Dip: -70°

Geologist: B. LaPeare
Logged Date: 9/8/2002

<u>Survey Depth</u>	<u>Azimuth</u>	<u>Dip</u>	<u>Comments:</u>
122 m	-2 °	-88 °	
213 m	-2 °	-88 °	
305 m	208 °	-60 °	
396 m	330 °	-83 °	
488 m	178 °	-85 °	

Kemess North 2002 - Summary Drill Log



Hole Number: **KN-02-37**

From (m)	To (m)	Rock Type	Comments
0	3.28	CASING	Casing/overburden
3.28	307	ANDESITE FLOW	Takla volc's; phyrlic w/ subhedral/ anhedral pyx; secondary patchy epi; fx's oxidized
307	308.6	ANDESITE HYPOGENE	Plagioclase +/- pyroxene phyrlic sill/dyke; sharp contacts at 60 degrees t.c.a.
308.6	322.45	ANDESITE FLOW	Calcite with hematite; locally phyrlic with weak, minor patchy epidote
322.45	351	ANDESITE HYPOGENE	Medium grained phyrlic pyroxene in fine grained matrix
351	487.24	ANDESITE FLOW	As above

Kemess North 2002 - Detail Drill Log



Hole Number: KN-02-37

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
0	3.28	CASING							
0.00	3.28					Casing/overburden	37	-2	-2
3.28	307	ANDESITE FLOW							
3.28	5.00	Fine-medium-grained grey-green massive epidote	0.5		JNT	10 Takla volc's; phyrlic w/ subhedral/ anhedral pyx; secondary patchy epi; fx's oxidized	118001	0.001	0.008
5.00	7.00		0.5		JNT	15 Mottled texture from increase in epi and local, weak, pinkish kfsp (?) alt'n associated with minor qtz infill	118002	-2	0.024
7.00	9.00		0.5		JNT	50 Fractured throughout with dark reddish brown oxidation	118003	0.002	0.022
9.00	11.00		0.5		JNT	30 Locally pitted/vuggy from ground water; csp with epidote	118004	0.005	0.031
11.00	13.00		0.5		JNT	30	118005	0.014	0.023
13.00	15.00		0.5		JNT	20 Oxidization on fractures is more rusty than brown; decrease in epidote	118006	0.022	0.025
15.00	17.00	Fine-medium-grained grey-green massive	0.5		JNT	15 Fractures mostly low angle	118007	0.02	0.029
17.00	19.00		0.5		JNT	10 Phyrlic texture very well preserved; local sericitic alt'n with a highly oxidized 5 cm interval	118008	0.06	0.035
19.00	21.00		0.5		JNT	25 Oxidization on fractures rare	118009	0.032	0.032
21.00	23.00		0.5		JNT	50 Highly fractured, locally; back to dark brown oxidization on fractures	118010	0.025	0.018
23.00	25.00		0.5		JNT	30 Oxidization variable between dark brown and rusty	118011	0.045	0.007
25.00	27.00	Fine-medium-grained grey-green massive epidote	0.5		CCV	5 2 Local low angle calcite veinlets with minor hematite in fractures; cessation of oxidized fractures.	118012	0.021	0.042
27.00	29.00	Fine-medium-grained grey-green massive	1.0		CCV	10 2 No phyrlic texture- massive and fine grained, unaltered; one pyrite veinlet 4 mm wide	118013	0.013	0.026
29.00	31.00	Fine-medium-grained grey-green massive epidote chloritic	0.5			Mottled from patchy epidote and hard pinkish (K-spar?) alt'n; phyrlic texture very evident	118014	0.007	0.133
31.00	33.00		0.5			As above	118015	0.01	0.078
33.00	35.00		1.0		QCV	5 3 One low angle calcite veinlet; rare pyrite stringers; locally disseminated pyrite; wispy texture with local quartz infill	118016	0.013	0.412

Hole Number: KN-02-37

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
35.00	37.00	Fine-medium-grained grey-green massive epidote	0.5		CCV 30	1 Massive phyrlic flow; rare epidote with one calcite stringer; weak pyrite with epidote; low angle fracture is oxidized	118017	0.041	0.244
37.00	39.00		0.5		JNT 10	Local fractures are oxidized	118018	0.037	0.118
39.00	41.00		1.0		CCV 1	< 1 mm random calcite stringers; +/- patchy pyrite included in epidote; rare weak, patchy hematite	118019	0.013	0.05
41.00	43.00		0.5		CCV 5	3 Local patchy epidote; minor round epidote-filled amygdules	118020	0.016	0.03
43.00	45.00		0.5		CCV 3	Epidote locally very well developed; random calcite infill with hematite selvages	118021	0.007	0.019
45.00	47.00		0.5			As above; phyrlic texture diffuse	118022	0.034	0.01
47.00	49.00		0.5		CCV 3	Random calcite infill locally; phyrlic texture more evident	118023	0.019	0.021
49.00	51.00		0.5		JNT 5	15 Locally highly fractured zone with oxidization (poor recovery)	118024	0.014	0.031
51.00	53.00		0.5		CCV 40	1 Epidote throughout as quasi-disseminated grains; very thin calcite stringers locally	118025	0.008	0.011
53.00	55.00		0.5		JNT 5	Epidote more patchy local fractures with well developed hematite oxidization	118027	0.016	0.015
55.00	57.00		0.5			phyric - epi alt'n	118028	0.009	0.028
57.00	59.00		1.0		QCV 5	15 Low angle quartz veinlet +/- calcite, +/- pyrite within a semi-pervasive epidote	118029	0.01	0.04
59.00	61.00		0.5		QCV 25	3 Calcite veinlets with wispy hematite and one quartz veinlet; calcite cross-cuts quartz	118030	0.054	0.034
61.00	63.00		1.0	1	CCV 4	Calcite as irregular infill; one qtz/py/mag vein	118031	0.019	0.01
63.00	65.00		1.0	2	QCV 30	5 one qtz + mag + py veinlet; epidote very well developed locally	118032	0.017	0.017
65.00	67.00		0.5			Patchy epidote thins out; possible rounded amygdules	118033	0.042	0.015
67.00	69.00		0.5			Slight decrease in epidote	118034	0.013	0.011
69.00	71.00		0.5		CCV 4	Local random calcite veinlets	118035	0.006	-2
71.00	73.00		5.0		QCV 10	50 cm interval of strong hem alt'n with 20% pyrite associated with local quartz infill +/- calcite	118036	0.026	0.039
73.00	75.00		0.5	0		Epidote-filled amygdules	118037	0.015	0.014
75.00	77.00		0.5	0		Rounded epidote altered/filled amygdules (?) or probably alt'd phenocrysts	118038	0.032	0.027

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
77.00	79.00	Fine-medium-grained grey-green massive epidote	0.5	0		As above but with epidote alt'n of matrix locally	118039	0.044	0.078
79.00	81.00		0.5	1	CCV 5 3	One calcite veinlet	118040	0.019	0.023
81.00	83.00		0.5	1	CCV 35 3	Epidote very well developed locally; moderate magnetite over 50 cm	118041	0.018	0.018
83.00	85.00		1.0	1	CCV 2	Phyric throughout; local random calcite stringers with hematite	118042	0.005	0.047
85.00	87.00		1.0	1	QCV 25 3	Calcite and one qtz/calcite veinlet with pyrite in selvage	118043	0.014	0.042
87.00	89.00	Fine-medium-grained grey-green mottled epidote sericitic	2.0	0	QCV 50 2	Locally mottled from epidote and sericite alt'n; local pyrite veinlets and patchy pyrite	118044	0.015	0.042
89.00	91.00		1.0	1	QCV 50 2	Local rounded to lensiod epidote (amygdules??) @ 60 degrees t.c.a.	118045	0.012	0.032
91.00	93.00		1.0	1	QCV 50 2	As above	118046	0.025	0.04
93.00	95.00		2.0	1	QCV 30 4	Pyrite rims around pyroxene/chlorite (amygdules) and as fracture fill	118047	0.018	0.062
95.00	97.00		1.0	0		As above plus pyrite as core of amygdules (pyroxene/chlorite and epidote filled)	118048	0.008	0.04
97.00	99.00		1.0	1	QCV 45 2	amygdaloidal texture well preserved locally; very thin (< 1 mm) quartz stringers with k-spar alt'n	118049	0.011	0.06
99.00	101.00		2.0	1	QCV 4	Qtz infill commonly w/ py; pyrite is also disseminated ; sample highly mottled	118050	0.011	0.081
101.00	103.00		1.0	1	QCV 2	Highly mottled from patchy sericite and epidote; locally pyroxene phyric	118051	0.002	0.051
103.00	105.00		1.0	1	QCV 1	Highly mottled from patchy sericite and epidote; phyric; amygdules	118053	0.001	0.057
105.00	107.00		1.0	0	QCV 1	As above	118054	0.003	0.043
107.00	109.00	Fine-medium-grained grey-green brecciated epidote	1.0	0	QCV 2	Mottled texture decreases; patchy epidote locally; coarse fragments; insitu flow breccia	118055	0.032	0.111
109.00	111.00		0.5	1	QCV 2	Flow breccia as above	118056	0.009	0.057
111.00	113.00	Fine-medium-grained grey-green massive epidote	0.5	0		No fragments; approx. 5% amygdules	118057	0.011	0.043
113.00	115.00		0.5	10	1 QVN	Patchy, irregular epidote alt'n; 25 cm massive hematite veinlet (?)	118058	0.003	0.024
115.00	117.00	Fine-medium-grained grey-green amygdular epidote	0.5	1	CCV 1	Fine grained, massive flow; minor amygdules; < 5% as moderate grained subhedral pyroxene	118059	0.008	0.014

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm	
117.00	119.00	Fine-medium-grained grey-green amygdular epidote	0.5	1	CCV	1 As above, with wispy epidote alt'n locally	118060	0.028	0.016	
119.00	121.00		0.5	1	CCV	1 As above, with epidote locally well developed	118061	0.002	0.013	
121.00	123.00		0.5	0	CCV	1 As above	118062	0.014	0.019	
123.00	125.00		0.5	1	CCV	2	118063	0.04	0.064	
125.00	127.00		1.0	0.1	1	CCV	2 As above, with wispy epidote veinlets; py+cpy in one calcite veinlet	118064	0.029	0.089
127.00	129.00		1.0	3		Wispy pyrite infill; minor patchy epidote	118065	0.005	0.046	
129.00	131.00		0.5	0		Decrease in pyrite	118066	0.01	0.055	
131.00	133.00		0.5	1		Amygduloidal- increases down hole	118067	0.019	0.109	
133.00	135.00		0.5	1	CCV	5 Calcite veinlets up to 6 cm wide; increase in patchy epidote	118068	0.018	0.046	
135.00	137.00		1.0	1	CCV	60 1 Amygduloidal texture throughout	118069	0.016	0.055	
137.00	139.00		2.0	0.5	0	QVN	2 Patchy, wispy pyrite and chalcopyrite in lower 20 cm of interval +/- quartz infill	118070	0.022	0.075
139.00	141.00	Fine-medium-grained grey-green amygdular epidote sericitic	2.0	0	CCV	55 1 Patchy pyrite associated with epidote and sericite +/- biotite over 25 cm	118071	0.03	0.093	
141.00	143.00	Fine-medium-grained grey-green amygdular epidote	0.5	1	CCV	65 2 Up to 30% amygdules locally	118072	0.025	0.073	
143.00	145.00		0.5	0	CCV	1 Amygdules, locally well preserved	118073	0.005	0.042	
145.00	147.00	Fine-medium-grained grey-green amygdular epidote sericitic	1.0	0		Patchy pyrite with epidote and sericite alt'n over 10 cm at bottom of interval	118074	0.026	0.095	
147.00	149.00	Fine-medium-grained grey-green mottled epidote sericitic	1.0	0	QCV	60 2 Mottled from alt'n; one quartz/calcite veinlet	118075	0.023	0.078	
149.00	151.00	Fine-medium-grained grey-green mottled epidote	0.5	0	CCV	20 2 One calcite veinlet with epidote, hematite and chlorite w.r. alt'n	118076	0.008	0.023	
151.00	153.00	Fine-medium-grained grey-green massive epidote	0.5	1	2	Patchy epidote throughout; very weakly magnetic at end of interval	118077	0.018	0.054	
153.00	155.00		0.5	2	11	CCV	50 3 Magnetite with calcite veinlet at end of interval	118079	0.01	0.025
155.00	157.00		0.5	2	9	CCV	3 Local calcite veinlets with hematite and chlorite	118080	0.003	0.007
157.00	159.00		0.5	2	11	CCV	2 One pyrite stringer	118081	0.004	0.024
159.00	161.00	Fine-medium-grained grey-green brecciated epidote	0.5	1	1	CCV	2 More coarse; local fragments; phyrac	118082	0.008	0.04

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
161.00	163.00	Fine-medium-grained grey-green brecciated epidote sericitic	2.0			Phyric, locally with light, medium grained siliceous syenite fragments	118083	0.025	0.104
163.00	165.00		0.5		CCV 60 2	As above; phyric and fragmental: NOT TUFFACEOUS!	118084	0.028	0.067
165.00	167.00	Fine-medium-grained grey-green brecciated sericitic	2.0			Coarse fragments locally of fine grained andesite in sericite altered phyric matrix; some clasts	118085	0.042	0.128
167.00	169.00	Fine-medium-grained grey-green massive epidote sericitic	1.0		CCV 1	Patchy epidote within mostly fine grained phyric flow	118086	0.04	0.112
169.00	171.00		0.5		CCV 15	As above with local calcite veinlets with black v.f.g. chlorite alt'n	118087	0.013	0.049
171.00	173.00	Fine-medium-grained grey-green brecciated epidote sericitic	0.5	1	CCV 15	Phyric flow with calcite veinlets and locally coarse magnetic fragments; breccia flow	118088	0.005	0.018
173.00	175.00	Fine-medium-grained grey-green brecciated sericitic	0.5	1	QCV 2	Thin calcite stringers and rare quartz infill; fragments are pale green, siliceous, non-magnetic and phyric	118089	0.039	0.053
175.00	177.00		0.5			Brecciated at top of sample; most of interval is massive, pale green, moderately siliceous phyric flow	118090	0.013	0.046
177.00	179.00	Fine-medium-grained grey-green brecciated epidote	0.5			Epidote locally within interstices; fragments v.f.g. to phyric	118091	0.005	0.036
179.00	181.00		0.5		CCV 5 1	As above with a decrease in epidote	118092	0.011	0.044
181.00	183.00		0.5			Brecciation only weakly developed	118093	0.012	0.079
183.00	185.00		0.5			As above; epidote alteration local and weak	118094	0.012	0.046
185.00	187.00	Fine-medium-grained grey-green massive epidote chloritic	0.5		CCV 3	Massive phyric flow; chloritic with local calcite veinlets	118095	0.011	0.02
187.00	189.00	Fine-medium-grained grey-green massive epidote	1.0		CCV 2	As above, with one pyrite/galena veinlet with calcite	118096	0.017	0.033
189.00	191.00		1.0	0.5	QCV 50 2	Phyric/porphyritic flow; patchy epidote; one quartz stringer with pyrite and chalcopyrite	118097	0.019	0.037
191.00	193.00		0.5		CCV 1	As above but without quartz	118098	0.033	0.076
193.00	195.00	Fine-medium-grained grey-green massive epidote sericitic	3.0		CCV 2	Patchy pyrite with epidote alt'n @ top or interval	118099	0.02	0.06
195.00	197.00		2.0		CCV 70 1	Pyrite with local epidote and sericite alt'n	118100	0.011	0.043
197.00	199.00		2.0		QCV 30 4	Pyrite with quartz and calcite veinlet 10 cm wide	118101	0.013	0.017
199.00	201.00		1.0		QCV 10	Epidote locally with developed, randomly oriented quartz and carb veinlets	118102	0.017	0.036
201.00	203.00		1.0		QCV 3	Pyrite locally disseminated and as rare stringers with quartz	118103	0.016	0.015

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
203.00	205.00	Fine-medium-grained grey-green massive epidote	2.0		CCV	1 Weak epidote locally; locally disseminated and patchy pyrite	118105	0.018	0.025
205.00	207.00		2.0		CCV	1 Epidote locally as alt'n of local amygdules	118106	0.038	0.081
207.00	209.00	Fine-medium-grained grey-green mottled epidote sericitic	3.0		QCV	3 Mottled from chlorite in patchy/semi-pervasive sericite + epidote alt'n; patchy pyrite locally	118107	0.017	0.113
209.00	211.00		2.0		CCV	25 3 Decrease in sericite; weak hematite with calcite veinlets	118108	0.027	0.137
211.00	213.00	Fine-medium-grained grey-green massive sericitic	1.0			Epidote absent; sericite patchy and locally w.d.	118109	0.007	0.098
213.00	215.00	Fine-medium-grained grey-green mottled epidote sericitic	1.0		CCV	5 2 Epidote patchy throughout; sericite weak locally	118110	0.007	0.1
215.00	217.00	Fine-medium-grained grey-green massive epidote	0.5			Slight decrease in epidote	118111	0.005	0.031
217.00	219.00	Fine-medium-grained grey-green massive epidote chloritic	0.5	1		Weakly magnetic locally; patchy epidote	118112	0.003	0.041
219.00	221.00		2.0	1	CCV	3 more dark gray chlorite (?); calcite as irregular infill; pyrite locally with calcite	118113	0.007	0.052
221.00	223.00	Fine-medium-grained grey-green massive epidote	0.5		CCV	5 Light, pale green from semi-pervasive sericite alt'n and brecciated w.r. in calcic infill	118114	0.023	0.143
223.00	225.00		2.0		CCV	1 As above, but with a decrease in calcite and an increase in pyrite	118115	0.02	0.073
225.00	227.00		3.0		CCV	4 Locally w.d. pyrite associated with weak calcite infill	118116	0.006	0.116
227.00	229.00	Fine-medium-grained grey-green massive sericitic	2.0		QCV	2 Epidote veinlet/stringer cross-cuts quartz infill; rounded blebs of pyrite locally	118117	0.011	0.096
229.00	231.00	Fine-medium-grained grey-green amygdular	1.0		CCV	4 Epidote amygdules, rarely with pyrite	118118	0.007	0.017
231.00	233.00	Fine-medium-grained grey-green mottled epidote	3.0		QCV	4 More mottled from an increase in alt'n; one quartz veinlet with pyrite @ 20 degrees	118119	0.002	0.063
233.00	235.00	Fine-medium-grained grey-green massive sericitic	4.0		QCV	5 Pyrite locally well developed with calcite infill +/- quartz	118120	0.004	0.066
235.00	237.00	Fine-medium-grained grey-green mottled epidote	4.0		QCV	50 4 Increase in alt'n- pyrite with infill locally +/- chlorite alt'n	118121	0.001	0.075
237.00	239.00		2.0		QCV	60 2 As above but decrease in pyrite and infill	118122	-2	0.043
239.00	241.00		7.0			Semi-massive pyrite locally over 20 cm with w.d. sericite alt'n	118123	0.002	0.094
241.00	243.00	Fine-medium-grained grey-green massive sericitic	3.0		QVN	1 Moderately silicified/siliceous	118124	0.002	0.068

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
243.00	245.00	Fine-medium-grained grey-green mottled silicic	3.0		QCV	3 Pyrite with low angle gypsum veinlet	118125	-2	0.035
245.00	247.00	Fine-medium-grained grey-green massive	2.0	1	QCV	2 Pyrite locally as irregular veinlets and disseminations	118126	0.006	0.052
247.00	249.00	Fine-medium-grained grey-green massive epidote sericitic	0.5	1	CCV	2 Local coarse fragments; patchy epidote	118127	0.003	0.037
249.00	251.00	Fine-medium-grained grey-green massive sericitic	2.0	0	QCV	3 Pyrite locally with calcite infill; no epidote	118128	0.005	0.084
251.00	253.00	Fine-medium-grained grey-green massive sericitic epidote	1.0	0	CCV	2 Patchy sericite with very weak, local epidote and locally disseminated epidote	118129	0.009	0.039
253.00	255.00	Fine-medium-grained grey-green massive silicic epidote	2.0	0	CCV	60 4 Silicified/siliceous- (dacitic?); brecciated w.r. in calcite veinlets with random pyrite stringers	118131	0.028	0.079
255.00	257.00	Fine-medium-grained grey-green massive epidote silicic	3.0	0		2 Patchy epidote with slight increase in silicification; patchy pyrite with epidote	118132	0.013	0.036
257.00	259.00	Fine-medium-grained grey-green massive epidote	1.0	1	QCV	30 2 Silicification absent; increase in epidote; local fragments rare	118133	0.003	0.006
259.00	261.00	Fine-medium-grained grey-green massive epidote sericitic	1.0	1	QCV	2 Locally phyrlic; sericite alt'n locally	118134	0.009	0.016
261.00	263.00	Fine-medium-grained grey-green amygdular epidote	1.0	1	6	2 Fine grained, mottled epidote and weak pyrite in amygdules; weakly magnetic throughout	118135	0.014	0.074
263.00	265.00		1.0	1	3	2 As above but with magnetite decreases to zero in lower half of interval	118136	0.019	0.126
265.00	267.00	Fine-medium-grained grey-green massive epidote	1.0	1	CCV	40 1 No amygdules; weak, patchy epidote throughout	118137	0.024	0.091
267.00	269.00	Fine-medium-grained grey-green mottled epidote	3.0	1	CCV	40 1 One carbonate veinlet with hematite; pyrite, locally w.d. with epidote	118138	0.029	0.113
269.00	271.00	Fine-medium-grained grey-green massive chloritic epidote	1.0	1	CCV	35 1 Locally subhedral (dacitic?); decrease in pyrite	118139	0.008	0.025
271.00	273.00	Fine-medium-grained grey-green massive epidote silicic	2.0	1		2 Local weakly fragmental with epidote in interstices	118140	0.004	0.018
273.00	275.00		2.0	2		2 As above with one band of patchy pyrite	118141	0.003	0.014
275.00	277.00	Fine-medium-grained grey-green mottled epidote sericitic	4.0	0		2 Weak, pervasive sericite alt'n; one 5 cm band of pyrite @ 55 degrees t.c.a.	118142	0.002	0.025
277.00	279.00	Fine-medium-grained grey-green massive epidote	1.0	0		2 Coarse highly irregular-shaped fragments; locally pyroxene phyrlic	118143	0.017	0.028
279.00	281.00	Fine-medium-grained grey-green mottled epidote sericitic	2.0	2		2 Patchy w.d. sericite alt'n	118144	0.031	0.062

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
281.00	283.00	Fine-medium-grained grey-green massive sericitic epidote	2.0	0		Alt'n w.d. over 70 cm with patchy pyrite	118145	0.021	0.057
283.00	285.00	Fine-medium-grained grey-green amygdular sericitic epidote	1.0	0	CCV	1 Amygduloidal in lower 50 cm of interval	118146	0.034	0.058
285.00	287.00		3.0	0	CCV	1 Local epidote infilling with pyrite	118147	0.002	0.01
287.00	289.00	Fine-medium-grained grey-green massive epidote	1.0	0	CCV	3 Local epidote infilling associated locally with calcite +/- zeolite	118148	0.002	0.01
289.00	291.00	Fine-medium-grained grey-green mottled epidote sericitic	1.0	0	CCV	1 Mottled locally- very dark gray and v.f.g. from chlorite (?) alt'n	118149	0.001	0.009
291.00	293.00	Fine-medium-grained grey-green mottled sericitic epidote	3.0	1	3 QCV	2 Pyrite associated with quartz veinlets and epidote ; weakly magnetic at end of interval	118150	0.001	0.025
293.00	295.00	Fine-medium-grained grey-green massive epidote	2.0	1	2	Locally disseminated pyrite varies from rounded to cubic	118151	-2	0.01
295.00	297.00		2.0	1	4	Local coarse fragments with epidote altered rims; local subhedral pyrite	118152	-2	0.012
297.00	299.00	Fine-medium-grained grey-green massive epidote sericitic	3.0	1	20 CCV	35 2 Patchy epidote; locally w.d. pyrite; magnetic only at lower end of sample	118153	0.001	0.016
299.00	301.00	Fine-medium-grained grey-green massive chloritic epidote	2.0	1	35 CCV	30 2 More dark gray; weakly magnetic throughout most of interval	118154	0.003	0.022
301.00	303.00	Fine-medium-grained grey-green mottled chloritic epidote	2.0	2	2 CCV	1 More mottled from an increase in epidote; moderate to strongly magnetic over 50 cm in the dark gray colouration.	118155	0.006	0.009
303.00	305.00	Fine-medium-grained grey-green massive sericitic	1.0	0.1	0 CCV	30 2 Locally brecciated; one small patch of pyrite and chalcopyrite	118157	0.015	0.037
305.00	307.00	Fine-medium-grained grey-green brecciated sericitic	1.0	0.1	1	6 As above but with sericite alt'n locally w.d.; locally phyric pyroxene and minor pyrite and chalcopyrite	118158	0.012	0.021
307	308.6	ANDESITE HYPOGENE							
307.00	308.60	Fine-medium-grained grey-green porphyritic sericitic		1	1	Plagioclase +/- pyroxene phyric sill/dyke; sharp contacts at 60 degrees t.c.a.	118159	0.002	0.007
308.6	322.45	ANDESITE FLOW							
308.60	310.00	Fine-medium-grained grey-green massive epidote	2.0		1 CCV	50 4 Calcite with hematite; locally phyric with weak, minor patchy epidote	118160	0.017	0.028
310.00	311.90	Fine-medium-grained grey-green massive sericitic epidote	2.0		1 CCV	45 3 Weak, semi-pervasive sericite alt'n and weak, patchy epidote; local pyrite stringers	118161	0.01	0.027
311.90	315.00	Fine-medium-grained grey-green brecciated sericitic epidote	2.0		0 QCZV	45 2 Weak, semi-pervasive sericite alt'n; epidote in interstices of fragments +/- pyrite	118162	0.006	0.024

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
315.00	317.00	Fine-medium-grained grey-green brecciated epidote	2.0	1	QVN 45	1 Epidote on interstices +/- pyrite; matrix locally pyroxene phyric	118163	0.011	0.049
317.00	319.00		2.0	1	QCV	2 Epidote as above and alt'd matrix	118164	0.007	0.06
319.00	321.00		1.0	1	CCV 45	1 As above	118165	0.005	0.029
321.00	322.45		2.0	1	CCV	2 Fragments very in size between v.f.g. and medium grained phyric	118166	0.002	0.017
322.45	351	ANDESITE HYPOGENE							
322.45	323.70	Fine-medium-grained grey-green massive sericitic	1.0	1	CCV 40	3 Medium grained phyric pyroxene in fine grained matrix	118167	0.007	0.029
323.70	325.00		1.0	1	12 CCV	1 As above	118168	0.005	0.019
325.00	327.00	Fine-medium-grained grey-green massive sericitic epidote	1.0	1	12 CCV 30	3 As above, also with local patchy epidote, calcite with hematite	118169	0.003	0.01
327.00	329.00	Fine-medium-grained grey-green porphyritic epidote chloritic	0.5	2	29 QVN 60	1 Pyroxene phyric texture w.d and weakly magnetic throughout; quasi-gabbroic texture; chlorite as pervasive regional alt'n	118170	0.009	0.025
329.00	331.00		0.5	0	2		118171	0.026	0.037
331.00	333.00		0.5	1	3 CCV	2	118172	0.034	0.064
333.00	335.00		0.5	1	3 CCV	1	118173	0.011	0.028
335.00	337.00		0.5	1	6 QCV	1	118174	0.019	0.036
337.00	339.00		0.5	1	10 QCV	1	118175	0.004	0.012
339.00	341.00		0.5	1	14 CCV	1	118176	0.009	0.023
341.00	343.00		0.5	1	22 QCV	1	118177	0.006	0.011
343.00	345.00		0.5	1	9 CCV 40	2	118178	0.012	0.034
345.00	347.00		0.5	1	16 QCV	1	118179	0.004	0.014
347.00	349.00		0.5	1	14 CCV	1	118180	0.011	0.018
349.00	351.00		0.5	1	15 CCV	1 Pyroxene phyric texture w.d and weakly magnetic throughout; quasi-gabbroic texture; chlorite as pervasive regional alt'n; medium grained, gabbroic texture begins to lessen	118181	0.009	0.018
351	487.24	ANDESITE FLOW							
351.00	353.00	Fine-medium-grained grey-green porphyritic epidote chloritic	0.5	1	4 CCV	2 As above	118183	0.018	0.029
353.00	355.00		2.0	2	28 QCV	7 As above, also with local quartz infilling and patchy pyrite	118184	0.022	0.034

Hole Number: KN-02-37

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
355.00	357.00	Fine-medium-grained grey-green porphyritic epidote chloritic	0.5	2	21 CCV	3 As above	118185	0.012	0.026
357.00	359.00		0.5	11	4 CCV	1	118186	0.004	0.013
359.00	361.00		1.0	2	20 CCV	1	118187	0.01	0.016
361.00	363.00		1.0	1	6	75 cm dykelet- fine grained below, only partially phyric	118188	0.017	0.029
363.00	365.00	Fine-medium-grained grey-green brecciated epidote chloritic	2.0	1	4	Possibly fragmental; epidote +/- pyrite interstitial locally	118189	0.016	0.027
365.00	367.00		2.0	2	33	Fragments as above	118190	0.04	0.077
367.00	369.00	Fine-medium-grained grey-green mottled epidote chloritic	1.0		1 CCV	20 3 One low angle calcite veinlet; mottled from alt'n	118191	0.044	0.095
369.00	371.00		1.0	1	7 QCV	2	118192	0.016	0.033
371.00	373.00	Fine-medium-grained grey-green massive epidote chloritic	1.0		2 QCV	2 Massive Takla flows - locally phyric with rare amygdules	118193	0.02	0.048
373.00	375.00		1.0		5 QCV	2	118194	0.062	0.162
375.00	377.00		1.0	1	6 QCV	2	118195	0.042	0.126
377.00	379.00		1.0	1	11 QCV	2	118196	0.033	0.125
379.00	381.00		1.0	1	22 QCV	2	118197	0.006	0.029
381.00	383.00		1.0	2	35 QCV	2	118198	0.043	0.066
383.00	385.00		1.0		3 QCV	2	118199	0.016	0.085
385.00	387.00		1.0		2 QCV	2	118200	0.01	0.354
387.00	389.00		1.0		0 QCV	2	118201	0.002	0.008
389.00	391.00	Fine-medium-grained grey-green mottled epidote chloritic	4.0		4 QCV	2 Locally w.d. epidote with up to 4% pyrite	118202	0.012	0.043
391.00	393.00		4.0		0 QCV	2	118203	0.007	0.074
393.00	395.00	Fine-medium-grained grey-green massive epidote chloritic	1.0		2 QCV	2	118204	0.007	0.025
395.00	397.00		1.0	0.1	1 QCV	2 Rare, patchy chalcopyrite	118205	0.034	0.054
397.00	399.00		1.0		11 QCV	2	118206	0.014	0.031
399.00	401.00				2 QCV	2	118207	0.015	0.047
401.00	403.00		1.0		1 QCV	2	118209	0.017	0.107
403.00	405.00		1.0	2	20 QCV	2	118210	0.005	0.016
405.00	407.00		1.0	1	16 QCV	2	118211	0.007	0.007

Hole Number: KN-02-37

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
407.00	409.00	Fine-medium-grained grey-green massive epidote chloritic	1.0	1	13	QCV 2	118212	0.004	0.031
409.00	411.00						118213	0.006	0.012
411.00	413.00					5 to 7% random zeolite veinlets	118214	0.124	0.056
413.00	415.00						118215	0.026	0.086
415.00	417.00						118216	0.012	0.039
417.00	419.00						118217	0.018	0.049
419.00	421.00						118218	0.005	0.015
421.00	423.00						118219	0.019	0.05
423.00	425.00						118220	0.014	0.024
425.00	427.00						118221	0.015	0.039
427.00	429.00						118222	0.004	0.019
429.00	431.00						118223	0.004	0.012
431.00	433.00						118224	0.008	0.019
433.00	435.00						118225	0.019	0.029
435.00	437.00					Locally w.d. epidote with calcite infilling	118226	0.003	0.015
437.00	439.00						118227	0.004	0.013
439.00	441.00						118228	0.025	0.068
441.00	443.00						118229	0.005	0.015
443.00	445.00						118230	0.007	0.022
445.00	447.00						118231	0.006	0.014
447.00	449.00					Massive, fine grained andesite flow, locally phyrlic, with rare amygdules	118232	0.009	0.038
449.00	451.00						118233	0.011	0.038
451.00	453.00						118235	0.026	0.036
453.00	455.00					Locally broken, with clay and chlorite alt'n	118236	0.03	0.23
455.00	457.00					Low angle laumontite vnlts	118237	0.009	0.139
457.00	459.00						118238	0.023	0.042
459.00	461.00						118239	0.017	0.033
461.00	463.00						118240	0.003	-2

Hole Number: KN-02-37

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
463.00	465.00	Fine-medium-grained grey-green massive epidote chloritic		1			118241	0.006	0.008
465.00	467.00			0			118242	0.025	0.046
467.00	469.00			2		Medium grained, plagioclase -rich hypabyssal volcanics; locally pyroxene phyrlic; feldspars < 2 mm, subhedral	118243	0.019	0.015
469.00	471.00			0			118244	0.008	0.011
471.00	473.00			1			118245	0.022	0.026
473.00	475.00			0			118246	0.01	0.016
475.00	477.00			0			118247	0.006	0.045
477.00	479.00			1			118248	0.027	0.07
479.00	481.00			1			118249	0.011	0.019
481.00	483.00			0			118250	0.016	0.044
483.00	485.00			0		Low angle zeolite veinlets, < 5 %	118251	0.01	0.022
485.00	487.24			1			118252	0.016	0.035
487.24		EOH							

Kemess North 2002 - Diamond Drill Log



Hole Number: **KN-02-38**

Northing:	15997.1	Total Depth:	625.61m
Easting:	9865.10	Azimuth:	0°
Elevation:	1678.2	Dip:	-90°

Geologist:	E. Ramsay
Logged Date:	9/10/2002

Survey Depth	Azimuth	Dip	Comments:
534 m	0 °	-89 °	
625 m	0 °	-89 °	

Kemess North 2002 - Summary Drill Log



Hole Number: **KN-02-38**

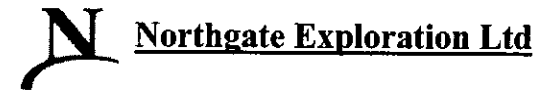
From (m)	To (m)	Rock Type	Comments
0	6.1	CASING	Casing, no recovery
6.1	30.48	LOST CORE	Lost Core
30.48	33.53	BLADED FELDSPAR PORPHYRY	Broken core, bladed feldspar porphyry, sericitized, and chloritized, low recovery, sample from block to block
33.53	54.86	LOST CORE	Lost Core
54.86	57.91	BLADED FELDSPAR PORPHYRY	Broken core, bladed feldspar porphyry, sericitized, and chloritized, low recovery, sample from block to block
57.91	60.96	LOST CORE	Lost Core
60.96	70.1	BLADED FELDSPAR PORPHYRY	Broken core, bladed feldspar porphyry, sericitized, pyritized and silicified (phyllic alteration), low recovery, sample from block to block
70.1	73.15	LOST CORE	Lost core, no recovery
73.15	76.2	BLADED FELDSPAR PORPHYRY	Broken core, bladed feldspar porphyry, sericitized, and chloritized, low recovery, sample from block to block
76.2	88.39	LOST CORE	Lost core, no recovery
88.39	121.01	BLADED FELDSPAR PORPHYRY	
121.01	132.2	LOST CORE	Lost core, no recovery
132.2	424	BASALT	Greenish-gray, fine to medium grained porphyritic basalt (probably augile-phyrlic), chloritized and locally sericitized, mostly flows with isolated breccia intervals.
424	444	GABBRO	Protolith appears slightly coarser grained, suggesting a fine-grained gabbro or basalt porphyry

Hole Number:

KA-02-38

From (m)	To (m)	Rock Type	Comments
444	466	BASALT	Protolith is once again clearly identifiable as porphyritic basalt (augite phenocrysts)
466	496	GABBRO	Medium grained porphyritic gabbro (really very coarse grained basalt) showing 2-5 augite phenocrysts in a matrix of 0.1-2mm feldspar laths.
496	507.5	BASALT	
507.5	625	ANDESITE	Dark, locally brownish (biotite) gray, porphyritic volcanic rock, probably mafic (basalt or andesite), showing 0.1-1.0% white feldspar laths (1-3mm) in an aphanitic matrix. locally amygdular, with qtz and/or carbonate filling, ranging between 3-10mm in diameter.

Kemess North 2002 - Detail Drill Log



Hole Number: KN-02-38

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
0	6.1	CASING							
	0.00	6.10				Casing, no recovery	38	-2	-2
6.1	30.48	LOST CORE							
	6.10	30.48				Lost Core	LC38-01	-2	-2
30.48	33.53	BLADED FELDSPAR PORPHYRY							
	30.48	33.53	Fine-coarse grained green-grey porphyritic sericitic chloritic	13		Broken core, bladed feldspar porphyry, sericitized, and chloritized, low recovery, sample from block to block	114144	0.086	0.147
33.53	54.86	LOST CORE							
	33.53	54.86				Lost Core	LC38-02	-2	-2
54.86	57.91	BLADED FELDSPAR PORPHYRY							
	54.86	57.91	Fine-coarse grained green-grey porphyritic sericitic chloritic	0.1	40	Broken core, bladed feldspar porphyry, sericitized, and chloritized, low recovery, sample from block to block	114146	0.547	1.05
57.91	60.96	LOST CORE							
	57.91	60.96				Lost Core	LC38-03	-2	-2
60.96	70.1	BLADED FELDSPAR PORPHYRY							
	60.96	65.53	Fine-coarse grained grey porphyritic sericitic pyritic	3.0	0	Broken core, bladed feldspar porphyry, sericitized, pyritized and silicified (phyllitic alteration), low recovery, sample from block to block	114147	0.051	0.127
	65.53	67.06		7.0	0		114148	0.076	0.161
	67.06	70.10	Fine-coarse grained green-grey porphyritic sericitic chloritic	0.1	0	More chloritic (propylitic alteration)	114149	0.138	0.255
70.1	73.15	LOST CORE							
	70.10	73.15				Lost core, no recovery	LC38-04	-2	-2
73.15	76.2	BLADED FELDSPAR PORPHYRY							
	73.15	76.20	Fine-coarse grained green-grey porphyritic sericitic chloritic	0.1	1	Broken core, bladed feldspar porphyry, sericitized, and chloritized, low recovery, sample from block to block	114150	0.122	0.25
76.2	88.39	LOST CORE							

Hole Number: KN-02-38

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
76.20	88.39					Lost core, no recovery	LC38-05	-2	-2
88.39	121.01	BLADED FELDSPAR PORPHYRY							
88.39	92.96	Fine-coarse grained green-grey porphyritic sericitic chloritic	0.1	37			114151	0.197	0.365
92.96	94.49		0.5	0.1	0	Bladed feldspar porphyry, sericitized and weakly chloritized. 1-2% anhydrite veinlets variably hydrate to gypsum, orientation variable.	114152	0.167	0.24
94.49	95.71		0.1		0		114153	0.108	0.199
95.71	98.00		0.1		0	HQ downsized NQ, NQ starts at 95.71m	114154	0.175	0.333
98.00	100.00		0.1		1		114155	0.167	0.288
100.00	102.00		0.5		3	Partially fractured interval	114156	0.225	0.407
102.00	104.00		0.5		0		114157	0.124	0.213
104.00	106.00		1.0		13		114158	0.191	0.346
106.00	108.00		1.0		20		114159	0.176	0.674
108.00	109.70		1.0		0		114160	0.144	0.301
109.70	111.86		0.1		6	Alternating broken and competent intervals, sample taken to run block	114161	0.126	0.271
111.86	121.01		0.5		2	Broken core, sand between 117.96 - 121.01m, low recovery sample taken from block to block	114162	0.144	0.296
121.01	132.2	LOST CORE							
121.01	132.20					Lost core, no recovery	LC38-06	-2	-2
132.2	424	BASALT							
132.20	134.00	Fine-medium-grained green-grey porphyritic chloritic sericitic	0.1		1	Greenish-gray, fine to medium grained porphyritic basalt (probably augile-phyric), chloritized and locally sericitized, mostly flows with isolated breccia intervals.	114163	0.104	0.15
134.00	136.00		0.1		26		114164	0.105	0.427
136.00	138.00		0.5		12	Fractured interval	114165	0.113	0.122
138.00	140.00		1.0		13		114166	0.111	0.072
140.00	142.00		0.5		19		114167	0.125	0.137
142.00	144.00		1.0		19		114168	0.191	0.336
144.00	146.00		0.1		2		114169	0.144	0.286

Hole Number: KN-02-38

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
146.00	148.00	Fine-medium-grained green-grey porphyritic chloritic sericitic	0.1	11			114170	0.191	0.381
148.00	150.00		0.5	17			114172	0.145	0.25
150.00	152.00		0.1	1			114173	0.083	0.102
152.00	154.00		0.1	14			114174	0.127	0.264
154.00	156.00		2.0	5			114175	0.082	0.088
156.00	158.00		0.5	10			114176	0.069	0.075
158.00	160.00		0.1	21			114177	0.1	0.344
160.00	162.00		0.1	2			114178	0.107	0.108
162.00	164.00		0.5	12			114179	0.093	0.091
164.00	166.00		0.5	12			114180	0.102	0.093
166.00	168.00		1.0	4			114181	0.105	0.118
168.00	170.00		0.1	14			114182	0.159	0.208
170.00	172.00		0.1	4			114183	0.095	0.107
172.00	174.00		0.1	4	FLT	30 1 Minor fault @ 30 degrees to c.a., with gouge3	114184	0.1	0.084
174.00	176.00		0.1	9			114185	0.09	0.076
176.00	178.00		0.1	4			114186	0.112	0.164
178.00	180.00		0.1	18			114187	0.085	0.098
180.00	182.00		0.1	5			114188	0.094	0.18
182.00	184.00		0.5	18			114189	0.085	0.061
184.00	186.00		0.5	14			114190	0.163	0.429
186.00	188.00		0.1	5			114191	0.078	0.071
188.00	190.00		0.1	7			114192	0.102	0.095
190.00	192.00		1.0	4			114193	0.123	0.111
192.00	194.00		0.5	10			114194	0.115	0.091
194.00	196.00	Fine-medium-grained green-grey porphyritic chloritic	0.5	23			114195	0.084	0.062
196.00	198.00		1.5	13			114196	0.157	0.269
198.00	200.00		1.0	67			114198	0.169	0.214
200.00	202.00		0.1	19			114199	0.097	0.107

Hole Number: KN-02-38

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
202.00	204.00	Fine-medium-grained green-grey porphyritic chloritic	0.5	20			114200	0.115	0.132
204.00	206.00		0.5	5			114201	0.11	0.06
206.00	208.00		0.5	33			114202	0.106	0.172
208.00	210.00		0.1	142			114203	0.1	0.138
210.00	212.00		0.1	13			114204	0.135	0.266
212.00	214.00		0.1	30			114205	0.101	0.202
214.00	216.00		0.1	28			114206	0.134	0.305
216.00	218.00		0.1	122			114207	0.094	0.174
218.00	220.00		0.1	47			114208	0.067	0.086
220.00	222.00		0.1	68			114209	0.061	0.083
222.00	224.00		0.1	14			114210	0.073	0.088
224.00	226.00		0.1	17			114211	0.066	0.05
226.00	228.00		0.1	24			114212	0.118	0.21
228.00	230.00		0.1	14 AVN	5		114213	0.164	0.217
230.00	232.00		0.1	37			114214	0.091	0.152
232.00	234.00		0.1	15			114215	0.083	0.055
234.00	236.00		0.5	26			114216	0.182	0.206
236.00	238.00		0.5	8			114217	0.356	0.707
238.00	240.00		0.5	8			114218	0.133	0.163
240.00	242.00		0.1	1 10			114219	0.101	0.199
242.00	244.00		0.1	1 9			114220	0.109	0.181
244.00	246.00		0.1	1 84			114221	0.182	0.354
246.00	248.00		0.1	1 6			114222	0.122	0.216
248.00	250.00		1.0	1 9			114223	0.074	0.052
250.00	252.00		0.5	1 50			114224	0.128	0.19
252.00	254.00		0.5	1 22			114226	0.118	0.162
254.00	255.00		0.5	1 44			114227	0.055	0.022
255.00	257.00		1.0	0 24			114228	0.081	0.035

Hole Number: KN-02-38

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
257.00	259.00	Fine-medium-grained green-grey porphyritic chloritic	0.5	1	13		114229	0.106	0.198
259.00	261.00		0.5	1	25		114230	0.143	0.185
261.00	263.00		1.0	1	35		114231	0.135	0.085
263.00	265.00		1.0	1	31		114232	0.141	0.083
265.00	267.00		0.5	1	18		114233	0.104	0.04
267.00	269.00	Fine-medium-grained green-grey porphyritic chloritic sericitic	0.1	1	26		114234	0.072	0.042
269.00	271.00		0.1	2	11		114235	0.079	0.061
271.00	273.00	Fine-medium-grained green-grey porphyritic chloritic	0.1	1	12		114236	0.108	0.136
273.00	275.00		0.5		1		114237	0.111	0.051
275.00	277.00		0.5	2	8		114238	0.13	0.215
277.00	279.00		0.1	1	6		114239	0.161	0.185
279.00	281.00		0.1	1	3		114240	0.146	0.139
281.00	283.00		0.1	1	59		114241	0.16	0.216
283.00	285.00		0.1	0.1	1	7	114242	0.153	0.221
285.00	287.00		0.1	1	5		114243	0.149	0.176
287.00	289.00		0.1	1	8		114244	0.133	0.141
289.00	291.00		0.1	0	8		114245	0.087	0.03
291.00	293.00		0.1	0	43		114246	0.149	0.213
293.00	295.00		0.5	0.1	0	39	114247	0.11	0.149
295.00	297.00		0.5	3	145		114248	0.087	0.07
297.00	299.00		0.1	2	8		114249	0.098	0.156
299.00	301.00		0.5	1	206		114250	0.085	0.06
301.00	303.00		0.1	3	59		114252	0.089	0.127
303.00	305.00		0.1	2	23		114253	0.038	0.051
305.00	307.00		0.5	1	27		114254	0.081	0.123
307.00	309.00		0.1	1	2		114255	0.092	0.078
309.00	311.00		0.5	1	31		114256	0.097	0.15

Hole Number: KN-02-38

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
311.00	313.00	Fine-medium-grained green-grey porphyritic chloritic	0.1	0	3		114257	0.083	0.054
313.00	315.00		0.1	1	32		114258	0.083	0.154
315.00	317.00		0.1	1	14		114259	0.057	0.061
317.00	319.00		0.5	1	16		114260	0.111	0.086
319.00	321.00		0.1	1	16		114261	0.05	0.024
321.00	323.00		0.1	1	110		114262	0.034	0.027
323.00	325.00		0.1	1	51	Minor porphyritic gabbro dykelet showing 25% medium to coarse augile crystals between 324.85 - 325.00m	114263	0.072	0.102
325.00	327.00		0.1	2	66		114264	0.067	0.102
327.00	329.00		0.1	1	16		114265	0.08	0.037
329.00	331.00		0.1	1	12		114266	0.056	0.092
331.00	333.00		0.1	2	9		114267	0.069	0.047
333.00	335.00		0.1	1	50		114268	0.07	0.032
335.00	337.00		0.5	1	44		114269	0.081	0.048
337.00	339.00		0.1	1	14		114270	0.064	0.094
339.00	341.00		0.1	1	32		114271	0.08	0.148
341.00	343.00		0.5	1	14		114272	0.059	0.038
343.00	345.00		0.5	2	32		114273	0.117	0.206
345.00	347.00		0.5	2	13		114274	0.122	0.116
347.00	349.00		0.5	2	6		114275	0.057	0.048
349.00	351.00		0.1	1	20		114276	0.088	0.07
351.00	353.00		0.5	1	31		114278	0.063	0.045
353.00	355.00		0.5	1	2		114279	0.154	0.083
355.00	357.00		0.5	1	27 SHR	70 2 Minor shear @ 70 degrees to c.a. near 356.0m	114280	0.114	0.171
357.00	359.00		0.5	1	105		114281	0.155	0.364
359.00	361.00		0.5	1	31		114282	0.171	0.203
361.00	363.00		0.1	1	14		114283	0.114	0.089
363.00	365.00		0.1	1	28		114284	0.08	0.052
365.00	367.00		0.1	0	30		114285	0.098	0.078

Hole Number: KN-02-38

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
367.00	369.00	Fine-medium-grained green-grey porphyritic chloritic	0.1	1	8		114286	0.151	0.171
369.00	371.00		0.1	1	8		114287	0.126	0.089
371.00	373.00		0.1	1	22 CVN	8 Vuggy, pink carbonate veins (Fe-carbonate?)	114288	0.135	0.07
373.00	375.00		0.1	0	8		114289	0.154	0.2
375.00	376.80		0.1	1	8		114290	0.082	0.065
376.80	378.55	Fine-medium-grained green-grey porphyritic sericitic carbonate	0.1		17 QVN	7 Brecciated/fractured qtz veins cemented by vuggy carbonate	114291	0.041	0.058
378.55	380.00	Fine-medium-grained green-grey porphyritic chloritic	0.1	1	5		114292	0.145	0.248
380.00	382.00		0.5	1	19		114293	0.073	0.052
382.00	384.00		0.1	1	31		114294	0.084	0.153
384.00	386.00		0.1	1	15		114295	0.061	0.029
386.00	388.00		0.5	1	3		114296	0.155	0.075
388.00	390.00		1.0	1	10		114297	0.133	0.1
390.00	392.00		0.1	0.1	0 11		114298	0.143	0.242
392.00	394.00		0.1	1	26 QVN	3	114299	0.141	0.261
394.00	396.00		0.1	1	6		114300	0.106	0.097
396.00	398.00		0.1		9		114301	0.064	0.04
398.00	400.00		0.1	1	10	Pink carbonate veins/stockwork increases in density to 2-3% of core	114302	0.1	0.109
400.00	402.00		0.5	0	6 FLT	30 70 Fault zone w/ multiple fracture/slip planes @ 20-40 degrees to c.a. seperated by intervals of fault breccia	114304	0.063	0.056
402.00	404.00		0.5	0	2		114305	0.065	0.068
404.00	406.00		1.0	1	7	Monogenic flow breccia	114306	0.053	0.051
406.00	408.00		0.5	0	2 QVN	3 White qtz vains w/ tr py minor shear zones @ 45% to c.a.	114307	0.073	0.116
408.00	410.00		0.1	0	4		114308	0.076	0.069
410.00	412.00		0.1	1	6		114309	0.06	0.06
412.00	414.00		0.1	0	6		114310	0.053	0.06
414.00	416.00		0.1	1	8 QVN	3 White qtz vein, broken, unknown orientation	114311	0.062	0.06

Hole Number: KN-02-38

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
416.00	418.00	Coarse-fine-grained green-grey brecciated carbonate biotite	0.5	8		Rock is intensely altered and brecciated. Protolith uncertain. Chaotic appearance with numerous minor slip planes, color is variable, generally orange to grey to locally greenish grey. Rock is locally crumbly, poorly cemented and absorbs water (is porous) suggesting clay alteration, possibly from acid derived from sulphide oxidation.	114312	0.081	0.082
418.00	420.00	Coarse-fine-grained orange grey brecciated carbonate biotite	1.0	1			114313	0.086	0.103
420.00	422.00		1.5	6			114314	0.081	0.097
422.00	424.00		2.0	1			114315	0.074	0.123
424	444	GABBRO							
424.00	426.00	Coarse-fine-grained orange grey brecciated carbonate biotite	2.0	4 QVN	3	Protolith appears slightly coarser grained, suggesting a fine-grained gabbro or basalt porphyry	114316	0.07	0.116
426.00	428.00		2.0	6			114317	0.067	0.102
428.00	430.00		2.0	10			114318	0.065	0.098
430.00	432.00		2.0	6			114319	0.045	0.072
432.00	434.00		2.0	2			114320	0.049	0.059
434.00	436.00	Coarse-fine-grained green-grey brecciated carbonate biotite	2.0	4			114321	0.079	0.081
436.00	438.00		2.0	4			114322	0.067	0.045
438.00	440.00		1.0	13			114323	0.048	0.054
440.00	442.00		2.0	4			114324	0.063	0.061
442.00	444.00		1.0	6			114325	0.064	0.069
444	466	BASALT							
444.00	446.00	Fine-medium-grained green-grey porphyritic chloritic biotite	1.0	0	13	Protolith is once again clearly identifiable as porphyritic basalt (augite phenocrysts)	114326	0.065	0.065
446.00	448.00		1.0	0	5		114327	0.06	0.059
448.00	450.00		0.1	0	3 SHR 20 10		114328	0.042	0.041
450.00	452.00		1.0	0	7		114330	0.074	0.082
452.00	454.00		1.0	0	10		114331	0.059	0.063
454.00	456.00		2.0	0	9		114332	0.065	0.075

Hole Number: KN-02-38

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
456.00	458.00	Fine-medium-grained green-grey porphyritic chloritic biotite	1.0	0	16		114333	0.083	0.077
458.00	460.00		1.0	0	12		114334	0.11	0.102
460.00	462.00		0.5	0	1		114335	0.083	0.071
462.00	464.00	Fine-medium-grained green-grey porphyritic chloritic	0.1	1	5		114336	0.083	0.059
464.00	466.00		0.5	1	11		114337	0.072	0.075
466	496	GABBRO							
466.00	468.00	Medium-grained green-grey porphyritic chloritic	0.5	0	12	Medium grained porphyritic gabbro (really very coarse grained basalt) showing 2-5 augite phenocrysts in a matrix of 0.1-2mm feldspar laths.	114338	0.091	0.284
468.00	470.00		0.5		10	Common vuggy carbonate veins between 467.00-474.00m.	114339	0.096	0.275
470.00	472.00		0.5	0	11		114340	0.094	0.101
472.00	474.00		0.1	0	12		114341	0.07	0.103
474.00	476.00		0.1		4		114342	0.047	0.051
476.00	478.00		0.1		6		114343	0.059	0.068
478.00	480.00		0.1	0	8		114344	0.082	0.085
480.00	482.00		0.1	1	2		114345	0.072	0.096
482.00	484.00		0.1		10		114346	0.065	0.07
484.00	486.00		0.1	0	14		114347	0.054	0.059
486.00	488.00		0.1	0	6		114348	0.059	0.069
488.00	490.00		0.1	0	18		114349	0.061	0.067
490.00	492.00		0.1	1	8		114350	0.068	0.069
492.00	494.00		0.1	0	16		114351	0.092	0.067
494.00	496.00		0.1		11		114352	0.082	0.075
496	507.5	BASALT							
496.00	498.00	Fine-medium-grained green-grey porphyritic chloritic	0.1	0	12		114353	0.078	0.076
498.00	500.00		0.5		3		114354	0.094	0.097
500.00	502.00		0.5		12		114356	0.093	0.092
502.00	504.00		0.5		21		114357	0.066	0.074

Hole Number: KN-02-38

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
504.00	506.00	Fine-medium-grained green-grey porphyritic chloritic	1.0	5			114358	0.057	0.069
506.00	507.50		1.0	0	0		114359	0.069	0.059
507.5	625	ANDESITE							
507.50	509.00	Fine-medium-grained dark grey porphyritic sericitic chloritic	0.1	6		Dark, locally brownish (biotite) gray, porphyritic volcanic rock, probably mafic (basalt or andesite), showing 0.1-1.0% white feldspar laths (1-3mm) in an aphanitic matrix, locally amygdular, with qtz and/or carbonate filling, ranging between 3-10mm in diameter.	114360	0.049	0.062
509.00	511.00		0.5	0	16		114361	0.05	0.066
511.00	513.00	Fine-medium-grained dark grey amygdular sericitic chloritic	0.1	6			114362	0.036	0.054
513.00	515.00	Fine-medium-grained dark grey porphyritic sericitic chloritic	0.5	0	4		114363	0.045	0.053
515.00	517.00		0.1	0	13		114364	0.043	0.05
517.00	519.00		2.0	0	8		114365	0.05	0.059
519.00	521.00		0.5	0	9		114366	0.041	0.054
521.00	523.00		0.5	9			114367	0.048	0.058
523.00	525.00		0.1	9			114368	0.058	0.068
525.00	527.00		0.1	11			114369	0.059	0.075
527.00	529.00		0.1	8			114370	0.069	0.068
529.00	531.00	Fine-medium-grained dark grey amygdular sericitic chloritic	0.1	11			114371	0.068	0.063
531.00	533.00		0.5	14			114372	0.054	0.052
533.00	535.00	Fine-medium-grained dark grey porphyritic sericitic chloritic	2.0	4		Irregular-shaped blebs/veins of massive pyrite.	114373	0.062	0.062
535.00	537.00		0.5	3			114374	0.059	0.058
537.00	539.00		0.5	1			114375	0.072	0.073
539.00	541.00	Fine-medium-grained dark grey amygdular sericitic chloritic	0.5	5		Tr. molybdenite vuggy carbonate veins	114376	0.081	0.06
541.00	543.00	Fine-medium-grained dark grey porphyritic sericitic chloritic	0.5	0			114377	0.067	0.052
543.00	545.00		1.0	1			114378	0.04	0.038
545.00	547.00		0.5	3			114379	0.04	0.038

Hole Number: KN-02-38

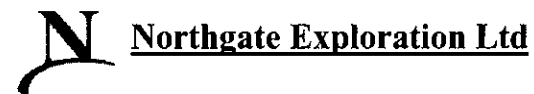
From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
547.00	549.00	Fine-medium-grained green-grey porphyritic sericitic chloritic	0.1	1			114380	0.035	0.035
549.00	551.00	Fine-medium-grained dark grey porphyritic sericitic chloritic	0.5	4			114382	0.044	0.037
551.00	553.00		1.0	0			114383	0.045	0.037
553.00	555.00		1.0	12			114384	0.024	0.069
555.00	557.00	Fine-medium-grained dark grey amygdular sericitic chloritic	0.1	3			114385	0.025	0.189
557.00	559.00	Fine-medium-grained dark grey porphyritic sericitic chloritic	0.1	2			114386	0.041	0.059
559.00	561.00	Fine-medium-grained dark grey amygdular sericitic chloritic	0.5	0			114387	0.089	0.071
561.00	563.00	Fine-medium-grained dark grey flow brecciated sericitic chloritic	0.5	12			114388	0.067	0.046
563.00	565.00	Fine-medium-grained dark grey porphyritic sericitic chloritic	0.1	11			114389	0.067	0.066
565.00	567.00	Fine-medium-grained green-grey porphyritic chloritic sericitic	0.5	22			114390	0.054	0.053
567.00	569.00		1.0	13			114391	0.055	0.064
569.00	571.00		1.0	3			114392	0.056	0.063
571.00	573.00		0.5	4			114393	0.049	0.048
573.00	575.00		0.1	2			114394	0.05	0.051
575.00	577.00		1.0	0			114395	0.042	0.036
577.00	579.00		0.5	0			114396	0.063	0.048
579.00	581.00	Fine-medium-grained dark grey porphyritic sericitic chloritic	0.5	4			114397	0.064	0.049
581.00	583.00		0.5	1			114398	0.058	0.046
583.00	585.00	Fine-medium-grained dark grey amygdular sericitic chloritic	0.5	10			114399	0.059	0.045
585.00	587.00		0.5	0			114400	0.059	0.037
587.00	589.00	Fine-medium-grained dark grey porphyritic sericitic chloritic	1.0	0			114401	0.071	0.037
589.00	591.00		1.0	0			114402	0.031	0.034
591.00	593.00	Fine-medium-grained dark grey amygdular sericitic chloritic	0.5	0			114403	0.033	0.045

Hole Number: KN-02-38

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
593.00	595.00	Fine-medium-grained dark grey porphyritic sericitic chloritic	1.0	0			114404	0.038	0.064
595.00	597.00		0.1	0			114405	0.061	0.078
597.00	599.00		1.0	0			114406	0.056	0.051
599.00	601.00		0.5	0			114408	0.015	0.069
601.00	603.00		0.5	1			114409	0.039	0.06
603.00	605.00		0.5	0			114410	0.063	0.134
605.00	607.00		1.0	2			114411	0.05	0.084
607.00	609.00		1.0	1			114412	0.051	0.089
609.00	611.00		1.0	8			114413	0.05	0.082
611.00	613.00		0.1	12			114414	0.06	0.116
613.00	615.00		1.0	7		Minor fault with gouge with 45 deg. to c.a.	114415	0.061	0.117
615.00	617.00		0.1	10			114416	0.048	0.066
617.00	619.00		0.1	8			114417	0.069	0.09
619.00	621.00		0.1	14			114418	0.05	0.086
621.00	623.00		0.1	15			114419	0.052	0.075
623.00	625.00		1.0	11		E.O.H.	114420	0.035	0.082

625 EOH

Kemess North 2002 - Diamond Drill Log



Hole Number: **KN-02-39**

Northing: 15878.7	Total Depth: 672.66m
Easting: 10161.8	Azimuth: 0°
Elevation: 1723.6	Dip: -90°

Geologist: B. Mercer
Logged Date: 9/15/2002

Survey Depth	Azimuth	Dip	Comments:
152 m	203 °	-83 °	Mechanical
213 m	223 °	-81 °	Mechanical
305 m	191 °	-82 °	Mechanical
396 m	218 °	-85 °	Mechanical
490 m	278 °	-87 °	Mechanical
581 m	338 °	-89 °	
673 m	0 °	-89 °	

Kemess North 2002 - Summary Drill Log



Hole Number: **KN-02-39**

From (m)	To (m)	Rock Type	Comments
0	9.75	CASING	
9.75	14	INTERMEDIATE VOLCANIC FLOW	Strong clay alteration locally. Trace epidote. Sample contaminated with gravel that has fallen in drill hole. Very poor recovery.
14	15.85	FAULT ZONE INTERMEDIATE VOLCANIC	Strong brecciation with fabric sub-parallel to core axis.
15.85	98.15	BASALT FLOW	Highly fractured homogeneous looking aphanitic flows cut by limonite and / or kaolinite veins.
98.15	104.24	BASALT FAULT ZONE	
104.24	160.17	BASALT FLOW	
160.17	160.63	INTERMEDIATE VOLCANIC FAULT ZONE	Last 15cm of sample is a chlorite gouge with rock fragments. Upper contact well preserved.
160.63	180.1	BLADED FELDSPAR PORPHYRY VOLCANIC BRECCIA	Lapilli to cobble size breccia comprised entirely of BFP fragments in an IVO matrix. Chloritized with wk. sericite. Very abundant random orientated ZCV's.
180.1	181.97	BASALT FAULT ZONE	Several zones of chl. gouge cemented breccia. Probable faults in augite-phyric basalt. Pyrite in sparsely occurring qtz. veins.
181.97	183.92	INTERMEDIATE VOLCANIC FLOW	Oligomictic volcanic tuff to tuffaceous breccia comprised mostly of fragments of IVO with augite-phyric basalt with rare BFP in descending order of importance. Abundant zeo. Fe-cal. veinlets.
183.92	219	INTERMEDIATE VOLCANIC TUFF	Magnetite in fracture controlled veinlets.
219	231	INTERMEDIATE VOLCANIC FLOW	Biotite is very weak and local only. C.g. mt. in qtz./anh. veins, cpy. associated with c.g. py. in qtz./anh. veins

Hole Number: **KN-02-39**

From (m)	To (m)	Rock Type	Comments
231	249.94	BASALT FLOW	C.g. augite porphyritic basalt flow. Augite pseudomorphed by a combination of chlorite and magnetite. Qtz. veins > qtz./anh. veins
249.94	255.68	SYENITE POST-MINERAL DYKE	Chilled margin of post mineral dyke.
255.68	255.98	BASALT FLOW	Sample includes volcanic xenolith 22 cm long plus 4cm of dyke on either side. Several large blebs of massive cpy. in xenolith.
255.98	258.8	SYENITE POST-MINERAL DYKE	
258.8	264.88	INTERMEDIATE VOLCANIC FLOW	Tr. cpy. at contact with post mineral dyke. Note: no augite phenocrysts like previous vol. flows.
264.88	327.21	SYENITE POST-MINERAL DYKE	Typical. c.g. post mineral dyke with large phenocrysts of mafic minerals in a pink k-spar crowded porphyry.
327.21	327.88	MONZONITE	Sharp contact. Dark gray monzonite with several 0.5 to 1.0cm wide qtz. veins and abundant zeolite / carbonate veins.
327.88	328.54	SYENITE POST-MINERAL DYKE	Narrow post mineral dyke.
328.54	355.88	MONZONITE	C.g. mafic rich monzonite. Clay alt. is very weak and limited to slip and fracture surfaces and coatings on k-spar crystals.
355.88	365.47	INTERMEDIATE VOLCANIC	Strong chl. alt., wk. ser. alt. One 4cm wide massive py. seam in qtz. / zeo. vein.
365.47	369.45	MONZONITE	In addition to zeo. veins there are areas of massive zeolite replacement of feldspars in monzonite. The mafic minerals are unaffected.
369.45	379.13	BASALT	Augite porphyritic basalt with several small (10-20cm) dyklets of monzonite. Tr. molybdenite otherwise very sulphide poor.
379.13	383.7	MONZONITE	
383.7	384.6	INTERMEDIATE VOLCANIC FLOW	Aphanitic flow.

Hole Number:

KN-02-39

From (m)	To (m)	Rock Type	Comments
384.6	385.6	MONZONITE	
385.6	394.5	INTERMEDIATE VOLCANIC FLOW	Aphanitic flow. v.f.g. dissm. cpy. in qtz. / mt. veins. Tr, specular hematite in vein as well.
394.5	395.75	MONZONITE	Wholesale replacement of feldspar with clay. Chlorite and magnetite on fractures.
395.75	397.5	INTERMEDIATE VOLCANIC FLOW	
397.5	435.5	MONZONITE	Three distinct vein sets. QMV's are cut by QZV's. Both are cut by pink (laumontite) zeolite only veins.
435.5	447.85	INTERMEDIATE VOLCANIC FLOW	Ser. alt. is very wk. Trace to wk. zeolite.
447.85	459.9	MONZONITE	
459.9	465.9	INTERMEDIATE VOLCANIC	
465.9	470.56	MONZONITE	60% monzonite and 40% f.g. IVO. Weak clay alt. in monzonite.
470.56	479.68	INTERMEDIATE VOLCANIC	Abundant mt. veinlets at approximately. 20-25 deg. to core axis.
479.68	535.23	MONZONITE	Magnetite occurs as c.g. sub-hedral patches in matrix of monzonite.
535.23	561.65	INTERMEDIATE VOLCANIC FLOW	Sericite alt. is very wk. and chl. alt. is confined mostly to slips and fractures. Sample contains about 15% monzonite in narrow dyklets.
561.65	575	BASALT FLOW	Abundant cpy. associated with v.c.g. py. in fracture - filling qtz. vein. Flows have c.g. pseudo-gabbroic texture. Augite phyrlic.
575	576.2	BASALT FAULT ZONE	
576.2	606.4	BASALT FLOW	Fault breccia and gouge on either end of sample and f.g. breccia texture in between. Looks like a healed fault.
606.4	612	MONZONITE	Crowded feldspar porphyry with c.g. mt. in matrix.

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From (m)	To (m)	Rock Type	Comments
612	612.67	BASALT FLOW	This is a volcanic xenolith with a 1.5cm seam of cpy. in qtz. vein at 20deg. t.c.a.
612.67	614.78	MONZONITE	C.g. cpy. in center of several qtz. veins. sample contains a 23cm xenolith of basalt.
614.78	642.21	BASALT FLOW	Sporadic v.f.g. biotite alt.
642.21	668.3	MONZONITE	Amphibole (riebeckite?) rich monzonite. Some of this may be secondary alteration.
668.3	673.46	BASALT FLOW	Abundant massive magnetite veins at start of sample. Heavily disseminated py. throughout.
673.46	675.74	MONZONITE	Occasional zeolite veins.

Kemess North 2002 - Detail Drill Log



Hole Number: KN-02-39

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
0	9.75	CASING							
	0.00	9.75					39	-2	-2
9.75	14	INTERMEDIATE VOLCANIC FLOW							
	9.75	14.00	Fine-grained chloritic sericitic	light green porphyritic	0.0 0.0 0 1	Strong clay alteration locally. Trace epidote. Sample contaminated with gravel that has fallen in drill hole. Very poor recovery.	116309	0.017	0.269
14	15.85	FAULT ZONE INTERMEDIATE VOLCANIC							
	14.00	15.85	Coarse-grained chloritic limonitic	grey red brecciated	0.0 0.0 1 5 FOL 5	Strong brecciation with fabric sub-parallel to core axis.	116310	0.087	0.347
15.85	98.15	BASALT FLOW							
	15.85	17.85	Fine-grained chloritic limonitic	grey red porphyritic	0.0 0.0 1 15 CLY 10 10	Highly fractured homogeneous looking aphanitic flows cut by limonite and / or kaolinite veins.	116311	0.073	0.305
	17.85	19.85			0.0 0.0 1 14	Broken limonitic rubble.	116312	0.039	0.51
	19.85	21.75			0.0 0.0 1 48		116313	0.02	0.39
	21.75	24.99			0.0 0.0 1 6 LVN 35 3	Sampled drill run block marker to drill run block marker due to poor recovery. Sample contaminated with gravel falling in drill hole.	116314	0.036	0.313
	24.99	27.00			0.0 0.0 1 5 LVN 25 3	Less than 1% - 1mm to 1.5mm chlorite pseudomorphs after augite phenocrysts. Clay alteration confined to fractures and very small veinlets.	116315	0.036	0.142
	27.00	29.00			0.0 0.0 1 15 LVN 5 10		116316	0.086	0.764
	29.00	31.00			0.0 0.0 1 15 LVN 10 5		116317	0.128	0.606
	31.00	33.00			0.0 0.0 1 2 LVN 20 5	Several thin, massive magnetite veinlets.	116318	0.118	0.522
	33.00	35.00	Fine-grained chloritic limonitic	grey red amygdular	0.0 0.0 1 1 LVN 20 5	Cluster of clay filled amygdules near top of sample.	116319	0.17	0.237
	35.00	36.46	Fine-grained chloritic limonitic	grey red porphyritic	0.0 0.0 1 4 LVN 20 5	Can see distinct BFP porphyritic texture very well near end of sample.	116320	0.168	0.193
	36.46	37.19	Fine-grained chloritic clay	green black amygdular	1.0 0.0 1 0	Drill bit - milled pebbles. Note: From here to 142 metres the core is sampled drill run block marker to drill run block marker due to poor recovery.	116321	0.167	0.215

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
37.19	43.28	Fine-grained green black amygdular chloritic clay	1.0 0.0	1	14		116322	0.166	0.162
43.28	46.33		1.0 0.0	1	2		116323	0.236	0.221
46.33	49.38		3.0 0.0	1	11	Very small (1mm) to occasional 5mm amygdules filled with white clay. They are locally present but not very abundant. Hair thin magnetite veinlets.	116324	0.156	0.131
49.38	52.43		3.0 0.0	1	14	Traces of py. and mt. veinlets clinging on core fragments. Core too badly broken to get vein orientation measurements.	116325	0.14	0.136
52.43	55.47		5.0 0.0	1	21	Clay on slips and as coatings on core fragments.	116326	0.266	0.32
55.47	57.52		2.0 0.0	1	2		116327	0.208	0.26
57.52	61.57		2.0 0.0	1	35		116328	0.206	0.304
61.57	64.62		3.0 0.0	1	7	Trace clay.	116329	0.208	0.298
64.62	67.67		3.0 0.0	1	13		116330	0.221	0.184
67.67	70.71		3.0 0.0	1	12		116331	0.364	0.421
70.71	73.76		3.0 0.0	1	9		116332	0.364	0.485
73.76	76.81		5.0 0.0	1	17	pyrite as disseminations and traces of massive veinlets preserved on core fragments. Trace of mt. veinlets as well. Core too badly broken to get vein orientation measurements.	116333	0.192	0.175
76.81	79.86		5.0 0.0	1	3		116335	0.2	0.307
79.86	82.91		1.0 0.0	1	17		116336	0.176	0.231
82.91	85.95		1.0 0.0	1	15		116337	0.292	0.504
85.95	89.00		1.0 0.0	1	15		116338	0.07	0.116
89.00	92.05		2.0 0.0	1	19	Abundant large amygdules filled with chlorite and rimmed with clay. It appears that clay was the original filling which was then replaced by chlorite.	116339	0.107	0.128
92.05	94.05	Fine-grained green black amygdular chloritic	3.0 0.0	1	0 PVN 15 1		116340	0.215	0.315
94.05	95.10	Fine-grained green black porphyritic chloritic	0.1 0.0	2	41 QVN 10 0		116341	0.223	0.472
95.10	98.15		0.1 0.0	2	41		116342	0.132	0.357
98.15	104.24	BASALT FAULT ZONE							

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
98.15	101.19	Fine-grained green black porphyritic chloritic	3.0 0.0	1 19			116343	0.114	0.231
101.19	104.24		3.0 0.0	1 12			116344	0.067	0.177
104.24	160.17	BASALT FLOW							
104.24	107.29	Fine-grained green black porphyritic chloritic	3.0 0.0	1 24			116345	0.103	0.206
107.29	110.34		0.5 0.0	1 9			116346	0.149	0.272
110.34	116.43		0.5 0.0	1 3			116347	0.314	0.455
116.43	119.48		0.5 0.0	1 4			116348	0.115	0.174
119.48	122.53		0.1 0.0	1 17			116349	0.25	0.476
122.53	137.77		0.1 0.0	1 5			116350	0.045	0.084
137.77	140.82		0.0 0.0	1 22		Stop sampling drill run block marker to drill run block marker @ end of this sample.	116351	0.123	0.161
140.82	144.17	Medium-grained dark green porphyritic chloritic	3.0 0.0	1 24	GAVN 15 10	HQ ends. Core abruptly becomes competent. Color change from above.	116352	0.088	0.1
144.17	146.17		3.0 0.0	1 29	GAVN 65 15	Contains 3% - 4% conspicuous chl. pseudomorphs about 2-3 mm in size and an occasional 2-3 mm size amygdule. Abundant gypsum veins.	116353	0.174	0.245
146.17	148.17		1.0 0.0	1 39	GAVN 45 7	zeolite veins are increasing but gypsum veins are still prevalent.	116354	0.103	0.182
148.17	150.17		1.0 0.0	3 106	GAVN 35 7	Magnetite in fractures sub-parallel to core axis. Relatively few zeo./carb. veins. Abundant chl. pseudomorphs after augite.	116355	0.117	0.191
150.17	152.17		1.0 0.0	3 22	GAVN 35 7	Contains 2 narrow quartz veins with c.g. py. in center of vein.	116356	0.108	0.191
152.17	154.17	Medium-grained dark green amygdular chloritic	0.1 0.0	3 57	GAVN 35 3	Gypsum veinlets still common by zeolite veinlets picking up magnetite as fracture fill irregular patches in gyp. veins and in all rock.	116357	0.086	0.168
154.17	156.17	Medium-grained dark green heterogeneous chloritic	0.1 0.0	3 19	ZCV 20	Abundant pink zeolite veinlets, discontinuous and randomly oriented. Minor gypsum/anh.ydrate veining.	116358	0.127	0.306
156.17	158.17		0.1 0.0	3 86	ZCV 15	Very chaotic looking flows similar to above but cut but numerous zeolite/carbonate veins giving it a brecciated look.	116359	0.145	0.25
158.17	160.17		0.1 0.0	0 9	ZCV 15	Cannot see visible magnetite.	116361	0.118	0.169
160.17	160.63	INTERMEDIATE VOLCANIC FAULT ZONE							

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm	
160.17	160.63	Medium-grained dark green heterogeneous chloritic	0.0 0.0	0	13 FLT	50	Last 15cm of sample is a chlorite gouge with rock fragments. Upper contact well preserved.	116362	0.087	0.132
160.63	180.1	BLADED FELDSPAR PORPHYRY VOLCANIC BRECCIA								
160.63	162.00	Coarse-grained light green brecciated chloritic sericitic	0.1 0.0	1	11 ZCV	20	Lapilli to cobble size breccia comprised entirely of BFP fragments in an IVO matrix. Chloritized with wk. sericitic. Very abundant random orientated ZCV's.	116363	0.139	0.367
162.00	164.00		0.5 0.0	1	9 ZCV	20	Trace py. in chl. fractures. ZCV form random stock-work. c.g. mt. Magnetite as irregular blebs in fractures and in wall rock as well.	116364	0.107	0.272
164.00	166.00		0.5 0.0	1	10 ZCV	20		116365	0.113	0.272
166.00	168.00		0.5 0.0	1	10 ZCV	20	This unit is remarkably similar in texture, and degree of magnetite mineralization. Contains ZCV's (carbonate is non-reactive to HCL) and low concentration of py. till sample 116369.	116366	0.115	0.347
168.00	170.00		0.5 0.0	1	27 ZCV	20		116367	0.091	0.279
170.00	172.00		0.5 0.0	1	31 ZCV	20		116368	0.063	0.304
172.00	174.00		0.5 0.0	1	28 ZCV	20		116369	0.094	0.257
174.00	176.00		0.5 0.0	0	6 ZCV	20	Very similar to above except the core is quite pitted to locally vuggy. Most vugs have trace calcite. Formed probably as a result of dissolution of calcite.	116370	0.163	0.478
176.00	178.00		0.5 0.0	0	6 ZCV	20	Note drop in mt. content and concomitant drop in magnetic susceptibility with start of vuggy texture.	116371	0.067	0.224
178.00	180.10		0.5 0.0	0	0 ZCV	20		116372	0.276	0.587
180.1	181.97	BASALT FAULT ZONE								
180.10	181.97	Coarse-grained dark green brecciated chloritic sericitic	0.5 0.0	0	1 QVN	25 1	Several zones of chl. gouge cemented breccia. Probable faults in augite-phyric basalt. Pyrite in sparsely occurring qtz. veins.	116373	0.056	0.145
181.97	183.92	INTERMEDIATE VOLCANIC FLOW								
181.97	183.92	Fine-grained green-grey homogeneous chloritic sericitic	0.1 0.0	0	33 ZCCV	75 10	Oligomictic volcanic tuff to tuffaceous breccia comprised mostly of fragments of IVO with augite-phyric basalt with rare BFP in descending order of importance. Abundant zeo. Fe-cal. veinlets.	116374	0.029	0.066
183.92	219	INTERMEDIATE VOLCANIC TUFF								
183.92	185.92	Coarse-grained green-grey heterogeneous chloritic sericitic	0.1 0.0	1	20 ZCV	10	Magnetite in fracture controlled veinlets.	116375	0.161	0.362

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm	
185.92	187.92	Coarse-grained green-grey heterogeneous chloritic sericitic	0.1 0.0	1	21 ZCV	10	Minor gouge zones but there does not appear to be any major dislocation.	116376	0.294	0.776
187.92	189.92		0.1 0.0	1	26 ZCV	10		116377	0.124	0.334
189.92	191.92		0.1 0.0	2	31 ZCV	10	Includes a 2 cm wide qtz./anh./zeo. vein @ 0 deg. t.c.a. Magnetite @ vein contacts. Prevalent vein type is still ZCV.	116378	0.145	0.234
191.92	193.92		0.1 0.0	2	14 QAZV	20 3	Very weak ser.icitic alt. Abundant c.g. mt. in wall rock.	116379	0.172	0.279
193.92	195.92		0.1 0.0	1	14 ZCV	20 10		116380	0.249	0.285
195.92	197.60		1.0 0.0	0	3 ZCV	20 7		116381	0.249	0.297
197.60	199.60	Medium-grained blue grey vuggy sericitic anhydrite	0.5 0.0	0	2 QAV	10 25	Bluish tinge due to pervasive vuggy silica/anhydrite alt. ser.>>chl. alt. qtz./anh. veinlets far outnumber zeo./carb. veins.	116382	0.282	0.467
199.60	201.60		0.5 0.1	2	48 ZCV	35 5	The m.g. texture is probably due to pervasive alteration.	116383	0.438	0.684
201.60	203.60		1.0 0.0	1	33 QAV	35 5	Anhydrite rich qtz. veins. Pyrite generally in selvages to veins or in cross cutting later py. veins.	116384	0.219	0.327
203.60	205.60		3.0 0.0	1	42 QAV	5 70	Vuggy qtz./anh. vein from a minimum 2cm to exceeding the core diameter running parallel to core axis for about 70% of the sample. Pyrite in vugs.	116385	0.186	0.329
205.60	207.40		1.0 0.0	1	25 QAV	45 20		116387	0.321	0.498
207.40	208.92		1.0 0.5	2	62 QAV	5 25	End of vuggy texture.	116388	0.359	0.556
208.92	210.00	Fine-grained green brown vuggy sericitic biotite	0.5 0.5	1	35 QAV	5 10	Faint brown color due to f.g. biotite. Pervasive anhydrite alteration of host rock much weaker than seen above this point. Magnetite in qtz. veins or hairline fractures.	116389	0.066	0.137
210.00	212.00		0.5 0.0	1	21 QAV	20 10		116390	0.139	0.258
212.00	214.00		1.0 0.0	1	34 QAV	25 5		116391	0.112	0.239
214.00	215.05		3.0 0.0	1	15 QZV	20 10	Only minor qtz./anh. veins. Pyrite in qtz./zeo. veinlets and irregularly dissm. though wall rock.	116392	0.096	0.143
215.05	217.00	Very fine grained light green vuggy sericitic biotite	0.5 0.0	1	21 QAV	20 10	Aphanitic flow with mod. ser. alt. Molybdenite stringer @ midpoint in sample in qtz./zeo./carb. vein. Magnetite in fractures	116393	0.176	0.287
217.00	219.00		1.0 0.3	1	18 QAV	20 10	Chalcopyrite associated with c.g. py. in qtz. plus white anhydrite veinlets	116394	0.138	0.254

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INTERMEDIATE VOLCANIC FLOW

Hole Number: KN-02-39

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
219.00	221.00	Very fine grained light green homogeneous sericitic biotite	2.0 0.2	3	39 QAV 25 10	Biotite is very weak and local only. C.g. mt. in qtz./anh. veins, cpy. associated with c.g. py. in qtz./anh. veins	116395	0.255	0.835
221.00	223.00	Very fine grained light green homogeneous sericitic	2.0 0.3	2	71 QAV 25 10	Strong ser. alt. Mt. and cpy. as above. Tr. molybdenite near end of samples in very narrow qtz./anh. veinlet parallel to core axis.	116396	0.149	0.357
223.00	225.00		2.0 0.3	2	50 QAV 65 15	Cpy. associated with c.g. to v.c.g. py. in qtz./anhydrite veinlets. M.g. subhedral mt. in veins and wall rock.	116397	0.107	0.228
225.00	227.00		1.0 0.1	3	59 QAV 55 15		116398	0.127	0.261
227.00	229.00		3.0 0.1	3	34 QAV 45 5		116399	0.102	0.231
229.00	231.00		3.0 0.2	3	83 QAV 35 7		116400	0.189	0.387
231	249.94	BASALT FLOW							
231.00	233.00	Coarse-grained dark green porphyritic sericitic chloritic	2.0 0.0	2	33 QVN 30 10	C.g. augite porphyritic basalt flow. Augite pseudomorphed by a combination of chlorite and magnetite. Qtz. veins > qtz./anh. veins	116401	0.086	0.15
233.00	235.00		2.0 0.1	3	79 QVN 30 15	At least 10% augite pseudomorphs. Dark smokey qtz. veins are more prevalent than white qtz./anhydrite veins.	116402	0.136	0.259
235.00	237.00		1.0 0.2	1	61 QAV 35 7		116403	0.192	0.411
237.00	238.50		1.0 0.2	1	17 CON 35	Euhedral laumontite in vuggy vein.	116404	0.209	0.391
238.50	240.50	Medium-grained grey-green porphyritic sericitic chloritic	1.0 0.3	1	19 QAV 35 5	Chlorite pseudomorphs of augite phenocryst are much less abundant than above as between 231m - 238.30 m.	116405	0.111	0.176
240.50	242.50		0.5 0.1	1	3 QAV 15 3	1cm x 1 cm patch of cpy. in ZCV.	116406	0.199	0.415
242.50	244.50		0.5 0.1	1	0 QAV 35 3	Moderately abundant v. f. g. molybdenite in QAV over approx. 10cm in middle of sample.	116407	0.211	0.539
244.50	246.50		0.5 0.5	3	23 QAV 35 5	25mm x 3mm wide streak of massive cpy. @ 245.82m. Magnetite as replacements with chlorite pseudomorphing augite and as massive patches in host rock.	116408	0.272	0.569
246.50	248.50		0.5 0.2	3	35 QAV 35 5		116409	0.168	0.365
248.50	249.94		1.0 0.1	3	39 CON 5	Contact is sharp and marked by a ZCV running sub-parallel to core axis. Note this hole seems to be drilling down dip on post mineral dyke.	116410	0.212	0.354
249.94	255.68	SYENITE POST-MINERAL DYKE							
249.94	251.94	Medium-grained dark green porphyritic	0.0 0.0		21 ZCV 20 2	Chilled margin of post mineral dyke.	116411	0.017	0.025

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
251.94	253.94	Coarse-grained orange grey porphyritic	0.0	0.0	21 ZCV 20 2	Becoming coarser grained and more orange in color. Crowded with stubby, orange colored feldspars and about 2% c.g. mafic minerals.	116413	0.001	-2
253.94	255.68		0.0	0.0	22 ZCV 20 2		116414	0.002	-2
255.68	255.98	BASALT FLOW							
255.68	255.98	Fine-grained dark grey homogeneous chloritic	0.1	1.0	10 ZCV 20 2	Sample includes volcanic xenolith 22 cm long plus 4cm of dyke on either side. Several large blebs of massive cpy. in xenolith.	116550	0.737	0.711
255.98	258.8	SYENITE POST-MINERAL DYKE							
255.98	257.94	Coarse-grained orange grey porphyritic	0.0	0.0	20 ZCV 20 2		116415	0.001	-2
257.94	258.80		0.0	0.0	20 CON 23	Lower contact sharp. Note angle - further evidence that the hole is drilling down dip on post mineral dyke.	116416	0.001	-2
258.8	264.88	INTERMEDIATE VOLCANIC FLOW							
258.80	260.80	Medium-grained green-grey mottled chloritic	0.5	0.1	2 12 QAV 30 5	Tr. cpy. at contact with post mineral dyke. Note: no augite phenocrysts like previous vol. flows.	116417	0.173	0.29
260.80	262.80		0.5	0.0	2 68 QAV 30 15	qtz. veins >> zeolite / carb. veins. mt. in occasional qtz. / anh. vein and as c.g patches in flows.	116418	0.204	0.379
262.80	264.88		0.5	0.0	2 30 CON 5	Note contact angle. Confirms that hole is running along dyke margin. See wide intersection of post mineral dyke below.	116419	0.257	0.428
264.88	327.21	SYENITE POST-MINERAL DYKE							
264.88	266.68	Medium-grained green-grey porphyritic	0.0	0.0	22 ZCV 15 10	Typical. c.g. post mineral dyke with large phenocrysts of mafic minerals in a pink k-spar crowded porphyry.	116420	0.027	0.036
266.68	268.00	Coarse-grained dark grey porphyritic	0.0	0.0	20 ZCV 35 2		116421	0.002	-2
268.00	270.00	Coarse-grained orange tan porphyritic	0.0	0.0	25 ZCV 35 2		116422	0.001	-2
270.00	272.00		0.0	0.0	22 ZCV 35 2		116423	0.003	-2
272.00	274.00		0.0	0.0	23 ZCV 35 2		116424	0.003	-2
274.00	276.00		0.0	0.0	16 ZCV 35 2		116425	-2	-2
276.00	278.00		0.0	0.0	20 ZCV 35 2		116501	0.002	0.005
278.00	280.00		0.0	0.0	18 ZCV 35 2		116502	0.003	-2
280.00	282.00		0.0	0.0	20 ZCV 35 2		116503	0.002	-2

Hole Number: KN-02-39

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
282.00	284.00	Coarse-grained orange tan porphyritic	0.0 0.0	20 ZCV	35 2		116504	0.002	-2
284.00	286.00		0.0 0.0	16 ZCV	35 2		116505	0.002	-2
286.00	288.00		0.0 0.0	17 ZCV	35 2		116506	0.002	-2
288.00	290.00		0.0 0.0	17 ZCV	35 2		116507	0.002	-2
290.00	292.00		0.0 0.0	16 ZCV	35 2		116508	0.002	-2
292.00	294.00		0.0 0.0	6 ZCV	35 2		116509	0.002	-2
294.00	296.00		0.0 0.0	10 ZCV	35 2		116510	0.002	-2
296.00	298.00		0.0 0.0	15 ZCV	35 2		116511	0.001	-2
298.00	300.00		0.0 0.0	18 ZCV	35 2		116512	0.002	-2
300.00	302.00		0.0 0.0	17 ZCV	35 2		116514	0.007	0.006
302.00	304.00		0.0 0.0	15 ZCV	35 2		116515	0.002	-2
304.00	306.00		0.0 0.0	9 ZCV	35 2		116516	0.003	-2
306.00	308.00		0.0 0.0	12 ZCV	35 2		116517	0.002	-2
308.00	310.00		0.0 0.0	8 ZCV	35 2		116518	0.003	-2
310.00	312.00		0.0 0.0	13 ZCV	35 2		116519	0.002	-2
312.00	314.00		0.0 0.0	18 ZCV	35 2		116520	0.002	-2
314.00	316.00		0.0 0.0	17 ZCV	35 2		116521	0.003	-2
316.00	318.00		0.0 0.0	10 ZCV	35 2		116522	0.003	-2
318.00	320.00		0.0 0.0	15 ZCV	35 2		116523	0.003	0.005
320.00	322.00		0.0 0.0	11 ZCV	35 2		116524	0.004	-2
322.00	324.00		0.0 0.0	22 ZCV	35 2		116525	0.001	-2
324.00	326.00	Coarse-grained brown porphyritic	0.0 0.0	17 ZCV	35 2		116526	0.001	-2
326.00	327.21		0.0 0.0	10 CON	35	Sharp contact.	116527	0.002	-2
327.21	327.88	MONZONITE							
327.21	327.88	Coarse-grained grey porphyritic chloritic sericitic	0.1 0.0	2 CON	35	Sharp contact. Dark gray monzonite with several 0.5 to 1.0cm wide qtz. veins and abundant zeolite / carbonate veins.	116528	0.083	0.169
327.88	328.54	SYENITE POST-MINERAL DYKE							

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
327.88	328.54	Coarse-grained dark grey porphyritic	0.0 0.0	14	ZCV 30 2	Narrow post mineral dyke.	116529	0.023	0.043
328.54	355.88	MONZONITE							
328.54	330.00	Coarse-grained light grey porphyritic chloritic sericitic	0.3 0.0	26	QZV 45 5	C.g. mafic rich monzonite. Clay alt. is very weak and limited to slip and fracture surfaces and coatings on k-spar crystals.	116530	0.199	0.41
330.00	332.00		0.0 0.0	2	QZV 25 2		116531	0.189	0.352
332.00	334.00		0.1 0.5	1	QZV 30 10	V.c.g. to massive cpy. in qtz. / zeo. vein. Pink color tinges to unit due to abundant zeolite veining.	116532	0.291	0.512
334.00	336.00		0.1 0.0	1	QZV 30 10	Includes two veins 10-15cm wide but nearly barren of sulphides.	116533	0.254	0.394
336.00	338.00		0.3 0.2	25	QZV 30 10	c.g. mt. patches up to 2cm in qtz. veins.	116534	0.226	0.576
338.00	340.00	Coarse-grained dark grey porphyritic chloritic sericitic	0.3 0.5	0	1 QZV 35 10		116535	0.424	0.347
340.00	342.00		0.1 0.0	0	7 QZV 30 5		116536	0.138	0.29
342.00	344.00	Coarse-grained light grey porphyritic chloritic sericitic	0.2 0.3	0	2 QZV 15 15	Pink tinges to unit due to abundant zeolite veining. Tr. molybdenite at margin of qtz. + vuggy zeolite vein.	116537	0.215	0.493
344.00	346.00	Coarse-grained grey porphyritic chloritic sericitic	0.2 0.3	0	0 QZV 25 5		116538	0.138	0.263
346.00	348.00	Coarse-grained white grey porphyritic clay sericitic	3.0 0.3	0	0 QZV 10 20	Strong clay alteration of k-spar, imparting a whitish appearance to rock.	116540	0.573	1.155
348.00	350.00		2.0 0.3	0	1 QZV 5 15		116541	0.398	0.622
350.00	352.00		3.0 0.6	0	1 QZV 5 30	Vuggy qtz. / zeo. vein sub-parallel to core axis. Vugs filled with euhedral laumontite.	116542	0.608	1.265
352.00	354.00		1.0 0.3	0	1 QZV 25 10	Abundant zeo. veins as well as qtz. / zeo. veins.	116543	0.481	0.882
354.00	355.88	Coarse-grained white grey porphyritic sericitic clay	0.5 0.5	0	2 QZV 20 10	Chalcopyrite in zeolite rich veins. Only trace amounts of qtz.	116544	0.372	0.689
355.88	365.47	INTERMEDIATE VOLCANIC							
355.88	357.88	Medium-grained dark green heterogeneous chloritic sericitic	2.0 0.1	1	16 QZV 35 5	Strong chl. alt., wk. ser. alt. One 4cm wide massive py. seam in qtz. / zeo. vein.	116545	0.289	0.763
357.88	359.88		2.0 0.1	5	64 QZV 25 10	Several QZV's have clots of massive py. but only tr. cpy.	116546	0.483	0.945
359.88	361.88		0.5 0.1	1	7 QZV 15 10		116547	0.27	0.465
361.88	363.88		0.5 0.0	3	15 QZV 10 10		116548	0.283	0.501
363.88	365.47		0.5 0.0	3	51 QZV 25 15		116549	0.266	0.649

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
365.47	369.45	MONZONITE							
365.47	367.47	Coarse-grained pink grey porphyritic sericitic zeolite	0.5	0.0	1 4 QZV 30 3	In addition to zeo. veins there are areas of massive zeolite replacement of feldspars in monzonite. The mafic minerals are unaffected.	116551	0.113	0.214
367.47	369.45		0.5	0.3	1 4 QZV 30 6	c.g. cpy. in one - 1cm wide QZV near start of sample.	116552	0.182	0.289
369.45	379.13	BASALT							
369.45	371.45	Medium-grained dark green porphyritic chloritic sericitic	0.1	0.1	3 45 QZV 35 7	Augite porphyritic basalt with several small (10-20cm) dyklets of monzonite. Tr. molybdenite otherwise very sulphide poor.	116553	0.286	0.52
371.45	373.45		0.1	0.7	3 176 QZV 35 25	Some mt. in QZV's but mostly in thin, massive, fracture-fill veinlets at low angles to core axis.	116554	0.386	0.625
373.45	375.45		0.1	0.1	3 29 QZV 60 5	Very sulphide poor.	116555	0.331	0.586
375.45	377.45		0.5	0.5	3 37 QZV 30 8	Abundant cpy. in upper half of sample. Abundant mt. in lower half.	116556	0.281	0.531
377.45	379.13		0.5	0.1	1 7 QZV 30 20	Massive replacement by laumontite and intense clay. alt.	116557	0.326	0.522
379.13	383.7	MONZONITE							
379.13	381.13	Coarse-grained pink grey porphyritic sericitic chloritic	0.1	0.0	2 74 QZV 15 25		116558	0.331	0.546
381.13	383.13		0.5	0.0	1 0 QZV 15 20		116559	0.525	0.896
383.13	383.70		1.0	0.0	1 1 QZV 15 20		116560	0.219	0.398
383.7	384.6	INTERMEDIATE VOLCANIC FLOW							
383.70	384.60	Fine-grained green-grey homogeneous chloritic	0.1	0.0	0 1 QZV 15 10	Aphanitic flow.	116561	0.274	0.463
384.6	385.6	MONZONITE							
384.60	385.60	Coarse-grained pink grey porphyritic chloritic sericitic	0.1	0.0	0 1 QZV 50 10		116562	0.183	0.363
385.6	394.5	INTERMEDIATE VOLCANIC FLOW							
385.60	387.60	Fine-grained green-grey homogeneous chloritic	0.1	0.3	3 105 QMV 50 15	Aphanitic flow. v.f.g. dissm. cpy. in Qtz. / mt. veins. Tr. specular hematite in vein as well.	116563	0.161	0.343
387.60	389.60		3.0	0.7	1 9 QZV 20 5		116564	0.43	0.665
389.60	391.60		1.0	0.3	3 14 QZV 40 5	Includes v.c.g. spot of cpy. and several veins with v.f.g. cpy.	116565	0.397	0.911

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
391.60	393.60	Fine-grained green-grey homogeneous chloritic	0.5 0.4	5 124	QMV 35 5	v.c.g. mt. in qtz. veins with cpy. at several places in sample.	116567	0.231	0.531
393.60	394.50		0.5 0.1	1 40	QMV 35 3		116568	0.118	0.311
394.5	395.75	MONZONITE							
394.50	395.75	Coarse-grained white grey porphyritic clay sericitic	0.1 0.0	1 18	QZV 35 2	Wholesale replacement of feldspar with clay. Chlorite and magnetite on fractures.	116569	0.117	0.221
395.75	397.5	INTERMEDIATE VOLCANIC FLOW							
395.75	397.50	Fine-grained green-grey homogeneous chloritic	0.5 0.1	1 5	QZV 30 5		116570	0.214	0.499
397.5	435.5	MONZONITE							
397.50	399.50	Coarse-grained white grey porphyritic clay sericitic	0.1 0.1	1 31	QMV 20 5	Three distinct vein sets. QMV's are cut by QZV's. Both are cut by pink (laumontite) zeolite only veins.	116571	0.137	0.302
399.50	401.00		0.1 0.1	1 8	QMV 25 10		116572	0.191	0.406
401.00	403.00		0.1 0.1	1 14	QMV 25 7		116573	0.126	0.208
403.00	405.00		0.3 0.1	1 3	QZV 25 5		116574	0.183	0.292
405.00	407.00		2.0 0.1	1 27	QPV 15 5	V.c.g. clots of py. in smoky colored qtz. veins.	116575	0.189	0.282
407.00	409.00		0.3 0.1	1 21	QZV 20 5		116576	0.164	0.253
409.00	411.00		2.0 0.1	1 2	QPV 75 5		116577	0.127	0.172
411.00	413.00		5.0 0.0	1 1	QPV 40 5		116578	0.288	0.555
413.00	415.00		0.5 0.0	1 17	QZV 10 5		116579	0.176	0.317
415.00	417.00	Coarse-grained light grey porphyritic sericitic clay	0.1 0.0	1 33	QZV 55 3	Barren looking gray qtz. veins. Very minor thin zeolite veins.	116580	0.17	0.301
417.00	419.00	Coarse-grained light grey porphyritic sericitic chloritic	0.1 0.0	1 34	QVN 60 0	From here down in the monzonite the clay alt. is either absent or is in very local patches.	116581	0.135	0.233
419.00	421.00		0.1 0.0	1 5	QVN 35 0		116582	0.093	0.17
421.00	423.00		0.1 0.0	1 35	QVN 30 0		116583	0.104	0.169
423.00	425.00		0.1 0.0	1 8	QMV 45 15	Several 1cm+ veins of barren looking qtz. and several others with c.g. mt.	116584	0.26	0.474
425.00	427.00		0.1 0.1	1 14	QZV 45 2		116585	0.144	0.315
427.00	429.00	Coarse-grained grey porphyritic sericitic chloritic	0.1 0.0	1 15	ZVN 45 2		116586	0.084	0.123
429.00	431.00		0.1 0.0	3 22	ZVN 45 2	Thin (1mm or less) mt. veins parallel to core axis.	116587	0.138	0.346

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
431.00	433.00	Coarse-grained grey porphyritic sericitic chloritic	0.1 0.0	2 24	MT 5 1	Thin (1mm or less) mt. veins parallel to core axis.	116588	0.158	0.226
433.00	435.00	Coarse-grained grey porphyritic chloritic sericitic	0.1 0.3	2 2	QVN 60 2	Cpy. in vuggy chlorite selvages to qtz. veins. The ser. alt. is very wk only.	116589	0.395	0.788
435.00	435.50		0.1 0.3	2 22	QVN 60 2	Cpy. in vuggy cavities in qtz. veins.	116590	0.682	1.16
435.5	447.85	INTERMEDIATE VOLCANIC FLOW							
435.50	437.50	Fine-grained dark green homogeneous chloritic sericitic	0.5 0.1	1 19	QVN 25 5	Ser. alt. is very wk. Trace to wk. zeolite.	116591	0.254	0.74
437.50	439.50		0.5 0.1	1 47	QVN 10 20	Tr. to wk. zeolite.	116593	0.222	0.48
439.50	441.50	Medium-grained green-grey homogeneous chloritic sericitic	1.0 0.2	2 51	QVN 60 5	Cpy. in very narrow qtz. veins associated with very sparse amounts of py. No zeolite veins.	116594	0.237	0.447
441.50	443.50		1.0 0.3	3 51	QVN 25 5	Cpy. as above and 1 clot of semi-massive cpy. in vuggy qtz. vein. No zeolite veins.	116595	0.328	0.614
443.50	445.50	Medium-grained green-grey vuggy chloritic sericitic	1.0 0.3	2 44	QVN 25 7	Vuggy qtz. veins and chlorite rich wall rock.	116596	0.407	0.718
445.50	447.50		1.0 0.3	1 39	QVN 25 7		116597	0.232	0.444
447.50	447.85		1.0 0.3	1 3	QVN 25 5	Contact is gradational due to strong chlorite alt.	116598	0.259	0.519
447.85	459.9	MONZONITE							
447.85	450.00	Coarse-grained grey porphyritic sericitic chloritic	0.3 0.0	1 26	QZV 20 2		116599	0.119	0.311
450.00	452.00		0.3 0.0	1 22	QZV 20 20	Includes one 25cm QZV.	116600	0.202	0.367
452.00	454.00		0.3 0.0	1 16	QZV 20 2		116601	0.121	0.245
454.00	456.00	Coarse-grained white grey porphyritic sericitic clay	2.0 0.1	1 17	QVN 35 2	Cpy. occurs as m.g. to c.g. massive clots in qtz. veins.	116602	0.131	0.205
456.00	458.00		2.0 0.1	1 15	QVN 35 2		116603	0.261	0.472
458.00	459.90		0.3 0.1	1 5	CON 20	Contact very sharp.	116604	0.2	0.362
459.9	465.9	INTERMEDIATE VOLCANIC							
459.90	461.90	Fine-grained green-grey homogeneous chloritic sericitic	0.3 0.0	3 96	QVN 25 5		116605	0.227	0.523
461.90	463.90		0.3 0.0	3 29	QVN 25 5		116606	0.176	0.392
463.90	465.90		0.3 0.0	1 38	QVN 10 5		116607	0.147	0.36
465.9	470.56	MONZONITE							

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
465.90	466.82	Coarse-grained light grey porphyritic sericitic chloritic	0.1 0.0	2 44	QVN 30 3	60% monzonite and 40% f.g. IVO. Weak clay alt. in monzonite.	116608	0.072	0.141
466.82	468.82		0.1 0.1	2 24	QVN 35 3		116609	0.161	0.301
468.82	470.56		0.1 0.1	2 2	QVN 35 3	Very weakly clay alt. monzonite.	116610	0.21	0.392
470.56	479.68	INTERMEDIATE VOLCANIC							
470.56	472.00	Fine-grained grey-green homogeneous chloritic sericitic	0.3 0.2	4 134	QVN 45 5	Abundant mt. veinlets at approximately. 20-25 deg. to core axis.	116611	0.231	0.538
472.00	474.00		0.3 0.5	4 103	QVN 45 7	Abundant v.f.g. cpy. at several localities in sample.	116612	0.13	0.341
474.00	476.00		0.3 0.2	4 98	QVN 45 10	Magnetite in qtz. veins, fractures and as massive veins.	116613	0.051	0.143
476.00	478.00		0.3 0.2	4 104	QVN 55 10	C.g. cpy. in white-gray qtz. vein.	116614	0.337	0.835
478.00	479.68		0.5 0.2	2 48	QVN 60 7	Contact broken and lost.	116615	0.181	0.408
479.68	535.23	MONZONITE							
479.68	481.00	Coarse-grained grey porphyritic sericitic chloritic	0.1 0.0	1 27	QVN 65 5	Magnetite occurs as c.g. sub-hedral patches in matrix of monzonite.	116616	0.17	0.285
481.00	483.00		0.1 0.0	1 22	QVN 75 2		116617	0.172	0.324
483.00	485.00	Coarse-grained grey porphyritic sericitic clay	0.1 0.0	1 35	QVN 20 10	Very patchy clay alt. of feldspars.	116619	0.217	0.411
485.00	487.00	Coarse-grained pink grey porphyritic sericitic clay	1.0 0.0	1 21	QVN 65 10	V.c.g. py. in qtz. +/- zeolite veins.	116620	0.125	0.222
487.00	489.00		0.5 0.1	1 8	QZV 30 7	Tr. cpy. in wall rock at margins of QZV's.	116621	0.16	0.343
489.00	491.00	Coarse-grained grey porphyritic sericitic clay	1.0 0.1	1 3	QZV 20 15		116622	0.352	0.654
491.00	493.00	Coarse-grained pink grey porphyritic sericitic clay	0.5 0.0	1 48	QZV 30 10	Strong clay alt. Vuggy calcite vein at 5 deg. to core axis at start of sample.	116623	0.293	0.448
493.00	495.00		0.5 0.0	1 22	QZV 25 5		116624	0.211	0.493
495.00	497.00	Coarse-grained grey porphyritic sericitic chloritic	0.5 1.0	5 87	QVN 60 15	2cm wide vein of massive cpy. Very abundant mt. as replacement of monzonite matrix in lower half of sample.	116625	0.483	0.55
497.00	499.00	Coarse-grained light grey porphyritic sericitic clay	0.5 0.0	0 2	QZV 20 15	Very strong clay alt.	116626	0.226	0.431
499.00	501.00		0.5 0.1	0 0	QZV 20 10		116627	0.251	0.505
501.00	503.00		0.5 0.0	0 0	QZV 20 15		116628	0.511	1.1
503.00	505.00		1.0 0.0	0 0	QZV 20 40	QZV running down core axis for first half of sample.	116629	0.322	0.536

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
505.00	507.00	Coarse-grained grey porphyritic sericitic chloritic	0.5 0.0	1	25 QZV 40 5	Chl. alt. on slips. clay alt. of individual k-spar phenocrysts.	116630	0.172	0.303
507.00	509.00		0.5 0.0	2	16 QVN 30 2	Magnetite in some qtz. veins as well as the ubiquitous sub-hedral, patchy replacement of the matrix.	116631	0.139	0.265
509.00	511.00		0.5 0.0	1	12 QVN 30 5		116632	0.111	0.224
511.00	513.00		0.3 0.0	1	26 QVN 30 2		116633	0.152	0.301
513.00	515.00		0.3 0.0	1	13 QVN 30 2		116634	0.225	0.421
515.00	517.00		0.3 0.0	1	19 QVN 30 2		116635	0.171	0.316
517.00	519.00		0.3 0.1	1	22 QVN 30 2	Tr. v.f.g. cpy. in qtz. veins with c.g. py.	116636	0.141	0.265
519.00	521.00		2.0 0.1	5	37 QVN 20 5	Two c.g. grains of cpy. in qtz. vein with c.g. py. Massive mt. veins in center of sample.	116637	0.129	0.264
521.00	523.00		0.5 0.1	1	26 QVN 40 2		116638	0.169	0.353
523.00	525.00		0.5 0.0	1	22 QVN 10 2	Tr. gypsum in qtz. vein.	116639	0.2	0.39
525.00	527.00		0.5 0.0	1	35 QVN 35 2	Wk. clay alt. of k-spar. phenocrysts.	116640	0.19	0.368
527.00	529.00		0.5 0.1	1	12 QZV 60 10	Tr. cpy. in qtz. vein.	116641	0.283	0.568
529.00	531.00		0.5 0.0	1	35 QZV 35 8	Pyrite in QZV's and in selvages around veins.	116642	0.278	0.719
531.00	533.00		0.5 0.0	0	1 QZV 35 5		116643	0.211	0.398
533.00	535.23		0.5 0.0	3	65 QVN 40 3	Abundant c.g. to massive mt. in lower half of sample.	116645	0.214	0.372
535.23	561.65	INTERMEDIATE VOLCANIC FLOW							
535.23	537.00	Fine-grained green-grey homogeneous sericitic chloritic	2.0 0.0	1	29 QVN 45 3	Sericite alt. is very wk. and chl. alt. is confined mostly to slips and fractures. Sample contains about 15% monzonite in narrow dykets.	116646	0.253	0.584
537.00	539.00		4.0 0.1	1	10 QVN 15 2	Semi-massive py. in qtz. veins at beginning of sample. Cpy. in host rock at end of sample.	116647	0.273	0.651
539.00	541.00	Fine-grained green-grey amygdular sericitic chloritic	1.0 0.0	1	15 QVN 40 2		116648	0.452	0.963
541.00	543.00	Fine-grained green-grey homogeneous sericitic chloritic	1.0 0.1	2	58 QVN 35 8	Several thin, massive magnetite veinlets sub-parallel to core axis. V.f.g. cpy. in hairline thin qtz. veins.	116649	0.276	0.604
543.00	545.00		1.0 0.0	1	31 QVN 35 5	Includes a 15cm wide monzonite dyke. C.g. cpy. in thin qtz. veinlet.	116650	0.212	0.426
545.00	547.00		0.5 0.2	2	40 QVN 60 5	#REF!	116651	0.255	0.557
547.00	549.00	Fine-grained green-grey amygdular sericitic chloritic	0.5 0.0	2	32 QVN 35 2	Qtz. / chl. filled amygdules up to 1.5cm across.	116652	0.224	0.491

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
549.00	551.00	Fine-grained green-grey amygdular sericitic chloritic	0.5 0.0	2	124 QVN 35 5		116653	0.229	0.458
551.00	553.00	Fine-grained green-grey homogeneous sericitic chloritic	1.0 0.5	2	69 QVN 0 3	C.g. to semi-massive cpy. in qtz. vein parallel to core axis.	116654	0.257	0.543
553.00	555.00		0.5 0.0	2	24 QVN 35 2		116655	0.173	0.386
555.00	557.00		0.5 0.3	2	38 QVN 15 7	C.g. cpy. in qtz. / mt. vein at 15 deg. to core axis.	116656	0.264	0.723
557.00	559.00		1.0 0.5	3	78 QVN 5 7	C.g. cpy. in qtz. - fracture-fill vein at 5 deg. t.c.a. Thin mt. veinlets are common.	116657	0.182	0.435
559.00	561.00		0.5 0.0	3	68 QVN 10 2	Thin mt. veinlets are common.	116658	0.257	0.558
561.00	561.65		0.5 0.0	3	135 CON 65	Very sharp primary bedding contact (S0) between volc. flows.	116659	0.321	0.964
561.65	575	BASALT FLOW							
561.65	563.00	Coarse-grained grey black homogeneous chloritic	2.0 1.0	3	67 QVN 5 7	Abundant cpy. associated with v.c.g. py. in fracture - filling qtz. vein. Flows have c.g. pseudo-gabbroic texture. Augite phyric.	116660	0.145	0.296
563.00	565.00		2.0 1.0	3	80 QVN 25 10	As for 116660.	116661	0.176	0.386
565.00	567.00		2.0 1.0	3	30 QVN 25 7	Augite phyric to augite porphyritic.	116662	0.215	0.505
567.00	569.00		1.0 0.4	3	44 QMV 15 3	Abundant mt. in qtz. veins.	116663	0.212	0.586
569.00	571.00		0.5 0.4	3	119 QMV 35 3		116664	0.425	1.025
571.00	573.00		0.3 0.1	3	84 QMV 40 3	Very coarse gabbroic texture in flows.	116665	0.354	0.875
573.00	575.00		0.3 0.0	3	44 QVN 40 3		116666	0.26	0.572
575	576.2	BASALT FAULT ZONE							
575.00	576.20	Coarse-grained dark green brecciated chloritic	0.3 0.0	0	2 QVN 40 5		116667	0.207	0.45
576.2	606.4	BASALT FLOW							
576.20	577.06	Coarse-grained black homogeneous chloritic	0.1 0.0	0	19 FLT	Fault breccia and gouge on either end of sample and f.g. breccia texture in between. Looks like a healed fault.	116668	0.174	0.525
577.06	579.00	Medium-grained black homogeneous chloritic	1.0 0.2	3	53 QVN 35 2	Chl. alt. on slips, otherwise wk.	116669	0.239	0.715
579.00	581.00		1.0 0.0	3	56 QVN 55 10		116671	0.197	0.524
581.00	583.00		1.0 0.2	3	22 QVN 40 3	One gypsum vein at beginning of sample.	116672	0.164	0.388
583.00	585.00		1.0 0.1	3	99 QVN 40 3		116673	0.233	0.59

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
585.00	587.00	Medium-grained black homogeneous chloritic	1.0	0.5	3 27 QVN 35 3	Abundant v.f.g. cpy. in hairline qtz. veinlets and fractures.	116674	0.248	0.669
587.00	589.00		1.0	0.6	3 114 QVN 60 3	M.g. to semi-massive cpy. in very thin stringers in fractures and as c.g masses in qtz. veinlets.	116675	0.239	0.506
589.00	591.00		1.0	0.4	3 131 QVN 45 3		116676	0.182	0.561
591.00	593.00		1.0	0.7	3 39 QVN 5 10	C.g. cpy. in centers of qtz. veins and at margins of white zeolite / carbonate veinlets.	116677	0.217	0.529
593.00	595.00		3.0	0.3	3 35 QVN 10 2		116678	0.131	0.229
595.00	597.00		1.0	0.5	3 57 QVN 15 10	Chalcopyrite in two generations of qtz. veins. Can see one cross-cutting and off-setting the other.	116679	0.255	0.648
597.00	599.00		1.0	0.2	2 40 QVN 45 5		116680	0.2	0.493
599.00	601.00		1.0	0.0	3 65 QVN 5 2	Abundant mt. veinlets. very sparse qtz. veining and no visible cpy.	116681	0.174	0.424
601.00	603.00		1.0	0.0	3 104 QVN 25 2		116682	0.143	0.355
603.00	605.00		1.0	0.0	3 110 QVN 25 2		116683	0.177	0.43
605.00	606.40		1.0	0.3	3 50 QVN 25 5	V.c.g. cpy. in qtz. vein.	116684	0.174	0.39
606.4	612	MONZONITE							
606.40	608.00	Coarse-grained light grey porphyritic sericitic chloritic	0.5	0.1	2 16 QVN 25 2	Crowded feldspar porphyry with c.g. mt. in matrix.	116685	0.372	0.688
608.00	610.00		0.1	0.0	2 81 QVN 5 2		116686	0.382	0.667
610.00	612.00		0.1	0.0	2 63 QVN 5 2		116687	0.399	0.8
612	612.67	BASALT FLOW							
612.00	612.67	Fine-grained dark green heterogeneous chloritic	2.0	3.0	2 56 QVN 20 15	This is a volcanic xenolith with a 1.5cm seam of cpy. in qtz. vein at 20deg. t.c.a.	116688	1.475	1.78
612.67	614.78	MONZONITE							
612.67	614.78	Coarse-grained light grey porphyritic sericitic chloritic	0.3	0.3	2 74 QVN 40 5	C.g. cpy. in center of several qtz. veins. sample contains a 23cm xenolith of basalt.	116689	0.257	0.44
614.78	642.21	BASALT FLOW							
614.78	616.00	Fine-grained dark grey homogeneous chloritic biotite	0.3	0.0	1 16 QVN 15 10	Sporadic v.f.g. biotite alt.	116690	0.161	0.29
616.00	618.00		0.3	0.2	2 73 QVN 20 5	Scattered gypsum / anhydrite veins from here to 642.21m.	116691	0.173	0.352
618.00	620.00		0.3	0.2	2 43 QVN 30 3		116692	0.123	0.326

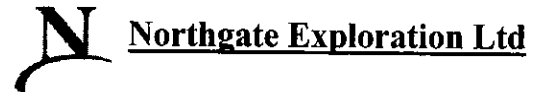
Hole Number: KN-02-39

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
620.00	622.00	Fine-grained dark grey heterogeneous chloritic biotite	0.5	0.2	3 51 QVN 60 1	Contains about 50% monzonite. Cut by minor amounts of pink zeolite.	116693	0.228	0.524
622.00	624.00		0.5	0.2	3 25 QVN 15 1	Contains about 30% monzonite. Cut by minor amounts of pink zeolite.	116694	0.544	1.585
624.00	626.00	Fine-grained dark grey homogeneous chloritic biotite	0.3	0.2	2 51 QVN 35 3	Incipient biotite alteration.	116695	0.198	0.35
626.00	628.00		0.3	0.5	2 36 QVN 10 3	M.g. cpy. in qtz. veins at low angle to core axis. Incipient biotite alt.	116697	0.272	0.577
628.00	630.00	Fine-grained dark grey heterogeneous chloritic biotite	0.3	0.2	2 52 QVN 10 3	Contains about 40% monzonite.	116698	0.386	0.861
630.00	632.00	Fine-grained dark grey homogeneous chloritic biotite	0.5	0.8	2 42 QVN 10 15	Semi-massive cpy. in thin qtz. veins sub-parallel to core axis.	116699	0.377	0.774
632.00	634.00		0.5	1.0	2 22 QVN 10 3		116700	0.18	0.361
634.00	636.00		0.5	0.3	2 75 QVN 45 3	Several grains of m.g. cpy. in thin qtz. veins.	116701	0.125	0.265
636.00	638.00		0.5	0.3	2 44 QVN 30 3	Euhedral gypsum veins.	116702	0.22	0.579
638.00	640.00		0.5	0.3	2 138 QVN 35 3	As for 116701.	116703	0.153	0.382
640.00	641.00		0.5	0.3	2 56 QVN 45 3		116704	0.144	0.279
641.00	642.21		0.5	0.4	2 41 QVN 40 3	Euhedral gypsum veins.	116705	0.207	0.551
642.21	668.3	MONZONITE							
642.21	644.00	Coarse-grained grey porphyritic biotite	0.3	0.0	0 1 QVN 30 2	Amphibole (riebeckite?) rich monzonite. Some of this may be secondary alteration.	116706	0.311	0.653
644.00	646.00		0.3	0.0	0 4 QVN 15 5	Good qtz. vein stock-work but veins are sulphide poor.	116707	0.252	0.491
646.00	648.00		0.3	0.2	1 26 QVN 15 5		116708	0.364	0.532
648.00	650.00		0.3	0.1	1 32 QMV 10 5	Qtz. / mt. veins instead of qtz. veins. Tr. cpy. Several yellow calcite veinlets.	116709	0.25	0.466
650.00	652.00	Coarse-grained tan grey porphyritic chloritic biotite	0.3	1.0	1 6 QVN 45 5	Several veinlets of semi-massive cpy.	116710	0.346	0.651
652.00	654.00		1.0	0.5	5 73 QVN 35 5	Strong chl. alt. on slips. Semi-massive cpy. in veins parallel to core axis. 1% yellow calcite veinlets.	116711	0.206	0.375
654.00	656.00		1.0	0.2	10 244 QMV 35 5	Very abundant massive mt. in wall rock and in qtz. veins.	116712	0.155	0.319
656.00	658.00		1.0	0.2	5 74 QVN 35 5	C.g. py. in qtz. veins.	116713	0.152	0.345
658.00	660.00		3.0	0.2	5 20 QVN 60 5	Abundant massive pyrite veins or pyrite-rich qtz. veins.	116714	0.17	0.303
660.00	662.00	Coarse-grained grey porphyritic chloritic biotite	0.5	0.1	5 74 QVN 60 5		116715	0.155	0.281

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
662.00	664.00	Coarse-grained grey porphyritic chloritic biotite	1.0 0.0	2	5 QVN 60 5	C.g. clots of massive py. at vein boundaries.	116716	0.165	0.293
664.00	666.00		0.3 0.0	7	76 QVN 60 3	Very abundant massive mt. Strong chl. alt on slips.	116717	0.145	0.298
666.00	668.00		0.3 0.1	4	72 QVN 35 1		116718	0.176	0.378
668.00	668.30		0.3 0.0	4	54 QVN 35 2		116719	0.266	0.66
668.3	673.46	BASALT FLOW							
668.30	670.30	Fine-grained black homogeneous chloritic biotite	5.0 0.0	12	72 QVN 70 2	Abundant massive magnetite veins at start of sample. Heavily disseminated py. throughout.	116720	0.516	1.475
670.30	672.30		3.0 0.2	1	14 QVN 70 2	Cpy. in very thin qtz. veins at low angles to core axis.	116721	0.264	0.735
672.30	673.46		3.0 0.2	1	25 QVN 20 2		116723	0.138	0.489
673.46	675.74	MONZONITE							
673.46	675.46	Coarse-grained grey porphyritic chloritic biotite	0.3 0.0	1	42 QVN 70 2	Occasional zeolite veins.	116724	0.098	0.216
675.46	675.74		0.3 0.0	1	2 QVN 70 2	E.O.H.	116725	0.22	0.374
675.74		EOH							

Kemess North 2002 - Diamond Drill Log



Hole Number: **KN-02-40**

Northing: 15290.0	Total Depth: 690.95m
Easting: 8345.98	Azimuth: 360°
Elevation: 1737.6	Dip: -70°

Geologist: J. Mazvihwa
Logged Date: 9/13/2002

Survey Depth	Azimuth	Dip	Comments:
42 m	13 °	-62 °	Mechanical
136 m	15 °	-67 °	Mechanical
228 m	27 °	-73 °	Mechanical
319 m	38 °	-76 °	Mechanical
411 m	33 °	-70 °	
502 m	28 °	-72 °	Magnetic
594 m	31 °	-69 °	
685 m	29 °	-69 °	

Kemess North 2002 - Summary Drill Log



Hole Number: **KN-02-40**

From (m)	To (m)	Rock Type	Comments
0	2.74	CASING	9 foot casing
2.74	27	ANDESITE FLOW	Rubble, broken. Fine to medium grained, medium green Takla flow. Planes oxidized, lined by hematite. Rubble size varies from fine clay material to about 5 mm wide on longest axis. Pyrite aggregates and disseminations visible in places along with mafic phenocrysts, possibly augite.
27	33	ANDESITE FLOW BRECCIA	Increased brown colour, possibly due to an increase of sericite \pm fine biotite alteration. Weak patchy epidote fragments visible locally; in situ breccia.
33	35	ANDESITE FLOW	Highly silicified and sericitized between 33.59-33.66 m, weak sericite \pm fine biotite alteration to 33.89 m.
35	43	ANDESITE FLOW BRECCIA	Pyrite veining, fragmented, brecciated. Highly silicified and sericitized between 36.74-37.00 m.
43	47	ANDESITE FLOW	Fragments, in situ breccia. Locally broken. Pyrite veining and aggregates. Weak sericite \pm fine biotite alteration. Disseminated pyrite and aggregates. Highly siliceous and sericitized portions, light green.
47	51	ANDESITE FLOW BRECCIA	Same as 112657, plus weak epidote alteration. Fragmented in situ breccia. Chlorite and pyrite infilled vesicles visible at about 48.37m.
51	72	ANDESITE FLOW	Same as 112657, plus weak potassic alteration. Less chloritized and silicified between 51.08-51.41m. Pyrite veining associated with chlorite. Potassic alteration in places with magnetite.
72	80	ANDESITE FLOW BRECCIA	Fragments- barely visible- appear to have the same composition as host, possibly insitu breccia. Pyrite aggregate's association with fragments is not clear. Increased quartz/zeolite between 72.18-72.33 m and 72.31-72.37 m. Quartz/ zeolite/ pyrite between 72.62-72.86 m and 73.69-73.77 m. Massive, no fragments between 73.72-74.00 m.
80	82	ANDESITE FLOW	Increased pyrite aggregates and stringers. Quartz/zeolite/hematite/pyrite veining between 80.80-80.92 m. Weak epidote alteration associated with pyrite aggregates at about 80.60 m. Augite phenocrysts visible locally.

Hole Number:

KN-02-40

From (m)	To (m)	Rock Type	Comments
82	88	ANDESITE FLOW BRECCIA	Augite phenocrysts. Disseminated pyrite associated with patchy epidote alteration. Brecciated in places. Hematite lining joints at about 82.68 m. Quartz/vein between 82.58-82.68 m. Magnetite+pyrite disseminations.
88	94	ANDESITE FLOW	Quartz/zeolite lining joints. Quartz/calcite veining associated with disseminated pyrite. Increased disseminated pyrite in flow. Augite phenocrysts.
94	96	ANDESITE FLOW BRECCIA	Quartz/zeolite veining associated with pyrite disseminations between 91.87-92.28m. Disseminated pyrite and aggregates surrounding augite phenocrysts in places. Local weak potassic alteration associated with weak epidote alteration. Increased quartz/zeolite/hematite/pyrite between 94.18-94.40 m. Disseminated and pyrite aggregates. Weak potassic altered portions.
96	98	ANDESITE FLOW	Fine to medium grained chloritic and weakly silicified flow. Augite phenocrysts visible locally. Disseminated pyrite and pyrite aggregates in flow associated with quartz/zeolite veining. Very weak localized potassic alteration. Weak epidote alteration surrounding augite phenocrysts associated with pyrite locally.
98	100	ANDESITE FLOW BRECCIA	Pyrite aggregates, locally associated with augite phenocrysts. Quartz/zeolite veining randomly oriented. Weak potassic altered portions. Weak brecciated texture visible
100	104	ANDESITE FLOW	Pyrite aggregates, locally associated with augite phenocrysts. Quartz/zeolite veining randomly oriented. Weak potassic altered portions. Weak brecciated texture visible. Very weak epidote alteration associated with quartz/zeolite veining increases from 101.00-102.00 m in massive flow
104	122	ANDESITE FLOW BRECCIA	Pyrite aggregates, potassic alteration localized @ 105.85-106.00 m. Weak epidote alteration, associated with pyrite aggregates.
122	134	ANDESITE FLOW	Potassic alteration between 122.15-123.00 m, light brown/green, weak to moderate. Reduced chlorite content from 123.00 m. Quartz/zeolite veining at about 40 deg t.c.a.; disseminated and aggregate pyrite in flow. Magnetite aggregates associated with pyrite aggregates @ about 123.20 m.
134	138	ANDESITE FLOW BRECCIA	Increased zeolite veining associated with disseminated magnetite + pyrite @ 134.27 m. Quartz/epidote/sericite/pyrite/mt between 134.56-134.64 m.
138	144	BASALT FLOW	Fine to medium grained, light green/grey flow. Augite phenocrysts visible locally. Disseminated pyrite, also present as veining associated with kfsp veining. Quartz/zeolite veining randomly oriented, irregularly spaced. Weak epidote alteration associated with disseminated pyrite.

Hole Number:

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From (m)	To (m)	Rock Type	Comments
144	146	BASALT FLOW BRECCIA	Quartz/zeolite/pyrite veining between 144.17-144.26 m associated with magnetite, pyrite and epidote; Quartz and calcite between 144.42-144.54 m associated with kfsp veining. Augite phenocrysts. Increased quartz/zeolite/calcite veining between 146.43-146.52 m, generally massive with minor brecciated portions.
146	164	BASALT FLOW	Brown between 147.20-147.47 m indicating weak sericite +/- fine biotite alteration with silli/sericite/pyrite/epidote in fool wall between 147.47- 147.53 m. Zeolite veining between 147.53-147.59 m. Augite phenocrysts visible in places.
164	166	BASALT FLOW BRECCIA	Augite phenocrysts. Qtz/zeo vein associated with minor pyrite aggregates @ ~ 164.87 to 164.90 metres. Locally brecciated from 164.67 to 164.78 metres. Massive magnetite between 165.73 to 165.78 metres.
166	170	BASALT FLOW	Qtz/zeo/py/mag veining between 166.54 to 166.61 metres (associated with hematite and weak epidote), and between 166.92 to 166.96 metres. Disseminated pyrite with epidote haloes. Augite phenocrysts disseminated locally.
170	178	BASALT FLOW BRECCIA	Brown colour possibly due to sericite +/- fine biotite alt'n between 170.44 to 170.69 metres with vuggy dissolution features. Fragments of similar composition as host, indicating insitu breccia. Disseminated pyrite associated with magnetite. Fault zone @ ~ 171.58 metres- gouge filled.
178	184	BASALT FLOW	Fine to medium grained medium green flow with darker green/black patches and portions of high magnetite content. Fragment outlines barely visible in places, same composition as host- possibly an insitu breccia. Disseminated pyrite associated with disseminated magnetite, Qtz/zeo veining and surrounding fragments; mineralization- possibly pre-brecciation- in places. Local vuggy structures. Brown colouration possibly due to sericite +/- fine biotite alt'n.
184	186	BASALT FLOW BRECCIA	Increase in magnetite aggregates and massive in flow, locally associated with disseminated pyrite. Chalcedonic quartz in places.
186	204	BASALT FLOW	Weak epidote alt'n associated with potassic alt'n from 187.29 to 187.34 metres. Disseminated pyrite and magnetite.
204	206	BASALT FLOW BRECCIA	Fragments locally visible. Disseminated pyrite and magnetite. Very weak epidote alt'n. Qtz/mag/py/epi vein @ 205.08 metres.
206	224	BASALT FLOW	Vuggy dissolution features between 206.32 to 206.67 metres. Weak potassic alt'n. Weak epidote alt'n associated with disseminated pyrite and magnetite.

Hole Number:

KN-02-40

From (m)	To (m)	Rock Type	Comments
224	226	BASALT FLOW BRECCIA	Disseminated pyrite, associated with qtz/calcite veining. Also associated with disseminated magnetite in places. Portions with increased massive magnetite.
226	254	BASALT FLOW	Fine to medium grained, medium green, chloritic and weak to moderately silicified. Weak epidote alt'n. Portions with increased disseminated pyrite associated with pyrite and magnetite aggregates in qtz/zeo veining.
254	264	BASALT FLOW BRECCIA	Increase in massive magnetite. Brown colour due to sericite +/- fine biotite between 254.59 to 254.61 metres. Qtz/py/chl vein between 254.30 to 254.36 metres. Local increases in zeolite veining. Plagioclase phenocrysts visible in places.
264	304.13	BASALT FLOW	Brown colour due to weak to moderate sericite +/- fine biotite. Mag/py veining and aggregates plus epidote. Varying degrees of silicification. Augite phenocrysts.
304.13	306	BASALT FLOW BRECCIA	Weak potassic alt'n @ ~ 304.33 metres. Fragments- insitu breccia. Augite phenocrysts. Magnetite/pyrite aggregates, and vesicles infilled with qtz/epi/mag/py between 305.75 to 305.86 metres.
306	308	BASALT FLOW	Slight brown colour due to sericite +/- fine biotite alt'n between 306.45 to 306.52 metres. Py/mag stringers and aggregates plus weak epidote.
308	312	BASALT FLOW BRECCIA	Chloritic, weakly silicified. Disseminated pyrite and magnetite aggregates bound by weak epidote alt'n.
312	350	BASALT FLOW	Weak, patchy potassic alteration. Pyrite and magnetite aggregates locally bound by weak epidote alteration.
350	352.02	BASALT FLOW BRECCIA	Weak, patchy potassic alt'n between 351.94 to 352.05 metres. Qtz/zeo veining increasing in the light green, less sericitized portions. Vuggy dissolution features. Brecciated texture. Pyrite and magnetite aggregates.
352.02	356	BASALT FLOW	Fine to medium grained, green/brown flow- colour due to moderate sericite +/- fine biotite alt'n. Finely disseminated pyrite in alt'd portions, locally associated with magnetite aggregates. Py/mag aggregates also present in qtz/zeo veining between 352.83 to 352.93 metres. Weak epidote alt'n also present @ 352.70 and 353.32 and between 352.19 to 352.32. Amygdules present but barely visible from 353.32 metres.

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From (m)	To (m)	Rock Type	Comments
356	364	BASALT FLOW BRECCIA	Weak to moderate sericite ± fine biotite alteration. Locally brecciated. Qtz/chl vein between 357.24 to 357.35 metres with minor epidote. Locally vuggy. Amygdule filled with 2% qtz locally. Pyrite/ mag aggregates. Increased disseminated pyrite in brown, moderate sericite +/- fine biotite alt'n. Qtz/zeo/epi/mag/py veining between 357.75 to 358.00 metres.
364	386	BASALT FLOW	Augite phenocrysts visible. Local potassic alt'n between 364.52 to 364.58 metres, weak and vuggy. Disseminated pyrite and magnetite. Py/mag in qtz vein.
386	390	BASALT FLOW BRECCIA	Fine to medium grained green flow, weakly to moderately sericitic +/- fine biotite. weak potassic altered portions between 386.51 to 386.67 metres. Augite phenocrysts visible locally, with small plagioclase phenocrysts. Magnetite veinlet @ ~ 386.51 metres. Disseminated pyrite, locally associated with magnetite aggregates . Qtz/zeo veining.
390	392	BASALT FLOW	Moderate epidote alt'n between 391.35 to 391.49 metres. Increase in brown colouration due to sericite +/- fine biotite alt'n. Local increase in qtz/zeo veining between 390.79 to 390.89 metres. Massive magnetite py/mag vein @ ~ 391.09 metres. Augite phenocrysts visible in less sericitic +/- fine biotite alt'd portions.
392	394	BASALT FLOW BRECCIA	Slightly brecciated; moderate sericite +/- fine biotite alt'n (brown colour). Chalcopyrite aggregates associated with pyrite in qtz/calcite veining also present as aggregates in flow. Rare hematite.
394	406	BASALT FLOW	Augite phenocrysts not visible- protolith overprinted by sericite +/- fine biotite alt'n. Strong increase in disseminated pyrite associated with chalcopyrite in places. Reduced zeo veining. Pyrite/magnetite +/- chalcopyrite aggregates present mainly in less silicified +/- fine biotite altered portions.
406	410	BASALT FLOW BRECCIA	Patchy brown colour due to sericite +/- fine biotite alt'n. Slightly fragmented, possibly insitu breccia. Weak epidote alt'n associated with pyrite/magnetite veining at 407.47 metres. Increased qtz/calcite veining between 407.47 to 407.93 metres.
410	434	BASALT FLOW	Moderately to highly potassic, sericite +/- fine biotite altered portions between 411.91 to 413.40 metres; varying degrees of silicification from weak to moderate. Qtz/zeo veining. Protolith overprinted.
434	436	BASALT FLOW BRECCIA	Weak, patchy sericite +/- fine biotite alt'n. Pyrite and mag stringers and aggregates associated with weak epidote alt'n @ ~ 431.14 metres. Chloritic. Pyrite stringers cut by late stage qtz veining. Weakly brecciated @ ~ 435.00 metres.

Hole Number:**KN-02-10**

From (m)	To (m)	Rock Type	Comments
436	451.86	BASALT FLOW	Very weak and patchy sericite +/- fine biotite alt'n. Mainly chloritic. Local increase in qtz/zeo veining between 436.36 to 436.65 metres. Vuggy flow between 436.65 to 436.92 metres. Weak, patchy epidote alt'n locally associated with pyrite and magnetite aggregates between 437.09 to 437.55 metres.
451.86	453.08	GRANODIORITE	Intrusive fragment is fine to medium grained, siliceous and possibly silicified. Has host flow within it. Finely disseminated pyrite and magnetite and veining at 452.56 metres. Weak sericite +/- fine biotite alt'n imparting a slight brown colour.
453.08	457	BASALT FLOW BRECCIA	Fine to medium grained flow, silicified. Augite phenocrysts visible locally. Very weak brown colour due to very weak sericite +/- fine biotite alt'n. Fragments present- have similar composition as host, possibly an insitu breccia. Qtz/py/mag vein between 454.24 to 454.39 metres.
457	462	BASALT FLOW	Disseminated pyrite in flow and associated with chl/qtz/zeo veining between 457.02 to 457.47 metres. Pyrite/mag associated with epidote alt'n between 457.66 to 457.71 metres. Chloritic portions with augite phenocrysts. Rare zeolite. Rare py/mag between 459.78 to 459.95 metres. Very weak brown colour due to sericite +/- weak biotite alt'n.
462	476.57	BASALT FLOW BRECCIA	Fragmented, insitu breccia between 462.64 to 463.16 metres. Disseminated pyrite/mag and aggregates in flow. Weak potassic alt'n between 462.85 to 463.16 metres. Weak brown colour due to very weak sericite +/- fine biotite alt'n and weak epidote alt'n.
476.57	493	BASALT FLOW	Light brown to medium brown, indicating weak to moderate sericite +/- fine biotite alt'n. Increased zeolite veining between 476.81 to 477.05 metres. Increased qtz veining from 477.96 to metres associated with pyrite. Weak potassic alteration.
493	495	BASALT FLOW BRECCIA	Fragmented locally, insitu breccia. Augite phenocrysts visible locally. Weak sericite +/- fine biotite alt'n in places associated with qtz/zeo veining. Disseminated pyrite associated with magnetite aggregates.
495	516	BASALT FLOW	Massive magnetite unit. Augite phenocrysts visible locally. Pyrite and magnetite aggregates in flow. Qtz/zeo veining. Amygdules infilled with qtz/mag/py between 496.35 to 496.47 metres. Plagioclase phenocrysts visible between 496.72 to 496.85 metres- associated with an increase in qtz/zeolite veining.
516	518	BASALT FLOW BRECCIA	Potassic altered portions associated with an increase in disseminated pyrite/magnetite and veining. Patchy weak to moderate sericite +/- fine biotite also associated with disseminated pyrite. Augite phenocrysts locally visible. Fragments- insitu breccia.

Hole Number:

K.N-02-40

From (m)	To (m)	Rock Type	Comments
518	522	BASALT FLOW	Moderate sericite +/- fine biotite alt'n and weak, patchy potassic alt'n. Weak to moderate epidote alt'n. Alteration associated with disseminated pyrite/mag and veining. Epidote alt between 518.34 to 518.44 metres, 518.84 to 519.08 metres and 519.91 to 520.00 metres. Potassic between 518.34-518.72 metres and 519.14-519.21 metres. Vuggy structures.
522	524	BASALT FLOW BRECCIA	Patchy weak to moderate sericite +/- fine biotite alt'n with chloritic portions, associated with reduced pyrite content between 522.64 to 522.91 metres. Brecciated, fragmented. Qtz/calcite/hem veining.
524	552	BASALT FLOW	Fine to medium grained basalt flow, portions with augite and plagioclase phenocrysts in chloritic portions between 524.70 to 526.00 metres. Medium brown from 524.00 to 524.49 metres, possibly moderate sericite +/- fine biotite alt'n. Associated with increased disseminated pyrite and zeolite veining between 524.04 to 525.27 metres.
552	556	BASALT FLOW BRECCIA	Slight brown colour due to weak sericite +/- fine biotite alt'n. Fragments visible in places- insitu breccia. Augite and plag phenocrysts visible locally. Vuggy zeolite veining between 552.87 to 552.92 metres with euhedral crystal assemblages in vuggy structures. Weak epidote alt'n. Py/mag veining at 553.86 metres.
556	609.87	BASALT FLOW	Barren kfsp, potassic altered portions, between 556.87 to 557.30 metres. Chloritic portions with augite phenocrysts visible. Very weak, patchy sericite +/- fine biotite alt'n between 556.00 to 556.26 metres. Weak to moderate epidote alt'n between 557.30 to 557.87 metres, associated with disseminated pyrite and magnetite veining and aggregates.
609.87	614	BASALT FLOW BRECCIA	Moderately silicified and chloritic. Augite phenocrysts visible. Augite and plag between 610.87 to 611.30 metres. Weak potassic alt'n.
614	620	BASALT FLOW	Chloritic with augite phenocrysts. Smoky gray qtz vein associated with pyrite and magnetite aggregates +/- weak epidote alt'n. Patchy, weak epidote alt'n associated with pyrite/mag veining @ ~ 616.00 metres. Intrusive granitoid fragment between 614.22 to 614.39 metres.
620	626	BASALT FLOW BRECCIA	Patchy chlorite and sericite alt'n as in previous sample. Moderate, patchy potassic alt'n @ ~ 621.00 metres and between 621.53 to 622.00 metres. Kfsp veining between 620.40 to 620.45 metres and with epidote alt'n in the foot wall to 620.49 metres. Py/mag/epi veining @ 621.05 metres. Fragments with similar composition as host- insitu breccia.
626	627.58	BASALT FLOW	Moderate sericite +/- fine biotite alt'n, weak to moderate epidote alt'n, and patchy chloritic alt'n. Massive magnetite veinlets. High content of disseminated pyrite associated with magnetite aggregates. Qtz/zeolite veining. Contact with potassic granitoid intrusive defined by qtz/zeo veining between 627.48 to 627.58 metres.

Hole Number:

KN-02-40

From (m)	To (m)	Rock Type	Comments
627.58	629.06	GRANODIORITE	High qtz content (more than 20%) plagioclase dominant feldspar. Mafic minerals consist of biotite and tabular hornblende. Granitoid is possibly a granodiorite. Weak to moderate potassic altered portions (i.e.: between 628.76 to 628.84 metres). Smaller grained chill margin toward foot wall contact between 628.95 to 629.06 metres. Contact also defined by qtz/zeo veining between 629.06 to 629.20 metres @ 45 degrees t.c.a. Barren, possibly post-mineralization, intrusion. Magnetite aggregates present.
629.06	640.93	BASALT FLOW	Chloritic, fine to medium grained flow; weak, patchy potassic alt'n @ ~ 629.64 metres and between 630.02 to 630.09 metres. Brown colour due to weak sericite +/- fine biotite alt'n with associated py/mag aggregates.
640.93	641.9	BASALT	Sample consists mainly of zeolite and smoky gray quartz vein associated with weak to moderate epidote alt'n and sericite alt'n. Disseminated pyrite, pyrite aggregates and cubic pyrite @ 641.18 metres, associated with epidote alteration. Local vuggy dissolution features.
641.9	645.21	BASALT FLOW BRECCIA	Slight brown colour due to sericite +/- fine biotite alt'n. Augite phenocrysts visible locally. Massive magnetite unit. Disseminated pyrite and aggregates associated with magnetite. Barren zeo/qtz veining.
645.21	682.59	BASALT FLOW	Brown colour due to moderate sericite +/- fine biotite alt'n. Patchy, weak epidote alt'n- green colour @ 645.73 metres. Vuggy in qtz/calcite veins between 645.94 to 646.04 metres. Increase in disseminated pyrite. Kfsp alt'n between 646.20 to 646.57 metres bound by zeolite veining.
682.59	689.22	GRANODIORITE	Coarse grained, high qtz content granite with dominant plagioclase. Mafics are possibly biotite and tabular hornblende (i.e. granodiorite). Potassic altered portions. kfsp veining between 683.30 to 683.52 metres. Chalcopyrite aggregates between 683.22 to 683.28 metres and @ 683.47 metres.
689.22	690.98	BASALT FLOW	Possibly large, volcanic flow fragments as in previous sample. Chlorite, disseminated pyrite associated with minor epidote alt'n. Broken portions.

Kemess North 2002 - Detail Drill Log



Hole Number: KN-02-40

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
0	2.74	CASING							
	0.00	2.74				9 foot casing	40	-2	-2
2.74	27	ANDESITE FLOW							
	2.74	5.18 Fine-medium-grained medium green rubbly oxidized chloritic	2.0	0	HVN	Rubble, broken. Fine to medium grained, medium green Takla flow. Planes oxidized, lined by hematite. Rubble size varies from fine clay material to about 5 mm wide on longest axis. Pyrite aggregates and disseminations visible in places along with mafic phenocrysts, possibly augite.	112633	0.027	0.107
	5.18	6.71 Fine-medium-grained medium green massive oxidized chloritic	2.0	0	QHVN 90	Disseminated pyrite, barely visible in the oxidized zones.	112634	0.055	0.225
	6.71	8.23 Fine-medium-grained medium green massive chloritic silicic	3.0	9	QZHV 90 10	Fine to medium grained, medium green flow; slight brown colouration possibly due to sericite ± fine biotite alteration. Fragments in places of similar composition as host, indicating possibly insitu flow breccia. Disseminated pyrite and aggregates. Pyrite also present as veining, locally associated with qtz/zeolite veining.	112635	0.052	0.238
	8.23	9.75	3.0	4	QZHCV 90 7	Rare joint lined with hematite and zeolite/quartz. Disseminated and aggregates of pyrite.	112636	0.026	0.186
	9.75	11.28	3.0	16	QZVN 50 10	Vuggy dissolution features in zeolite/quartz/calcite vein, locally enveloped by weak epidote alteration. Oxidized pyrite forming a red/orange coating on plane surface at about 10.10 m- possibly FeO.	112637	0.008	0.221
	11.28	12.80	4.0	4	QZVN 70 10	Slight brown colour possibly due to weak sericite ± fine biotite alteration; weak epidote enveloping zeolite/quartz vein.	112638	0.034	0.131
	12.80	14.33	5.0	20	QZVN 30 10	Local increase in pyrite between 13.55m - 13.62m, associated with quartz/zeolite. Slight brown colouration as in previous sample. Fragments- barely visible- same composition as flow; in situ flow breccia.	112639	0.133	0.654
	14.33	15.85	4.0	13	QZVN 10 10	Brown colouration and fragments as above. Weak epidote alteration present in patches.	112640	0.038	0.232

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
15.85	17.37	Fine-medium-grained medium green massive chloritic silicic	4.0	3	114 QZVN 5 5	Pyrite/quartz veining cross-cut by barren zeolite veining. Pyrite also present as disseminated and in aggregates. Weak epidote alteration, patchy. Disseminated magnetite.	112641	0.045	0.142
17.37	19.00		4.0		49 QZVN 30 7	Slight brown colouration, probably sericite ± fine biotite alteration. Disseminated pyrite. Slight increase in pyrite veining.	112642	0.037	0.188
19.00	21.00		4.0	1	36 QZHCV 50 7	Quartz/zeolite/hematite/calcite/magnetite/pyrite veining between 20.21-20.42m. Disseminated pyrite and aggregates.	112643	0.038	0.145
21.00	23.00		3.0		74 QZHV 80 7	Patchy weak epidote alteration. Quartz/zeolite/hematite veining between 22.60-22.72m associated with pyrite veining.	112645	0.047	0.2
23.00	25.00		3.0		59 QZVN 70 5	Very weak brown colour due to sericite ± fine biotite alteration. Patchy weak epidote alteration.	112646	0.047	0.103
25.00	27.00		3.0		16 QZCCV 80 10	Quartz/zeolite/calcite veining between 26.10-26.52 m. Weak epidote alteration infilling joint planes. Brown colour as above.	112647	0.056	0.203
27	33	ANDESITE FLOW BRECCIA							
27.00	29.00	Fine-medium-grained medium green massive chloritic silicic	3.0		14 QZVN 50 7	Increased brown colour, possibly due to an increase of sericite ± fine biotite alteration. Weak patchy epidote fragments visible locally; in situ breccia.	112648	0.023	0.049
29.00	31.00		2.0		32 QZCCV 90 5	Pyrite veining at about 29.92 m. Fragment outline barely visible. In situ breccia- weak brown colour. Disseminated pyrite and weak epidote.	112649	0.025	0.068
31.00	33.00		3.0		13 QZCCV 50 7	Slight brown colour, possibly weak sericite ± fine biotite. Pyrite aggregates. Weak epidote.	112650	0.033	0.106
33	35	ANDESITE FLOW							
33.00	35.00	Fine-medium-grained medium green massive chloritic silicic	3.0		6 QZVN 70 7	Highly silicified and sericitized between 33.59-33.66 m, weak sericite ± fine biotite alteration to 33.89 m.	112651	0.015	0.071
35	43	ANDESITE FLOW BRECCIA							
35.00	37.00	Fine-medium-grained medium green massive chloritic silicic	2.0		74 QZVN 20 5	Pyrite veining, fragmented, brecciated. Highly silicified and sericitized between 36.74-37.00 m.	112652	0.015	0.075
37.00	39.00		2.0	1	19 QZVN 70 7	Magnetite aggregates associated with quartz/zeolite veining plus pyrite between 37.13-37.21m. Brown colour-sericite ± fine biotite. Fragments as above.	112653	0.036	0.093

Hole Number: KN-02-40

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
39.00	41.00	Fine-medium-grained medium green massive chloritic silicic	2.0	1	10 QZVN 60 15	Brown colour as above. Weak epidote alteration, patchy and also infilling joints. Fragments as above. Increased zeolite veining between 40.13-40.81m. Magnetite associated with pyrite at about 39.20 m.	112654	0.024	0.076
41.00	43.00		2.0		6 QZCCV 0 20	Increased zeolite/quartz/calcite veining, irregularly oriented and spaced. Local broken zone.	112655	0.02	0.07
43	47	ANDESITE FLOW							
43.00	45.00	Fine-medium-grained medium green massive chloritic silicic	2.0		19 QZVN 90 7	Fragments, in situ breccia. Locally broken. Pyrite veining and aggregates. Weak sericite ± fine biotite alteration. Disseminated pyrite and aggregates. Highly siliceous and sericitized portions, light green.	112656	0.022	0.073
45.00	47.00	Fine-medium-grained green brown massive chloritic sericitic	4.0	1	12 QZVN 90 7	Brown due to weak to moderate sericite ± fine biotite alteration, associated with increased disseminated and aggregated pyrite.	112657	0.026	0.116
47	51	ANDESITE FLOW BRECCIA							
47.00	49.00	Fine-medium-grained green brown massive chloritic sericitic	4.0		9 QZVN 90 7	Same as 112657, plus weak epidote alteration. Fragmented in situ breccia. Chlorite and pyrite infilled vesicles visible at about 48.37m.	112658	0.023	0.098
49.00	51.00		3.0	1	6 QZVN 70 10	Same as 112657, plus weak epidote alteration. Magnetite/pyrite/quartz vein at about 49.90m. Local increase in disseminated pyrite. Weak epidote alteration. Zeolite cross-cutting epidote.	112659	0.027	0.065
51	72	ANDESITE FLOW							
51.00	53.00	Fine-medium-grained green brown massive chloritic sericitic	4.0	1	7 QZCCV 5 15	Same as 112657, plus weak potassic alteration. Less chloritized and silicified between 51.08-51.41m. Pyrite veining associated with chlorite. Potassic alteration in places with magnetite.	112660	0.03	0.097
53.00	54.60		4.0	3	114 QZVN 60 10	Same as 112657 plus weak to moderate potassic alteration. Magnetite aggregates between 53.27-53.50 m associated with disseminated pyrite. Potassic feldspar veining rare.	112661	0.029	0.07
54.60	55.50	Fine-medium-grained grey massive chloritic sericitic	6.0		18 QZVN 90 15	Moderated to highly silicified and sericitized. Disseminated pyrite. Disseminated magnetite at about 55.22 m.	112662	0.021	0.301

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
55.50	57.67	Fine-medium-grained green brown massive chloritic sericitic	5.0	2 84	QZVN 90 10	Weak to moderate sericite ± fine biotite alteration, associated with an increase in disseminated pyrite. Magnetite aggregate associated with pyrite/quartz/calcite veining bound by sericite plus silicification. Veining is equidistant and at 90 deg. t.c.a., forming banding. Potassic alteration between 56.94-57.21 m. Magnetite/pyrite veining between 57.10-57.21m and 57.44-57.47 m.	112663	0.039	0.126
57.67	58.67	Fine-medium-grained green-grey massive chloritic silicic	3.0		3 QZVN 80 5	Light greenish-gray, fine grained flow, moderately chloritic, moderate to weakly silicified. Pyrite disseminated and in aggregates in flow. Quartz/zeolite veining infilling 80-90 deg. t.c.a. fault planes. Hairline pyrite stringers. Quartz/pyrite vein at about 58.22 m. Very weak epidote alteration. Pyrite aggregates appear to be replacing mafic minerals.	112664	0.019	0.071
58.67	60.00		2.0	1	2 QZCCV 0 10	Increase in zeolite veining and epidote alteration. Augite phenocrysts visible locally. Zeolite stockwork.	112665	0.024	0.132
60.00	62.00	Fine-medium-grained medium green massive chloritic silicic	1.0		12 QZHCV 40 10	Rare red hematite lining joint planes. Randomly oriented zeolite/quartz/calcite veins and stringers. Weak epidote alteration. Quartz/zeolite/calcite/pyrite veining between 61.68 and 61.85 m.	112666	0.026	0.218
62.00	64.00		3.0	2	10 QZVN 50 5	Magnetite/pyrite veining at about 63.34 m and 63.74 m (with zeolite). Pyrite also present as aggregates. Augite phenocrysts visible.	112667	0.039	0.133
64.00	66.00		4.0	1	29 QZVN 60 10	Disseminated pyrite and magnetite aggregates associated with quartz/zeolite veining between 64.19-64.29 m and at 65.69 m.	112668	0.045	0.126
66.00	68.00		3.0		3 QZVN 80 15	Weak epidote alteration between 66.00-66.11 m, appears as "patches" surrounded by pyrite locally, possibly post mineralization(?). Quartz veining between 66.68-66.80 m associated with calcite aggregates. Augite phenocrysts. Smoky quartz vein at about 67.77 m, cross-cut by barren zeolite veining.	112669	0.051	0.142
68.00	70.00		3.0		4 QZCCV 90 15	Quartz/zeolite/calcite/pyrite veining between 69.40-69.50 m Late stage zeolite veining cross-cutting quartz veining.	112671	0.028	0.1

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
70.00	72.00	Fine-medium-grained medium green massive chloritic silicic	2.0		6 QZHV 50 15	Quartz/zeolite/hematite/pyrite veining @ about 70.50 m. Augite phenocrysts. Zeolite pyrite veining associated with, and cut by, quartz/calcite late stage veining @ about 71.30 m and 71.57 m. Local increase in zeolite veining.	112672	0.014	0.043
<div style="border: 1px solid black; display: inline-block; padding: 2px;">72</div> <div style="border: 1px solid black; display: inline-block; padding: 2px; margin-left: 10px;">80</div> ANDESITE FLOW BRECCIA									
72.00	74.00	Fine-medium-grained medium green massive chloritic silicic	3.0		3 QZCCV 30 10	Fragments- barely visible- appear to have the same composition as host, possibly insitu breccia. Pyrite aggregate's association with fragments is not clear. Increased quartz/zeolite between 72.18-72.33 m and 72.31-72.37 m. Quartz/ zeolite/ pyrite between 72.62-72.86 m and 73.69-73.77 m. Massive, no fragments between 73.72-74.00 m.	112673	0.033	0.075
74.00	76.00		3.0		6 QZVN 90 7	Same as 112673, with augite phenocrysts visible	112674	0.034	0.083
76.00	76.88		1.0		9 QZVN 50 15	Increased zeolite veining between 76.18-76.47 m. Zeolite/ quartz/hem/pyrite @ about 76.71 m. Fragments, insitu breccia	112675	0.053	0.097
76.88	78.78		4.0	2	35 QZVN 0 20	Quartz/zeolite/hematite/pyrite veining between 77.51-78.78 m associated with magnetite aggregates, in places running at about 0 deg. t.c.a. Fragments, insitu breccia.	112676	0.02	0.086
78.78	80.00		3.0	1	12 QZVN 40 5	Quartz/zeolite/calcite veining between 79.36-79.60 m associated with magnetite aggregates. Brecciated texture visible locally.	112677	0.033	0.092
<div style="border: 1px solid black; display: inline-block; padding: 2px;">80</div> <div style="border: 1px solid black; display: inline-block; padding: 2px; margin-left: 10px;">82</div> ANDESITE FLOW									
80.00	82.00	Fine-medium-grained medium green massive chloritic silicic	4.0		7 QZHCV 50 7	Increased pyrite aggregates and stringers. Quartz/zeolite/hematite/pyrite veining between 80.80-80.92 m. Weak epidote alteration associated with pyrite aggregates at about 80.60 m. Augite phenocrysts visible locally.	112678	0.021	0.073
<div style="border: 1px solid black; display: inline-block; padding: 2px;">82</div> <div style="border: 1px solid black; display: inline-block; padding: 2px; margin-left: 10px;">88</div> ANDESITE FLOW BRECCIA									
82.00	84.00	Fine-medium-grained medium green massive chloritic silicic	5.0	1	32 QZHV 90 10	Augite phenocrysts. Disseminated pyrite associated with patchy epidote alteration. Brecciated in places. Hematite lining joints at about 82.68 m. Quartz/vein between 82.58-82.68 m. Magnetite+pyrite disseminations.	112679	0.045	0.136
84.00	86.00		4.0		8 QZVN 70 7	Increased epidote alteration associated with fragments. Augite phenocrysts visible locally. Quartz/zeolite/pyrite veining. Patchy epidote alteration between 85.50-85.69 m.	112680	0.038	0.12

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
86.00	88.00	Fine-medium-grained medium green massive chloritic silicic	3.0	8	QZCCV 60 5	Weak epidote lining joints with zeolite. Quartz/zeolite/hematite @ about 87.00 m. Increased zeolite/quartz veining. Pyrite vuggy between 87.86-88.00 m enveloped with epidote alteration. Disseminated pyrite.	112681	0.032	0.08
88	94	ANDESITE FLOW							
88.00	90.00	Fine-medium-grained medium green massive chloritic silicic	4.0	10	QZCCV 0 5	Quartz/zeolite lining joints. Quartz/calcite veining associated with disseminated pyrite. Increased disseminated pyrite in flow. Augite phenocrysts.	112682	0.025	0.061
90.00	91.87		3.0	0.1	1 15 QZCCV 90 10	Fault zone @ about 91.35 m infilled with gouge material. Slightly brown colour possibly due to sericite +/- fine biotite. Rare chalcopyrite associated with pyrite aggregates in quartz/calcite veining. Magnetite associated with pyrite veining between 91.02-91.35 m. Light green /grey silicified and sericitized, weak to moderate.	112683	0.038	0.161
91.87	94.00		3.0	7	QZVN 70 10	Quartz/zeolite veining associated with pyrite disseminations between 91.87-92.28m. Disseminated pyrite and aggregates surrounding augite phenocrysts in places. Local weak potassic alteration; associated with weak epidote alteration.	112684	0.029	0.122
94	96	ANDESITE FLOW BRECCIA							
94.00	96.00	Fine-medium-grained medium green massive chloritic silicic	5.0	4	QZVN 90 10	Quartz/zeolite veining associated with pyrite disseminations between 91.87-92.28m. Disseminated pyrite and aggregates surrounding augite phenocrysts in places. Local weak potassic alteration associated with weak epidote alteration. Increased quartz/zeolite/hematite/pyrite between 94.18-94.40 m. Disseminated and pyrite aggregates. Weak potassic altered portions.	112685	0.033	0.111
96	98	ANDESITE FLOW							
96.00	98.00	Fine-medium-grained medium green massive chloritic silicic	3.0	4	QZVN 80 10	Fine to medium grained chloritic and weakly silicified flow. Augite phenocrysts visible locally. Disseminated pyrite and pyrite aggregates in flow associated with quartz/zeolite veining .Very weak localized potassic alteration. Weak epidote alteration surrounding augite phenocrysts associated with pyrite locally.	112686	0.037	0.087
98	100	ANDESITE FLOW BRECCIA							

Hole Number: KN-02-40

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
98.00	100.00	Fine-medium-grained medium green massive chloritic silicic	3.0	16	QZCCV 60 7	Pyrite aggregates, locally associated with augite phenocrysts. Quartz/zeolite veining randomly oriented. Weak potassic altered portions. Weak brecciated texture visible	112687	0.032	0.071
100		104		ANDESITE FLOW					
100.00	102.00	Fine-medium-grained medium green massive chloritic silicic	2.0	37	QZVN 40 5	Pyrite aggregates, locally associated with augite phenocrysts. Quartz/zeolite veining randomly oriented. Weak potassic altered portions. Weak brecciated texture visible. Very weak epidote alteration associated with quartz/zeolite veining increases from 101.00-102.00 m in massive flow	112688	0.025	0.047
102.00	104.00		2.0		QZVN 80 10	Increase in quartz/zeolite/calcite veining between 102.77-103.19 m. Brecciated texture from 103.30-104.00 m. Pyrite associated with weak epidote alteration.	112689	0.027	0.06
104		122		ANDESITE FLOW BRECCIA					
104.00	106.00	Fine-medium-grained medium green massive chloritic silicic	4.0	6	QZVN 70 7	Pyrite aggregates, potassic alteration localized @ 105.85-106.00 m. Weak epidote alteration, associated with pyrite aggregates.	112690	0.034	0.094
106.00	108.00		3.0	31	QZVN 60 10	Magnetite aggregate associated with quartz/zeolite/pyrite veining between 106.05-106.20 m. Weakly brecciated, fragments boundaries lined by epidote and pyrite aggregates. Weak potassic alteration between 106.00-106.40 m.	112691	0.035	0.086
108.00	110.00		3.0	16	QZVN 90 15	Increased quartz/ zeolite veining, randomly oriented, irregularly spaced. Weak epidote alteration associated with quartz/pyrite/calcite veining vuggy dissolution veining between 109.86-110.00 m.	112692	0.017	0.065
110.00	112.00	Fine-medium-grained medium green massive chloritic epidote	3.0	2	QZCCV 60 10	Disseminated epidote associated with disseminated pyrite weak potassic alteration. Slight brown colour might be due to sericite+/- fine biotite. Augite phenocrysts locally visible. Late stage quartz/calcite cross cutting zeolite/pyrite vein.	112693	0.023	0.09
112.00	114.00		6.0	25	QZVN 80 15	Increase in pyrite content. Pyrite/magnetite veining between 115.09-115.14 m bound by epidote and magnetite between 115.05-115.20 m. Moderate epidote alteration, locally patchy.	112694	0.03	0.118

Hole Number: KN-02-40

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
114.00	116.00	Fine-medium-grained light green massive silicic chloritic	5.0	16	QZVN 70 7	Weak epidote alteration; weak brecciated texture. Moderate to highly silicified, weak to moderate chloritic. Magnetite/pyrite bound by epidote alteration @ about 115.00 m. Disseminated pyrite + epidote aggregates.	112695	0.025	0.09
116.00	118.00		4.0	13	QZVN 70 15	Local brecciated texture. Pyrite aggregates associated with weak epidote alteration and magnetite aggregates quartz/zeolite/calcite veining randomly oriented, irregularly spaced phenocrysts, quartz vein associated with disseminated pyrite between 116.56-116.76 m bound by potassic and epidote alteration, with vuggy structures.	112697	0.021	0.08
118.00	120.00	Fine-medium-grained light green massive chloritic silicic	3.0	18	QZCCV 70 10	Amygdules visible locally, infilled by secondary quartz/sericite. Local potassic alteration between 118.00-118.30 m associated with epidote alteration - weak to moderate. Brecciated texture visible locally, associated with weak sericite alteration.	112698	0.039	0.121
120.00	122.00	Fine-medium-grained green brown massive chloritic silicic	4.0	4	QZCCV 60 7	Slight brown colouration possibly due to sericite +/- fine biotite alt'n. Weak epidote alteration, associated with quartz /zeolite veining less chloritic from about 121.30 m.	112699	0.023	0.093
122	134	ANDESITE FLOW							
122.00	124.00	Fine-medium-grained light green massive silicic potassic	4.0	9	QZVN 40 7	Potassic alteration between 122.15-123.00 m, light brown/green, weak to moderate. Reduced chlorite content from 123.00 m. Quartz/zeolite veining at about 40 deg t.c.a.; disseminated and aggregate pyrite in flow. Magnetite aggregates associated with pyrite aggregates @ about 123.20 m.	112700	0.027	0.12
124.00	126.00	Fine-medium-grained light green massive silicic chloritic	3.0	7	QZVN 30 10	Increased pyrite veining between 124.37-124.59 m. Increased quartz/zeolite veining between 127.78-127.98 m. Vuggy dissolution textures. Increased zeolite veining between 125.05-125.69 m. Weak potassic alteration.	112701	0.026	0.104
126.00	128.00		3.0	21	QZVN 80 7	Augite phenocrysts visible locally. Pyrite/epidote/zeolite/quartz veining @ about 127.50-127.92 m. Quartz/pyrite/zeolite/calcite vein between 126.73-126.78 m. Mt./pyrite veining.	112702	0.04	0.086
128.00	130.00		3.0	20	QZVN 70 10	Quartz/zeolite veining between 128.05-128.90 m. Disseminated magnetite associated with pyrite aggregates between 128.65-128.90 m. Augite phenocrysts visible in places.	112703	0.038	0.094

Hole Number: KN-02-40

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
130.00	132.00	Fine-medium-grained light green massive silicic chloritic	3.0	2	QZVN 90 15	Augite phenocrysts visible in places. Increased quartz/calcite veining from about 131.05 m associated with fault zone lined by gouge material.	112704	0.034	0.081
132.00	134.00		3.0	30	QZVN 70 10	Zeolite between 132.36-136.61 m. Disseminated magnetite associated with disseminated pyrite in quartz/zeolite veining.	112705	0.028	0.058
134	138	ANDESITE FLOW BRECCIA							
134.00	136.00	Fine-medium-grained medium green massive silicic chloritic	3.0	3	QZVN 60 15	Increased zeolite veining associated with disseminated magnetite + pyrite @ 134.27 m. Quartz/epidote/sericite/pyrite/mt between 134.56-134.64 m.	112706	0.022	0.045
136.00	138.00	Fine-medium-grained light green massive sericitic silicic	3.0	14	QZVN 70 10	Reduced chlorite content, and weak silicification. Augite phenocrysts visible locally. Disseminated mt/pyrite aggregates bound by epidote alteration.	112707	0.033	0.084
138	144	BASALT FLOW							
138.00	140.00	Fine-medium-grained light green massive silicic chloritic	3.0	8	QZVN 0 10	Fine to medium grained, light green/grey flow. Augite phenocrysts visible locally. Disseminated pyrite, also present as veining associated with kfsp veining. Quartz/zeolite veining randomly oriented, irregularly spaced. Weak epidote alteration associated with disseminated pyrite.	112708	0.036	0.079
140.00	142.00		3.0	1	3 QZVN 90 15	Increased zeolite veining between 140.19- 140.69 m. Quartz/pyrite/mt/epidote veining @ about 140.94 m.	112709	0.023	0.068
142.00	144.00	Fine-medium-grained medium green massive chloritic silicic	2.0	1	20 QZVN 80 7	Increased chlorite content; weak epidote alteration associated with disseminated pyrite + disseminated magnetite locally. Rare red hematite lining joints. Augite phenocrysts visible.	112710	0.015	0.063
144	146	BASALT FLOW BRECCIA							
144.00	146.00	Fine-medium-grained light green massive silicic chloritic	3.0	1	21 QZVN 70 10	Quartz/zeolite/pyrite veining between 144.17-144.26 m associated with magnetite, pyrite and epidote; Quartz and calcite between 144.42-144.54 m associated with kfsp veining. Augite phenocrysts. Increased quartz/zeolite/calcite veining between 146.43-146.52 m, generally massive with minor brecciated portions.	112711	0.018	0.065
146	164	BASALT FLOW							

Hole Number: KN-02-40

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
146.00	148.00	Fine-medium-grained massive chloritic silicic medium green	2.0		2 QZVN 90 15	Brown between 147.20-147.47 m indicating weak sericite +/- fine biotite alteration with sili/sericite/pyrite/epidote in fool wall between 147.47-147.53 m. Zeolite veining between 147.53-147.59 m. Augite phenocrysts visible in places.	112712	0.018	0.063
148.00	150.00		2.0		3 QZVN 90 10	Slight brown coloured portion, possibly weak sericite +/- fine biotite. Augite phenocrysts visible.	112713	0.017	0.07
150.00	152.00	Fine-medium-grained massive chloritic silicic green brown	4.0	2	2 QZVN 90 15	As above, with quartz/zeolite/pyrite/magnetite veining between 150.02 to 150.20 metres, 150.80 to 150.90 metres, and 151.05 to 151.10 metres.	112714	0.021	0.078
152.00	154.00	Fine-medium-grained massive chloritic sericitic green brown	4.0	1	8 QZCCV 50 15	Increased brown colouration , possibly indicating weak to moderate sericite +/- fine biotite alt'n associated with increased pyrite aggregates and pyrite veining (associated with zeolite/qtz/magnetite aggregates). Moderate sericite alt'n between 153.40 to 153.86 metres. Qtz/pyrite/zeolite veining between 153.86 to 153.97 metres.	112715	0.015	0.083
154.00	156.00	Fine-medium-grained massive chloritic silicic medium green	3.0	1	7 QZCCV 90 10	Augite phenocrysts, disseminated pyrite, vuggy structures. Qtz/zeolite/pyrite/magnetite veining @ ~ 154.16 metres.	112716	0.017	0.058
156.00	158.00		5.0	2	17 QZCCV 70 15	Slight brown colour possibly due to sericite +/- fine biotite alt'n, associated with increased disseminated pyrite. Qtz/zeo/py/mag veining between 157.94 to 158.05 metres associated with weak epidote alteration and between 156.62 to 156.67 metres and at 156.95 metres; weak potassic alt'n.	112717	0.02	0.082
158.00	160.00		4.0	2	12 QZCCV 90 15	Disseminated pyrite in flow and in qtz/zeo veining associated with magnetite and epidote between 158.43 to 158.52 metres and 159.07 to 159.34 metres. Weak potassic alt'n.	112718	0.015	0.042
160.00	162.00		5.0	6	52 QZCCV 80 15	Disseminated pyrite associated with qtz/mag aggregates in flow between 61.07 to 61.13 metres has epidote halos in places. Py/qtz/zeo/calcite veining @ ~ 61.41 metres. Local massive magnetite between 61.46 to 61.74. Weak epidote alt'n .	112719	0.015	0.048
162.00	164.00	Fine-medium-grained massive silicic chloritic light green	5.0	3	23 QZCCV 5 7	Increased disseminated pyrite. Barren qtz/zeo/calcite vein @ ~ 162.85 metres. Pyrite aggregates associated with magnetite and weak epidote alt'n between 162.85 to 163.30 metres. Augite phenocrysts visible in flow.	112720	0.021	0.108

Hole Number: KN-02-40

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
164	166	BASALT FLOW BRECCIA							
164.00	166.00	Fine-medium-grained light green massive silicic chloritic	4.0	2	35 QZCCV 80 5	Augite phenocrysts. Qtz/zeo vein associated with minor pyrite aggregates @ ~ 164.87 to 164.90 metres. Locally brecciated from 164.67 to 164.78 metres. Massive magnetite between 165.73 to 165.78 metres.	112721	0.022	0.055
166	170	BASALT FLOW							
166.00	168.00	Fine-medium-grained medium green massive chloritic silicic	3.0	2	20 QZHV 60 7	Qtz/zeo/py/mag veining between 166.54 to 166.61 metres (associated with hematite and weak epidote), and between 166.92 to 166.96 metres. Disseminated pyrite with epidote haloes. Augite phenocrysts disseminated locally.	112723	0.017	0.051
168.00	170.00		2.0	1	21 QZCCV 0 10	Increased zeo/qtz/calcite veining between 168.19 to 168.49 metres and 168.78 to 169.06 metres. Disseminated pyrite associated with disseminated magnetite and very weak epidote alt'n.	112724	0.019	0.046
170	178	BASALT FLOW BRECCIA							
170.00	172.00	Fine-medium-grained medium green massive chloritic silicic	3.0	3	16 QZVN 70 10	Brown colour possibly due to sericite +/- fine biotite alt'n between 170.44 to 170.69 metres with vuggy dissolution features. Fragments of similar composition as host, indicating insitu breccia. Disseminated pyrite associated with magnetite. Fault zone @ ~ 171.58 metres- gouge filled.	112725	0.039	0.091
172.00	174.00		4.0	4	11 QZHV 20 15	Disseminated pyrite and magnetite throughout sample, surrounding zeo/qtz veining between 178.11 to 178.30 metres and at 172.52 metres. Massive magnetite between 178.30 to 172.52 metres. Massive magnetite between 178.30 to 172.52 metres. Brown colouration between 172.52 to 174.00 metres due to sericite +/- fine biotite. Pyrite/hematite veining @ ~ 173.42 metres. Augite phenocrysts visible locally. Less silicified and chloritic form 173.42 metres.	112726	0.058	0.139
174.00	176.00		4.0	3	12 QZVN 30 10	Less silicified and chloritic between 174.02 and 174.32 metres. Py/qtz/mag/zeo veining. Patchy brown colour due to sericite +/- fine biotite alt'n. Barren zeolite veining in places. Fragments barely visible- insitu breccia. Increased chlorite and silicification from 175.43 metres.	112727	0.03	0.076

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
176.00	178.00	Fine-medium-grained medium green massive sericitic chloritic	4.0	2	12 QZHV 80 10	Weak to moderate silicification and chlorite; slightly more sericitized. Disseminated pyrite associated with magnetite. Hematite vein between 177.67 to 177.71 metres. Fragments surrounded by pyrite stringers between 177.60 to 177.67 metres.	112728	0.024	0.064
178		184		BASALT FLOW					
178.00	180.00	Fine-medium-grained medium green massive silicic chloritic	4.0	5	26 QZVN 80 7	Fine to medium grained medium green flow with darker green/black patches and portions of high magnetite content. Fragment outlines barely visible in places, same composition as host- possibly an insitu breccia. Disseminated pyrite associated with disseminated magnetite, qtz/zeo veining and surrounding fragments; mineralization- possibly pre-brecciation- in places. Local vuggy structures. Brown colouration possibly due to sericite +/- fine biotite alt'n.	112729	0.026	0.08
180.00	182.00	Fine-medium-grained medium green massive chloritic silicic	3.0	6	359 QZCCV 70 20	Weak potassic alt'n associated with possible sericite +/- fine biotite. Increased magnetite content from 180.25 to 181.06 metres- associated with qtz/calcite between 180.90 to 181.06 metres + very fine disseminated pyrite. Pyrite vein cross-cut by zeolite veining @ ~ 180.67 metres. Slightly broken, with increased qtz/calcite veining in places.	112730	0.015	0.045
182.00	184.00		4.0	5	19 QZVN 30 10	Increased barren qtz/zeo veining between 180.10 to 182.43 metres. Brown colouration due to sericite +/- fine biotite alt'n. Disseminated pyrite associated with magnetite aggregates. Mag/py/qtz/chl vein between 183.25 to 183.28 metres. Augite and calcite phenocrysts between 183.28 to 183.77 metres as seen in some mafic dykes in previous drill holes. Moderate to high sericite alt'n between 183.77 to 184.00 metres, associated with an increase in disseminated pyrite.	112731	0.028	0.043
184		186		BASALT FLOW BRECCIA					
184.00	186.00	Fine-medium-grained light green massive silicic chloritic	3.0	10	110 QZVN 40 7	Increase in magnetite aggregates and massive in flow, locally associated with disseminated pyrite. Chalcedonic quartz in places.	112732	0.023	0.044
186		204		BASALT FLOW					
186.00	188.00	Fine-medium-grained light green massive silicic chloritic	4.0	3	27 QZVN 50 5	Weak epidote alt'n associated with potassic alt'n from 187.29 to 187.34 metres. Disseminated pyrite and magnetite.	112733	0.041	0.083

Hole Number: KN-02-40

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
188.00	190.00	Fine-medium-grained light green massive silicic chloritic	5.0	10	52 QZVN 10 7	Disseminated pyrite and magnetite, massive in places. Barren qtz/zeolite veining, randomly oriented and irregularly spaced.	112734	0.025	0.046
190.00	192.00		2.0	7	35 QZVN 50 5	Local broken zone. Decrease in disseminated pyrite.	112735	0.018	0.027
192.00	194.00		3.0	3	27 QZVN 90 10	Fragmented between 192.22 to 192.53 metres with qtz/zeolite in between fragments. Brown colouration possibly due to sericite +/- fine biotite, patchy, associated with potassic alt'n in places.	112736	0.039	0.059
194.00	196.00		4.0	5	48 QZVN 80 5	Disseminated pyrite and magnetite in flow, associated with weak epidote alteration in places.	112737	0.019	0.038
196.00	198.00		1.0	15	99 QZVN 70 3	Rare pyrite associated with qtz/zeolite veining, bound by less silicified and less chloritic envelopes.	112738	0.004	0.011
198.00	200.00		1.0	15	42 QZVN 90 3	As above.	112739	0.005	0.015
200.00	202.00		2.0	3	28 QZVN 70 7	As above with barren qtz/zeo/calcite veining. Increased disseminated pyrite form about 200.40 metres. Also associated with an increased massive magnetite to 201.03 metres. Less chloritic, and weak to moderately silicified from 201.03 metres. Py/mag/epi aggregates. Barren qtz/zeo veining between 201.88 to 201.95 metres.	112740	0.023	0.031
202.00	204.00		2.0	3	65 QZVN 90 15	Increased barren qtz/zeo/calcite veining between 201.12 to 202.68 metres, associated with disseminated pyrite, magnetite and epidote. Also present between 202.95 to 203.17 metres.	112741	0.015	0.025
204	206	BASALT FLOW BRECCIA							
204.00	206.00	Fine-medium-grained medium green massive chloritic silicic	2.0	2	6 QZCCV 10 7	Fragments locally visible. Disseminated pyrite and magnetite. Very weak epidote alt'n. Qtz/mag/py/epi vein @ 205.08 metres.	112742	0.027	0.036
206	224	BASALT FLOW							
206.00	208.00	Fine-medium-grained medium green massive chloritic silicic	3.0	2	32 QZVN 50 10	Vuggy dissolution features between 206.32 to 206.67 metres. Weak potassic alt'n. Weak epidote alt'n associated with disseminated pyrite and magnetite.	112743	0.027	0.063
208.00	210.00		3.0	3	16 QZVN 90 7	Disseminated pyrite and magnetite. Increased massive magnetite between 209.46 to 210.00 metres- associated with disseminated magnetite and pyrite and epidote alt'n.	112744	0.032	0.071
210.00	212.00		3.0	3	30 QZVN 70 10	Portions with increased magnetite content; disseminated pyrite and magnetite enveloped in places with weak epidote alt'n.	112745	0.018	0.034

Hole Number: KN-02-40

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
212.00	214.00	Fine-medium-grained massive chloritic silicic medium green	3.0	3	103 QZVN 70 10	As above, with vuggy dissolution textures between 212.20 to 212.26 metres.	112746	0.034	0.077
214.00	215.97	Fine-medium-grained massive silicic chloritic light green	3.0	5	34 QZVN 60 10	Same as sample 112745, with vuggy dissolution textures between 214.00 to 214.29 metres, and barren quartz/zeo veining between 214.59 to 214.74 metres and at 215.64 metres. Disseminated pyrite and magnetite.	112747	0.038	0.056
215.97	218.00	Fine-medium-grained massive chloritic silicic medium green	3.0	1	26 QZCCV 0 7	Same as sample 112745, with weak epidote alt'n associated with mag/pyrite aggregates. Augite phenocrysts.	112749	0.035	0.052
218.00	220.00		2.0	3	36 QZCCV 90 15	Increased zeo/qtz/calcite veining randomly oriented between 218.69 to 219.30 metres and 219.93 to 220.00. Local increase in disseminated pyrite- up to 4 %.	112750	0.031	0.042
220.00	222.00	Fine-medium-grained massive silicic chloritic light green	2.0	1	37 QZHV 10 10	Very weak epidote alt'n associated with pyrite and magnetite aggregates. Less chloritic. Local increase in zeolite veining.	112751	0.022	0.035
222.00	224.00		2.0	1	25 QZVN 80 20	Portions with increased magnetite- massive. Disseminated pyrite associated with weak epidote alt'n in places.	112752	0.024	0.053
224	226	BASALT FLOW BRECCIA							
224.00	226.00	Fine-medium-grained massive chloritic silicic medium green	2.0	2	75 QZVN 0 10	Disseminated pyrite, associated with qtz/calcite veining. Also associated with disseminated magnetite in places. Portions with increased massive magnetite.	112753	0.024	0.045
226	254	BASALT FLOW							
226.00	228.00	Fine-medium-grained massive chloritic silicic medium green	3.0	2	3 QZVN 80 10	Fine to medium grained, medium green, chloritic and weak to moderately silicified. Weak epidote alt'n. Portions with increased disseminated pyrite associated with pyrite and magnetite aggregates in qtz/zeo veining.	112754	0.014	0.022
228.00	230.00		3.0	2	5 QZVN 45 15	Pyrite present as stringers. Increased qtz/zeo veining between 288.49 to 288.59 metres and 288.92 to 289.02 metres.	112755	0.023	0.047
230.00	232.00		3.0	1	31 QZVN 60 10	Qtz/zeo/py/mag/epi veining between 230.05 to 230.16 metres and 230.36 to 230.42 metres. Barren qtz/calcite between 230.28 and 230.36 metres, and 230.83 and 231.02 metres.	112756	0.047	0.062

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
232.00	234.00	Fine-medium-grained massive chloritic silicic medium green	2.0	1	96 QZVN 60 10	Qtz/augite phenocrysts. Basalt fragment- mafic, with qtz/plag @ ~ 232.24 metres. Vuggy at 232.47 metres. Magnetite disseminated in flow. Minor hematite lining joints.	112757	0.016	0.019
234.00	236.00		3.0	1	14 QZCCV 80 7	Hematite lining joints. Local increase in magnetite. Massive magnetite. Brown colouration due to weak sericite +/- fine biotite alt'n.	112758	0.02	0.026
236.00	238.00		3.0	1	17 QZVN 30 7	Slight brown colouration due to weak sericite +/- fine biotite alt'n. Rare amygdules infilled with kspar @ 266.80 metres.	112759	0.019	0.026
238.00	240.00	Fine-medium-grained massive chloritic sericitic medium green	3.0	2	12 QZVN 10	Augite phenocrysts in places. Brown colour due to weak sericite +/- fine biotite alt'n. Qtz/mag/calcite veining. Barren zeolite veining @ ~ 235.15 metres. Increase in disseminated pyrite. Magnetite stringers associated with pyrite.	112760	0.023	0.038
240.00	242.00		4.0	2	20 QZVN 80 5	Local increase in qtz/calcite veining and pyrite (disseminated and stringers). Brown colour due to sericite +/- fine biotite alt'n. Augite phenocrysts. Moderate to strong sericite between 240.82 ad 241.02 metres, associated with increased veining.	112761	0.032	0.059
242.00	244.00	Fine-medium-grained massive chloritic silicic medium green	2.0	5	46 QZHV 80 5	Darker green/black, magnetic: increased massive magnetite. Increased qtz/zeo/hem veining @ 243.26 metres.	112762	0.013	0.016
244.00	245.74		3.0	5	45 QZHV 30 7	As above, with local increase in disseminated pyrite, and massive magnetite.	112763	0.017	0.022
245.74	246.74	Fine-medium-grained massive chloritic silicic light green	4.0		6 QZVN 60 7	Light green, chloritic, siliceous (secondary). Augite phenocrysts dominant. Feldspar fine grained- barely visible. Disseminated pyrite associated with epidote-propylitic. Weak epidote alt'n. Potassic veining between 246.32 to 246.43 metres.	112764	0.027	0.041
246.74	247.66		4.0		4 QZVN 60 7	Decrease in potassic alt'n between 246.16 to 246.22 metres and 247.35 and 247.50 metres.	112765	0.025	0.04
247.66	250.00	Fine-medium-grained massive chloritic silicic dark green	3.0	1	24 QZVN 70 7	Broken portions. Dark green, fine grained, massive and mafic. Disseminated pyrite. Qtz/zeo/epidote veining between 247.86 to 247.95 metres with rare k-spar filled amygdules in foot wall. Weak potassic altered portions.	112766	0.017	0.027

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
250.00	252.00	Fine-medium-grained massive chloritic silicic green brown	2.0	1	22 QZVN 60 7	Green/brown colouration due to weak sericite +/- fine biotite alt'n. Weak epidote alt'n. Qtz/zeolite veining. Local vuggy dissolution features. Minor magnetite aggregates in quartz vein at about 252.59 metres- more chloritic. Augite phenocrysts visible locally.	112767	0.014	0.021
252.00	254.00	Fine-medium-grained massive chloritic silicic medium green	2.0	3	33 QZVN 70 7	Massive and aggregate magnetite, locally associated with pyrite. Discontinuous quartz stringers associated with massive magnetite. Brown colouration possibly sericite +/- fine biotite alt'n. Locally vuggy.	112768	0.018	0.034
254	264	BASALT FLOW BRECCIA							
254.00	256.00	Fine-medium-grained massive chloritic silicic dark green	2.0	1	32 QZVN 90 7	Increase in massive magnetite. Brown colour due to sericite +/- fine biotite between 254.59 to 254.61 metres. Qtz/py/chl vein between 254.30 to 254.36 metres. Local increases in zeolite veining. Plagioclase phenocrysts visible in places.	112769	0.012	0.019
256.00	258.00	Fine-medium-grained massive chloritic silicic medium green	2.0	1	36 QZHCV 5 10	Local increase in qtz/zeo/calcite veining. Fragments present between 256.95 to 257.07 metres, weakly sericitized. Chlorite-rich bands.	112770	0.013	0.022
258.00	260.00	Fine-medium-grained massive chloritic silicic green brown	3.0		12 QZVN 80 10	Fragments- outlines barely visible- similar composition: possibly calcitic breccia. Disseminated pyrite in flow, associated with qtz/zeo veining between 258.78 to 258.82 metres.	112771	0.025	0.044
260.00	262.00		4.0		3 QZVN 80 15	As above, with barren zeolite veining @ ~ 260.38. Increase in zeolite veining between 260.47 to 260.63 metres. Augite phenocryst present locally. Local increase in qtz zeolite veining between 261.02 to 261.56 metres.	112772	0.025	0.049
262.00	264.00	Fine-medium-grained massive chloritic sericitic green brown	3.0	2	15 QZVN 70 7	Fragmented, possibly an insitu breccia. Py/mag aggregates associated with weakly alt'd epidote between 262.69 to 262.80 metres. Increase in massive magnetite between 262.80 to 263.13 metres. Moderate sericite alteration between 263.13 to 264.92 metres and epidote alt'n to 264.94 metres.	112773	0.021	0.073
264	304.13	BASALT FLOW							
264.00	266.00	Fine-medium-grained massive chloritic sericitic green brown	3.0	2	23 QZVN 90 7	Brown colour due to weak to moderate sericite +/- fine biotite. Mag/py veining and aggregates plus epidote. Varying degrees of silicification, . Augite phenocrysts.	112775	0.028	0.063
266.00	268.00		2.0	2	35 QZVN 80 7	Similar to above.	112776	0.031	0.05
268.00	270.00		4.0	2	20 QZVN 80 7	Similar to above, with increased brown colour.	112777	0.024	0.026

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
270.00	272.00	Fine-medium-grained green brown massive chloritic sericitic	3.0	2	22 QZVN 10	Fine to medium grained mafic flow. Augite phenocrysts visible. Fine grained plagioclase. Increased qtz veining, randomly oriented and irregularly spaced- discontinuous in places. Brown colouration possibly due to sericite +/- fine biotite alt'n. Disseminated pyrite associated with magnetite aggregates locally, and weak alteration.	112778	0.025	0.03
272.00	273.47		4.0	2	12 QZVN 10 10	Qtz/zeo/py between 272.72 to 272.82 metres. Amygdules infilled with quartz between 272.82 to 273.15 metres.	112779	0.036	0.054
273.47	274.27		2.0	1	8 QZVN 80 7	Slight increase in epidote alteration. Increase in qtz/zeo/calcite veining between 273.79 to 274.27 metres with vuggy dissolution features.	112780	0.039	0.06
274.27	276.00		3.0	1	6 QZHCV 70 5	Slight brown colouration due to weak to moderate sericite +/- fine biotite alt'n. Disseminated pyrite locally associated with magnetite.	112781	0.029	0.058
276.00	278.00		2.0	1	10 QZHCV 20 7	As above, with a qtz/hem/cal vein between 277.19 to 277.23 metres. Local increase in brown zeolite @ ~ 276.85 metres. Weak epidote alt'n associated with qtz veining and pyrite and magnetite aggregates.	112782	0.034	0.053
278.00	280.00		3.0	2	16 QZHV 10 7	Qtz/zeo veining with rare hematite and mag/py aggregates between 278.61 to 278.69 metres. Brown colour due to weak to moderate sericite +/- fine biotite alt'n. Augite phenocrysts present locally.	112783	0.034	0.058
280.00	282.00	Fine-medium-grained medium brown massive sericitic chloritic	5.0	2	13 QZVN 80 7	Slight increase in sericite +/- fine biotite alt'n in places. Pyrite and magnetite aggregates. Weak epidote alt'n surrounding pyrite aggregates. Portions with increased silicification.	112784	0.027	0.065
282.00	284.00		5.0	3	9 QZVN 0 7	Increase in sericite +/- fine biotite alt'n, disseminated pyrite and magnetite, bound by weak epidote in places.	112785	0.037	0.059
284.00	286.00	Fine-medium-grained green brown massive chloritic sericitic	3.0	2	28 QZVN 90 10	Slight reduction in sericite +/- fine biotite alt'n. Altered portions associated with an increase in zeo/qtz veining and disseminated pyrite.	112786	0.03	0.045
286.00	288.00		3.0	2	53 QZVN 0 10	As above with visible augite phenocrysts. Pyrite and magnetite aggregates associated with an increase in quartz veining locally, and zeolite veining @ ~ 287.82 metres. Late stage barren quartz veining cross-cutting flow.	112787	0.011	0.026

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
288.00	290.00	Fine-medium-grained medium brown massive sericitic chloritic	5.0	3	46 QZVN 90 10	Brown colour possibly due to moderate to strong sericite +/- fine biotite alt'n. Massive pyrite aggregates associated with magnetite and bound by weak epidote alteration between 288.07 to 288.17 metres. Amygdules between 289.56 to 289.66 metres infilled with quartz.	112788	0.031	0.08
290.00	292.00		4.0		1 QCV 80 15	Brown colour due to moderate sericite +/- fine biotite alt'n. Amygdules filled with quartz and fault zone filled with gouge material @ ~ 290.20 metres. Local increase in qtz/calcite veining between 290.72 to 290.78 metres. Vuggy at 290.98 metres. Pyrite and magnetite aggregates bound by epidote alteration. Barren, late stage qtz/calcite vein between 291.46 to 292.00 metres.	112789	0.03	0.074
292.00	294.00		5.0		2 QCV 80 10	Barren late stage qtz/calcite vein. Brown colour due to sericite +/- fine biotite associated with an increase in disseminated pyrite. Aggregates also with magnetite and epidote @ ~ 293.40 metres.	112790	0.024	0.086
294.00	296.00		4.0		0 QCV 70 15	Gouge filled fault between 295.05 to 295.12 metres. Increased sericite +/- fine biotite alt'n and epidote alteration. Moderate sericite +/- fine biotite is associated with an increase in disseminated pyrite.	112791	0.036	0.101
296.00	298.02		4.0	1	21 QZCCV 80 7	Patchy brown colour due to sericite +/- fine biotite alt'n associated with an increase in disseminated pyrite. Massive magnetite with augite phenocrysts.	112792	0.028	0.064
298.02	300.00		4.0	1	9 QZHV 45 15	Local increase in quartz/zeolite veining between 298.53 to 299.11 metres. Augite phenocrysts visible in places.	112793	0.029	0.064
300.00	302.10	Fine-medium-grained medium brown massive sericitic potassic	3.0	1	9 QZVN 70 5	Weak potassic alt'n between 300.69 to 300.90 metres with weak epidote alteration. Brown colour due to weak sericite +/- fine biotite alt'n. Mag/py/epi vein @ ~ 300.46 metres. Barren late stage zeolite vein @ 301.29 metres.	112794	0.025	0.061
302.10	304.13	Fine-medium-grained pink massive potassic sericitic	5.0	2	5 QZVN 90 5	Weak to moderate potassic alteration and sericite +/- fine biotite. Disseminated pyrite aggregates associated with magnetite aggregates enveloped with epidote.	112795	0.038	0.073
304.13	306	BASALT FLOW BRECCIA							
304.13	306.00	Fine-medium-grained green brown massive chloritic silicic	4.0	2	12 QZVN 5 5	Weak potassic alt'n @ ~ 504.33 metres. Fragments-in-situ breccia. Augite phenocrysts. Magnetite/pyrite aggregates, and vesicles infilled with qtz/epi/mag/py between 305.75 to 305.86 metres.	112796	0.028	0.064
306	308	BASALT FLOW							

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
306.00	308.00	Fine-medium-grained light green massive chloritic sericitic	3.0	1	44 QZVN 30 7	Slight brown colour due to sericite +/- fine biotite alt'n between 306.45 to 306.52 metres. Py/mag stringers and aggregates plus weak epidote.	112797	0.022	0.056
308		312		BASALT FLOW BRECCIA					
308.00	310.00	Fine-medium-grained light green massive chloritic silicic	4.0	2	18 QZVN 80 7	Chloritic, weakly silicified. Disseminated pyrite and magnetite aggregates bound by weak epidote alt'n.	112798	0.021	0.064
310.00	312.00	Fine-medium-grained green brown massive chloritic sericitic	5.0	1	11 QZVN 80 10	Brown colour due to weak to moderate sericite +/- fine biotite associated with an increase in disseminated pyrite. Brecciated. Gouge-filled fault.	112799	0.026	0.078
312		350		BASALT FLOW					
312.00	314.00	Fine-medium-grained green brown massive chloritic sericitic	3.0	1	QZVN 80 10	Weak, patchy potassic alteration. Pyrite and magnetite aggregates locally bound by weak epidote alteration.	112801	0.032	0.104
314.00	316.00	Fine-medium-grained medium brown massive chloritic sericitic	4.0	2	13 QZVN 60 15	Fine to medium grained flow, with moderate to highly potassic portions and brown colouration due to weak to moderate sericite +/- fine biotite alt'n. Weak epidote alt'n, present as aggregates associated with pyrite and magnetite veining and aggregates.	112802	0.018	0.063
316.00	318.00	Fine-medium-grained medium brown massive chloritic silicic	3.0	2	24 QZVN 20 7	Pyrite and magnetite aggregates bound by weak epidote alteration and potassic alteration. Vuggy between 317.02 to 317.54 metres.	112803	0.019	0.066
318.00	320.00	Fine-medium-grained medium brown massive chloritic sericitic	3.0	1	30 QZVN 80 10	Moderate to strongly sericitized with patchy potassic alteration between 318.00 to 319.11 metres. Mag/py/epi vein cross-cut by late stage qtz/carbonate veining. Vuggy structure between 319.40 to 319.45 metres. Potassic portions associated with mag/py aggregates bound by epidote.	112804	0.018	0.054
320.00	322.00	Fine-medium-grained medium green massive chloritic silicic	2.0	1	35 QZVN 30 20	Increased qtz/zeo veining between 320.33 to 320.53 metres. Quartz stringers discontinuous and randomly oriented.	112805	0.025	0.065
322.00	324.00		3.0	1	20 QZVN 70 10	Slight brown colouration due to sericite +/- fine biotite alt'n. Disseminated pyrite/mag aggregates bound by epidote alt'n. Fragmented- similar composition as host- possibly insitu breccia.	112806	0.023	0.076
324.00	326.00		3.0	2	40 QZVN 70 7	Darker green portions- possibly more mafic. More chloritic. Py/mag veining @ ~ 324.98 metres.	112807	0.02	0.054

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
326.00	328.00	Fine-medium-grained massive chloritic sericitic medium green	2.0	2	2 QZCCV 70 15	Increased sericite +/- fine biotite alt'n and qtz/zeo veining. Qtz/calcite veining associated with epidote alt'n locally @ ~ 326.68 metres.	112808	0.024	0.056
328.00	330.00	Fine-medium-grained brown massive chloritic sericitic medium	3.0	3	43 QZCCV 80 15	Vuggy dissolution features between 328.13 to 328.23 metres. Brown colour due to sericite +/- fine biotite alt'n. Pyrite aggregates associated with magnetite, locally associated with weak epidote alt'n. Weak potassic alt'n.	112809	0.026	0.055
330.00	332.00		3.0	2	8 QZHCV 0 15	Brown colour due to weak to moderate sericite +/- fine biotite alt'n. Pyrite and magnetite aggregates. Local increase in qtz/zeo/hem/calcite veining, randomly oriented @ 330.90 to 331.32 metres.	112810	0.024	0.057
332.00	334.00		3.0	1	11 QZCCV 5 10	Amygdules between 331.85 to 332.17 metres. Brown colour due to weak to moderate sericite +/- fine biotite alt'n. Augite phenocrysts. Qtz/zeolite veining locally increases between 332.52 to 333.07 metres- vuggy. Disseminated pyrite and magnetite locally associated with chlorite specks in light green coloured portions. Slight decrease in magnetite aggregates.	112811	0.026	0.053
334.00	336.00		3.0	2	16 QZVN 80 10	Local increase in barren late stage zeolite veining between 334.69 to 335.07 metres, associated with qtz/calcite. Slight brown coloured portions (sericite +/- fine biotite) have increased pyrite and magnetite aggregates. Also associated with epidote in chloritic portions.	112812	0.026	0.063
336.00	337.85	Fine-medium-grained massive silicic chloritic light brown	2.0	1	2 QZVN 60 10	Darker brown from 336.00 to 336.55 metres. Light brown from about 336.55 metres with very weak sericite +/- fine biotite alt'n and weak to moderate silicification. Light gray between 337.58 to 337.85 metres. Plag phenocrysts visible locally. Decrease in disseminated magnetite. Barren late stage qtz veining.	112813	0.021	0.061
337.85	340.00		3.0	1	1 QZVN 80 7	Weak, patchy potassic and epidote alt'n associated with qtz vein @ ~ 338.66 metres and magnetite between 338.85 to 338.88 metres. Magnetite stringers associated with pyrite aggregates in places between 338.95 to 339.04 metres. Disseminated pyrite and reduced magnetite.	112814	0.007	0.032
340.00	342.00		3.0	1	6 QZHV 60 7	Very weak potassic alt'n cross-cut by qtz/zeo veining. Vuggy dissolution features between 340.98 to 341.06 metres associated with qtz/zeo/epi veining. Weak epidote alt'n. Weak sericite +/- fine biotite.	112815	0.013	0.029

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
342.00	344.00	Fine-medium-grained light brown massive silicic chloritic	3.0	2	6 QZVN 90 7	Qtz vein associated with weak epidote and potassic alt'n, plus minor disseminated pyrite. Weak sericite +/- fine biotite portions with areas of increased alt'n. Weak epidote alt'n. Disseminated pyrite and magnetite.	112816	0.011	0.026
344.00	346.00	Fine-medium-grained medium brown massive chloritic sericitic	4.0	2	20 QZCCV 70 7	Brown colouration, weak to moderate sericite +/- fine biotite alt'n associated with an increase in disseminated pyrite. Locally associated with magnetite aggregates and weak epidote alt'n. Light green and chloritic between 345.07 to 345.32 metres cut by qtz/calcite and py/mag veining. Augite and plagioclase phenocrysts visible locally.	112817	0.023	0.061
346.00	348.02	Fine-medium-grained light green massive silicic chloritic	3.0	2	16 QZVN 90 10	Patchy, light brown colouration- weak sericite +/- fine biotite. Moderate to strong silicification. Brecciated. Mag/py aggregates associated with weak epidote in places. Amygdules infilled with qtz/py/mag between 346.00 to 346.22 metres. Local broken zones. Local increase in zeolite veining.	112818	0.036	0.091
348.02	350.00	Fine-medium-grained medium brown massive chloritic sericitic	4.0	1	18 QZVN 0 15	Brown due to weak to moderate sericite +/- fine biotite alt'n associated with an increase in disseminated pyrite. Increase in qtz/zeo veining between 348.37 to 348.80 metres. Vuggy in places. Weak epidote alt'n.	112819	0.028	0.074
350	352.02	BASALT FLOW BRECCIA							
350.00	352.02	Fine-medium-grained brown massive chloritic sericitic	4.0	2	14 QZVN 70 10	Weak, patchy potassic alt'n between 351.94 to 352.05 metres. Qtz/zeo veining increasing in the light green, less sericitized portions. Vuggy dissolution features. Brecciated texture. Pyrite and magnetite aggregates.	112820	0.027	0.073
352.02	356	BASALT FLOW							
352.02	353.84	Fine-medium-grained medium brown massive chloritic sericitic	3.0	2	9 QZVN 45 7	Fine to medium grained, green/brown flow- colour due to moderate sericite +/- fine biotite alt'n. Finely disseminated pyrite in alt'd portions, locally associated with magnetite aggregates. Py/mag aggregates also present in qtz/zeo veining between 352.83 to 352.93 metres. Weak epidote alt'n also present @ 352.70 and 353.32 and between 352.19 to 352.32. Amygdules present but barely visible from 353.32 metres.	112821	0.03	0.1

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
353.84	356.00	Fine-medium-grained brown massive chloritic sericitic	3.0	2	7 QZVN 80 10	Varies from light to dark brown indicating weak to moderate sericite +/- fine biotite alt'n associated with weak potassic alt'n between 353.84 to 354.51 metres and moderate potassic alteration between 354.51 to 356.00 metres. Barren qtz /zeo @ ~ 354.88 to 354.91 metres. disseminated pyrite associated with magnetite aggregates . Weak epidote alteration.	112822	0.029	0.095
356		364		BASALT FLOW BRECCIA					
356.00	358.00	Fine-medium-grained medium brown massive chloritic sericitic	4.0	2	18 QZVN 80 15	Weak to moderate sericite ± fine biotite alteration. Locally brecciated. Qtz/chl vein between 357.24 to 357.35 metres with minor epidote. Locally vuggy. Amygdule filled with 2% qtz locally. Pyrite/ mag aggregates. Increased disseminated pyrite in brown, moderate sericite +/- fine biotite alt'n. Qtz/zeo/epi/mag/py veining between 357.75 to 358.00 metres.	112823	0.023	0.071
358.00	360.00		3.0	1	6 QVN 90 10	Weakly brecciated texture, moderate sericite +/- fine biotite alt'n. Green, less altered portions. Very weak epidote alt'n. Amygdules infilled with qtz/py/mag. Disseminated pyrite and magnetite in flow, and qtz veining between 359.10 to 359.16 metres.	112824	0.027	0.082
360.00	362.00	Fine-medium-grained green brown massive chloritic sericitic	3.0	2	16 QZVN 90 10	Slightly less sericite +/- fine biotite alt'n, associated with qtz/mag/py veining @ ~ 360.51 metres to 360.77 metres. Barren smoky gray quartz between 361.58 to 361.65 metres. Pyrite and magnetite aggregates @ 362.15 metres.	112825	0.023	0.058
362.00	364.00		4.0	3	76 QZVN 80 15	Increase in qtz/zeo veining. Magnetite and pyrite present as veining, bound in places with weak epidote alteration (363.15 to 363.74 metres). Weak to moderate sericite +/- fine biotite alt'n.	112827	0.037	0.098
364		386		BASALT FLOW					
364.00	366.00	Fine-medium-grained medium green massive chloritic silicic	3.0	2	23 QZVN 70 10	Augite phenocrysts visible. Local potassic alt'n between 364.52 to 364.58 metres, weak and vuggy. Disseminated pyrite and magnetite. Py/mag in qtz vein.	112828	0.021	0.076
366.00	368.00		3.0	3	13 QZVN 80 7	Augite phenocrysts and weak local potassic alt'n as above. Qtz/epi/py/mag veining between 366.77 to 366.92 metres and @ 367.93 metres. Disseminated magnetite and pyrite.	112829	0.021	0.075

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
368.00	370.00	Fine-medium-grained massive chloritic silicic medium green	3.0	2	8 QVN 90 15	Rare zeolite veining present only @ ~ 368.36 metres. Qtz/mag/py veining present @ ~ 368.69 and 368.86 metres, between 369.70 to 369.45 metres and @ 369.66 metres. Increased veining.	112830	0.03	0.097
370.00	372.00	Fine-medium-grained massive chloritic sericitic green brown	4.0	2	9 QZVN 40 10	Brown coloured portions due to weak to moderate sericite +/- fine biotite alt'n associated with increased disseminated pyrite. Disseminated pyrite also present in Qtz/zeo veining between 370.15 to 370.28 metres, 370.70 metres and 371.70 to 372.00 metres. Augite phenocrysts.	112831	0.033	0.103
372.00	373.99		3.0	2	20 QZVN 60 10	Qtz vein between 372.30 to 372.63 metres with vuggy dissolution features. Brown colour as above. Massive, dark green/black mafic portion between 373.74 to 373.89 metres- possibly a post-mineralization dyke.	112832	0.032	0.102
373.99	376.00		3.0	1	12 QZVN 80 15	Brown colour as above. Sample has increased discontinuous quartz veining associated with calcite and locally with pyrite and magnetite. Augite phenocrysts high in chlorite. Mafic portions of basalt.	112833	0.018	0.053
376.00	378.02	Fine-medium-grained brown massive sericitic chloritic medium	3.0	1	29 QZVN 60 15	Moderate to strong sericite +/- fine biotite. Augite phenocrysts barely visible. Qtz/zeo veining associated with pyrite and magnetite aggregates. Very weak potassic alt'n.	112834	0.017	0.059
378.02	380.00	Fine-medium-grained massive sericitic chloritic green brown	3.0	2	37 QZVN 40 10	Increase in Qtz/zeo veining between 378.02 to 378.19 metres, associated with disseminated pyrite and weak potassic altered portions between 378.40 to 378.46 metres. Augite phenocrysts visible locally. Local increase in magnetite veining. Weak to moderate sericite +/- fine biotite alt'n.	112835	0.025	0.091
380.00	382.00	Fine-medium-grained brown massive sericitic chloritic medium	3.0	1	12 QZVN 90 10	Sericite +/- fine biotite alt'n, moderate to strong locally, associated with increased disseminated pyrite. Moderate to weak silicification. Magnetite unit @ ~ 381.15 metres. Increased augite phenocrysts and disseminated pyrite from 381.65 to 382.00 metres.	112836	0.019	0.082
382.00	384.00	Fine-medium-grained massive sericitic chloritic green brown	4.0	1	8 QZCCV 90 15	Sericite +/- fine biotite alt'n, moderate to strong locally. Disseminated pyrite associated with magnetite aggregates. Chloritic from 382.66 to 383.34 metres, associated with a decrease in disseminated pyrite and an increase in Qtz/zeolite veining. Qtz/chl	112837	0.019	0.082

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
384.00	386.00	Fine-medium-grained green brown massive sericitic chloritic	2.0	1	28 QZVN 40 10	Sericite +/- fine biotite alt'n, moderate to strong locally. Increased qtz/zeo veining between 384.29 to 384.51 metres. Amygdules infilled with chl/qtz between 384.63 to 384.94 metres. Disseminated pyrite and magnetite. Weak potassic alt'n at about 387.00 metres. Py/mag/epi aggregates and veining. Pyrite stringers present. Augite phenocrysts infilled with chlorite. Plagioclase visible locally.	112838	0.022	0.099
386		390		BASALT FLOW BRECCIA					
386.00	388.00	Fine-medium-grained green brown massive sericitic chloritic	3.0	1	20 QZVN 60 7	Fine to medium grained green flow, weakly to moderately sericitic +/- fine biotite. weak potassic altered portions between 386.51 to 386.67 metres. Augite phenocrysts visible locally, with small plagioclase phenocrysts. Magnetite veinlet @ ~ 386.51 metres. Disseminated pyrite, locally associated with magnetite aggregates. Qtz/zeo veining.	112839	0.034	0.142
388.00	390.00	Fine-medium-grained green brown massive chloritic silicic	3.0	1	17 QVN 90 10	Augite and plag phenocrysts as above. Patchy, weak sericite +/- fine biotite alt'n @ ~ 388.50 to 389.40 metres. Magnetite veinlet with pyrite aggregates within @ ~ 389.87 metres. Rare zeolite veins.	112840	0.033	0.137
390		392		BASALT FLOW					
390.00	392.00	Fine-medium-grained medium brown massive sericitic chloritic	4.0	3	28 QZVN 90 15	Moderate epidote alt'n between 391.35 to 391.49 metres. Increase in brown colouration due to sericite +/- fine biotite alt'n. Local increase in qtz/zeo veining between 390.79 to 390.89 metres. Massive magnetite py/mag vein @ ~ 391.09 metres. Augite phenocrysts visible in less sericitic +/- fine biotite alt'd portions.	112841	0.03	0.147
392		394		BASALT FLOW BRECCIA					
392.00	394.00	Fine-medium-grained medium brown massive sericitic chloritic	4.0	0.5	1 1 QZHCV 90 15	Slightly brecciated; moderate sericite +/- fine biotite alt'n (brown colour). Chalcopyrite aggregates associated with pyrite in qtz/calcite veining also present as aggregates in flow. Rare hematite.	112842	0.023	0.117
394		406		BASALT FLOW					

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
394.00	396.00	Fine-medium-grained medium brown massive sericitic chloritic	5.0 0.5	1	13 QCV 70 15	Augite phenocrysts not visible- protolith overprinted by sericite +/- fine biotite alt'n. Strong increase in disseminated pyrite associated with chalcopyrite in places. Reduced zeo veining. Pyrite/magnetite +/- chalcopyrite aggregates present mainly in less silicified +/- fine biotite altered portions.	112843	0.032	0.177
396.00	398.00	Fine-medium-grained green brown massive chloritic sericitic	4.0 0.5	1	13 QCV 80 20	Augite phenocrysts visible locally. Local increase in qtz/calcite stringers. Chalcopyrite and pyrite aggregates @ ~ 390.60 metres in qtz/calcite vein. Brown colour due to sericite +/- fine biotite alt'n. Disseminated magnetite.	112844	0.021	0.118
398.00	400.00		4.0 0.7	1	8 QCV 40 10	Increase in chalcopyrite associated with pyrite, up to 1% @ 399.65 metres; also associated with qtz/ mag veining and with magnetite aggregates. Disseminated pyrite +/- chalcopyrite associated with magnetite aggregates. Augite phenocrysts locally visible. Brown colour as above. Gouge filled fault at 398.61 metres.	112845	0.029	0.156
400.00	402.00		3.0 0.1	2	16 QCV 0 5	Smoky gray quartz vein associated with qtz veining. Weak to moderate sericite +/- fine biotite alt'n. Augite phenocrysts visible in less sericitized portions. Disseminated pyrite and magnetite aggregates increasing in occurrence with increasing sericite alt'n.	112846	0.028	0.138
402.00	404.00	Fine-medium-grained medium green massive chloritic silicic	3.0	2	57 QCV 70 5	Massive magnetite in flow. Augite phenocrysts visible. Disseminated pyrite, associated with magnetite locally, and also in qtz/epidote veining @ 402.49 metres, 402.95 metres and 403.08 metres.	112847	0.011	0.048
404.00	406.00	Fine-medium-grained green brown massive chloritic silicic	3.0	1	20 QZCCV 90 7	Chloritic portions from 404.00 to 405.00 metres. Brown/yellow, weak to moderate sericite from 405.00 to 406.00 metres cut by zeolite vein between 405.19 and 405.28 metres. Disseminated pyrite +/- chalcopyrite.	112848	0.015	0.086
406	410	BASALT FLOW BRECCIA							
406.00	408.00	Fine-medium-grained medium brown massive sericitic silicic	3.0	1	17 QZCCV 80 10	Patchy brown colour due to sericite +/- fine biotite alt'n. Slightly fragmented, possibly insitu breccia. Weak epidote alt'n associated with pyrite/magnetite veining at 407.47 metres. Increased qtz/calcite veining between 407.47 to 407.93 metres.	112849	0.023	0.203

Hole Number: KN-02-40

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
408.00	410.00	Fine-medium-grained green brown massive chloritic sericitic	1.0	1	21 QZCCV 80 20	Increased calcite veining from 408.58 to 409.23 metres- vuggy dissolution and recrystallization. Magnetite/pyrite veining and aggregates. Augite phenocrysts visible in less sericitized portions. Weak sericite +/- fine biotite altered portions.	112850	0.013	0.086
410	434	BASALT FLOW							
410.00	412.00	Fine-medium-grained pink massive potassic sericitic	1.0	1	4 QZVN 70 15	Moderately to highly potassic, sericite +/- fine biotite altered portions between 411.91 to 413.40 metres; varying degrees of silicification from weak to moderate. Qtz/zeo veining. Protolith overprinted.	112851	0.01	0.066
412.00	414.00	Fine-medium-grained green brown massive sericitic chloritic	3.0	0.1	2 17 QZHV 40 10	Augite phenocrysts. Pyrite +/- chalcopyrite aggregates associated with magnetite at 414.35 metres. Locally vuggy. Brown colour due to sericite +/- fine biotite alt'n. Increased pyrite veining between 415.55 to 415.83 metres bound by weak sericite +/- fine biotite alt'n, and between 416.05 to 416.15 metres.	112853	0.015	0.104
414.00	416.00	Fine-medium-grained green brown massive chloritic sericitic	2.0	0.1	1 10 QVN 0 15	Py/mag/epi aggregates. Disseminated pyrite and chalcopyrite. Augite phenocrysts barely visible . Pyrite vein between 417.85 to 417.91 metres associated with hematite/qtz/calcite enveloped with sericite alt'n. About 3 cm weak epidote alt'n.	112854	0.012	0.093
416.00	418.00	Fine-medium-grained green brown massive chloritic silicic	2.0	1	9 QVN 80 10	Local increase in qtz/calcite discontinuous stringers, randomly oriented. Augite phenocrysts.	112855	0.011	0.066
418.00	420.00	Fine-medium-grained green brown massive chloritic sericitic	3.0	1	6 QZVN 90 10	Qtz/zeo stringers, slight brown colour due to sericite +/- fine biotite alt'n. Chloritic portions. Pyrite aggregates in flow and veining at 418.78 metres and between 418.62 to 418.68 metres.	112856	0.023	0.122
420.00	422.00		2.0	1	71 QZVN 70 7	Fine to medium grained flow. Brown colouration due to weak sericite +/- fine biotite alt'n. Chloritic portions. Pyrite/mag aggregates and veining, also associated with qtz veining and weak epidote at 420.80, 421.26 and 421.57 metres. Augite phenocrysts.	112857	0.01	0.055
422.00	424.00	Fine-medium-grained green brown massive chloritic silicic	3.0	1	15 QZVN 80 10	Augite phenocrysts, pyrite and magnetite aggregates associated with epidote in places. Discontinuous qtz/calcite stringers between 423.07 to 423.45 metres. Portions with increased disseminated pyrite. Sericite +/- fine biotite as above.	112858	0.017	0.104

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
424.00	426.00	Fine-medium-grained medium brown massive sericitic chloritic	4.0	2	12 QZCCV 0 10	Pyrite/mag aggregates. Brown colouration due to sericite +/- fine biotite alt'n. Pyrite/mag aggregates also associated with qtz/calcite/zeo veining between 425.20 to 425.50 metres. Massive magnetite present locally. Protolith overprinted, possibly altered basalt.	112859	0.017	0.123
426.00	428.00		4.0	3	37 QZVN 50 15	Protolith overprinted- possibly basalt. Weak to moderate patchy epidote alt'n. Brown colour due to weak to moderate sericite +/- fine biotite alt'n. Qtz/calcite/py/mag veining bound by epidote alt'n between 426.32 to 426.54 metres and between 427.66 to 427.71 metres.	112860	0.03	0.211
428.00	430.00		4.0	3	69 QZVN 40 15	Protolith overprinted- possibly basalt. Disseminated pyrite associated with magnetite in flow and with qtz/py mag veining between 428.33 to 429.27 metres and between 429.85 to 430.00 metres. Moderate sericite +/- fine biotite alt'n.	112861	0.034	0.199
430.00	432.00		4.0	2	20 QZVN 50 20	Protolith and sericite alt'n as above. Py/mag aggregates in flow and associated with qtz/calcite veining between 430.91 to 431.14 metres. Less silicified and strongly sericitic between 431.14 to 431.36 metres. Vuggy in chloritic portion between 431.38 to 431.70 metres, less sericite in this section. Massive pyrite vein associated with epidote between 431.79 to 431.82 metres bound by qtz/zeolite veining from 431.70 to 431.88 metres. Weak epidote alt'n.	112862	0.024	0.143
432.00	434.00		5.0	1	12 QZVN 40 15	Stock work of qtz/zeo veining , locally associated with epidote and disseminated pyrite and magnetite. Local increase in qtz/zeo veining between 433.10 to 433.32 metres. Disseminated pyrite/magnetite also in flow.	112863	0.031	0.162
434	436	BASALT FLOW BRECCIA							
434.00	436.00	Fine-medium-grained green brown massive chloritic sericitic	4.0	2	19 QZHCV 90 15	Weak, patchy sericite +/- fine biotite alt'n. Pyrite and mag stringers and aggregates associated with weak epidote alt'n @ ~ 431.14 metres. Chloritic. Pyrite stringers cut by late stage qtz veining. Weakly brecciated @ ~ 435.00 metres.	112864	0.026	0.115
436	451.86	BASALT FLOW							

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
436.00	438.00	Fine-medium-grained massive chloritic silicic green brown	3.0	2	21 QZCCV 80 20	Very weak and patchy sericite +/- fine biotite alt'n. Mainly chloritic. Local increase in qtz/zeo veining between 436.36 to 436.65 metres. Vuggy flow between 436.65 to 436.92 metres. Weak, patchy epidote alt'n locally associated with pyrite and magnetite aggregates between 437.09 to 437.55 metres.	112865	0.025	0.109
438.00	440.00	Fine-medium-grained massive chloritic silicic medium green	3.0	2	141 QZVN 0 10	Augite phenocrysts visible. Local increase in zeolite veining between 438.88 to 439.48 metres. Pyrite/mag aggregates associated with epidote alt'n. Massive magnetite visible locally. Locally vuggy flow.	112866	0.027	0.101
440.00	441.85	Fine-medium-grained massive chloritic sericitic green brown	3.0	1	34 QZVN 90 10	Chloritized to 440.42 metres then brown coloured from 440.42 metres. Weak to moderate sericite +/- fine biotite alt'n associated with an increase in disseminated pyrite +/- magnetite aggregates in qtz/zeo veining. Qtz/zeo veining between 440.85 to 440.92 metres. Patchy chlorite with augite phenocrysts visible in the chl altered portions.	112867	0.023	0.086
441.85	444.00		4.0	2	60 QZVN 90 7	Massive magnetite portions. Patchy sericite +/- fine biotite alt'n. Chloritic portions associated with qtz/zeolite veining and also with pyrite/mag aggregates between 441.85 to 442.44 metres. Locally vuggy @ 442.65 metres. Qtz/zeo/calcite/mag/py veining @ 442.65 to 442.68 metres, 443.00 metres and 443.20 metres. Augite phenocrysts in chloritic portions.	112868	0.029	0.083
444.00	446.00		3.0	2	66 QZVN 80 7	Massive magnetite veinlets between 444.52 to 445.26 metres. Patchy chlorite and weak to moderate sericite +/- fine biotite alt'n. Augite phenocrysts locally in chloritic portions. Disseminated pyrite and magnetite.	112869	0.01	0.043
446.00	448.00	Fine-medium-grained massive chloritic silicic medium green	3.0	1	14 QZVN 0 5	Intrusive fragments between 447.43 to 447.59 metres, fine grained and silicified. Massive barren magnetite units. Patchy, weak sericite +/- fine biotite alt'n between 446.50 to 446.63 metres. Disseminated pyrite and magnetite between 447.54 to 446.69 metres. Intrusive fragments also between 447.77 to 447.87 metres.	112870	0.012	0.054
448.00	450.00	Fine-medium-grained massive chloritic sericitic green brown	4.0	2	47 QZHCV 50 5	Weak to moderate sericite +/- fine biotite alt'n. Patchy chlorite alt'n. Disseminated pyrite and magnetite. Qtz/calcite/hem +/- py veining between 449.47 to 449.58 metres. Silicified portions between 449.27 to 449.39 metres and 449.73 to 449.95 metres. Pyrite and mag stringers and aggregates between 449.11 to 449.22 metres.	112871	0.029	0.125

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
450.00	451.86	Fine-medium-grained medium brown massive sericitic chloritic	3.0	1	28 QZVN 70 7	Moderate sericite +/- fine biotite alt'n associated with an increase in disseminated pyrite. Massive pyrite and magnetite aggregates and veins between 451.31 to 451.36 metres. Weak epidote alt'n. Barren qtz/zeo cross-cutting mag/py/qtz veining.	112872	0.036	0.161
451.86	453.08	GRANODIORITE							
451.86	453.08	Fine-medium-grained light brown massive silicic sericitic	3.0	1	18 QZVN 60 10	Intrusive fragment is fine to medium grained, siliceous and possibly silicified. Has host flow within it. Finely disseminated pyrite and magnetite and veining at 452.56 metres. Weak sericite +/- fine biotite alt'n imparting a slight brown colour.	112873	0.018	0.068
453.08	457	BASALT FLOW BRECCIA							
453.08	455.00	Fine-medium-grained light green massive silicic chloritic	3.0	2	15 QZVN 50 7	Fine to medium grained flow, silicified. Augite phenocrysts visible locally. Very weak brown colour due to very weak sericite +/- fine biotite alt'n. Fragments present- have similar composition as host, possibly an insitu breccia. Qtz/py/mag vein between 454.24 to 454.39 metres.	112874	0.028	0.127
455.00	457.00	Fine-medium-grained dark green massive chloritic silicic	3.0		0 QCV 90 50	Disseminated pyrite in flow. Increase in qtz/calcite veining between 455.14 to 455.64 metres (cut by chlorite stringers) and between 456.45 to 457.00 metres. Associated with minor disseminated pyrite, and locally brecciated.	112875	0.153	0.15
457	462	BASALT FLOW							
457.00	460.00	Fine-medium-grained medium green massive chloritic silicic	4.0	1	0 QZHCV 70 5	Disseminated pyrite in flow and associated with chl/qtz/zeo veining between 457.02 to 457.47 metres. Pyrite/mag associated with epidote alt'n between 457.66 to 457.71 metres. Chloritic portions with augite phenocrysts. Rare zeolite. Rare py/mag between 459.78 to 459.95 metres. Very weak brown colour due to sericite +/- weak biotite alt'n.	112876	0.022	0.076
460.00	462.00		4.0	2	16 QZVN 90 7	Weak to moderate sericite +/- fine biotite alt'n between 460.13 to 460.26 metres, chloritic and silicified. Pyrite and mag aggregates in flow and associated with qtz/zeo veining @ 460.13, 460.49 and 460.57 metres and between 461.08 to 461.20 metres. Augite phenocrysts present locally. Massive magnetite veinlets @ ~ 461.25 metres. Weak epidote alt'n.	112877	0.027	0.09

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
462	476.57	BASALT FLOW BRECCIA							
462.00	463.40	Fine-medium-grained massive chloritic silicic medium green	4.0	3	14 QZVN 80 5	Fragmented, insitu breccia between 462.64 to 463.16 metres. Disseminated pyrite/mag and aggregates in flow. Weak potassic alt'n between 462.85 to 463.16 metres. Weak brown colour due to very weak sericite +/- fine biotite alt'n and weak epidote alt'n.	112879	0.022	0.087
463.40	465.43	Fine-medium-grained brown massive sericitic silicic medium	5.0	1	5 QZVN 80 5	Weak epidote alt'n. Moderate to strong sericite +/- fine biotite alt'n. Rare kfsp veining between 463.98 to 464.04 metres associated with qtz veining. Disseminated magnetite /pyrite in flow and associated with qtz veining.	112880	0.009	0.061
465.43	466.84		3.0		9 QCV 60 7	Sericite +/- fine biotite alt'n as above. Rare zeolite veining associated with quartz veining. Disseminated pyrite and magnetite.	112881	0.011	0.075
466.84	468.84	Fine-medium-grained massive chloritic sericitic green brown	4.0	1	4 QZVN 0 10	Weak brown colour possibly due to sericite +/- fine biotite alt'n. Chlorite with vuggy features associated with zeolite/Qtz veining between 466.84 to 467.21 metres and 467.24 to 467.84 metres. Pyrite and magnetite aggregates and veining. Fault infilled with gouge between 468.57 to 468.72 metres.	112882	0.016	0.1
468.84	470.78		3.0		4 QZCCV 50 15	Patchy sericite +/- fine biotite alt'n between 468.84 to 470.18 metres. Chloritized and silicified from 470.18, cross-cut by Qtz/zeolite veining. Disseminated pyrite. Slightly brecciated.	112883	0.021	0.088
470.78	471.84	Fine-medium-grained massive chloritic silicic light green	2.0		2 QZVN 70 20	Chloritic, light green/gray. High Qtz/zeo veining, discontinuous and irregularly spaced. Disseminated pyrite.	112884	0.034	0.161
471.84	473.88	Fine-medium-grained massive chloritic sericitic green brown	2.0		0 QZVN 80 15	Weak to moderate sericite +/- fine biotite alt'n with chloritic portions. Increased Qtz/zeo veining between 472.14 to 474.32 metres and 473.44 to 473.88 metres. Disseminated pyrite.	112885	0.017	0.08
473.88	475.12	Fine-medium-grained massive chloritic silicic light green	3.0		0 QZVN 60 20	Qtz veining brecciated. Vesicles present, locally infilled with Qtz and chl. Very weak brown staining locally- might be very weak sericite +/- fine biotite alt'n. Disseminated pyrite in flow is also present in Qtz veining.	112886	0.012	0.074
475.12	476.57	Fine-medium-grained brown massive sericitic chloritic medium	5.0	1	36 QZVN 70 5	Brown colour due to sericite +/- fine biotite alt'n. Fragments present locally (similar in composition to host)- insitu breccia. Disseminated pyrite and aggregates, locally associated with magnetite aggregates.	112887	0.019	0.078

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
476.57	493	BASALT FLOW							
476.57	478.55	Fine-medium-grained brown massive sericitic chloritic	4.0	16	QZVN 60 7	Light brown to medium brown, indicating weak to moderate sericite +/- fine biotite alt'n. Increased zeolite veining between 476.81 to 477.05 metres. Increased qtz veining from 477.96 to metres associated with pyrite. Weak potassic alteration.	112888	0.031	0.108
478.55	480.00	Fine-medium-grained green brown massive sericitic chloritic	3.0	1	17 QZVN 60 5	Patchy sericite +/- fine biotite alt'n, silicification and chloritic portions. Amygdules @ 481.62 metres. Qtz/zeolite veining between 482.13 to 482.26 metres and 481.62 to 481.78 metres.	112889	0.031	0.082
480.00	482.00		3.0	15	QZVN 70 7	Pyrite and magnetite aggregates. Augite phenocrysts in chloritic portions. Brown, patchy, moderately sericitic +/- fine biotite alt'n. Qtz/zeo veining between 481.62 to 481.78 metres. Local vuggy structures.	112890	0.033	0.053
482.00	484.00	Fine-medium-grained green pink massive chloritic potassic	1.0	1	18 QZVN 80 30	High potassic alteration between 482.95 to 483.34 metres. Chloritic, weakly silicified. Qtz/zeo veining between 482.13 to 482.26 metres and 482.85 metres. Augite phenocrysts. Increased qtz veining between 483.93 to 484.00 metres.	112891	0.019	0.04
484.00	486.00	Fine-medium-grained green brown massive chloritic silicic	3.0	1	7 QZVN 70 10	Augite phenocrysts. Disseminated pyrite. Brown due to sericite +/- fine biotite patchy alt'n. Py/qtz veining @ ~ 485.78 metres.	112892	0.017	0.052
486.00	487.70	Fine-medium-grained medium green massive chloritic silicic	1.0	3	61 QHCV 90 7	Discontinuous qtz/calcite stringers. Augite phenocrysts. Rare disseminated pyrite. Hematite/calcite veining. Weak sericite +/- fine biotite alt'n between 486.40 to 486.51 metres and 486.80 metres. Massive magnetite unit.	112893	0.016	0.028
487.70	489.41	Fine-medium-grained dark green massive chloritic silicic	2.0		QZVN 30	Discontinuous qtz/calcite veining, randomly oriented and irregularly spaced. Disseminated pyrite.	112894	0.007	0.089
489.41	491.47	Fine-medium-grained medium brown massive sericitic silicic	3.0	2	QZVN 80 30	Fine to medium grained. Brown colour due to moderate sericite +/- fine biotite alt'n. Qtz/zeo veining, randomly oriented, irregularly spaced. Weak epidote alt'n associated with disseminated pyrite and weak potassic alt'n. Zeo/qtz veining between 490.67 to 491.25 metres with disseminated pyrite. Epidote/pyrite between 491.25 to 491.29 metres.	112895	0.024	0.097

Hole Number: KN-02-40

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
491.47	493.00	Fine-medium-grained green brown massive sericitic silicic	2.0	1	11 QZVN 40 7	Disseminated pyrite and magnetite in flow, associated with qtz/zeo/mag/epi veining between 492.70 to 492.74 metres and 492.13 to 492.40 metres- associated with weak potassic alteration. Weak to moderate sericite +/- Fine biotite alt'n.	112896	0.032	0.109
<div style="border: 1px solid black; display: inline-block; padding: 2px;">493</div> <div style="border: 1px solid black; display: inline-block; padding: 2px; margin-left: 10px;">495</div> BASALT FLOW BRECCIA									
493.00	495.00	Fine-medium-grained green brown massive sericitic chloritic	2.0		0 QZVN 80 7	Fragmented locally, insitu breccia. Augite phenocrysts visible locally. Weak sericite +/- fine biotite alt'n in places associated with qtz/zeo veining. Disseminated pyrite associated with magnetite aggregates.	112897	0.019	0.065
<div style="border: 1px solid black; display: inline-block; padding: 2px;">495</div> <div style="border: 1px solid black; display: inline-block; padding: 2px; margin-left: 10px;">516</div> BASALT FLOW									
495.00	497.00	Fine-medium-grained medium green amygdular chloritic silicic	2.0	1	65 QZVN 70 10	Massive magnetite unit. Augite phenocrysts visible locally. Pyrite and magnetite aggregates in flow. Qtz/zeo veining. Amygdules infilled with qtz/mag/py between 496.35 to 496.47 metres. Plagioclase phenocrysts visible between 496.72 to 496.85 metres- associated with an increase in qtz/zeolite veining.	112898	0.022	0.085
497.00	499.00	Fine-medium-grained green brown massive chloritic sericitic	4.0	2	25 QZVN 90 7	Patchy brown/green due to weak to moderate sericite +/- fine biotite alt'n and chloritic portions. Disseminated pyrite and veining. Increased zeolite veining between 497.98 to 498.41 metres. Augite phenocrysts.	112899	0.017	0.065
499.00	501.00	Fine-medium-grained green brown massive chloritic silicic	3.0	1	64 QZVN 80 5	Weak sericite +/- fine biotite alt'n, but sample mostly chloritic. Augite phenocrysts. Qtz/zeo veining @ ~ 500.50 metres enveloped with potassic alteration. Disseminated pyrite/magnetite and veining.	112900	0.019	0.054
501.00	503.00		3.0	1	38 QZVN 70 7	Mag/pyrite veining between 501.58 to 501.85 metres. Disseminated pyrite and magnetite also present. Patchy, weak sericite +/- fine biotite alt'n, but mainly chloritic as above.	112901	0.027	0.072
503.00	505.00	Fine-medium-grained medium green massive chloritic silicic	3.0	1	16 QZHCV 80 10	Hem/calcite or FeCaO veining associated with qtz between 504.47 to 504.58 metres- silicified. Brown colour due to sericite +/- fine biotite alt'n. Pyrite/mag/epidote alt'n. Portions with increased disseminated pyrite.	112902	0.017	0.058
505.00	507.00	Fine-medium-grained green brown massive chloritic sericitic	2.0	1	1 QZCCV 70 10	Weak to moderate sericite +/- fine biotite alt'n and chloritic portions. Qtz/zeo veining @ 506.60 to 506.65 metres and 506.17 to 506.42 metres. Augite phenocrysts present. Disseminated pyrite.	112903	0.024	0.082

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
507.00	508.00	Fine-medium-grained medium green massive chloritic sericitic	2.0	1	4 QZVN 70 15	Increase in qtz/zeo veining between 507.16 to 507.57 metres. Weak brown colour due to weak sericite +/- fine biotite alt'n. Chloritic portions. Qtz and py stringers and aggregates.	112905	0.022	0.07
508.00	510.00	Fine-medium-grained medium green massive chloritic silicic	3.0	2	21 QZVN 60 10	Augite phenocrysts visible, associated with plag phenocrysts locally. Disseminated pyrite and mag veining bound by yellow sericitized portions between 509.90 to 510.00 metres.	112906	0.013	0.044
510.00	512.00	Fine-medium-grained green brown massive chloritic sericitic	2.0	1	5 QZVN 80 10	Augite and plag phenocrysts as above. Brown colour due to weak sericite +/- fine biotite alt'n, patchy, with chloritic portions. Disseminated pyrite associated with weak epidote @ 511.06 metres. Sericitized and massive between 511.10 to 511.38 metres.	112907	0.015	0.049
512.00	514.00	Fine-medium-grained medium green massive chloritic silicic	3.0	2	27 QZVN 70 7	Mainly chloritic with weak sericite +/- fine biotite alt'n between 513.23 to 513.37 metres. Disseminated pyrite and magnetite and veining between 513.45 to 513.50 metres. Augite phenocrysts present locally (i.e.: between 513.15 to 513.23 metres).	112908	0.009	0.033
514.00	516.00		2.0	2	31 QVN 80 5	Weak sericite +/- fine biotite alt'n between 514.00 to 514.30 metres. Augite phenocrysts. Pyrite and mag veining @ ~ 513.30 metres, also present as aggregates.	112909	0.006	0.026
516	518	BASALT FLOW BRECCIA							
516.00	518.00	Fine-medium-grained green brown massive chloritic sericitic	3.0	2	23 QZVN 70 10	Potassic altered portions associated with an increase in disseminated pyrite/magnetite and veining. Patchy weak to moderate sericite +/- fine biotite also associated with disseminated pyrite. Augite phenocrysts locally visible. Fragments- insitu breccia.	112910	0.02	0.086
518	522	BASALT FLOW							
518.00	520.00	Fine-medium-grained medium brown massive sericitic epidote	5.0	2	12 QZVN 20 20	Moderate sericite +/- fine biotite alt'n and weak, patchy potassic alt'n. Weak to moderate epidote alt'n. Alteration associated with disseminated pyrite/mag and veining. Epidote alt between 518.34 to 518.44 metres, 518.84 to 519.08 metres and 519.91 to 520.00 metres. Potassic between 518.34-518.72 metres and 519.14-519.21 metres. Vuggy structures.	112911	0.027	0.105

Hole Number: KN-02-40

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
520.00	522.00	Fine-medium-grained medium brown massive sericitic epidote	5.0	1	2 QZCCV 90 10	Moderate sericite +/- fine biotite, weak to moderate epidote alt'n. Vuggy qtz/calcite veining- dissolution features and calcite recrystallization. Augite and plag phenocrysts between 520.98 to 521.04 metres. Weak potassic alt'n.	112912	0.025	0.09
<div style="border: 1px solid black; display: inline-block; padding: 2px;">522</div> <div style="border: 1px solid black; display: inline-block; padding: 2px; margin-left: 10px;">524</div>		BASALT FLOW BRECCIA							
522.00	524.00	Fine-medium-grained green brown massive sericitic sericitic	2.0		8 QZHCV 60 15	Patchy weak to moderate sericite +/- fine biotite alt'n with chloritic portions, associated with reduced pyrite content between 522.64 to 522.91 metres. Brecciated, fragmented. Qtz/calcite/hem veining.	112913	0.013	0.045
<div style="border: 1px solid black; display: inline-block; padding: 2px;">524</div> <div style="border: 1px solid black; display: inline-block; padding: 2px; margin-left: 10px;">552</div>		BASALT FLOW							
524.00	526.00	Fine-medium-grained green brown massive chloritic sericitic	3.0	1	13 QZVN 80 15	Fine to medium grained basalt flow, portions with augite and plagioclase phenocrysts in chloritic portions between 524.70 to 526.00 metres. Medium brown from 524.00 to 524.49 metres, possibly moderate sericite +/- fine biotite alt'n. Associated with increased disseminated pyrite and zeolite veining between 524.04 to 525.27 metres.	112914	0.01	0.043
526.00	528.00	Fine-medium-grained green brown massive chloritic silicic	3.0	1	13 QZVN 80 10	Sericite +/- fine biotite alt'n as above. Augite and plag phenocrysts visible between 526.46 to 526.88 metres. Qtz/zeolite veining. Pyrite and magnetite aggregates locally associated with weak epidote alt'n. Weak, patchy potassic alt'n.	112915	0.015	0.06
528.00	530.00	Fine-medium-grained medium green massive chloritic sericitic	3.0	2	12 QZVN 60 7	Patchy brown colour due to weak sericite +/- fine biotite alt'n. Visible augite and plag phenocrysts between 528.15 to 528.54 metres associated with disseminated pyrite /magnetite with epidote locally, and potassic altered portions. Rare hematite veining. Py/mag aggregates throughout sample, also present as veining.	112916	0.014	0.062
530.00	532.00	Fine-medium-grained green brown massive chloritic chloritic	3.0	2	15 QZVN 50 7	Augite and plagioclase phenocrysts between 530.00 to 530.41 metres. Pyrite /mag aggregates. Slight brown colour due to sericite +/- fine biotite alt'n.	112917	0.017	0.073
532.00	533.94	Fine-medium-grained medium brown massive sericitic chloritic	4.0	1	7 QZVN 5 10	Very weak epidote alt'n. Brown colour due to moderate sericite +/- fine biotite alt'n associated with increased disseminated pyrite. Augite phenocrysts barely visible in sericite/biotite alt'n. Zeolite veining, epidote alt'n between 533.60 to 533.84 metres.	112918	0.023	0.145

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
533.94	536.00	Fine-medium-grained medium brown massive sericitic chloritic	4.0	1	1 QZVN 50 20	Brown colour due to moderate sericite +/- fine biotite alt'n associated with disseminated pyrite. Weak to moderate epidote alt'n associated with qtz/zeo veining between 534.46 to 534.52 metres and in flow. Augite and plag phenocrysts visible locally. Local vuggy texture in qtz/zeo veining.	112919	0.016	0.081
536.00	538.00		4.0	1	13 QZVN 20 10	Moderate sericite +/- fine biotite alt'n associated with an increase in disseminated pyrite. Local increase in qtz/zeolite veining. Patchy, weak potassic alt'n.	112920	0.017	0.1
538.00	540.00	Fine-medium-grained light brown massive sericitic silicic	2.0	1	20 QZVN 80 10	Light brown to medium brown, indicating weak to moderate sericite +/- fine biotite alt'n. Augite and plag phenocrysts visible from 538.00 to 539.31 metres. Amygduloidal-like structures between 539.31 to 540.00 metres, infilled with zeolite- associated with strongly silicified portions and with weak epidote, locally.	112921	0.025	0.095
540.00	542.00	Fine-medium-grained medium green massive silicic chloritic	1.0	1	18 QZVN 70 10	Augite and plag phenocrysts visible locally. Qtz/py/mag/epidote veining @ ~ 541.19 metres. Disseminated pyrite and magnetite in silicified chloritic flow.	112922	0.014	0.056
542.00	544.00		2.0	1	13 QZVN 70 10	Weak, patchy potassic alt'n. Pyrite aggregates associated with magnetite @ ~ 542.60 metres, enveloped by weak epidote alt'n- cross cut by late stage, barren qtz/zeo veining. Pyrite and magnetite aggregates. Augite phenocrysts. Altered basalt (silicified).	112923	0.015	0.064
544.00	546.00	Fine-medium-grained green brown massive chloritic sericitic	3.0	1	12 QZVN 90 7	Augite phenocrysts visible locally. Pyrite and magnetite aggregates in flow, also associated with qtz veining. Patchy, weak sericite +/- fine biotite alt'n between 544.58 to 545.27 metres.	112924	0.015	0.071
546.00	548.00	Fine-medium-grained green brown massive chloritic silicic	2.0	1	4 QZVN 80 10	Brown colour due to weak sericite +/- fine biotite alt'n, weakly to moderately silicified. Increased qtz/zeo veining between 546.00 to 546.38 metres associated with disseminated pyrite/magnetite and weak epidote. Qtz/zeo veining @ 547.10 metres bound by sericite +/- fine biotite alt'n.	112925	0.015	0.076

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
548.00	550.00	Fine-medium-grained green brown massive sericitic chloritic	4.0	1	18 QZVN 0 7	Brown colour due to moderate sericite +/- fine biotite alt'n with coarse augite phenocrysts (about 5mm across) and plag phenocrysts. Associated with disseminated pyrite. Pyrite veins bound by magnetite and qtz, and weak epidote. Patchy sericite +/- fine biotite enveloping qtz/py veining @ ~ 548.88 metres. Massive pyrite and chlorite vein between 549.40 to 549.46 metres. Increased qtz veining between 548.46 to 549.76 metres.	112926	0.021	0.084
550.00	552.00	Fine-medium-grained green pink massive chloritic silicic	3.0	2	21 QZVN 80 7	Py/mag/qtz veining between 551.19 to 551.80 metres, 0 degrees t.c.a., associated with weak potassic and epidote alt'n. Strong potassic alt'n between 551.00 to 551.19 metres- also with py/mag aggregates enveloped by portions of high plag content.	112927	0.014	0.057
552		556		BASALT FLOW BRECCIA					
552.00	554.00	Fine-medium-grained medium green massive chloritic silicic	3.0	1	18 QZVN 90 10	Slight brown colour due to weak sericite +/- fine biotite alt'n. Fragments visible in places- insitu breccia. Augite and plag phenocrysts visible locally. Vuggy zeolite veining between 552.87 to 552.92 metres with euhedral crystal assemblages in vuggy structures. Weak epidote alt'n. Py/mag veining at 553.86 metres.	112928	0.013	0.045
554.00	556.00	Fine-medium-grained green massive chloritic silicic	2.0	3	53 QZHCV 90 20	Weak, patchy brown colouration due to weak sericite +/- fine biotite alt'n. Chloritic portions with augite phenocrysts and disseminated py/mag aggregates. Py/mag vein @ ~ 554.33 metres associated with weak epidote alt'n and chlorite aggregates. Increased qtz/zeo veining between 554.58 to 555.92 metres, brecciated- associated with disseminated pyrite. Rare FeCaO.	112929	0.02	0.073
556		609.87		BASALT FLOW					
556.00	558.00	Fine-medium-grained green pink massive chloritic potassic	2.0	1	1 QZVN 5 15	Barren kfsp, potassic altered portions, between 556.87 to 557.30 metres. Chloritic portions with augite phenocrysts visible. Very weak, patchy sericite +/- fine biotite alt'n between 556.00 to 556.26 metres. Weak to moderate epidote alt'n between 557.30 to 557.87 metres, associated with disseminated pyrite and magnetite veining and aggregates.	112931	0.015	0.043

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
558.00	560.00	Fine-medium-grained medium green massive chloritic silicic	3.0	1	13 QZVN 90 10	Fine to medium grained augite and plag phenocrysts. Chloritic, with weak to moderate patchy epidote alt'n associated in places with pyrite and mag aggregates. Local increase in qtz/zeo veining. Weak potassic alt'n between 554.46 to 554.55 metres. Vuggy @ ~ 559.64 metres.	112932	0.016	0.07
560.00	562.00	Fine-medium-grained medium green massive chloritic epidote	3.0	1	15 QZVN 0 10	Rare fragments present- possibly insitu breccia. Patchy potassic alt'n. Weak to moderate epidote alt'n associated with py aggregates. Less silicified portion has augite ad plag phenocrysts visible. Vuggy between 561.20 to 561.38 metres. Vein between 561.30 to 561.38 metres.	112933	0.016	0.061
562.00	564.00	Fine-medium-grained medium brown massive sericitic silicic	4.0	2	22 QZVN 90 10	Brown colour due to weak to moderate, patchy sericite +/- fine biotite alt'n. Chloritic; less silicified (563.50 to 563.60 metres) portions have plag and augite phenocrysts visible locally. Py/mag aggregates associated with epidote locally between 563.11 to 563.15 metres.	112934	0.016	0.056
564.00	566.00		4.0	2	35 QZVN 70 10	Sericite +/- fine biotite as above. Py/mag aggregates associated with epidote alt'n in places. Augite and plag phenocrysts visible in places. Increased qtz/zeo veining between 564.24 to 564.79 metres.	112935	0.016	0.06
566.00	567.80	Fine-medium-grained green brown massive sericitic chloritic	4.0	2	20 QZVN 80 7	Brown colour due to weak to moderate sericite +/- fine biotite alt'n. Augite and plag phenocrysts present in less silicified portions. Patchy chloritic portions with augite phenocrysts, disseminated py/mag and py/mag aggregates. Amygduloidal structure between 567.74 to 567.80 metres infilled with qtz/py/mag.	112936	0.023	0.076
567.80	570.00	Fine-medium-grained green brown massive chloritic sericitic	3.0	2	18 QZVN 80 10	Patchy brown and green weak to moderate sericite +/- fine biotite alt'n and chloritic portions. Augite and plag phenocrysts visible in less silicified portions between 568.70 to 569.55 metres. Py/mag aggregates and veining associated with epidote alt'n.	112937	0.015	0.028
570.00	571.00	Fine-medium-grained medium brown massive sericitic chloritic	3.0	1	8 QZVN 90 10	Brown moderate sericite +/- fine biotite alt'n. Py/mag aggregates associated with epidote alt'n. Increased zeolite veining between 570.51 to 570.64 metres.	112938	0.031	0.108
571.00	572.40	Fine-medium-grained green brown massive sericitic chloritic	3.0	1	17 QZHCV 90 10	Patchy sericite +/- fine biotite alt'n and chloritic portions. Disseminated pyrite associated with magnetite and epidote alt'n in places. Vuggy structures. Hematite/calcite, possibly iron calcite, veining.	112939	0.028	0.077

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
572.40	574.00	Fine-medium-grained medium green massive chloritic silicic	1.0	2	24 QZVN 10 7	Rare py/mt aggregates and veining @ ~ 573.58 metres, enveloped by weak potassic alt'n. Vuggy structures between 573.65 to 573.75 metres.	112940	0.02	0.041
574.00	576.09		1.0	1	18 QZVN 0 7	Chloritic, silicified with rare disseminated pyrite and veining associated with magnetite @ ~ 575.28 metres. Weak epidote alt'n associated with zeolite/magnetite veining. Augite and plag phenocrysts between 575.31 to 576.09 metres. (30 cm of core unaccounted for in this interval).	112941	0.02	0.05
576.09	578.00		2.0	1	26 QZVN 50 7	Pyrite and magnetite aggregates locally associated with weak epidote alt'n at 576.40 and 576.51 metres. Augite and plag phenocrysts locally. Brown colour due to weak to moderate sericite +/- fine biotite alt'n. Local increase in zeolite/calcite veining.	112942	0.026	0.076
578.00	580.02	Fine-medium-grained green brown massive sericitic chloritic	2.0	2	14 QZVN 50 10	Local increase in zeolite/qtz veining. Pyrite and magnetite aggregates associated with epidote alt'n and smoky gray quartz @ 578.48 metres. Brown colouration due to weak to moderate sericite +/- fine biotite alt'n. Augite and plag phenocrysts visible between 579.40 to 579.92 metres.	112943	0.021	0.074
580.02	581.97		4.0	1	6 QZVN 90 10	Brown colouration, weak to moderate sericite +/- fine biotite alt'n. Minor chloritic patches. Weak epidote altered portions associated with zeolite veining between 581.35 to 581.70 metres- also associated with magnetite and pyrite. Disseminated pyrite and magnetite in flow. Augite and plagioclase phenocrysts visible in places.	112944	0.021	0.091
581.97	583.10	Fine-medium-grained medium green massive chloritic silicic	4.0	1	13 QZVN 80 5	Pyrite/mag/epi aggregates. Dominantly chloritic. Weak to moderate epidote alt'n also present as veining.	112945	0.02	0.061
583.10	585.00		1.0	1	14 QZVN 80 20	Increased zeolite veining. Local broken zones. Weak to moderate epidote alt'n between 583.89 to 584.39 metres. Vuggy dissolution features. Augite and plag phenocrysts visible.	112946	0.015	0.039
585.00	587.00	Fine-medium-grained green brown massive chloritic sericitic	2.0	1	7 QZVN 90 7	Patchy sericite +/- fine biotite alt'n and green chloritic portions. Py/mag aggregates associated with epidote. Augite and plag phenocrysts visible in places. Silicified portions.	112947	0.015	0.069
587.00	588.95	Fine-medium-grained medium brown massive sericitic silicic	1.0	2	QZVN 90 10	Weak to moderate sericite alt'n. Pyrite and mag aggregates. Augite and plag phenocrysts visible locally. Patchy weak to moderate epidote alt'n.	112948	0.018	0.101

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
588.95	590.83	Fine-medium-grained medium brown massive sericitic silicic	4.0	0	QZVN 80	Moderate to strong sericite +/- fine biotite. Weak potassic and weak to moderate epidote altered portions. Disseminated pyrite. Qtz/calcite/hematite veining between 590.21 to 590.33 metres.	112949	0.029	0.122
590.83	593.00	Fine-medium-grained green brown massive chloritic silicic	2.0	1	1 QZVN 50 7	Patchy, weak sericite +/- fine biotite alt'n associated with disseminated pyrite- augite and plag phenocrysts visible in these portions between 590.83 to 591.60 metres. Chloritic portions- pristine with disseminated pyrite/mag associated with weak epidote alt'n.	112950	0.019	0.077
593.00	595.00	Fine-medium-grained medium brown massive sericitic chloritic	3.0	1	1 QZVN 80 5	Weak to moderate sericite alt'n with minor, patchy green, chloritic portions. Disseminated pyrite associated with magnetite aggregates and weak to moderate epidote alt'n.	112951	0.037	0.099
595.00	596.00	Fine-medium-grained green brown massive chloritic sericitic	2.0	1	8 QZVN 10 15	Weak sericite +/- fine biotite alt'n and zeolite veining between 594.63 to 595.24 metres. Augite and plag phenocrysts visible in this portion. Weak epidote alt'n associated with pyrite and magnetite aggregates and present as veining.	112952	0.035	0.09
596.00	598.00	Fine-medium-grained medium brown massive sericitic chloritic	3.0	1	9 QZVN 90 10	Brown colour due to weak to moderate sericite +/- fine biotite alt'n. Disseminated pyrite associated with magnetite and epidote alteration @ ~ 596.22, 596.33, 597.62, 597.92 metres and between 597.08 to 597.19 metres.	112953	0.025	0.093
598.00	600.00	Fine-medium-grained medium brown massive sericitic silicic	4.0	1	5 QVN 70 7	Moderate sericite +/- fine biotite alt'n. Disseminated pyrite/mag associated with epidote locally. Weak potassic and epidote alt'n. Potassic @ ~ 598.70 metres with weak sericite +/- fine biotite alt'n. Rare zeolite veining. Protolith overprinted by alt'n.	112954	0.02	0.096
600.00	602.00		3.0	1	1 QZVN 30 10	Weak to moderate sericite +/- fine biotite alt'n. Qtz veining between 600.20 to 600.29 metres and zeolite between 601.63 to 601.75 metres. Disseminated pyrite and magnetite associated with epidote @ 600.51 metres.	112955	0.019	0.072
602.00	604.00		4.0	1	17 QZVN 50 10	Amygdules infilled with chlorite between 602.07 to 602.30 metres. Moderate sericite +/- fine biotite alt'n associated with an increase in disseminated pyrite. Weak sericite +/- fine biotite alt'n between 603.24 to 603.72 metres chlorite, zeolite veining.	112957	0.054	0.197

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
604.00	606.10	Fine-medium-grained medium brown massive sericitic silicic	4.0	1	5 QZVN 80 7	Brown due to moderate sericite +/- fine biotite alt'n associated with an increase in pyrite aggregates. Pyrite disseminated associated with epidote alt'n between 604.11 to 604.25 metres in qtz veining.	112958	0.041	0.135
606.10	608.00		3.0	3	50 QZHCV 90 10	Massive magnetite units, boundaries not visible. Moderate sericite +/- fine biotite alt'n. Qtz/zeo veining between 607.22 to 607.39 metres. Calcite/hematite veining (FeCaO). Disseminated pyrite.	112959	0.015	0.029
608.00	609.87		2.0	2	15 QZVN 80 10	Moderate sericite +/- fine biotite alt'n, with patchy chloritic portions. Py/mag/epi/qtz/zeo veining between 608.14 to 608.32 metres and at 608.73 metres. Smoky gray qtz vein between 609.02 to 609.05 metres associated with pyrite and mag aggregates with chlorite and epidote alt'n. Augite phenocrysts visible in less sericite -rich portions. Qtz/zeolite veining between 609.49 to 609.57 metres. Pyrite/mag/epi veining @ ~ 609.79 metres.	112960	0.018	0.034
609.87	614	BASALT FLOW BRECCIA							
609.87	611.83	Fine-medium-grained green-grey massive silicic chloritic	2.0	1	7 QZVN 90 5	Moderately silicified and chloritic. Augite phenocrysts visible. Augite and plag between 610.87 to 611.30 metres. Weak potassic alt'n.	112961	0.038	0.063
611.83	614.00	Fine-medium-grained green brown massive sericitic chloritic	3.0	1	42 QZVN 90 7	Weak epidote alt'n associated with smoky gray qtz vein between 611.97 to 612.05 metres and 612.09 to 612.20 metres. Brown colour due to weak to moderate sericite +/- fine biotite alt'n. Patchy chloritic portions with augite phenocrysts. Weakly brecciated.	112962	0.02	0.035
614	620	BASALT FLOW							
614.00	616.00	Fine-medium-grained medium green massive chloritic silicic	2.0	1	12 QZVN 90 10	Chloritic with augite phenocrysts. Smoky gray qtz vein associated with pyrite and magnetite aggregates +/- weak epidote alt'n. Patchy, weak epidote alt'n associated with pyrite/mag veining @ ~ 616.00 metres. Intrusive granitoid fragment between 614.22 to 614.39 metres.	112963	0.013	0.025
616.00	618.00		1.0	1	40 QZVN 90 10	Chloritic with augite phenocrysts and weak, patchy epidote alt'n associated with pyrite and qtz @ ~ 616.29 metres. Pyrite and magnetite aggregates associated with epidote alt'n locally.	112964	0.019	0.039

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
618.00	620.00	Fine-medium-grained green brown massive chloritic sericitic	1.0	1	27 QZVN 90 7	Patchy chloritic portions and weak to moderate patchy sericite +/- fine biotite, associated with augite and plagioclase phenocrysts and weak epidote alt'n. Disseminated pyrite stringers associated with magnetite locally. Weak potassic alt'n between 619.80 to 620.00 metres.	112965	0.017	0.032
620		626		BASALT FLOW BRECCIA					
620.00	622.00	Fine-medium-grained green brown massive sericitic chloritic	2.0	3	38 QZVN 90 7	Patchy chlorite and sericite alt'n as in previous sample. Moderate, patchy potassic alt'n @ ~ 621.00 metres and between 621.53 to 622.00 metres. Kfsp veining between 620.40 to 620.45 metres and with epidote alt'n in the foot wall to 620.49 metres. Py/mag/epi veining @ 621.05 metres. Fragments with similar composition as host-in situ breccia.	112966	0.031	0.047
622.00	624.00	Fine-medium-grained pink green massive epidote potassic	3.0	1	15 QZVN 90 50	Strong to moderate patchy potassic and epidote alt'n associated with disseminated pyrite and locally associated with magnetite. Smoky-gray qtz vein- vuggy. Qtz/calcite fragments.	112967	0.042	0.073
624.00	626.00		2.0	3	50 QZVN 30 20	Strong to moderate patchy potassic and epidote alt'n as above. Augite phenocrysts visible in potassic portions. Increased qtz veining.	112968	0.032	0.094
626		627.58		BASALT FLOW					
626.00	627.58	Fine-medium-grained green brown massive sericitic epidote	5.0	1	15 QZVN 20 7	Moderate sericite +/- fine biotite alt'n, weak to moderate epidote alt'n, and patchy chloritic alt'n. Massive magnetite veinlets. High content of disseminated pyrite associated with magnetite aggregates. Qtz/zeolite veining. Contact with potassic granitoid intrusive defined by qtz/zeo veining between 627.48 to 627.58 metres.	112969	0.065	0.131
627.58		629.06		GRANODIORITE					
627.58	629.06	Coarse-grained grey massive potassic		16	QZVN 45 7	High qtz content (more than 20%) plagioclase dominant feldspar. Mafic minerals consist of biotite and tabular hornblende. Granitoid is possibly a granodiorite. Weak to moderate potassic altered portions (i.e.: between 628.76 to 628.84 metres). Smaller grained chill margin toward foot wall contact between 628.95 to 629.06 metres. Contact also defined by qtz/zeo veining between 629.06 to 629.20 metres @ 45 degrees t.c.a. Barren, possibly post-mineralization, intrusion. Magnetite aggregates present.	112970	0.003	-2

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
629.06	640.93	BASALT FLOW							
629.06	631.00	Fine-medium-grained medium green massive chloritic silicic	2.0	1	30 QZVN 10 10	Chloritic, fine to medium grained flow; weak, patchy potassic alt'n @ ~ 629.64 metres and between 630.02 to 630.09 metres. Brown colour due to weak sericite +/- fine biotite alt'n with associated py/mag aggregates.	112971	0.023	0.034
631.00	633.00		1.0	1	8 QZVN 5 10	Slight brown colour, possibly due to very weak sericite +/- fine biotite alt'n. Augite phenocrysts visible in less silicified portions between 631.15 to 631.69 metres. Qtz/zeo veining (vuggy) and euhedral zeolite crystals in vuggy structures. Granitoid- possibly granodiorite- as seen in sample 112970 occurs here between 632.77 to 632.79 metres.	112972	0.024	0.038
633.00	635.00		1.0	1	39 QZVN 90 5	Chloritic, flow less silicified between 633.56 to 633.88 metres: augite and plag phenocrysts visible within. Very weak epidote alt'n. Rare pyrite aggregates associated with veining.	112973	0.018	0.035
635.00	637.00	Fine-medium-grained medium brown massive sericitic chloritic	4.0	1	14 QZVN 80 10	Patchy brown colour due to moderate sericite +/- fine biotite alt'n associated with disseminated pyrite and mag/epi locally. Patchy weak epidote and potassic alt'n associated with smoky gray qtz vein @ ~ 636.12 metres and kfsp @ ~ 636.35 metres.	112974	0.031	0.061
637.00	639.24		4.0	1	0 QZVN 70 10	Sericite +/- fine biotite alt'n as above. Zeolite veining associated with epi/py/mag between 637.32 to 637.42 metres.	112975	0.024	0.053
639.24	640.93	Fine-medium-grained pink green massive epidote potassic	3.0	1	3 QZVN 70 15	Moderate to strong epidote alt'n with patchy potassic altered portions. Py/mt aggregates, also present as veining, associated with epidote alteration. Barren zeolite veining between 640.64 to 640.80 metres.	112976	0.04	0.119
640.93	641.9	BASALT							
640.93	641.90	Fine-medium-grained pink massive potassic epidote	4.0	1	9 QZVN 50 70	Sample consists mainly of zeolite and smoky gray quartz vein associated with weak to moderate epidote alt'n and sericite alt'n. Disseminated pyrite, pyrite aggregates and cubic pyrite @ 641.18 metres, associated with epidote alteration. Local vuggy dissolution features.	112977	0.042	0.118
641.9	645.21	BASALT FLOW BRECCIA							

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
641.90	644.00	Fine-medium-grained medium green massive chloritic silicic	2.0	3	25 QZVN 50 7	Slight brown colour due to sericite +/- fine biotite alt'n. Augite phenocrysts visible locally. Massive magnetite unit. Disseminated pyrite and aggregates associated with magnetite. Barren zeo/qtz veining.	112978	0.011	0.028
644.00	645.21	Fine-medium-grained green brown massive chloritic sericitic	4.0	3	22 QZVN 90 7	Sericite +/- fine biotite as above. Qtz/zeo/epi veining @ ~ 644.67 to 644.73 metres. Sericitized portions associated with an increase in disseminated pyrite.	112979	0.024	0.033
645.21	682.59	BASALT FLOW							
645.21	646.96	Fine-medium-grained green brown massive sericitic chloritic	3.0		3 QZVN 90 15	Brown colour due to moderate sericite +/- fine biotite alt'n. Patchy, weak epidote alt'n- green colour @ 645.73 metres. Vuggy in qtz/calcite veins between 645.94 to 646.04 metres. Increase in disseminated pyrite. Kfsp alt'n between 646.20 to 646.57 metres bound by zeolite veining.	112980	0.03	0.046
646.96	649.00	Fine-medium-grained medium brown massive sericitic chloritic	3.0	2	14 QZVN 10 5	Brown colour as above, associated with an increase in disseminated pyrite and locally associated with magnetite aggregates. Minor qtz/zeo veining.	112981	0.022	0.029
649.00	651.00	Fine-medium-grained medium brown massive sericitic potassic	2.0	3	32 QZVN 90 10	Brown colour due to weak to moderate sericite +/- fine biotite alt'n associated with patchy epidote and potassic alt'n. Augite phenocrysts visible locally. Disseminated pyrite and magnetite aggregates. Potassic alt'n @ ~ 650.36 to 650.38 metres. Epidote @ 650.64 metres.	112983	0.031	0.03
651.00	653.00	Fine-medium-grained green brown massive sericitic chloritic	2.0	2	13 QZVN 0 7	Brown colour due to weak potassic alt'n associated with chloritic portions. Weak to moderate patchy epidote alt'n. Pyrite and magnetite aggregates and veining associated with epidote. Weak, patchy potassic alt'n. Epidote @ 652.17 metres.	112984	0.018	0.035
653.00	655.00		2.0	1	15 QZVN 5 7	Brown colour as above, weak potassic alt'n as above.	112985	0.019	0.035
655.00	657.00		2.0	1	16 QZHCV 80 10	Massive magnetite units. Brown colour as above. Hematite/calcite veining associated with qtz/zeo between 655.26 to 655.45 metres and 656.84 to 657.00 metres.	112986	0.014	0.024
657.00	659.00	Fine-medium-grained light brown massive sericitic silicic	3.0	1	21 QZHCG 90 15	Light brown colour due to weak to very weak sericite +/- fine biotite alt'n associated with patchy potassic alt'n between 657.71 to 658.47 metres. Qtz/zeo veining. weak epidote alt'n between 658.77 to 658.92 associated with qtz/hematite/calcite/gypsum (selenite) veining.	112987	0.023	0.031

Hole Number: KN-02-40

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
659.00	660.90	Fine-medium-grained green brown massive sericitic chloritic	3.0	1	30 QZVN 90 15	Brown colour due to weak sericite +/- fine biotite alt'n, associated with potassic and chloritic portions. Qtz and calcite veining between 659.76 to 659.87 metres and zeolite between 659.89 to 660.10 metres. Hematite/calcite @ ~ 669.18 to 660.41 metres.	112988	0.018	0.03
660.90	662.62		4.0	1	6 QZHCV 90 10	Weak, patchy brown colour due to weak, patchy sericite +/- fine biotite alt'n with patchy chloritic portions. Disseminated pyrite. Qtz/zeo veining. Hematite/calcite veining @ ~ 661.14 metres. Weak epidote alt'n @ 662.00 metres. Local broken zones.	112989	0.03	0.049
662.62	665.00	Fine-medium-grained green brown massive chloritic sericitic	2.0	3	77 QZVN 0 7	Fine to medium grained, chloritic flow- brown portions due to weak to moderate alt'n. Massive magnetite unit. Disseminated pyrite and magnetite. Weak sericite +/- fine biotite between 664.34 to 664.48 metres. Augite phenocrysts visible locally. Chlorite portions. Qtz/calcite veining between 663.61 to 664.00 metres.	112990	0.022	0.047
665.00	667.00	Fine-medium-grained green brown massive sericitic chloritic	3.0	1	12 QZVN 50 7	Sericite +/- fine biotite alt'n as above. Potassic altered portions between 665.65 to 665.83 metres. Rare smoky gray qtz veins. Local increase in disseminated pyrite. Augite phenocrysts. Weak epidote alt'n.	112991	0.024	0.05
667.00	669.00	Fine-medium-grained green brown massive sericitic epidote	2.0	1	12 QZVN 80 15	Moderate to weak sericite +/- fine biotite alt'n associated with weak to moderate patchy epidote alt'n. Kfsp between 667.54 to 667.68 metres. Pyrite/mag aggregates in qtz veining. Patchy, moderate, potassic alt'n between 668.71 to 669.00 metres.	112992	0.024	0.049
669.00	671.00	Fine-medium-grained medium brown massive sericitic chloritic	3.0	1	23 QZAGV 90 15	Weak to moderate potassic alteration and patchy, weak epidote alt'n. Disseminated pyrite/magnetite, also present as veining. Anhydrite and gypsum veining between 670.46 to 670.51 metres and at 670.00 metres. Qtz/zeolite veining.	112993	0.029	0.06
671.00	673.00		3.0	1	6 QZVN 60 20	Increased qtz/zeo veining. Weakly brecciated between 671.84 to 672.15 metres. Weak to moderate epidote alt'n. Moderate sericite +/- fine biotite alt'n. Very weak potassic alt'n.	112994	0.026	0.07
673.00	675.00	Fine-medium-grained green brown massive chloritic sericitic	4.0	1	66 QZVN 70 25	Moderate patchy sericite +/- fine biotite alt'n and chloritic portions. Increase in zeo/qtz veining and pyrite content as disseminations, aggregates and veins. Associated with epidote alt'n @ 673.56 metres. Weak epidote and potassic altered portions.	112995	0.015	0.05

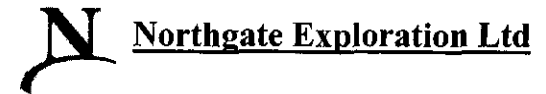
Hole Number: KN-02-40

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
675.00	677.00	Fine-medium-grained medium brown massive sericitic potassic	4.0	1	0 QZVN 10 10	Moderate sericite +/- fine biotite alt'n. Weak to moderate patchy potassic and epidote alt'n. Local increase in disseminated pyrite. Qtz/zeo veining.	112996	0.019	0.058
677.00	679.00		4.0	2	11 QZVN 80 30	Moderate sericite +/- fine biotite alt'n. Increased qtz/zeo veining between 671.90 to 677.29 metres. Sericitized portions associated with increased pyrite disseminations. Weak to moderate patchy potassic and epidote alt'n associated with disseminated pyrite, locally.	112997	0.024	0.04
679.00	681.00	Fine-medium-grained medium brown massive sericitic epidote	4.0	1	4 QZVN 70 10	Moderate sericite +/- fine biotite alt'n associated with disseminated pyrite and weak, patchy epidote alt'n. Pyrite veining associated with magnetite aggregates. Qtz/zeo veining locally increases between 680.21 to 680.37 metres. Zeolite veining @ 680.50 metres and between 680.82 to 680.85 metres.	112998	0.023	0.051
681.00	682.59	Fine-medium-grained green brown massive chloritic sericitic	3.0	1	3 QZVN 80 7	Weak to moderate patchy sericite +/- fine biotite alt'n associated with disseminated pyrite and weak epidote alt'n. Pyrite aggregates associated with magnetite aggregates. Epidote alt'n @ ~ 681.63 to 682.35 metres. Hanging wall contact for granitoid unit @ 45 degrees t.c.a. is defined by smoky gray qtz veining and chill margins.	112999	0.035	0.037
682.59	689.22	GRANODIORITE							
682.59	684.60	Coarse-grained grey massive potassic	0.5	2	16 QZVN 80 7	Coarse grained, high qtz content granite with dominant plagioclase. Mafics are possibly biotite and tabular hornblende (i.e. granodiorite). Potassic altered portions. kfsp veining between 683.30 to 683.52 metres. Chalcopyrite aggregates between 683.22 to 683.28 metres and @ 683.47 metres.	113000	0.045	0.005
684.60	686.60			2	16 QZVN 80 10	Strong to moderate potassic altered portions. Chloritic portions. Magnetite aggregates.	113013	0.012	-2
686.60	688.60	Coarse-grained grey massive potassic chloritic		2	11 QZVN 70 10	Broken zones. Potassic and chloritic portions. Chloritic fragments.	113014	0.009	-2
688.60	689.22			2	8 QZVN 20 10	Chloritic portions, volcanic flow fragments present locally. Potassic altered portions.	113015	0.019	-2
689.22	690.98	BASALT FLOW							
689.22	690.98	Fine-medium-grained green-grey massive chloritic silicic	1.0		1 QZVN 90 5	Possibly large, volcanic flow fragments as in previous sample. Chlorite, disseminated pyrite associated with minor epidote alt'n. Broken portions.	113016	0.035	0.034

Hole Number: KN-02-40

From	To	Rock Type	Py-Cpy-Mt Ms Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
690.98	EOH						

Kemess North 2002 - Diamond Drill Log



Hole Number: **KN-02-41**

Northing: 15760.6	Total Depth: 490.7m
Easting: 11459.6	Azimuth: 180°
Elevation: 1803.9	Dip: -70°

Geologist: J. Mazvihwa
Logged Date: 9/16/2002

Survey Depth	Azimuth	Dip	Comments:
122 m	188 °	-58 °	Magnetic
213 m	191 °	-61 °	Mechanical
305 m	196 °	-61 °	
396 m	163 °	-80 °	Mechanical
488 m	0 °	-87 °	Mechanical

Kemess North 2002 - Summary Drill Log



Hole Number: **KN-02-41**

From (m)	To (m)	Rock Type	Comments
0	3.76	BASALT FLOW	Rubble zones no visible structure. Bladed feldspar porphyry in fine grained mafic, dark green matrix. Bladed feldspar outline barely visible. Unit is siliceous, possibly secondary silicification. Planes lined by qtz and zeo, with rare hematite. Pale pink/orange zeolite.
3.76	46.3	QUARTZ FELSPAR PORPHYRY	Rubble zone. Quartz and feldspar phenocrysts in fine grained, light gray felsic matrix. Qtz and feldspar outline lined barely visible in places. Planes lined by minor speaks of hem. Rare pyrite, present as fine disseminations.
46.3	59.76	ANDESITE FLOW	Fine grained intermediate mafic flow- andesitic. Massive magnetite units between 47.26-47.40 m. Disseminated pyrite +/- chalcopyrite, also present as aggregates, in flow and associated with veining. Chalcopyrite aggregates at 46.56 m, 47.35 m and 47.74 m in qtz veins associated with pyrite. Contact with QFP defined by 30 deg. t.c.a. qtz/sericite/pyrite +/- chalcopyrite veining and stringers. Planes on BKN zone lined with pyrite +/- chalcopyrite disseminations. Weak to mod. epidote alteration, speckled/mottled between 46.71-46.90 m.
59.76	76	ANDESITE FLOW BRECCIA	Increased sericite/calcite alteration, associated with strongly disseminated pyrite +/- chalcopyrite. Fragment between 59.86-59.96 m, slightly iron stained- red/purple. Hem/cal vein at 60.00 m associated with pyrite +/- chalcopyrite. BKN. Intrusive fragment at 60.44 m. Very weak epidote alt'n. Pyrite veining associated with calcite/qtz between 60.87-60.97 m.
76	84.1	BASALT	Augite phenocrysts visible. Chloritic and mafic with weak, patchy epidote alt'n. Pyrite as disseminations and aggregates in flow, and associated with qtz/zeo veining between 77.00 to 77.07 metres and at 77.49 metres. Light green portions might be due to weak sericite alt'n.
84.1	88.59	QUARTZ FELSPAR PORPHYRY	Light pink/orange zeolite veining. Qtz and feldspar phenocrysts in felsic, fine grained, light gray matrix. rare pyrite veining +/- disseminated chalcopyrite between 86.20 to 86.58 metres.
88.59	96	BASALT FLOW	Massive magnetite throughout sample. Weak to moderate epidote alt'n between 89.20 to 89.26 metres associated with disseminated pyrite. Disseminated pyrite associated locally with augite phenocrysts.

Hole Number:

KN-02-41

From (m)	To (m)	Rock Type	Comments
96	98	FLOW FLOW BRECCIA	Chloritic portions, light green/yellow portions, possible weak sericite. Augite phenocrysts visible. Augite phenocrysts visible. Finely disseminated pyrite and stringers @ 96.70 metres, 96.83 metres and from 97.62 to 97.76 metres- associated with qtz/zeo in places. Vuggy. Possible finely disseminated pyrite.
98	110	BASALT FLOW	Mainly chloritic, with sericitic portions between 98.30 to 98.37 metres and 98.55 to 98.68 metres and 99.21 to 99.79 metres. Pyrite as disseminations and aggregates and veining associated with qtz @ 98.63 and 99.72 metres. Aggregates associated with weak epidote alt'n @ 99.21 metres are cross-cut by barren, late stage zeolite veining. Possible finely disseminated cpy.
110	112	BASALT FLOW BRECCIA	Slightly brecciated portion, with disseminated pyrite. Smoky gray qtz vein associated with increased pyrite aggregates between 111.00 to 111.05 metres. Slight brown colour due to sericite +/- fine biotite alt'n associated with an increase in disseminated pyrite. Augite phenocrysts. Possible finely disseminated cpy.
112	124	BASALT FLOW	Chloritic, weak sericite +/- fine biotite alt'n associated with finely disseminated pyrite and veining @ ~ 112.63 metres. Chalcopyrite aggregate @ ~ 122.40 metres.
124	126	BASALT FLOW BRECCIA	Weak, brecciated texture. Finely disseminated pyrite and pyrite aggregates and veining. Py aggregates associated with qtz veining @ ~ 124.55 metres. Local increase in disseminated pyrite and aggregates. Very weak epidote alt'n @ ~ 125.23 to 125.37 metres.
126	138	BASALT FLOW	Chalcopyrite aggregates at 126.35 metres. Pyrite aggregates in flow, and qtz veins at 126.53 metres. Augite phenocrysts visible locally. Weak, patchy epidote altered portions. Slight brown colour due to sericite +/- fine biotite alt'n- weak between 127.22 to 128.00 metres.
138	140	BASALT FLOW BRECCIA	Chloritic flow with augite phenocrysts- probably a basalt. Qtz/zeo veining, banding @ ~ 80 degrees t.c.a. between 138.44 to 138.58 metres. Finely disseminated pyrite and cpy. Brecciated texture @ ~ 138.58 to 138.65 metres. Qtz/py veining between 139.82 to 139.86 metres.
140	144.3	BASALT FLOW	Pyrite and cpy aggregates finely disseminated in flow, associated with qtz veining @ ~ 140.30 metres. Qtz/py/epi veining @ ~ 140.50 to 140.80 metres.
144.3	148.02	BASALT FLOW BRECCIA	Moderate to strong sericite +/- fine biotite alt'n. Brecciated, crenulated veining around barely visible fragments. Pyrite content high- occurs as fine disseminations and veining, and is possibly associated with cpy (percentage unclear: between 0.1 to 0.5%).

Hole Number:

KN-02-41

From (m)	To (m)	Rock Type	Comments
148.02	158.34	BASALT FLOW	Fine grained flow- chloritic, weakly silicified and epidote altered. Associated with finely disseminated, stringer and aggregates pyrite. Augite phenocrysts, ranging from fine to medium sized. Qtz/calcite veining, randomly oriented. Local increases in veining.
158.34	159.55	BASALT QUARTZ VEIN	Increased quartz veining associated with pyrite veining and aggregates. Quartz breccia. Pyrite aggregates confined to matrix- rare in fragments.
159.55	199.85	BASALT FLOW	Quartz and pyrite aggregates as above. Rare fuchsite. Qtz vein associated with high pyrite (disseminated and aggregate) content between 159.55 and 160.00 metres. Chloritic between 160.00 and 160.52 metres, brecciated with disseminated pyrite and pyrite aggregates.
199.85	202	BASALT FLOW BRECCIA	Increased massive pyrite (up to about 50% in places) between 199.85 to 200.37 metres- associated with qtz vein. Chloritic from 200.37 metres with augite phenocrysts and disseminated pyrite and pyrite veining. Locally brecciated: insitu flow breccia. Weak epidote alt'n.
202	210	BASALT FLOW	Local broken zones. Chloritic, augite phenocrysts, disseminated pyrite, pyrite stringers and rare pyrite aggregates.
210	212	BASALT FLOW BRECCIA	As above- broken portions, weakly brecciated.
212	215.85	BASALT FLOW	Moderate to strong sericite alt'n with augite and actinolite phenocrysts. Chloritic portion associated with dark green augite phenocrysts. Broken locally. Qtz/zeolite veining- vuggy in places. Disseminated pyrite and pyrite aggregates. Hem/calcite veins. Chalcopyrite aggregate @ 213.72 metres.
215.85	217.82	BASALT FLOW BRECCIA	Chloritic as above. High pyrite content- occurs as disseminations, veins and aggregates. Qtz/calcite veining is vuggy and slightly brecciated between 216.16 to 217.13 metres. Weak epidote alt'n between 216.85 to 216.96 metres.
217.82	226.14	BASALT FLOW	Aphanitic, chloritic, hematite -stained flow breccia- possibly flow sediment. Fine pyrite veining at 219.54 metres appears to be laminated and tectonized. Highly magnetic. Unit has red stain/colour from hematite (also seen as aggregates in the qtz/calcite veining). Weakly brecciated between 219.57 to 219.75 metres. Augite phenocrysts visible locally. Pyrite aggregates mainly in flow, NOT associated with qtz/calcite/hem veining.
226.14	233.18	QUARTZ FELSPAR PORPHYRY	Qtz phenocrysts in moderate to strongly silicified, fine grained matrix. Finely disseminated pyrite and pyrite aggregates and stringers. Qtz/calcite veining is randomly oriented. Rare chlorite stringers @ 226.25 metres. Augite phenocrysts barely visible. Weak epidote alt'n between 226.90 to 226.97 metres. Weak to moderate sericite.

Hole Number:

KN-02-41

From (m)	To (m)	Rock Type	Comments
233.18	247	BASALT FLOW	Weak to moderate sericite alt'n. Chloritic and weakly silicified. Weak epidote alt'n between 233.18 to 233.27 metres. Slightly brecciated. Disseminated, aggregate and stringer pyrite. Broken zones. Rare hematite/calcite veining.
247	249	BASALT FLOW BRECCIA	Dark green portions, moderate chlorite, patchy green/yellow sericite alt'n. Qtz/calcite veining randomly oriented associated with hematite locally. Massive magnetite unit in flow. Weak, brecciated texture. Disseminated, aggregate and stringer pyrite associated with qtz/calcite veining. Augite phenocrysts visible.
249	259	BASALT FLOW	Chloritic, dark green/black possibly due to massive magnetite in flow. Augite phenocrysts present. Qtz/calcite veining. Local broken portions.
259	261	BASALT FLOW BRECCIA	Brecciated between 260.11 to 260.20 metres. Slightly green/yellow, very weak sericite alt'n. Finely disseminated pyrite. Rare hematite/calcite veining. Augite phenocrysts. Massive magnetite units.
261	267	BASALT FLOW	Patches of dark green/black, highly chloritic and mafic. Green/yellow from 261.82 to 263.00 metres possibly due to weak sericite alt'n. Slight brown colouration due to weak sericite +/- fine biotite alt'n. Chalcopyrite aggregate @ ~ 261.87 metres. Massive magnetite units. Rare hematite veining. Augite phenocrysts.
267	271	BASALT FLOW BRECCIA	Same as above. Brecciated qtz between 268.52 to 268.77 metres associated with pyrite. Zeolite veining. Local increase in disseminated pyrite.
271	290	BASALT FLOW	Chloritic flow, augite and actinolite visible. Slight brown coloured portions indicating weak sericite +/- fine biotite alt'n. Qtz/calcite veining associated with hematite in places.
290	294	BASALT FLOW BRECCIA	Augite phenocrysts, discontinuous qtz/calcite stringers associated with hematite stringers and pyrite locally. Slight brown colouration possibly due to sericite +/- fine biotite alt'n. Sericite alt'n between 290.91 to 290.97 metres associated with pyrite aggregates (green/yellow). Brecciated from 291.34 metres- associated with disseminated pyrite. Increased qtz stringers between 290.97 to 291.34 metres.
294	296	BASALT FLOW	Disseminated pyrite and pyrite aggregates. Qtz/zeo/calcite veining. Slight hematite staining between 294.34 to 294.47 metres. Augite phenocrysts. Patchy dark green/black portions. Massive magnetite portions.
296	298	BASALT FLOW BRECCIA	Augite phenocrysts and dark green/black portions- massive magnetite units as above. Slightly fragmented, insitu flow breccia. Weak epidote alt'n associated with qtz/zeo/hem/py.

Hole Number:

KN-02-41

From (m)	To (m)	Rock Type	Comments
298	346	BASALT FLOW	Increased qtz/hem/zeo/calcite veining @ ~ 298.31, 298.66 and 298.90 metres. Epidote vein @ ~ 299.36 metres. Augite phenocrysts. Massive magnetite units- dark green/black colour.
346	352	BASALT FLOW BRECCIA	Massive magnetite units, magnetite veining associated with pyrite aggregates between 346.73 to 347.00 metres. Slight brecciated texture.
352	354	BASALT FLOW	Massive magnetite portions- dark green/black. Medium green, chloritic portions. Slightly brown between 352.61 to 352.89 metres- possibly weak sericite +/- fine biotite alt'n. associated with an increase in disseminated pyrite and pyrite aggregates, associated with magnetite aggregates @ 353.02 metres.
354	374.55	BASALT FLOW BRECCIA	Augite phenocrysts. Disseminated pyrite and pyrite aggregates. Py/mag aggregates @ ~ 354.00 metres. Fragments- insitu breccia.
374.55	375.87	BASALT FLOW	Local increase in qtz/zeo veining. Chloritic. Weak to moderate silicification. Disseminated pyrite and aggregates associated with qtz and zeolite. Increased augite phenocrysts.
375.87	378	BASALT FLOW BRECCIA	Brecciated qtz/zeo veining between 375.87 to 377.11 metres. Qtz/zeo veining less brecciated from 377.11 metres. Thin stringers, randomly oriented - and more chloritic, less silicified from 377.11 metres.
378	418	BASALT FLOW	Massive, chloritic, medium green. Qtz/zeo veining. Hematite stringers associated with qtz/zeo veining between 379.34 to 378.41 metres. Pyrite/qtz vein @ ~ 379.00 metres. Disseminated pyrite and aggregates. Patchy brown colour due to sericite +/- fine biotite alt'n. Augite phenocrysts.
418	424	BASALT FLOW BRECCIA	Chloritic. Slight brown colour due to weak sericite +/- fine biotite alt'n. Very weak, patchy potassic alt'n. Augite phenocrysts visible locally. Disseminated pyrite and aggregates. fragmented from 418.63 to 420.00 metres, possibly insitu breccia.
424	429	BASALT FLOW	Weak brown colour due to very weak sericite +/- fine biotite alt'n. Minor massive magnetite units. Qtz/zeo veining. Augite phenocrysts visible locally.
429	490.73	MONZODIORITE	Plag and kfsp phenocrysts, qtz, less than 20%, biotite, muscovite and hornblende present locally in brown, fine grained matrix- probably monzodiorite. Qtz/zeolite veining, randomly oriented and irregularly spaced. Local pyrite aggregates, rare. Weak to moderate secondary silicification. Patchy, weak epidote alt'n.

Kemess North 2002 - Detail Drill Log



Hole Number: KN-02-41

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
0	3.76	BASALT FLOW							
0.00	3.76	Fine-coarse grained dark green chloritic silicic		27	QZV	Rubble zones no visible structure. Bladed feldspar porphyry in fine grained mafic, dark green matrix. Bladed feldspar outline barely visible. Unit is siliceous, possibly secondary silicification. Planes lined by Qtz and zeo, with rare hematite. Pale pink/orange zeolite.	41	-2	-2
3.76	46.3	QUARTZ FELSPAR PORPHYRY							
3.76	6.71	Fine-coarse grained light grey silicic sericitic	1.0	0	HVN 90	Rubble zone. Quartz and feldspar phenocrysts in fine grained, light grey felsic matrix. Qtz and feldspar outline lined barely visible in places. Planes lined by minor specks of hem. Rare pyrite, present as fine disseminations.	113018	0.013	0.017
6.71	9.75		1.0	0	QZHG 0	BKN- percentage of veining indiscernible. Planes lined by specks of hematite. Rare pyrite present as fine disseminations and aggregates, cubic pyrite also visible. Rare gypsum infilling jt. Qtz/zeo veining visible. Pale pink/orange zeo.	113019	0.005	0.041
9.75	12.80		2.0	0	QZV 5 5	Chloritic units present in light grey, felsic matrix associated with Qtz and feldspar phenocrysts- boundaries barely visible. pyrite present as fine disseminations, aggregates visible on broken planes. Local BKN portions. Pale pink/orange zeo.	113021	0.01	0.029
12.80	15.85		3.0	0	QZV 50 7	Increased disseminated pyrite in flow and associated with veining in places; also present as stringers. Pale pink/orange zeo.	113022	0.006	0.052
15.85	17.37		3.0	0	QZV 90 7	Increased disseminated pyrite in flow, and associated with veining in places; also present as stringers. Pale pink/orange zeo. BKN portions. Pyrite aggregates in Qtz vein at 16.21 m.	113023	0.006	0.041
17.37	18.90		3.0	0	QZV 80 7	Increased disseminated pyrite in flow, and associated with veining in places; also present as stringers. Pale pink/orange zeo. BKN portions, chloritic units.	113024	0.007	0.064
18.90	20.00		4.0	0	QZV 70 5	Increased pyrite aggregates and chloritic units in white felsic and siliceous matrix. Pale pink/orange zeo.	113025	0.007	0.11

Hole Number: KN-02-41

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
20.00	22.00	Fine-coarse grained light grey silicic sericitic	2.0	0	QZCMO 0 10	Fault between 20.36-20.91 m filled with gouge, fine pyrite and molybdenite at 0 degrees t.c.a.- cross cut by qtz/zeo veining. Fine disseminated pyrite in flow and as veining. Chloritic units. Pale pink/orange zeo.	113026	0.011	0.056
22.00	24.00		2.0	0	QZCMO 65 15	Very finely disseminated pyrite and aggregates. Pale pink/orange zeo/qtz veining; associated with calcite. BKN zones.	113027	0.004	0.053
24.00	26.00		3.0	0.5	0 QZMOV 70 10	Increased disseminated pyrite. Pyrite aggregates, cubic at about 24.99 m, associated with moly at about 24.57 m. Disseminated pyrite and veining between 24.77-24.85 m and at about 24.99 m. Chalcopyrite aggregates at about 25.36 m. Very fine disseminated pyrite and chalcopyrite from 25.36 m. Moly stringers associated with qtz/zeo at about 25.96 m.	113028	0.007	0.033
26.00	28.00		3.0	0.5	0 QZHGV 90 10	Cubic pyrite present locally, also finely disseminated and present as aggregates associated with qtz/zeo veining at about 26.52 m. Rare hem stringers. Chloritic units in fine matrix.	113029	0.009	0.058
28.00	30.00		4.0	0.5	0 QZV 0 15	Qtz veining with pyrite aggregates at about 28.73 m. Fine qtz stringers randomly oriented. Pyrite +/- chalcopyrite aggregates at about 29.06 m. Increased finely disseminated pyrite.	113030	0.007	0.061
30.00	32.00		3.0	0.1	0 QZMOV 40 7	Pyrite aggregates associated with qtz/zeo veining locally. Qtz/moly at 40 deg. t.c.a., between 30.70-30.38 m.	113031	0.01	0.079
32.00	34.00		3.0	0.1	0 QZV	Fault/BKN zone between 32.65-32.74 m. Massive pyrite unit between 35.73-35.78, +/- chalcopyrite. Pyrite +/- chalcopyrite also present as fine disseminations and aggregates.	113032	0.009	0.049
34.00	36.00		3.0	0.5	0 QZV 80 7	Chalcopyrite aggregates at about 36.24 m. Pyrite +/- chalcopyrite aggregates, fine disseminations and stringers between 37.57-37.57 m, associated with qtz veining. BKN zones.	113033	0.022	0.111
36.00	38.00		3.0	0.5	0 QZV 60 5	Chalcopyrite aggregates at about 36.97 m, with finely disseminated pyrite +/- chalcopyrite aggregates and veining. Chl units in matrix.	113034	0.018	0.107
38.00	40.00		3.0	0.5	0 QZV 90 7	Increased zeo veining, possibly flooding, between 39.31-39.44 m. Pyrite +/- chalcopyrite aggregates at about 39.44 m, also finely disseminated in the matrix and associated with qtz veining at about 38.70-38.30 m.	113035	0.005	0.072

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
40.00	42.00	Fine-coarse grained light grey silicic sericitic	1.0	0.1	0 QZV 70 5	Chloritic portions, minor fault infilled gouge material. Very finely disseminated pyrite +/- chalcopyrite. BKN zones.	113036	0.013	0.075
42.00	43.64		3.0	0.5	0 QZV 80 10	Increased pyrite content, associated with chalcopyrite in places, at about 43.34 m. Chalcopyrite aggregates at 43.19 m in qtz/zeo veining. BKN zones. Finely disseminated pyrite +/- chalcopyrite. Qtz vein between 43.19-43.34 m.	113037	0.027	0.193
43.64	45.00	Fine-coarse grained light grey brecciated silicic sericitic	3.0	0.1	0 QZV 45 7	Fragmented; angular fragments same composition as host- possibly an insitu breccia. Pyrite +/- chalcopyrite aggregates in flow, also associated with qtz veining. Sulphide mineralization present in host and fragments. Weak epidote alt'n at about 44.60 m with fine pyrite veining.	113038	0.039	0.324
45.00	46.30		5.0	0.5	0 QZV 70 10	Increased disseminated pyrite + chalcopyrite, mainly concentrated in host and some fragments between 45.00-45.20 m, and in qtz veining. Pyrite +/- chalcopyrite aggregates at about 46.06 m. Finely disseminated pyrite +/- chalcopyrite.	113039	0.027	0.456
46.3	59.76	ANDESITE FLOW							
46.30	48.00	Fine-grained dark green massive chloritic silicic	4.0	0.5	26 QVN 60 10	Fine grained intermediate mafic flow- andesitic. Massive magnetite units between 47.26-47.40 m. Disseminated pyrite +/- chalcopyrite, also present as aggregates, in flow and associated with veining. Chalcopyrite aggregates at 46.56 m, 47.35 m and 47.74 m in qtz veins associated with pyrite. Contact with QFP defined by 30 deg. t.c.a. qtz/sericite/pyrite +/- chalcopyrite veining and stringers. Planes on BKN zone lined with pyrite +/- chalcopyrite disseminations. Weak to mod. epidote alteration, speckled/mottled between 46.71-46.90 m.	113040	0.085	0.448
48.00	50.00	Fine-grained green-grey massive chloritic epidote	3.0	0.5	0 QZV 10 10	Light green/gray, possibly andesitic, flow. Weak to moderate patchy epidote alteration. Pyrite +/- chalcopyrite present as aggregates and stringers associated with qtz veining at about 48.30 m. Finely disseminated pyrite +/- chalcopyrite between 48.98-50.00 m. Mainly qtz veining, rare zeo veining.	113041	0.023	0.168

Hole Number: KN-02-41

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
50.00	52.00	Fine-medium-grained light green massive chloritic silicic	4.0	0.1	0 QZV 0 15	Weak-mod. patchy epidote alteration between 50.23-50.44 m and 51.54-51.86 m- associated with disseminated pyrite. Less chalcopyrite visible. Pyrite veining as seen at 51.02 m, also present as aggregates and fine disseminations. Barren late stage qtz veining. Rare zeo veining.	113042	0.028	0.161
52.00	54.00	Fine-medium-grained medium green massive chloritic silicic	4.0	0.5	0 QVN 50 7	Dark green massive magnetite between 52.00-52.12 m, with pyrite aggregates. Less chloritic from 52.12 m, associated with high content of disseminated pyrite associated with weak epidote alteration. Pyrite/qtz veining at about 52.44 m, 52.64 m, +/- chalcopyrite. Moderate epidote alteration from 52.68 m, weak in places -patchy.	113043	0.031	0.293
54.00	55.39	Fine-medium-grained green-grey massive chloritic silicic	5.0	0.5	0 QZV 5 10	Weak epidote alteration- patchy. Increase in disseminated pyrite from about 54.99-55.39 m and 54.00-54.10 m. Pyrite +/- chalcopyrite veining at 54.30 m, associated with qtz/zeo.	113044	0.016	0.123
55.39	56.80		4.0	0.5	0 QVN 20 30	Amygdules present between 55.94-56.33 m, infilled with qtz/epidote and associated with increased finely disseminated pyrite. Weak to mod. epidote alt'n between 55.39-55.50 m and 56.47-56.80 m.	113045	0.02	0.14
56.80	58.00		3.0	0.1	0 QZV 70 10	Finely disseminated pyrite +/- chalcopyrite, no chalcopyrite aggregates visible. Weak patchy epidote alternation. Pyrite +/- chalcopyrite vein at 57.30 m.	113047	0.029	0.42
58.00	59.76		4.0	0.5	0 QVN 80 7	Weak epidote alteration, mottled texture between 58.63-58.92 m- associated with disseminated pyrite. Pyrite/qtz veining at 58.03 m associated with minor chalcopyrite at 58.54 m and epidote at 59.14 m.	113048	0.046	0.256
59.76	76	ANDESITE FLOW BRECCIA							
59.76	61.11	Fine-medium-grained light grey massive sericitic silicic	4.0	0.5	0 QHCV 90 10	Increased sericite/calcite alteration, associated with strongly disseminated pyrite +/- chalcopyrite. Fragment between 59.86-59.96 m, slightly iron stained- red/purple. Hem/cal vein at 60.00 m associated with pyrite +/- chalcopyrite. BKN. Intrusive fragment at 60.44 m. Very weak epidote alt'n. Pyrite veining associated with calcite/qtz between 60.87-60.97 m.	113049	0.06	0.265

Hole Number: KN-02-41

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
61.11	63.67	Fine-medium-grained medium green massive chloritic silicic	4.0 0.5	0	QVN 80 5	Local broken zone. Fragmented- similar composition as host- insitu breccia. Disseminated pyrite +/- cpy also present as aggregates in qtz veining. Amygdules present, infilled with qtz and pyrite.	113050	0.031	0.21
63.67	65.00	Fine-medium-grained light grey massive sericitic silicic	5.0 0.5	0	QVN 90 7	Moderately sericitized, weakly silicified with dark green, chloritic portions. Brecciated @ ~ 64.41 metres. Pyrite aggregates with mottled texture between 64.55 to 64.80 metres. Pyrite veining bound by qtz veining.	113051	0.022	0.252
65.00	67.00		4.0 0.1	0	QVN 70 7	Sericitized and silicified, light gray/green between 65.00 to 66.60 metres- associated with finely disseminated pyrite +/- cpy and qtz veining. Slightly brecciated. Chloritic form 66.60 to 67.00 metres. Patchy, weak epidote alt'n. Disseminated pyrite.	113052	0.021	0.154
67.00	69.00		4.0 0.5	0	QVN 0 7	Rare zeo veining. Chloritic portions in light gray, moderately sericitized and silicified unit. Pyrite and qtz veining- associated with epidote locally- between 67.40 to 67.51 metres, at 67.70 metres, and between 67.87 to 67.97 metres; veining cross-cut by qtz vein.	113053	0.024	0.181
69.00	71.00		4.0 0.1	0	QZV 50 7	Patchy, green, chloritic portions in sericitized, silicified unit- associated with disseminated pyrite and aggregates, and weak, patchy epidote alteration. Qtz/zeo veining and chlorite @ 70.63 metres. Pyrite and cpy veining associated with qtz vein @ 69.59 to 69.63 metres. epidote and chlorite veining between 70.21 to 70.26 metres. Slightly brecciated.	113054	0.038	0.361
71.00	73.00	Fine-medium-grained medium green massive chloritic silicic	3.0 0.1	0	QZV 80 10	Weak brecciated texture visible. Vuggy between 72.07 to 72.14 metres. Disseminated pyrite and pyrite aggregates. Cubic pyrite @ ~ 71.45 metres. Qtz/zeo veining between 72.60 to 72.72 metres.	113055	0.021	0.149
73.00	74.93		4.0 0.5	0	QZV 50 7	Breccia and alteration as above. Pyrite and cpy aggregates in qtz/zeo vein between 74.33 to 74.37 metres and at 74.58 metres.	113056	0.03	0.144
74.93	76.00		2.0 0.1	1	QZV 50 7	Portions with massive magnetite. Barren qtz veining. Disseminated pyrite. Weak, patchy epidote alt'n. Qtz/zeo vein +/- disseminated pyrite from 75.88 to 76.00 metres.	113057	0.042	0.214

76 84.1 **BASALT**

Hole Number: KN-02-41

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
76.00	78.00	Fine-medium-grained medium green massive chloritic silicic	3.0 0.1	0	QZV 0 10	Augite phenocrysts visible. Chloritic and mafic with weak, patchy epidote alt'n. Pyrite as disseminations and aggregates in flow, and associated with qtz/zeo veining between 77.00 to 77.07 metres and at 77.49 metres. Light green portions might be due to weak sericite alt'n.	113058	0.013	0.096
78.00	80.00	Fine-medium-grained medium green porphyritic chloritic silicic	3.0	0	QZV 5 7	Medium green augite phenocrysts in a fine grained mafic matrix. Disseminated pyrite associated with epidote alt'n. Light green/yellow, possibly weakly sericitized, portions. Epidote present as stringers at 78.48 metres and 78.61 metres. Larger augite phenocrysts between 78.74 to 78.70 metres.	113059	0.016	0.098
80.00	82.00		3.0	0	QZV 60 7	Weak to moderate patchy epidote alt'n between 80.18 to 80.23. Smoky gray qtz vein between 80.56 to 80.71 metres and 80.92 to 80.99 metres (vuggy). Augite phenocrysts visible. Disseminated pyrite.	113060	0.022	0.155
82.00	84.10		3.0	2 11	QZV 50 15	Massive magnetite unit between 82.25 to 82.35 metres. Local increase in qtz/calcite veining between 82.35 to 82.74 metres. Light green/yellow portion as above, vuggy in places. Augite phenocrysts. Pyrite disseminated in flow and in veining.	113061	0.051	0.402
84.1	88.59	QUARTZ FELSPAR PORPHYRY							
84.10	87.10	Fine-medium-grained light grey porphyritic silicic sericitic	2.0 0.1	0	QZV 0 10	Light pink/orange zeolite veining. Qtz and feldspar phenocrysts in felsic, fine grained, light gray matrix. rare pyrite veining +/- disseminated chalcopyrite between 86.20 to 86.58 metres.	113062	0.005	0.029
87.10	88.59	Fine-medium-grained dark green porphyritic silicic sericitic	2.0 0.1	0	QZV 30 10	Pyrite veining between 87.25 to 87.46 metres and 87.67 to 87.95 metres. Light pink/orange zeolite veining.	113063	0.006	0.084
88.59	96	BASALT FLOW							
88.59	90.00	Fine-medium-grained medium green porphyritic chloritic	1.0	3 35	QZV 70 5	Massive magnetite throughout sample. Weak to moderate epidote alt'n between 89.20 to 89.26 metres associated with disseminated pyrite. Disseminated pyrite associated locally with augite phenocrysts.	113064	0.025	0.156
90.00	92.00	Fine-medium-grained medium green porphyritic chloritic silicic	3.0	2 18	QZV 60 10	Massive magnetite units in flow. Qtz/zeo veining. Augite phenocrysts visible locally. Weak, patchy epidote alt'n, associated with disseminated pyrite. Pyrite +/- cpy vein @ ~ 90.29 metres and 91.07 metres.	113065	0.02	0.12

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
92.00	94.00	Fine-medium-grained medium green porphyritic chloritic silicic	1.0 0.1	3	18 QZV 90 15	Massive magnetite in flow. Augite phenocrysts visible locally. Qtz/zeo/hem lining joints. Increase in veining. Pyrite/cpy vein @ ~ 92.02 metres associated with qtz veining. Possible fine cpy.	113066	0.022	0.155
94.00	96.00		2.0 0.5	3	14 QZV 70 10	Massive magnetite and augite phenocrysts as above. Finely disseminated pyrite and aggregates, rare pyrite stringers associated with qtz veining. Qtz/zeo vein bound by epidote alt'n @ 94.23 metres. Hem/calcite (FeCaO) veining Between 94.49 to 94.76 metres. Dark green portions.	113067	0.027	0.168
96		98		FLOW FLOW BRECCIA					
96.00	98.00	Fine-medium-grained medium green porphyritic chloritic silicic	3.0 0.1		0 QZV 90 7	Chloritic portions, light green/yellow portions, possible weak sericite. Augite phenocrysts visible. Augite phenocrysts visible. Finely disseminated pyrite and stringers @ 96.70 metres, 96.83 metres and from 97.62 to 97.76 metres- associated with qtz/zeo in places. Vuggy. Possible finely disseminated pyrite.	113068	0.014	0.104
98		110		BASALT FLOW					
98.00	100.00	Fine-medium-grained medium green porphyritic chloritic silicic	4.0 0.1		0 QZV 80 10	Mainly chloritic, with sericitic portions between 98.30 to 98.37 metres and 98.55 to 98.68 metres and 99.21 to 99.79 metres. Pyrite as disseminations and aggregates and veining associated with qtz @ 98.63 and 99.72 metres. Aggregates associated with weak epidote alt'n @ 99.21 metres are cross-cut by barren, late stage zeolite veining. Possible finely disseminated cpy.	113069	0.014	0.132
100.00	102.00		3.0		0 QZV 70 5	Pyrite aggregates and veining associated with qtz/zeo veining @ ~ 101.33 metres (@ 70 degrees t.c.a.) and @ 100.89 to 100.91 metres and 101.45 metres. Weak sericite +/- fine biotite alt'n @ ~ 101.55 to 101.60 metres associated with finely disseminated pyrite. Augite phenocrysts visible.	113070	0.027	0.208
102.00	104.00		3.0		0 QZHCV 60 10	Chloritic, silicified with weak epidote alt'n @ ~ 102.42 metres. Qtz/hem/calcite veining between 102.16 to 102.28 metres and 103.29 to 103.35 metres (associated with pyrite +/- cpy) and at 102.63 metres. Qtz/zeolite veining between 103.03 to 103.08 metres. Qtz and pyrite veining @ 103.72 metres.	113071	-2	-2
104.00	106.00		1.0		0 QZV 40 10	Chloritic, with augite phenocrysts in fine grained mafic matrix- basalt. Qtz/zeo veining. Rare pyrite.	113073	0.017	0.154

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
106.00	108.00	Fine-medium-grained medium green porphyritic chloritic silicic	3.0	0	QZV 60 30	Local increase in qtz/calcite veining between 106.68 to 107.20 metres. Slight brown colouration from 107.20 to 107.50 metres, possibly sericite +/- fine biotite alt'n. Hem/calcite veining @ 107.61 metres. Weak sericite +/- fine biotite alt'n enveloping qtz veins at about 107.68 metres. Pyrite associated with increased qtz/zeo veining and aggregates.	113074	0.018	0.139
108.00	110.00		3.0	0	QZV 90 7	Weak epidote alt'n, chloritic, with augite phenocrysts visible locally. Qtz/zeolite veining. Finely disseminated pyrite.	113075	0.042	0.233
110	112	BASALT FLOW BRECCIA							
110.00	112.00	Fine-medium-grained medium green porphyritic chloritic silicic	4.0	0.1	0 QZV 90 7	Slightly brecciated portion, with disseminated pyrite. Smoky gray qtz vein associated with increased pyrite aggregates between 111.00 to 111.05 metres. Slight brown colour due to sericite +/- fine biotite alt'n associated with an increase in disseminated pyrite. Augite phenocrysts. Possible finely disseminated cpy.	113076	0.038	2.35
112	124	BASALT FLOW							
112.00	114.00	Fine-medium-grained medium green porphyritic chloritic silicic	3.0	0.5	0 QZV 70 7	Chloritic, weak sericite +/- fine biotite alt'n associated with finely disseminated pyrite and veining @ ~ 112.63 metres. Chalcopyrite aggregate @ ~ 122.40 metres.	113077	0.022	0.154
114.00	116.00		3.0	0.1	0 QZV 0 7	Chloritic. Augite phenocrysts, disseminated pyrite and pyrite stringers @ ~ 115.76 metres. Less silicified between 114.90 to 115.27 metres.	113078	0.047	0.262
116.00	118.00		4.0	1	QZV 30 80	Chloritic, with finely disseminated pyrite- also as aggregates and stringers. Weak sericite alt'n between 116.62 to 116.73 metres and 116.89 to 117.22 metres. Also associated with increased pyrite. Very fine pyrite stringers.	113079	0.042	0.383
118.00	120.00	Fine-medium-grained dark green porphyritic chloritic silicic	3.0	0.5	3 30 QZV 70	Pyrite- as disseminated, stringers and aggregates. Massive magnetite units. Augite phenocrysts visible locally. Weak epidote alt'n associated with pyrite aggregates. Very fine pyrite stringers between 118.35 to 118.55 metres. Chalcopyrite aggregates @ ~ 118.30 metres.	113080	0.048	1.1

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
120.00	122.00	Fine-medium-grained medium green porphyritic chloritic silicic	4.0	2	17 QCV 80 7	Chloritic flow, augite phenocrysts visible locally. Massive magnetite portions in flow. Finely disseminated pyrite also present as fine, thin stringers. Pyrite aggregates, also associated with augite phenocrysts. Qtz/calcite veining between 121.07 to 121.44 metres. Weak, patchy epidote alt'n at 121.92 to 122.00 metres- appears to be infilling amygdules along with pyrite.	113081	0.044	0.535
122.00	124.00		4.0	0.1	0 QCV 5 7	Augite phenocrysts. Disseminated pyrite, stringers and veinlets associated with epidote locally @ ~ 122.86, 123.00 and 123.47 metres- also associated with Qtz/calcite locally. Also @ ~ 123.68 and 123.82 metres.	113082	0.075	0.926
124	126	BASALT FLOW BRECCIA							
124.00	126.00	Fine-medium-grained medium green massive chloritic silicic	6.0	0.1	0 QCV 60 10	Weak, brecciated texture. Finely disseminated pyrite and pyrite aggregates and veining. Py aggregates associated with Qtz veining @ ~ 124.55 metres. Local increase in disseminated pyrite and aggregates. Very weak epidote alt'n @ ~ 125.23 to 125.37 metres.	113083	0.045	0.421
126	138	BASALT FLOW							
126.00	128.00	Fine-medium-grained medium green massive chloritic silicic	5.0	0.5	0 QVN 70 7	Chalcopyrite aggregates at 126.35 metres. Pyrite aggregates in flow, and Qtz veins at 126.53 metres. Augite phenocrysts visible locally. Weak, patchy epidote altered portions. Slight brown colour due to sericite +/- fine biotite alt'n- weak between 127.22 to 128.00 metres.	113084	0.059	1.005
128.00	130.00		4.0		1 QZGHV 80 10	Weak brown colour as above. Weak epidote alt'n. Small augite phenocrysts present. Local increase in disseminated pyrite. rare zeolite and hematite veining associated with finely disseminated pyrite.	113085	0.047	0.598
130.00	132.00		4.0		0 QZV 80 10	Finely disseminated pyrite aggregates and veining at 130.56 and 131.41 metres. Rare Qtz/zeolite veining. Augite phenocrysts visible locally. Weak, patchy epidote veining.	113086	0.053	1.395
132.00	134.00	Fine-medium-grained medium green massive chloritic sericitic	4.0		0 QZV 70 15	Patchy brown colour possibly due to sericite +/- fine biotite alt'n between 132.49 to 132.66 metres and 133.29 to 133.73 metres- associated with pyrite aggregates and stringers and patchy, weak epidote.	113087	0.018	0.265

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
134.00	136.00	Fine-medium-grained green brown massive chloritic sericitic	4.0	0.5	0 QZV 10 10	Patchy chlorite and brown sericite +/- fine biotite alt'n associated with an increase in disseminated pyrite and chalcopyrite aggregates @ ~ 134.20 metres. Local increase in zeo/qtz between 134.20 to 134.32 metres. Disseminated pyrite and aggregates in chloritic portion between 134.32 to 136.00 metres. Pyrite +/- cpy veining between 135.45 to 135.50 metres.	113088	0.019	0.188
136.00	138.00		4.0	0.1	0 QZHCV 0 15	Patchy chlorite and brown sericite +/- fine biotite alt'n as above. Pyrite and cpy aggregates resemble pyrrhotite but are non-magnetic @ 136.49 to 136.54 metres. Very finely disseminated pyrite associated with weak sericite +/- fine biotite alt'n and veining @ 137.32 metres and 137.43 metres. Calcite/hem/py @ 137.75 metres.	113089	0.011	0.113
138	140	BASALT FLOW BRECCIA							
138.00	140.00	Fine-medium-grained medium green massive chloritic silicic	3.0	0.5	0 QZV 70 15	Chloritic flow with augite phenocrysts- probably a basalt. Qtz/zeo veining, banding @ ~ 80 degrees t.c.a. between 138.44 to 138.58 metres. Finely disseminated pyrite and cpy. Brecciated texture @ ~ 138.58 to 138.65 metres. Qtz/py veining between 139.82 to 139.86 metres.	113090	0.01	0.115
140	144.3	BASALT FLOW							
140.00	140.90	Fine-medium-grained medium green massive chloritic silicic	4.0	0.5	0 QZV 80 7	Pyrite and cpy aggregates finely disseminated in flow, associated with qtz veining @ ~ 140.30 metres. Qtz/py/epi veining @ ~ 140.50 to 140.80 metres.	113091	0.014	0.257
140.90	141.85	Fine-medium-grained medium brown massive sericitic silicic	5.0	0.5	0 QZV 60 10	Moderately to highly sericitized +/- biotite and silicified, with weak, patchy epidote alt'n. Pyrite as disseminations, aggregates and stringers- locally associated with qtz and zeolite. Finely disseminated cpy @ ~ 141.80 metres in association with qtz vein.	113092	0.003	0.088
141.85	143.52	Fine-medium-grained medium green massive chloritic silicic	4.0	0.1	0 QZV 90 7	Finely disseminated pyrite +/- chalcopyrite. Chalcopyrite not clearly visible. Veining @ ~ 142.42 metres. Cubic pyrite, augite phenocrysts.	113093	0.014	0.142
143.52	144.30		4.0		0 QZV 70 10	Finely disseminated pyrite, aggregates and veining @ ~ 143.70, 143.99 and 144.08 metres. Augite phenocrysts visible.	113094	0.032	0.211
144.3	148.02	BASALT FLOW BRECCIA							

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
144.30	144.82	Fine-medium-grained green brown massive sericitic chloritic	7.0	0.1	0 QVN 30 30	Moderate to strong sericite +/- fine biotite alt'n. Brecciated, crenulated veining around barely visible fragments. Pyrite content high- occurs as fine disseminations and veining, and is possibly associated with cpy (percentage unclear: between 0.1 to 0.5%?) .	113095	0.03	0.218
144.82	145.30		10.0	0.1	0 QVN 90 30	Very finely disseminated pyrite lining fault planes between 145.01 to 145.16 metres. Qtz veining and pyrite with possible cpy surrounding breccia.	113096	0.038	0.237
145.30	146.25		7.0	0.1	0 QCV 50	Very finely disseminated pyrite lining joint planes locally. Crenulated qtz and pyrite veining. Highly altered, high pyrite content as in previous 3 samples. Minor chlorite associated with qtz veining.	113097	0.044	0.275
146.25	146.82		7.0	0.1	0 QCV 50	Very finely disseminated pyrite as above. Crenulated, associated with qtz/calcite veining.	113099	0.076	0.306
146.82	148.02	Fine-medium-grained medium green massive chloritic silicic	2.0		0 QVN 40 20	Increased qtz veining and stringers- discontinuous and randomly oriented. Reduced pyrite content.	113100	0.059	1.2
148.02	158.34	BASALT FLOW							
148.02	150.00	Fine-medium-grained medium green porphyritic chloritic silicic	2.0		0 QCV 80 7	Fine grained flow- chloritic, weakly silicified and epidote altered. Associated with finely disseminated, stringer and aggregates pyrite. Augite phenocrysts, ranging from fine to medium sized. Qtz/calcite veining, randomly oriented. Local increases in veining.	113101	0.035	0.303
150.00	152.00		3.0		0 QZCV 90 15	Augite phenocrysts present between 150.00 to 150.92 metres. Massive fragment with no augite phenocrysts between 150.56 to 150.72 metres- associated with increased qtz/zeolite veining from 150.92 to 152.00 metres. Qtz/zeo veining and banding structure @ ~ 80 to 90 degrees t.c.a. between 151.38 to 151.51 metres.	113102	0.044	0.322
152.00	154.00	Fine-medium-grained medium green porphyritic chloritic sericitic	4.0		0 QZCV 5 15	Weak to moderate sericite alt'n between 152.00 to 152.57 metres- associated with pyrite veining (between 152.29 to 152.36 metres) and qtz/zeo veining. Pyrite and epidote aggregates @ ~ 152.80 metres. Massive pyrite stringers associated with qtz/calcite stringers between 152.90 to 153.29 metres- associated with fine, soft, black graphitic material. Massive between 153.29 to 154.00 metres, with augite phenocrysts.	113103	0.024	0.394

Hole Number: KN-02-41

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
154.00	156.00	Fine-medium-grained medium green porphyritic chloritic silicic	2.0	1	QZV 80 10	Augite phenocrysts present. Finely disseminated pyrite, aggregates and stringers accompanied by epidote alt'n. Local broken zone. Epidote and pyrite aggregates @ ~ 155.81 metres. Weak epidote alt'n.	113104	0.042	0.208
156.00	157.29		4.0	0	QZV 70 15	Local increase in qtz/calcite veining between 156.16 to 156.92 metres. Moderate to strong sericite alt'n between 156.92 to 157.29 metres associated with increasing disseminated and aggregate pyrite; stringers associated with qtz veining.	113105	0.025	0.107
157.29	158.34		2.0	0	QZV 0 15	Very weak epidote alt'n, locally associated with Disseminated pyrite and pyrite aggregates. Local increase in qtz/zeo veining between 157.35 to 158.00 metres. Rare augite phenocrysts visible locally.	113106	0.026	0.244
158.34	159.55	BASALT QUARTZ VEIN							
158.34	159.55	Fine-medium-grained light grey massive silicic sericitic	30.0	0	QZV 60 70	Increased quartz veining associated with pyrite veining and aggregates. Quartz breccia. Pyrite aggregates confined to matrix- rare in fragments.	113107	0.033	0.286
159.55	199.85	BASALT FLOW							
159.55	160.52	Fine-medium-grained light grey massive chloritic silicic	10.0	0	QZV 90 20	Quartz and pyrite aggregates as above. Rare fuchsite. Qtz vein associated with high pyrite (disseminated and aggregate) content between 159.55 and 160.00 metres. Chloritic between 160.00 and 160.52 metres, brecciated with disseminated pyrite and pyrite aggregates.	113108	0.026	0.098
160.52	162.52	Fine-medium-grained medium green porphyritic chloritic silicic	2.0	0	QZV 90 7	Augite phenocrysts present in association with plagioclase locally. Pyrite stringers associated with weak epidote alt'n. Finely disseminated pyrite.	113109	0.008	0.086
162.52	164.00		2.0	0	QZV 0 7	Locally brecciated between 163.65 to 163.86 metres- associated with chlorite, epidote, qtz and py veining. Augite phenocrysts. Massive pyrite.	113110	0.013	0.131
164.00	166.00		3.0	2	8 QVN 70 5	Very weak epidote alt'n associated with pyrite aggregates between 164.73 to 164.77 metres. Associated with qtz veining @ ~ 164.54 metres. Massive magnetite units. Augite phenocrysts visible between 164.73 to 164.77 metres.	113111	0.026	0.127
166.00	168.00		2.0	0	QVN 5 5	Weak epidote alt'n associated with qtz vein and pyrite @ 166.34 metres. Qtz/zeo veining between 167.00 to 167.13 metres. Disseminated pyrite and epidote aggregates.	113112	0.035	0.294

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
168.00	170.00	Fine-medium-grained medium green porphyritic chloritic silicic	4.0	1	0 QVN 80 7	Increase in disseminated pyrite and pyrite aggregates-associated with weak to moderate epidote alt'n. Qtz/py veining between 169.50 to 169.58 metres. Chalcopyrite aggregates @ ~ 169.88 metres.	113113	0.026	0.34
170.00	172.00		4.0		1 QHCV 80 7	Hematite/calcite veining @ ~ 171.89 metres. Increase in finely disseminated pyrite and aggregates between 170.00 to 170.61 metres. Pyrite stringers cross-cut by barren zeolite veining @ ~ 171.21 metres. Augite and plag phenocrysts @ ~ 170.74 metres. Increased epidote between 171.89 to 171.92 metres.	113114	0.018	0.201
172.00	174.00		4.0		0 QHCV 60 10	Hematite/calcite veining at about 172.12 to 172.19 metres. Weak epidote alteration associated with disseminated pyrite and aggregates. Qtz/py plus calcite vein between 173.00 to 173.13 metres.	113115	0.025	0.212
174.00	176.00		3.0		1 QZV 80 3	Pyrite stringers associated with epidote stringers. Disseminated and aggregate pyrite also associated with weak epidote alt'n (i.e.: 174.93, 175.31 metres and between 175.70 to 175.77 metres. Augite phenocrysts.	113116	0.026	0.192
176.00	178.00		3.0		1 QZHCV 90 7	Epidote alt'n associated with disseminated, aggregate and stringer pyrite at 176.66 and 176.75 metres. Hem/calcite veining at 177.37 metres.	113117	0.025	0.192
178.00	180.00		2.0		2 QZHCV 90 7	Weak to moderate epidote alt'n associated with disseminated pyrite and pyrite stringers. Calcite/hem veining between 178.73 to 178.82 metres. Increasing epidote alt'n from 179.00 metres. Augite phenocrysts visible.	113118	0.025	0.243
180.00	182.00		1.0		26 QZHCV 90 5	Massive magnetite veinlets in flow. Augite phenocrysts visible. Less chloritic, less augite between 180.06 to 180.17 metres. Disseminated pyrite associated with epidote locally. Calcite/hem veining @ 180.17 metres.	113119	0.014	0.071
182.00	184.00		2.0		0 QZV 90 7	Fine to medium grained and porphyritic. Augite phenocrysts, finely disseminated pyrite associated with weak epidote alteration. Qtz/zeo veining, calcite/hem veining @ ~ 184.60 metres. Massive magnetite. Pyrite stringer associated with epidote alt'n @ 183.80 and 183.87 metres.	113120	0.021	0.111
184.00	186.00		2.0		1 QZHCV 80 7	FeCaO veining between 184.32 to 184.41 metres and @ 184.60 metres. Pyrite stringers associated with weak epidote alt'n. Disseminated pyrite and epidote.	113121	0.022	0.131

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
186.00	187.90	Fine-medium-grained medium green porphyritic chloritic silicic	2.0	0	QZV 30 7	Hem/calcite veining between 187.80 to 187.87 metres and @ 187.37 metres. Disseminated pyrite associated with epidote alt'n. Calcite/qtz veining @ ~ 187.62 metres.	113122	0.024	0.2
187.90	190.00	Fine-medium-grained medium green porphyritic chloritic sericitic	3.0	0	QHCV 70 10	Slight brown colour due to weak sericite +/- fine biotite alt'n. Chloritic from 188.46 to 190.00 metres, with augite phenocrysts. Qtz/calcite veining associated with pyrite aggregates and lined by weak epidote. Patchy alteration. Actinolite laths.	113123	0.009	0.072
190.00	192.00	Fine-medium-grained medium green porphyritic chloritic silicic	1.0	2	21 QHCV 0 7	Massive magnetite and augite phenocrysts in flow. Qtz/hem/cal veining lining joints. Weak, patchy epidote alt'n between 192.25 to 192.31 metres and at 192.76 metres and 193.40 metres.	113125	0.022	0.093
192.00	194.00		3.0	0.5	1 18 QHCV 80 10	Chloritic, with augite phenocrysts- cut by weak to moderate epidote alt'n. Qtz/calcite veining, vuggy, @ 0 degrees t.c.a. Hem/calcite infilling planes. Minor pyrite aggregates.	113126	0.033	0.139
194.00	196.00		4.0	0.5	1 QZV 70 15	Chloritic between 194.00 to 194.63 metres. Qtz/calcite and hem/calcite. Weak sericite alt'n from 194.60 to 196.00 metres, with yellow/gray actinolite and augite. Smoky gray qtz vein between 195.18 to 196.00. Qtz veining brecciated with finely disseminated pyrite around the breccia. Qtz/calcite veining between 195.64 to 196.00 metres.	113127	0.025	0.163
196.00	198.00	Fine-medium-grained light grey porphyritic sericitic silicic	3.0	0	QZV 90 10	Light gray, moderate to strongly sericitized and weakly silicified with augite and actinolite present; altered and bleached. Qtz/calcite/zeo veining randomly oriented, irregularly spaced. Finely disseminated pyrite and pyrite veining.	113128	0.016	0.109
198.00	199.85	Fine-medium-grained medium green porphyritic chloritic silicic	4.0	0	QZCV 80 10	Chloritic, medium green. Augite phenocrysts. Finely disseminated pyrite. Patchy, weak sericite +/- fine biotite alt'n. Qtz (with rare zeolite) veining associated with pyrite aggregates @ ~ 198.90 metres.	113129	0.024	0.157
199.85	202	BASALT FLOW BRECCIA							
199.85	202.00	Fine-medium-grained medium green porphyritic chloritic silicic	15.0	0	QZV 80 30	Increased massive pyrite (up to about 50% in places) between 199.85 to 200.37 metres- associated with qtz vein. Chloritic from 200.37 metres with augite phenocrysts and disseminated pyrite and pyrite veining. Locally brecciated: insitu flow breccia. Weak epidote alt'n.	113130	0.033	0.254
202	210	BASALT FLOW							

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
202.00	204.00	Fine-medium-grained medium green porphyritic chloritic silicic	3.0	0	QZV 80 7	Local broken zones. Chloritic, augite phenocrysts, disseminated pyrite, pyrite stringers and rare pyrite aggregates.	113131	0.034	0.318
204.00	206.00		4.0	0	QCV 60 7	Medium green, augite phenocrysts, actinolite visible in places. Slightly brecciated @ ~ 204.73 metres. Weakly sericitized and silicified portions- light gray colour. Disseminated pyrite and stringers associated with qtz vein @ 205.34 metres. Patchy, weak sericite +/- fine biotite alt'n. Increased zeolite veining between 205.85 to 205.96 metres.	113132	0.023	0.147
206.00	208.00		3.0	0	QVN 80 7	Pyrite veining @ ~ 207.61 and 207.71 metres. Augite phenocrysts, chloritic, and disseminated pyrite	113133	0.026	0.248
208.00	210.00		4.0	0	QVN 90 7	Weak, patchy sericite alt'n associated with chlorite-altered augite and actinolite phenocrysts. Pyrite as disseminations, aggregates and stringers associated with qtz/calcite- locally vuggy. Fragments present locally- possibly insitu breccia.	113134	0.032	0.202
210	212	BASALT FLOW BRECCIA							
210.00	212.00	Fine-medium-grained medium green porphyritic chloritic sericitic	3.0	0	QVN 90 7	As above- broken portions, weakly brecciated.	113135	0.032	0.207
212	215.85	BASALT FLOW							
212.00	213.82	Fine-medium-grained green brown porphyritic sericitic chloritic	4.0	0.5	0 QZHCV 80 10	Moderate to strong sericite alt'n with augite and actinolite phenocrysts. Chloritic portion associated with dark green augite phenocrysts. Broken locally. Qtz/zeolite veining- vuggy in places. Disseminated pyrite and pyrite aggregates. Hem/calcite veins. Chalcopyrite aggregate @ 213.72 metres.	113136	0.035	0.21
213.82	215.85	Fine-medium-grained dark green massive chloritic epidote	15.0	1	1 QHCV 90 20	Strongly chloritic, moderate to strong epidote alt'n between 215.37 to 215.68 metres. Portions with high qtz/calcite veining between 214.16 to 214.31 metres and 215.00 to 215.21 metres. Pyrite as disseminations, stringers and aggregates in chlorite and epidote-altered flow. Rare hematite associated with qtz/calcite veining @ ~ 214.28 metres. Weak sericite +/- fine biotite alt'n- patchy, visible as very slight brown staining.	113137	0.053	0.223
215.85	217.82	BASALT FLOW BRECCIA							

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
215.85	217.82	Fine-medium-grained dark green massive chloritic silicic	10.0	0	QCV 70 20	Chloritic as above. High pyrite content- occurs as disseminations, veins and aggregates. Qtz/calcite veining is vuggy and slightly brecciated between 216.16 to 217.13 metres. Weak epidote alt'n between 216.85 to 216.96 metres.	113138	0.034	0.201
217.82 226.14		BASALT FLOW							
217.82	219.75	Fine-grained dark green massive chloritic hematitic	5.0	30	368 QHCV 80 20	Aphanitic, chloritic, hematite -stained flow breccia- possibly flow sediment. Fine pyrite veining at 219.54 metres appears to be laminated and tectonized. Highly magnetic. Unit has red stain/colour from hematite (also seen as aggregates in the qtz/calcite veining). Weakly brecciated between 219.57 to 219.75 metres. Augite phenocrysts visible locally. Pyrite aggregates mainly in flow, NOT associated with qtz/calcite/hem veining.	113139	0.034	0.292
219.75	222.00		4.0	15	162 QHCV 90 25	Hematite staining as above. Moderate epidote alt'n between 219.97 to 220.60 metres. Local increase in qtz/calcite veining between 220.60 to 221.67 metres. Qtz/calcite/hem veining @ ~ 221.65 to 221.67 metres. Disseminated pyrite and pyrite aggregates as in previous sample associated with epidote altered portions.	113140	0.01	0.095
222.00	224.00	Fine-medium-grained medium green porphyritic chloritic epidote	2.0	1	QHCV 80 30	Chloritic, augite phenocrysts, qtz/calcite/hem veining randomly oriented. Weak epidote alt'n. Rare pyrite aggregates in flow and in veining. Weak, patchy sericite alteration- green/yellow portions.	113141	0.025	0.171
224.00	224.95		3.0	1	QHCV 90 30	Veining as above- locally associated with pyrite aggregates, also in flow. Moderate, patchy epidote alt'n. Weakly sericitized green/yellow portion between 224.58 to 224.75 metres- associated with pyrite aggregates in qtz/cal/hem veining.	113142	0.025	0.203
224.95	226.14	Fine-medium-grained medium green porphyritic chloritic sericitic	3.0	0	QHCV 90 15	Qtz/calcite banding between 224.95 to 225.02 metres @ 90 degrees t.c.a. Qtz/calcite/hem veining. Dark green chloritic and green/yellow sericite altered portions. Augite phenocrysts visible locally. Disseminated and aggregates pyrite. Weak epidote alteration.	113143	0.046	0.232

226.14 233.18 **QUARTZ FELSPAR PORPHYRY**

Hole Number: KN-02-41

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
226.14	228.00	Fine-medium-grained light grey silicic sericitic	4.0	0	QCV 5 10	Qtz phenocrysts in moderate to strongly silicified, fine grained matrix. Finely disseminated pyrite and pyrite aggregates and stringers. Qtz/calcite veining is randomly oriented. Rare chlorite stringers @ 226.25 metres. Augite phenocrysts barely visible. Weak epidote alt'n between 226.90 to 226.97 metres. Weak to moderate sericite.	113144	0.003	0.102
228.00	230.00		4.0	0	QZCV 5 7	Same as above, with rare zeolite veining @ ~ 229.68 metres.	113145	0.003	0.082
230.00	231.12		4.0		QCV 80 50	Same as 113144 with weak chloritic portion between 230.47 to 230.75 metres. Barren Qtz/calcite veining between 230.75 to 231.12 metres- associated with mafic flow fragments. Finely disseminated and aggregate pyrite between 230.00 to 230.75 metres.	113146	0.002	0.051
231.12	233.18		3.0	0	QCV 70 40	Fault zone between 231.59 to 231.84 metres. Augite (bleached and altered) phenocrysts visible locally. Barren Qtz/calcite veining between 231.87 to 231.90 metres and 232.52 to 233.18 metres.	113147	0.004	0.07
233.18	247	BASALT FLOW							
233.18	235.00	Fine-medium-grained porphyritic sericitic chloritic	3.0	0	QCV 30 7	Weak to moderate sericite alt'n. Chloritic and weakly silicified. Weak epidote alt'n between 233.18 to 233.27 metres. Slightly brecciated. Disseminated, aggregate and stringer pyrite. Broken zones. Rare hematite/calcite veining.	113148	0.041	0.226
235.00	236.52		4.0	0.1	QHCV 20 25	Increased disseminated pyrite between 236.30 to 236.45 metres. Weak to moderate sericite alt'n, chloritic and weakly silicified. Qtz/calcite veining associated with rare hematite. Local increases in veining between 235.00 to 235.14 metres- associated with rare cpy aggregates @ 234.14 metres. Also associated with weak sericite +/- fine biotite alt'n. Increase in Qtz/zeo between 236.00 to 236.236.32 metres.	113149	0.041	0.184
236.52	237.79		3.0	0	QCV 80 60	Qtz/calcite veining @ ~ 70 to 80 degrees t.c.a., equidistant on average, forming banding between 236.76 to 237.07 metres. Qtz/calcite/hem between 236.52 to 236.60 metres. Weak to moderate sericite. Chloritic and weakly silicified.	113151	0.012	0.191

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
237.79	239.00	Fine-medium-grained porphyritic sericitic chloritic	4.0	0	QCV 10 15	Weak to moderately sericitized, chloritic and weakly silicified. Amygdules between 237.98 to 238.09 metres, infilled with sericite, chlorite and pyrite. Vuggy qtz/calcite veining with recrystallized calcite crystals. Finely disseminated pyrite. Rare hem/cal veining.	113152	0.024	0.171
239.00	241.00		4.0	0	QHCV 5 10	Alt'n as above. Qtz/calcite veining associated with rare hematite between 239.84 to 239.94 metres and 240.52 to 240.54 metres. Smoky qtz vein between 240.85 to 241.00 metres associated with high content of disseminated pyrite in hanging wall in moderate sericite alt'n.	113153	0.045	0.251
241.00	243.00	Fine-medium-grained medium green porphyritic chloritic sericitic	3.0	0	QZHCV 60 10	High pyrite content between 241.00 to 241.50 metres, up to 10% in places, very finely disseminated. Pyrite is confined to areas of weak to moderate (light yellow/green) sericitization with weak silicification. Highly chloritic between 251.51 to 253.00 metres- associated with barren qtz/calcite veining. Pyrite vein @ ~ 242.28 metres. Augite phenocrysts visible locally. Rare hematite lining joints. Local increase in qtz/calcite veining.	113154	0.023	0.15
243.00	245.00	Fine-medium-grained medium green porphyritic chloritic silicic	3.0	20	QZHCV 70 15	Chloritic, finely disseminated pyrite. Qtz/calcite/hematite veining and epidote veining @ 243.16 metres and 243.65 metres. Large epidote crystals associated with zeolite.	113155	0.042	0.194
245.00	247.00		2.0	17	QHCV 90 10	As above. Massive magnetite unit. Hem/cal veining associated with pyrite aggregates @ ~ 246.07 metres.	113156	0.02	0.111
247	249	BASALT FLOW BRECCIA							
247.00	249.00	Fine-medium-grained medium green porphyritic chloritic silicic	1.0	26	QHCV 90 20	Dark green portions, moderate chlorite, patchy green/yellow sericite alt'n. Qtz/calcite veining randomly oriented associated with hematite locally. Massive magnetite unit in flow. Weak, brecciated texture. Disseminated, aggregate and stringer pyrite associated with qtz/calcite veining. Augite phenocrysts visible.	113157	0.011	0.121
249	259	BASALT FLOW							
249.00	251.00	Fine-medium-grained dark green porphyritic chloritic silicic	2.0	24	QCV 30 15	Chloritic, dark green/black possibly due to massive magnetite in flow. Augite phenocrysts present. Qtz/calcite veining. Local broken portions.	113158	0.011	0.037
251.00	253.00	Fine-medium-grained medium green porphyritic chloritic silicic	2.0	21	QCV 90 10	Disseminated pyrite and pyrite aggregates. Augite phenocrysts. Qtz/calcite veining, randomly oriented. Rare hematite. Very weak, patchy sericite alt'n. Massive magnetite units.	113159	0.007	0.04

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
253.00	255.00	Fine-medium-grained medium green porphyritic chloritic silicic	2.0	0	QCV 80 15	Slight brown colour possibly due to very weak sericite +/- fine biotite alt'n . Augite phenocrysts visible. Disseminated pyrite. Qtz/calcite veining. Rare hem/calcite veining.	113160	0.014	0.061
255.00	257.00		3.0	0	QZCV 90 10	Pyrite aggregates @ ~ 255.58 metres. Local brecciated texture. Augite phenocrysts. Rare zeolite veining.	113161	0.024	0.461
257.00	259.00		3.0	0	QZCV 70 7	Rare, pale pink/orange zeolite veining associated with qtz veining. Augite phenocrysts. Light green/yellow portions, very weakly sericitized. Pyrite- disseminated, aggregate and stringer- at 259.67 metres.	113162	0.024	0.094
259		261		BASALT FLOW BRECCIA					
259.00	261.00	Fine-medium-grained medium green porphyritic chloritic silicic	3.0	19	QHCV 30 7	Brecciated between 260.11 to 260.20 metres. Slightly green/yellow, very weak sericite alt'n. Finely disseminated pyrite. Rare hematite/calcite veining. Augite phenocrysts. Massive magnetite units.	113163	0.021	0.125
261		267		BASALT FLOW					
261.00	263.00	Fine-medium-grained medium green porphyritic chloritic silicic	3.0	0.5	5 14 QHCV 70 10	Patches of dark green/black, highly chloritic and mafic. Green/yellow from 261.82 to 263.00 metres possibly due to weak sericite alt'n. Slight brown colouration due to weak sericite +/- fine biotite alt'n. Chalcopyrite aggregate @ ~ 261.87 metres. Massive magnetite units. Rare hematite veining. Augite phenocrysts.	113164	0.021	0.048
263.00	265.00		4.0	0.1	10 QHCV 30 15	Local increase in pyrite veining between 264.04 to 264.15 metres, generally disseminated in sample. Augite phenocrysts visible. Brown colour due to weak sericite +/- fine biotite alt'n @ ~ 264.15 metres. Qtz/calcite veining. Kfsp/qtz/calcite veining @ ~ 264.31 metres.	113165	0.022	0.155
265.00	267.00	Fine-medium-grained green brown porphyritic chloritic sericitic	5.0	0.1	0 QCV 70 10	Brown sericite +/- fine biotite alt'n and green chloritic portions. Finely disseminated pyrite and aggregates. Smoky gray qtz vein between 266.57 to 266.69 metres. Qtz/calcite veining.	113166	0.042	0.84
267		271		BASALT FLOW BRECCIA					
267.00	269.00	Fine-medium-grained green brown porphyritic chloritic sericitic	3.0	0	QZCV 40 15	Same as above. Brecciated qtz between 268.52 to 268.77 metres associated with pyrite. Zeolite veining. Local increase in disseminated pyrite.	113167	0.016	0.269
269.00	271.00		4.0	0	QZV 5 20	Same as 113166, with a local increase in disseminated pyrite associated with brown portions (weak sericite +/- biotite alt'n).	113168	0.022	0.329

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
271	290	BASALT FLOW							
271.00	272.92	Fine-medium-grained medium green porphyritic chloritic silicic	3.0	1 QVN	90 15	Chloritic flow, augite and actinolite visible. Slight brown coloured portions indicating weak sericite +/- fine biotite alt'n. Qtz/calcite veining associated with hematite in places.	113169	0.045	0.146
272.92	275.00		3.0	3 QCV	90 15	Qtz/calcite veining associated with hematite locally. Augite phenocryst visible in places. Weak epidote alt'n. Finely disseminated pyrite.	113170	0.018	0.248
275.00	277.00		3.0	14 QHCV	80 10	Weak epidote alt'n associated pyrite aggregates. Rare hematite veining associated with qtz/calcite veining between 276.20 to 276.30 metres.	113171	0.024	0.167
277.00	279.00	Fine-medium-grained green brown porphyritic chloritic sericitic	5.0	1 QHCV	90 15	Qtz/calcite veining associated with hematite in places @ 278.40 and 279.00 metres. Slight brown colour due to sericite +/- fine biotite alt'n. Disseminated pyrite, aggregates and stringers associated with hematite. Chloritic, green portions.	113172	0.021	0.493
279.00	280.57		5.0	0 QCV	80 10	Light pink/orange zeolite veining. Slight brown colour due to weak sericite +/- fine biotite alteration. Chloritic portions. Finely disseminated, aggregate and stringer pyrite.	113173	0.028	0.541
280.57	282.00		4.0	1 QACV	70 7	Green/brown colour indicating possible sericite +/- fine biotite alt'n. Patchy chlorite. Pyrite stringers, aggregates and disseminations. Qtz/anh/calcite veining, locally associated with pyrite aggregates. Local broken portions.	113174	0.029	0.428
282.00	284.15	Fine-medium-grained green brown porphyritic sericitic chloritic	4.0	0 QZCV	60 10	Weak sericite +/- fine biotite alt'n- brown/green colour- with patchy chloritic alt'n. Disseminated pyrite, aggregates and stringers associated with qtz veining and enveloped with chloritic portions @ ~ 282.39 metres. Minor zeolite associated with qtz @ 282.22 metres. Local increases in qtz veining between 282.10 to 282.39 metres. Discontinuous qtz stringers, augite phenocrysts.	113175	0.033	0.721
284.15	285.95	Fine-medium-grained green brown porphyritic chloritic sericitic	3.0	4 QAHC	80 7	Weak sericite +/- fine biotite alt'n, augite phenocrysts as above. Disseminated and aggregate pyrite as above. Qtz/anh/hematite/gypsum/carb veining. Qtz/hem @ ~ 284.65 metres and qtz/hem/calcite @ ~ 283.75 metres.	113177	0.023	0.192

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
285.95	288.00	Fine-medium-grained green brown massive chloritic silicic	5.0	0	QCV 40 15	Slight increase in silicification. Weak sericite +/- fine biotite alt'n- green/brown colour. Augite phenocrysts @ 286.61 metres. Local increase in qtz veining between 285.95 to 286.12 metres (associated with anhy and pyrite) and between 286.61 to 286.90 metres. Massive pyrite between 287.21 to 287.31 metres associated with anhy, qtz and calcite.	113178	0.016	0.181
288.00	290.00	Fine-medium-grained green brown porphyritic chloritic silicic	5.0	0	QHCV 80 10	Local increase in qtz +/- calcite veining. Disseminated pyrite and aggregates in flow, and associated with qtz/calcite veining. More chloritic, very slight brown colour due to very weak sericite +/- fine biotite alt'n. Augite phenocrysts.	113179	0.016	0.128
290	294	BASALT FLOW BRECCIA							
290.00	292.00	Fine-medium-grained green brown porphyritic chloritic silicic	5.0	1	3 QHCV 90 15	Augite phenocrysts, discontinuous qtz/calcite stringers associated with hematite stringers and pyrite locally. Slight brown colouration possibly due to sericite +/- fine biotite alt'n. Sericite alt'n between 290.91 to 290.97 metres associated with pyrite aggregates (green/yellow). Brecciated from 291.34 metres- associated with disseminated pyrite. Increased qtz stringers between 290.97 to 291.34 metres.	113180	0.014	0.068
292.00	294.00	Fine-medium-grained medium green porphyritic chloritic silicic	3.0	7	28 QHZGC 80 15	Broken portions with hematite and qtz lining joint planes. Massive magnetite units visible locally. Augite phenocrysts visible locally. Discontinuous qtz/calcite stringers with zeolite @ ~ 292.72 metres. Slightly brecciated. Patchy dark green/black portions. Finely disseminated pyrite and aggregates. Gypsum vein cross-cutting qtz vein @ 293.84 metres.	113181	0.014	0.049
294	296	BASALT FLOW							
294.00	296.00	Fine-medium-grained medium green porphyritic chloritic silicic	3.0	3	18 QHZCV 70 15	Disseminated pyrite and pyrite aggregates. Qtz/zeo/calcite veining. Slight hematite staining between 294.34 to 294.47 metres. Augite phenocrysts. Patchy dark green/black portions. Massive magnetite portions.	113182	0.03	0.078
296	298	BASALT FLOW BRECCIA							
296.00	298.00	Fine-medium-grained medium green porphyritic chloritic silicic	3.0	5	18 QHZV 90 15	Augite phenocrysts and dark green/black portions- massive magnetite units as above. Slightly fragmented, insitu flow breccia. Weak epidote alt'n associated with qtz/zeo/hem/py.	113183	0.024	0.091

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
298	346	BASALT FLOW							
298.00	300.00	Fine-medium-grained medium green porphyritic chloritic silicic	3.0	2	18 QHZCV 90 20	Increased qtz/hem/zeo/calcite veining @ ~ 298.31, 298.66 and 298.90 metres. Epidote vein @ ~ 299.36 metres. Augite phenocrysts. Massive magnetite units-dark green/black colour.	113184	0.019	0.06
300.00	302.00		4.0	1	1 QHZCV 90 10	Increased disseminated pyrite and aggregates between 301.00 to 301.14 metres. Local increase in qtz/zeolite veining. Weak, patchy epidote alt'n. Hematite staining @ ~ 301.88 metres. Dark green/black portions- massive magnetite.	113185	0.017	0.11
302.00	304.00	Fine-medium-grained dark green porphyritic chloritic silicic	2.0	10	30 QHZCV 80 15	Local Increase in qtz/zeo/hem/calcite veining. Massive magnetite units as above. Pyrite aggregates associated with qtz/zeo veining. Qtz/calcite/hem between 302.52 to 303.28 metres.	113186	0.013	0.049
304.00	306.00		2.0	7	23 QHZCV 45 15	Qtz/hem/zeo/calcite veining between 305.01 to 305.51 metres. Augite phenocrysts. Patchy massive magnetite units. Gypsum veining associated with qtz/hem veining @ ~ 305.51 metres. Pyrite aggregates in flow.	113187	0.019	0.075
306.00	308.00		2.0	10	45 QHZGC 40 7	Brecciated between 306.28 to 306.50 metres, associated with weak epidote alt'n, qtz/hem/cal veining. Augite phenocrysts. Broken portions. Rare gypsum stringers at 306.45 metres. Less disseminated pyrite in massive magnetite units.	113188	0.012	0.034
308.00	310.00		3.0	7	59 QZGCV 45 7	Pyrite aggregates and stringers. Massive magnetite units associated with less pyrite and more augite phenocrysts. Rare zeolite veining.	113189	0.018	0.066
310.00	311.76		1.0	15	37 QHZCV 60 7	Massive magnetite- dark green/black colour. Epidote/pyrite aggregates @ ~ 310.84 metres. Rare hematite veining. Disseminated pyrite.	113190	0.011	0.055
311.76	313.80	Fine-medium-grained medium green porphyritic chloritic silicic	3.0	3	29 QZCV 70 15	Weak, patchy epidote alt'n associated with pyrite aggregates. Massive magnetite units between 311.76 to 312.24 metres. Less massive magnetite units from 312.24 metres. Qtz/zeo veining. Augite phenocrysts. Disseminated and aggregate pyrite.	113191	0.032	0.114
313.80	316.00		1.0	3	17 QHZCV 60 15	Slight hematite staining @ ~ 314.23 metres. Weak epidote alt'n @ 314.10 metres. Reduced pyrite aggregates. Local increase in qtz/zeo/hem veining between 315.42 to 315.90 metres. Augite phenocrysts.	113192	0.017	0.051

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
316.00	318.00	Fine-medium-grained medium green porphyritic chloritic silicic	2.0	2	20 QZCV 20 15	Massive magnetite units- dark green/black portions. Chloritic portions. Augite phenocrysts. Pyrite aggregates associated with qtz/mt/calcite veining between 317.65 to 317.74 metres. Very weak, patchy epidote alt'n. Slight brown colour due to weak sericite +/- fine biotite alt'n.	113193	0.014	0.192
318.00	320.00		3.0		0 QZCV 80 20	Slight brown colour due to weak sericite +/- fine biotite alt'n. Mainly chloritic. Augite phenocrysts. Qtz/zeo veining, locally associated with hematite veining. Pyrite aggregates, disseminations and rare veins.	113194	0.028	0.121
320.00	321.48		3.0	2	15 QCV 80 10	Massive magnetite units in flow. Increase in qtz/calcite veining between 320.00 to 320.88 metres. Augite phenocrysts. Disseminated pyrite and aggregates, rare stringers.	113195	0.017	0.105
321.48	323.00		1.0	2	28 QHZCV 10 15	Weak epidote associated with pyrite in places. Augite phenocrysts. Massive magnetite units present locally. Rare zeolite veining associated with hematite stringers.	113196	0.009	0.039
323.00	324.71		2.0	2	16 QZCV 60 20	Weak epidote alt'n present as aggregates associated with pyrite aggregates locally. Qtz/zeolite veining and pyrite aggregates increase locally. Massive magnetite units associated with augite phenocrysts and less disseminated pyrite. Rare zeolite veining associated with qtz.	113197	0.018	0.092
324.71	326.00		3.0	3	12 QZCV 80 7	Magnetite aggregates associated with pyrite and epidote between 324.71 to 324.95 metres. Kfsp veining @ 324.95 to 325.71 metres. Disseminated pyrite and aggregates in flow, and qtz/zeo veining. Weak to moderate epidote alt'n.	113198	0.038	0.196
326.00	328.00	Fine-medium-grained medium green porphyritic chloritic epidote	2.0	2	32 QZGCV 90 10	Increased gypsum veining from 326.35 metres associated with anhy @ ~ 326.68 metres. Very weak potassic alt'n between 326.80 to 326.98 metres. Patchy magnetite- massive. Very weak epidote alt'n associated with qtz/calcite veining. Weak epidote alt'n also between 326.35 to 326.98 metres. Increasing zeo/qtz between 327.44 to 327.61 metres.	113199	0.016	0.05
328.00	330.00	Fine-medium-grained medium green porphyritic chloritic silicic	3.0	1	10 QHZGC 70 10	Weak epidote alt'n. Hematite associated with qtz/zeo veining between 328.38 to 328.85 metres, associated with pyrite at about 328.85 metres and 328.97 metres. Gypsum +/- hematite vein between 329.18 to 329.68 metres. Augite phenocrysts.	113200	0.023	0.103

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
330.00	332.00	Fine-medium-grained medium green porphyritic chloritic silicic	2.0	3	18 QHCV 80 7	Hem/calcite veining between 331.24 to 331.28 metres-vuggy dissolution features. Augite phenocrysts. Massive portion associated with finely disseminated magnetite between 330.13 to 331.28 metres and 331.01 to 331.24 metres.	113201	0.026	0.051
332.00	334.00	Fine-medium-grained medium green porphyritic chloritic sericitic	4.0	1	7 QCV 70 5	Slight brown colour due to weak sericite +/- fine biotite alt'n associated with massive pyrite aggregates between 332.30 to 332.59 metres plus qtz/calcite veining. Pyrite aggregates associated with magnetite locally between 333.60 to 333.72 metres cross-cut by barren qtz stringers.	113203	0.024	0.103
334.00	336.00	Fine-medium-grained medium green porphyritic chloritic silicic	4.0	2	14 QHGCV 90 7	Fragment between 334.18 to 334.29 metres, possibly monzodiorite. Py/mag aggregates; pyrite also present as stringers and disseminations in flow. Gypsum veining. Massive magnetite units. Augite phenocrysts.	113204	0.014	0.057
336.00	338.00		5.0	1	6 QGCV 30 5	Increased disseminated pyrite, augite phenocrysts. Vuggy qtz/calcite veining between 337.06 to 337.19 metres. Pyrite/mag vein @ ~ 337.17 metres. Gypsum veining. Slight green/yellow colour possibly due to very weak sericite alt'n.	113205	0.026	0.101
338.00	340.00		4.0		1 QZV 10 5	Qtz/zeo veining @ ~ 338.33 to 338.45 metres, vuggy with white/pale pink zeolite crystals in the vuggy structures. Cubic pyrite @ ~ 338.26 to 338.33 metres, enveloped with chlorite-rich flow. Broken portions. Increase in disseminated pyrite. Augite phenocrysts.	113206	0.024	0.097
340.00	342.00		3.0	2	5 QZCV 5 5	Pyrite stringers and aggregates associated with magnetite aggregates locally @ ~ 340.30 metres and 340.50 metres. Local broken portion. Augite phenocrysts.	113207	0.022	0.201
342.00	344.00		4.0	3	34 QZCV 80 5	Weak epidote alt'n @ ~ 342.73 metres. Vuggy dissolution features in flow between 342.82 to 343.03 metres. Slight brown colour between 342.35 to 343.03 metres. Very weak potassic alt'n @ ~ 342.35 to 342.43 metres.	113208	0.029	0.261
344.00	346.00		2.0	7	57 QZCV 10 5	Patchy green/yellow portion @ ~ 344.37 metres associated with pyrite aggregates. Massive magnetite aggregate in flow associated with pyrite aggregate @ ~ 344.37 to 344.42 metres.	113209	0.044	0.286
346.00	348.00	Fine-medium-grained medium green porphyritic chloritic silicic	1.0	10	79 QZV 0 5	Massive magnetite units, magnetite veining associated with pyrite aggregates between 346.73 to 347.00 metres. Slight brecciated texture.	113210	0.041	0.174

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BASALT FLOW BRECCIA

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
348.00	350.00	Fine-medium-grained medium green porphyritic chloritic silicic	2.0	10	71 QZCV 0 5	Massive magnetite units/fragments, insitu breccia. Dark green/black portions. Pyrite/qtz vein @ ~ 348.33 metres. Augite phenocrysts visible in medium green portions. Qtz/zeo/calcite @ ~ 349.35 metres. Disseminated pyrite and veining plus qtz.	113211	0.051	0.208
350.00	352.00		3.0	7	45 QZV 30 5	Massive magnetite fragment as above. Slight brown colour between 350.94 to 351.45 metres is possibly weak sericite +/- fine biotite alt'n associated with disseminated pyrite and pyrite aggregates. Rare zeolite veining. Weak epidote alt'n @ 351.92 associated with zeo/py.	113212	0.067	0.316
352		354		BASALT FLOW					
352.00	354.00	Fine-medium-grained medium green porphyritic chloritic silicic	2.0	3	40 QZV 30 5	Massive magnetite portions- dark green/black. Medium green, chloritic portions. Slightly brown between 352.61 to 352.89 metres- possibly weak sericite +/- fine biotite alt'n. associated with an increase in disseminated pyrite and pyrite aggregates, associated with magnetite aggregates @ 353.02 metres.	113213	0.043	0.186
354		374.55		BASALT FLOW BRECCIA					
354.00	356.00	Fine-medium-grained medium green porphyritic chloritic silicic	3.0	2	11 QZCV 80 5	Augite phenocrysts. Disseminated pyrite and pyrite aggregates. Py/mag aggregates @ ~ 354.00 metres. Fragments- insitu breccia.	113214	0.041	0.13
356.00	358.00		4.0	5	22 QZCV 50 5	Dark green/black portions- massive magnetite units. Angular fragments. Disseminated and aggregate pyrite in host. Augite phenocrysts.	113215	0.028	0.06
358.00	360.00	Fine-medium-grained medium green massive chloritic silicic	3.0	10	60 QZV 50 5	Dark green/black massive Magnetite fragments- insitu breccia. Disseminated pyrite and aggregates mainly in host. Qtz/zeo veining randomly oriented, irregularly spaced. Very weak, patchy epidote alt'n. Augite phenocrysts visible locally.	113216	0.02	0.057
360.00	362.00		4.0	7	68 QZV 10 5	Dark green/black massive magnetite fragments as above. Disseminated pyrite and aggregates in host. Augite phenocrysts.	113217	0.043	0.105
362.00	364.00		3.0	7	56 QZV 80 5	Weak epidote alt'n associated with qtz veins @ ~ 362.34 metres. Augite phenocrysts. Massive magnetite fragments- angular, breccia. Disseminated pyrite and aggregates in host.	113218	0.013	0.038

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
364.00	366.00	Fine-medium-grained dark green massive chloritic silicic	3.0	7	68 QHZCV 40 5	Dark green/black colour due to massive magnetite, present as fragments locally- possibly insitu breccia. Chloritic portions between 364.18 to 364.27 metres associated with weak epidote alt'n, hematite and pyrite. Augite phenocrysts.	113219	0.019	0.042
366.00	368.00		4.0	7	42 QHZCV 80 7	Augite phenocrysts. Disseminated pyrite and aggregates. Brecciated texture, visible locally. Massive magnetite in flow. Pyrite vein between 367.27 to 367.29 metres. Qtz/calcite vein between 367.29 to 367.35 metres in foot wall. Pyrite stringers @ ~ 367.41 and 367.64 metres. Joints lined by hematite.	113220	0.112	0.24
368.00	370.00		3.0	5	30 QHZCV 0 5	Augite phenocrysts. Massive magnetite. Brecciated texture as above. Disseminated pyrite and pyrite veins between 368.97 to 369.00 metres.	113221	0.023	0.061
370.00	372.00		3.0	5	38 QHZGC 70 5	Augite phenocrysts, massive magnetite and brecciated texture as above. Disseminated pyrite and gypsum veining. Rare kfsp aggregates.	113222	0.031	0.064
372.00	373.47		2.0	5	42 QHZGC 10 3	Xenolith between 372.37 to 372.53 metres, possibly monzodiorite. Weak epidote alt'n and magnetite aggregates between 372.53 to 372.56 metres. Augite phenocrysts visible locally. Rare hematite stringer associated with qtz and zeolite.	113223	0.019	0.046
373.47	374.55		3.0	2	38 QZGCV 30 5	Local increase in gypsum veining. Augite phenocrysts. Disseminated pyrite aggregates. Minor massive magnetite.	113224	0.022	0.073
374.55	375.87	BASALT FLOW							
374.55	375.87	Fine-medium-grained light green massive chloritic silicic	4.0		6 QZV 90 7	Local increase in qtz/zeo veining. Chloritic. Weak to moderate silicification. Disseminated pyrite and aggregates associated with qtz and zeolite. Increased augite phenocrysts.	113225	0.027	0.084
375.87	378	BASALT FLOW BRECCIA							
375.87	378.00	Fine-medium-grained light green massive chloritic silicic	1.0		2 QZCV 0 15	Brecciated qtz/zeo veining between 375.87 to 377.11 metres. Qtz/zeo veining less brecciated from 377.11 metres. Thin stringers, randomly oriented - and more chloritic, less silicified from 377.11 metres.	113226	0.027	0.068
378	418	BASALT FLOW							

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
378.00	380.00	Fine-medium-grained medium green massive chloritic silicic	2.0	1	11 QHZV 20 15	Massive, chloritic, medium green. Qtz/zeo veining. Hematite stringers associated with qtz/zeo veining between 379.34 to 378.41 metres. Pyrite/qtz vein @ ~ 379.00 metres. Disseminated pyrite and aggregates. Patchy brown colour due to sericite +/- fine biotite alt'n. Augite phenocrysts.	113227	0.024	0.015
380.00	381.10		2.0	2	31 QHZV 70 15	Very weak, patchy brown colouration- due to sericite +/- fine biotite alt'n. Augite phenocrysts. Qtz/zeo stringers and veining associated with hematite locally. Disseminated pyrite and aggregates.	113229	0.018	0.009
381.10	383.00		2.0	2	QHZV 70 15	Pyrite stringers associated with magnetite aggregates @ 381.63 metres. Qtz/zeolite veining @ 382.08, 382.18 and 382.25 metres. Slight brown colour due to very weak sericite +/- fine biotite alt'n. Augite and plagioclase phenocrysts visible locally.	113230	0.038	0.023
383.00	385.00	Fine-medium-grained green brown massive chloritic sericitic	1.0	1	34 QZV 5 10	Local increase in qtz/zeo veining between 383.50 to 383.94 metres and between 384.30 to 384.43 metres. Weak, patchy brown colouration, possibly due to weak sericite +/- fine biotite alt'n. Magnetite veining associated with pyrite aggregates.	113231	0.022	0.026
385.00	387.00		1.0	1	18 QZGCV 45 7	Patchy brown colour as above. Augite and plag phenocrysts visible locally. Gypsum veining.	113232	0.029	0.028
387.00	389.00		1.0	1	20 QZGCV 50 10	Pyrite aggregates associated locally with clear gypsum/selenite. Patchy brown as above. Vuggy dissolution features in qtz/calcite vein between 387.94 to 387.97 metres. Fragments between 388.39 to 388.52 metres possibly monzodiorite xenolith. Magnetite veining associated with pyrite aggregates.	113233	0.052	0.031
389.00	391.00		2.0	2	33 QZV 0 30	Increase in qtz veining- vuggy dissolution features in veining and flow between 389.95 to 390.71 metres. Massive magnetite. Patchy brown colour due to weak sericite +/- fine biotite alt'n. Pyrite aggregates @ ~ 389.10 metres, stringers between 389.30 to 389.49 metres.	113234	0.057	0.042
391.00	393.05		3.0	1	14 QHZV 40 10	Pyrite aggregates and stringers. Brown colour due to weak sericite +/- fine biotite alt'n. Augite phenocrysts visible locally.	113235	0.017	0.019
393.05	394.75	Fine-medium-grained medium green massive chloritic silicic	1.0	1	14 QZV 80 7	Qtz/zeo veining between 393.85 to 393.92 metres. Py/mag/zeo aggregates @ 394.06 metres. Massive magnetite locally.	113236	0.026	0.022

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
394.75	396.00	Fine-medium-grained massive chloritic silicic	medium green	1.0	1 13 QZV 70 20	Increased qtz/zeo veining between 394.75 to 395.28 metres, vuggy in places. Massive magnetite units in flow. Magnetite veining associated with pyrite aggregates.	113237	0.051	0.043
396.00	398.00			2.0	1 42 QZV 60 10	Slight brown colour due to very weak sericite +/- fine biotite alt'n, patchy. Mainly chloritic. Augite/plag phenocrysts. Pyrite aggregates associated with qtz/zeo between 397.76 to 397.81 metres and at 397.31 metres. Minor hematite veining @ ~ 397.62 metres. Slight brecciated texture.	113238	0.018	0.014
398.00	400.00			2.0	3 41 QZV 70 10	Massive magnetite units/fragments, angular, possibly flow breccia. Qtz/zeo veining- vuggy, associated with weak epidote alt'n locally. Pyrite aggregates.	113239	0.017	0.013
400.00	402.00	Fine-medium-grained massive chloritic sericitic	green brown	3.0	1 18 QZV 70 10	Brown colour due to weak sericite +/- fine biotite alt'n, patchy, moderate in places. Qtz/zeo veining. Augite and plag phenocrysts visible locally. Monzodiorite fragment between 401.07 to 401.12 metres, weakly potassic altered. Magnetite veining with pyrite aggregates between 401.00 to 401.06 metres and mag/py aggregates @ ~ 402.00 metres.	113240	0.022	0.021
402.00	404.00			3.0	4 159 QZV 80 10	Brown colour due to sericite +/- fine biotite alt'n. Magnetite aggregates associated with zeo/kfsp between 403.30 to 403.40 metres. Qtz/py/mag vein @ ~ 403.53 metres. Massive magnetite units in altered flow. Plag phenocrysts visible locally.	113241	0.033	0.026
404.00	406.05	Fine-medium-grained massive chloritic silicic	medium green	1.0	1 32 QZV 60 7	Patchy, weak brown sericite +/- fine biotite alt'n. Qtz/zeo veining. Augite and plag phenocrysts visible locally.	113242	0.023	0.022
406.05	408.00	Fine-medium-grained massive chloritic sericitic	green brown	2.0	5 QZV 50 10	Brown due to weak sericite +/- fine biotite alt'n. Disseminated pyrite and aggregates associated with Qtz/zeo veining in places. Augite phenocrysts visible locally. Chloritic portions.	113243	0.021	0.02
408.00	410.00	Fine-medium-grained massive chloritic silicic	medium green	1.0	4 QZV 80 10	Very weak, patchy potassic alt'n associated with disseminated and aggregate pyrite. Qtz/zeo veining-locally vuggy. Slight zeolite veining @ ~ 80 degrees t.c.a., approximately equidistant, between 409.18 to 409.45 metres.	113244	0.018	0.012
410.00	411.94			1.0	2 QZV 80 15	Local increase in qtz/zeo veining between 410.85 to 411.02 metres. Chloritic. Rare pyrite as disseminations and aggregates.	113245	0.023	0.019

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
411.94	414.00	Fine-medium-grained medium green massive chloritic silicic	3.0	1	14 QZGV 80 10	Local increase in qtz/zeo veining between 412.19 to 412.27 metres. Pyrite aggregates and disseminated pyrite. Augite phenocrysts visibly locally. Magnetite veining associated with pyrite aggregates, cross-cut by barren zeolite vein @ ~ 413.80 metres.	113246	0.032	0.029
414.00	416.00	Fine-medium-grained green brown massive chloritic sericitic	3.0	1	17 QZV 30 10	Patchy brown colouration due to weak sericite +/- fine biotite alt'n. Chloritic green portions. Disseminated pyrite and aggregates. Local increase in qtz/zeo veining. Magnetite vein associated with disseminated pyrite.	113247	0.037	0.034
416.00	418.00		4.0	2	108 QZV 70 15	Slight brown colour due to weak sericite +/- fine biotite alt'n portion between 416.13 to 416.43 metres associated with less silicification and increased disseminated pyrite and pyrite aggregates. Qtz/mag veining associated with pyrite aggregates @ ~ 416.75 metres. Pyrite also associated with qtz/calcite @ ~ 416.98 metres- vuggy.	113248	0.06	0.053
418	424	BASALT FLOW BRECCIA							
418.00	420.00	Fine-medium-grained green brown massive chloritic sericitic	4.0		2 QZV 80 10	Chloritic. Slight brown colour due to weak sericite +/- fine biotite alt'n. Very weak, patchy potassic alt'n. Augite phenocrysts visible locally. Disseminated pyrite and aggregates. fragmented from 418.63 to 420.00 metres, possibly insitu breccia.	113249	0.034	0.058
420.00	422.00	Fine-medium-grained medium green massive chloritic silicic	4.0		0 QZV 5 5	Fragmented locally- insitu breccia. Qtz/zeo veining. Pyrite stringers from 421.11 to 421.22 metres, @ ~ 70 degrees t.c.a.- equidistant, slight banding.	113250	0.037	0.04
422.00	424.00	Fine-medium-grained green brown massive chloritic sericitic	3.0		1 QZV 0 7	Slight brown colour due to weak, patchy sericite +/- fine biotite alt'n. Chloritic green portions. Disseminated pyrite and pyrite aggregates. Slightly brecciated- insitu.	113251	0.056	0.045
424	429	BASALT FLOW							
424.00	426.00	Fine-medium-grained medium green massive chloritic silicic	2.0	2	21 QZV 10 7	Weak brown colour due to very weak sericite +/- fine biotite alt'n. Minor massive magnetite units. Qtz/zeo veining. Augite phenocrysts visible locally.	113252	0.027	0.021
426.00	427.64		2.0	1	15 QZV 90 7	Weak, patchy brown colour as above. Local increase in qtz/zeo veining, stringers @ ~ 70 to 80 degrees t.c.a., forming a banded appearance locally. Disseminated pyrite. Augite visible locally. Granitoid xenolith between 427.24 to 427.28 metres. Weak local potassic alt'n.	113253	0.037	0.024

Hole Number: KN-02-41

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm	
427.64	429.00	Fine-medium-grained green pink massive chloritic potassic		2	18 QZV	90 15	Medium green flow, fine to medium grained. Zeolite flooding from 427.81 to 427.92 metres. Local increases in qtz/zeo veining, defining hanging wall contact with monzodiorite. Non-mineralized fragments present in flow. Minor massive magnetite units.	113255	0.008	0.01
429	490.73	MONZODIORITE								
429.00	431.00	Fine-medium-grained medium brown porphyritic silicic potassic	1.0	1	9 QZV	5 10	Plag and kfsp phenocrysts, qtz, less than 20%, biotite, muscovite and hornblende present locally in brown, fine grained matrix- probably monzodiorite. Qtz/zeolite veining, randomly oriented and irregularly spaced. Local pyrite aggregates, rare. Weak to moderate secondary silicification. Patchy, weak epidote alt'n.	113256	0.003	-2
431.00	433.00		1.0	1	17 QZV	80 10	Same as above.	113257	0.004	0.009
433.00	435.00		2.0	1	16 QHZV	90 10	Same as above- with pyrite stringers @ ~ 90 degrees t.c.a. associated with qtz/zeo veining.	113258	0.005	0.005
435.00	437.00			1	12 QZV	0 10	Same as sample 113256- with weak epidote stringers.	113259	0.003	-2
437.00	439.00	Fine-medium-grained light brown porphyritic sericitic silicic		1	19 QZV	60 10	Same as sample 113256- light brown/yellow matrix- fizzes with HCl- possibly carbonated and sericitized. Very weak epidote alt'n. Magnetite present as irregular granular masses.	113260	0.002	-2
439.00	441.00			1	14 QZV	90 10	Same as sample 113256- with light brown/yellow matrix but does not fizz with HCl. Possibly weak sericite. Weak to moderate local silicification.	113261	0.007	0.005
441.00	443.00	Fine-medium-grained medium brown porphyritic silicic potassic		1	11 QHZV	5 7	Same as sample 113256- with weak hematite veining associated with qtz/zeo veining.	113262	0.002	-2
443.00	445.00			1	9 QZV	0 7	Same as sample 113256- with weak epidote alt'n and veining associated with qtz/zeo veining	113263	0.003	-2
445.00	447.00			1	8 QZV	45 7	Same as sample 113256- with weak to moderate silicification, in portions.	113264	0.001	-2
447.00	449.00			1	10 QZV	0 7	Same as sample 113256- with tabular dark green/black mafic hornblende	113265	0.001	-2
449.00	451.00			1	6 QZV	60 7	Same as sample 113256.	113266	0.001	-2
451.00	453.00			1	7 QZV	70 10	Same as sample 113256- with weak, patchy epidote alt'n. Weak potassic alt'n. Slight increase in qtz/zeo veining.	113267	0.001	-2
453.00	455.00			1	14 QZV	40 10	Same as sample 113256- with slight increase in qtz/zeo veining.	113268	0.001	-2

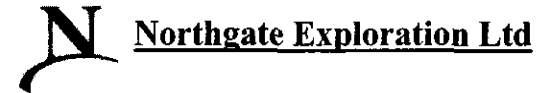
Hole Number: KN-02-41

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
455.00	457.00	Fine-medium-grained medium brown porphyritic silicic potassic		2	25 QZV 80 7	Same as sample 113256- with weak to moderate silicification.	113269	0.002	-2
457.00	459.00			1	17 QZV 80 7	Same as sample 113256- with large biotite phenocrysts- about 10 mm x 5 mm.	113270	0.001	-2
459.00	461.00			1	19 QZV 70 7	Same as sample 113256.	113271	0.001	-2
461.00	463.00			2	24 QZV 70 7	Same as sample 113256- with a local increase in moderately silicified portions. Weak epidote alt'n. Increase in magnetite units.	113272	0.001	-2
463.00	465.00			1	16 QZV 90 10	Same as sample 113256- with a local increase in qtz/zeo veining.	113273	0.001	-2
465.00	467.00			1	22 QZCV 60 10	Same as sample 113256- with a local increase in magnetite units and qtz/zeo veining. Minor calcite associated with qtz.	113274	0.001	-2
467.00	469.00			1	22 QZV 0 5	Same as sample 113256- with very weakly silicified portions.	113275	0.001	-2
469.00	471.00			1	18 QHZV 30 7	Same as sample 113256- with rare hematite veining associated with qtz/zeo. Zeolite flooding between 470.69 to 470.90 metres.	113276	0.001	-2
471.00	473.00			1	15 QZV 60 15	Same as sample 113256- with vuggy, chalcedonic, cherty qtz vein between 472.22 to 472.58 metres.	113277	0.001	-2
473.00	475.00			1	15 QZV 70 10	Same as sample 113256- with a local increase in qtz/zeo veining. Zeolite veining, forming banding.	113278	0.001	-2
475.00	477.00			1	16 QZV 60 7	Same as sample 113256- with local moderately silicified portions.	113279	0.001	-2
477.00	479.00		1.0	1	20 QZV 80 7	Same as sample 113256- with chert/chalcedonic qtz veins. Weakly silicified portions. Disseminated pyrite between 478.24 to 478.31 metres. Phenocrysts not visible- weak epidote alt'n.	113281	0.002	0.015
479.00	481.00		1.0	1	17 QZV 90 7	Same as sample 113256- with weak to moderate epidote alt'n between 479.18 to 479.54 metres. Disseminated pyrite between 479.56 to 479.64 metres.	113282	0.002	0.018
481.00	483.00			1	13 QZV 0 10	Same as sample 113256- with a slight increase in qtz/zeo and zeo veining.	113283	0.011	0.015
483.00	485.00			1	21 QZV 90 7	Same as sample 113256- with pyrite aggregates associated with weak epidote alt'n @ ~ 483.44 metres. Local broken zones. Very weak, patchy epidote alt'n.	113284	0.002	0.006

Hole Number: KN-02-41

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
485.00	487.00	Fine-medium-grained medium brown porphyritic silicic potassic	1	29	QZV 10 10	Same as sample 113256- with very patchy, weak epidote alt'n. Chalcedonic/cherty qtz vein enveloping zeolite veining.	113285	0.001	0.006
487.00	489.00		1	21	QZV 70 10	Same as sample 113256- with a slight increase in mafics- biotite and hornblende phenocrysts.	113286	0.001	-2
489.00	490.73		1	23	QZV 60 10		113287	0.002	-2
490.73	EOH								

Kemess North 2002 - Diamond Drill Log



Hole Number: **KN-02-42**

Northing: 16153.2 **Total Depth:** 480.65m
Easting: 9759.57 **Azimuth:** 360°
Elevation: 1672.2 **Dip:** -80°

Geologist: E. Ramsay
Logged Date: 9/19/2002

Survey Depth	Azimuth	Dip	Comments:
91 m	343 °	-84 °	Mechanical
183 m	3 °	-82 °	
274 m	358 °	-82 °	
366 m	3 °	-84 °	Mechanical
457 m	13 °	-84 °	Mechanical

Kemess North 2002 - Summary Drill Log



Hole Number: **KN-02-42**

From (m)	To (m)	Rock Type	Comments
0	9.75	CASING	No recovery
9.75	36.58	LOST CORE	Lost core
36.58	39.62	BLADED FELDSPAR PORPHYRY	Broken core-low recovery, sample taken from run block to run block. Bladed feldspar porphyry
39.62	54.86	LOST CORE	Lost core
54.86	60.96	BLADED FELDSPAR PORPHYRY	Broken core-low recovery, sample taken from run block to run block. Bladed feldspar porphyry
60.96	67.06	LOST CORE	Lost core
67.06	76.2	BASALT	Bluish grey, massive, fine grained basalt or basaltic dyke (broken contacts). Broken core, recovery poor, samples taken from block to block
76.2	142.88	BLADED FELDSPAR PORPHYRY	Greenish grey, bladed feldspar porphyry, strongly sericitized and chloritized.
142.88	146.48	SYENITE	Post-mineral syenite dyke, porphyritic with medium sized biotite books and feldspar phenocrysts in fine matrix unaltered, unmineralized - Pink/white carbonate/zeolite veins and veinlets.
146.48	171.6	BLADED FELDSPAR PORPHYRY	Greyish beige anhydrite veins, hydrated to gypsum, with disseminated pyrite within.
171.6	173.73	SYENITE	Post mineral syenite, porphyritic unaltered, unmineralized, broken contacts, orientation unknown
173.73	180.9	ANDESITE POLYLITHIC TUFF	Contact with previous unit is faulted with gouge. Several minor fault zones throughout interval
180.9	302.1	BLADED FELDSPAR PORPHYRY	Minor fault- fault breccia with gouge and chloritic slip planes @ 40 deg. to c.a. Clearly an important structure separating the carbonate-altered clastic unit above from sericite-chlorite-anhydrite altered bladed feldspar porphyry below

Hole Number:

KN-02-42

From (m)	To (m)	Rock Type	Comments
302.1	309	POLYLITHIC TUFF	
309	311	POLYLITHIC TUFF BLADED FELDSPAR PORPHYRY	BFP texture near 311.00 m.
311	317	POLYLITHIC TUFF	
317	355.75	POLYLITHIC TUFF TOODOGGONE	Minor brittle fault w/ gouge near 318.9 m. Toodoggone pyroclastics from this point downward.
355.75	359	POLYLITHIC TUFF MONZONITE	
359	367	POLYLITHIC TUFF TOODOGGONE	
367	381	MONZONITE TOODOGGONE	Brecciated monzonite unit (hypabyssal intrusive?) or coarse crystal tuff
381	382.06	POLYLITHIC TUFF TOODOGGONE	Toodoggone sheared @ contact w/ syenite dyke
382.06	392.1	SYENITE	Post mineral syenite, fractured 2 - 5 % carbonate / zeolite veins
392.1	419	TUFF TOODOGGONE	Toodoggone crystal tuff. Carbonate veins form 5 - 10 % of core
419	419.83	POLYLITHIC TUFF TOODOGGONE	
419.83	440.7	ANDESITE TOODOGGONE	Light gray, massive andesitic (?) flow, strongly silicified and sericitized
440.7	471.6	POLYLITHIC TUFF TOODOGGONE	Greenish black lapilli tuff, brittle fault @ contact with previous unit @45 t.c.a.
471.6	473.6	SYENITE	Post- mineral syenite
473.6	477.32	POLYLITHIC TUFF TOODOGGONE	

Kemess North 2002 - Detail Drill Log



Hole Number: KN-02-42

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
0	9.75	CASING							
0.00	9.75					No recovery	42	-2	-2
9.75	36.58	LOST CORE							
9.75	36.58					Lost core	LC-42-01	0	0
36.58	39.62	BLADED FELDSPAR PORPHYRY							
36.58	39.62	Fine-coarse grained green-grey porphyritic sericitic chloritic	0.1	3		Broken core-low recovery, sample taken from run block to run block. Bladed feldspar porphyry	114421	0.106	0.1
39.62	54.86	LOST CORE							
39.62	54.86					Lost core	LC-42-02	0	0
54.86	60.96	BLADED FELDSPAR PORPHYRY							
54.86	60.96	Fine-grained green-grey porphyritic sericitic chloritic	0.5	4		Broken core-low recovery, sample taken from run block to run block. Bladed feldspar porphyry	114422	0.119	0.23
60.96	67.06	LOST CORE							
60.96	67.06					Lost core	LC-42-03	0	0
67.06	76.2	BASALT							
67.06	70.10	Fine-grained dark grey massive chloritic		41		Bluish grey, massive, fine grained basalt or basaltic dyke (broken contacts). Broken core, recovery poor, samples taken from block to block	114423	0.011	0.011
70.10	73.15			46			114424	0.006	-2
73.15	76.20			25			114425	0.006	-2
76.2	142.88	BLADED FELDSPAR PORPHYRY							
76.20	79.25	Fine-coarse grained green-grey sericitic chloritic	0.5	2		Greenish grey, bladed feldspar porphyry, strongly sericitized and chloritized.	114426	0.063	0.088
79.25	81.00		0.5	0 GVN	40 13	Massive white gypsum vein	114427	0.052	0.073
81.00	83.00		1.0	8		Translucent white gypsum veinlets forming stockwork throughout the rock. (1-2%)	114428	0.077	0.112
83.00	85.00		1.0	4			114429	0.091	0.131

Hole Number: KN-02-42

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
85.00	87.00	Fine-coarse grained green-grey sericitic chloritic	3.0	7	GVN	6	114430	0.098	0.128
87.00	89.00		1.0	3	GVN	3	114431	0.051	0.064
89.00	91.00		1.0	7			114432	0.057	0.073
91.00	93.00		1.0	6			114434	0.079	0.099
93.00	95.00		1.0	6			114435	0.095	0.133
95.00	97.00		2.0	4			114436	0.066	0.109
97.00	99.00		1.0	7			114437	0.098	0.138
99.00	99.67		1.0	7			114438	0.104	0.121
99.67	101.00		1.0	4			114439	0.074	0.103
101.00	103.00		2.0	2			114440	0.061	0.071
103.00	105.00		2.0	4			114441	0.075	0.099
105.00	107.00		2.0	8			114442	0.085	0.104
107.00	109.00		1.0	6			114443	0.066	0.067
109.00	111.00		1.0	3			114444	0.11	0.147
111.00	113.00		2.0	5			114445	0.1	0.134
113.00	115.00		1.0	11			114446	0.131	0.186
115.00	117.00		1.0	9			114447	0.099	0.124
117.00	119.00		1.0	3			114448	0.079	0.159
119.00	121.00		1.0	6			114449	0.069	0.073
121.00	123.00		2.0	6			114450	0.075	0.082
123.00	125.00		1.0	9			114451	0.072	0.083
125.00	127.00		1.0	12			114452	0.066	0.072
127.00	129.00		1.0	9			114453	0.06	0.08
129.00	131.00		1.0	5		Minor brittle fault @ 70 deg. to c.a. near 130.25m	114454	0.08	0.11
131.00	133.00		1.5	1			114455	0.053	0.068
133.00	135.00		1.0	2			114456	0.062	0.099
135.00	137.00		2.0	4			114457	0.059	0.086
137.00	139.00		1.5	2			114458	0.044	0.052

Hole Number: KN-02-42

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
139.00	141.00	Fine-coarse grained green-grey sericitic chloritic	1.0	3			114460	0.063	0.074
141.00	142.88		1.0	0			114461	0.03	0.04
142.88	146.48	SYENITE							
142.88	145.00	Medium-fine-grained orange grey porphyritic		12		Post-mineral syenite dyke, porphyritic with medium sized biotite books and feldspar phenocrysts in fine matrix unaltered, unmineralized - Pink/white carbonate/zeolite veins and veinlets.	114462	0.002	-2
145.00	146.48			11			114463	0.002	-2
146.48	171.6	BLADED FELDSPAR PORPHYRY							
146.48	148.00	Fine-coarse grained green-grey sericitic anhydrite	2.0	0 AVN	40	Greyish beige anhydrite veins, hydrated to gypsum, with disseminated pyrite within.	114464	0.022	0.032
148.00	150.00		2.0	3		3cm wide dykelet of grey basaltic composition, fine grained, weakly porphyritic near 148.00m post mineral (?)	114465	0.036	0.034
150.00	152.00		1.5	0			114466	0.047	0.061
152.00	154.00		2.0	0			114467	0.022	0.029
154.00	156.00		2.0	1			114468	0.04	0.039
156.00	158.00		2.0	3 AVN	7	Greyish beige anhydrite veins. Hydrated to gypsum.	114469	0.025	0.031
158.00	160.00		2.0	1 AVN	10		114470	0.033	0.041
160.00	162.00		2.0	1 AVN	10		114471	0.02	0.024
162.00	164.00		1.0	2			114472	0.022	0.031
164.00	166.00		1.0	3			114473	0.006	0.01
166.00	168.00		0.1	8			114474	0.043	0.064
168.00	170.00		1.0	3			114475	0.038	0.063
170.00	171.60		0.5	2 FLT	45 20	Contact with next unit is faulted with gouge.	114476	0.05	0.058
171.6	173.73	SYENITE							
171.60	173.73	Medium-fine-grained orange grey porphyritic		19		Post mineral syenite, porphyritic unaltered, unmineralized, broken contacts, orientation unknown	114477	0.009	0.015
173.73	180.9	ANDESITE POLYLITHIC TUFF							
173.73	175.55	Coarse-fine-grained orange grey fragmental biotite chloritic	1.0	2 FLT	45 30	Contact with previous unit is faulted with gouge. Several minor fault zones throughout interval	114478	0.046	0.085

Hole Number: KN-02-42

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
175.55	177.00	Coarse-fine-grained orange grey fragmental sericitic carbonate	0.1	12		Polyolithic, probably andesitic, tuff or conglomerate, orange-grey, showing sub-angular to sub-rounded fragments possibly a lahar/epiclastic unit? chaotic, showing no bedding or internal structure.	114479	0.005	-2
177.00	179.00		0.1	2	FLT 45 15		114480	0.013	0.061
179.00	180.90		0.1	8			114481	0.007	0.009
180.9	302.1	BLADED FELDSPAR PORPHYRY							
180.90	182.20	Coarse-fine-grained dark grey brecciated sericitic chloritic	0.1	4	FLT 40100	Minor fault- fault breccia with gouge and chloritic slip planes @ 40 deg. to c.a. Clearly an important structure separating the carbonate-altered clastic unit above from sericite-chlorite-anhydrite altered bladed feldspar porphyry below	114482	0.054	0.072
182.20	184.00	Fine-coarse grained green-grey sericitic chloritic	1.0	6			114483	0.089	0.116
184.00	185.23		1.0	0			114484	0.057	0.075
185.23	186.30	Coarse-fine-grained green-grey brecciated sericitic chloritic	0.1	5	FLT 45100	Major fault- similar to 180.90-182.20 m	114486	0.08	0.098
186.30	188.00	Fine-coarse grained green-grey anhydrite sericitic	0.5	0			114487	0.042	0.044
188.00	190.00	Fine-coarse grained green-grey sericitic chloritic	1.5	15			114488	0.072	0.096
190.00	192.00		3.0	1			114489	0.052	0.059
192.00	194.00		3.0	4			114490	0.047	0.05
194.00	196.00		2.0	3			114491	0.054	0.07
196.00	198.00		2.0	0		Strongly altered, primary textures hard to recognize. Could also be mafic fragmental/flow breccia	114492	0.048	0.06
198.00	200.00		1.0	4			114493	0.04	0.044
200.00	202.00		1.0	3	AVN 5		114494	0.066	0.067
202.00	204.00		2.0	1			114495	0.094	0.129
204.00	206.00		1.5	2			114496	0.071	0.097
206.00	208.00		1.0	3			114497	0.099	0.17
208.00	210.00		2.0	8			114498	0.066	0.102
210.00	212.00		1.5	6			114499	0.104	0.152
212.00	214.00		1.0	5			114500	0.11	0.169

Hole Number: KN-02-42

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
214.00	216.00	Fine-coarse grained green-grey sericitic chloritic	1.0	0			114501	0.117	0.159
216.00	218.00		0.5	6			114502	0.083	0.094
218.00	220.00		1.5	11			114503	0.05	0.051
220.00	222.00		1.0	5			114504	0.073	0.068
222.00	224.00		1.0	0.1	6		114505	0.05	0.057
224.00	226.00		1.0	14			114506	0.091	0.119
226.00	228.00		1.0	8	QVN 30 3		114507	0.051	0.057
228.00	230.00		1.0	6			114508	0.054	0.071
230.00	232.00		1.0	1			114509	0.029	0.038
232.00	234.00		1.0	6			114510	0.06	0.079
234.00	236.00		1.0	3			114512	0.07	0.075
236.00	238.00	Fine-coarse grained green-grey anhydrite sericitic	0.1	1	AVN 50	Multi-decimeteric veins/replaced intervals of anhydrite, light lavender coloured	114513	0.034	0.043
238.00	240.00	Fine-coarse grained green-grey sericitic chloritic	1.0	8	AVN 5		114514	0.039	0.039
240.00	242.00		2.0	1	AVN 2		114515	0.044	0.047
242.00	244.00		1.5	16			114516	0.052	0.055
244.00	246.00		1.0	7			114517	0.067	0.066
246.00	248.00		0.5	2	AVN 5		114518	0.054	0.05
248.00	250.00		2.0	1			114519	0.04	0.041
250.00	252.00		2.0	0			114520	0.033	0.039
252.00	254.00		0.5	0			114521	0.034	0.043
254.00	256.00		1.0	3	AVN 3		114522	0.034	0.04
256.00	258.00		1.0	3			114523	0.048	0.049
258.00	260.00		2.0	0			114524	0.043	0.05
260.00	262.00		2.0	0	FLT 45 60	Major fault- similar to 180.90-182.20 m	114525	0.037	0.084
262.00	264.00		3.0	0		Anhydrite alteration and gypsum vein stockwork are conspicuously absent	114526	0.035	0.102
264.00	266.00		3.0	0			114527	0.104	0.318
266.00	268.00		5.0	0			114528	0.038	0.109

Hole Number: KN-02-42

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
268.00	270.00	Fine-coarse grained green-grey sericitic chloritic	3.0	0			114529	0.047	0.111
270.00	272.00		5.0	0			114530	0.011	0.036
272.00	274.00		5.0	0			114531	0.037	0.102
274.00	276.00		5.0	1			114532	0.098	0.24
276.00	278.00		4.0	0			114533	0.041	0.116
278.00	280.00		5.0	0			114534	0.03	0.095
280.00	282.00		5.0	0			114535	0.05	0.134
282.00	284.00		4.0	0			114536	0.036	0.088
284.00	286.00		3.0	0			114537	0.223	0.458
286.00	288.00		2.0	0			114539	0.056	0.137
288.00	290.00		3.0	0			114540	0.056	0.197
290.00	292.00		4.0	0			114541	0.04	0.141
292.00	294.00		5.0	0			114542	0.061	0.155
294.00	296.00		5.0	0			114543	0.035	0.109
296.00	298.00		5.0	0			114544	0.049	0.153
298.00	299.40		3.0	0			114545	0.043	0.12
299.40	299.80		30.0	1 QVN	40	Vuggy qtz + py vein	114546	0.062	0.147
299.80	301.00		1.0	0			114547	0.033	0.255
301.00	302.10		3.0	0		Minor fault w/ gouge @45 to c.a. near 302.30 m. Rock takes fragmental appearance suggesting lapilli-crystal tuff, locally shows BFP -like texture. Pyritic. Sericitic	114548	0.075	0.09
302.1	309	POLYLITHIC TUFF							
302.10	303.00	Fine-coarse grained green-grey fragmental sericitic chloritic	5.0	0 FLT	45 1		114549	0.021	0.082
303.00	305.00		10.0	0			114550	0.026	0.097
305.00	307.00		10.0	0			114551	0.059	0.167
307.00	309.00		10.0	0			114552	0.077	0.317
309	311	POLYLITHIC TUFF BLADED FELDSPAR PORPHYRY							
309.00	311.00	Fine-coarse grained green-grey fragmental sericitic chloritic	10.0	0		BFP texture near 311.00 m.	114553	0.031	0.107

Hole Number: KN-02-42

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
311	317	POLYLITHIC TUFF							
311.00	313.00	Fine-coarse grained green-grey fragmental sericitic chloritic	10.0	0			114554	0.046	0.143
313.00	315.00		10.0	0			114555	0.04	0.149
315.00	317.00	Fine-coarse grained green-grey fragmental chloritic sericitic	3.0	26		Rock gradually becoming less altered w/ chlorite becoming dominant and sericite disappearing	114556	0.016	0.08
317	355.75	POLYLITHIC TUFF TOODOGGONE							
317.00	319.00	Fine-coarse grained green-grey fragmental chloritic	0.1	2 FLT	55 3	Minor brittle fault w/ gouge near 318.9 m. Toodoggone pyroclastics from this point downward.	114557	0.026	0.021
319.00	321.00		1.0	15			114558	0.017	0.049
321.00	323.00		0.5	2			114559	0.015	0.015
323.00	325.00	Fine-coarse grained green-grey fragmental chloritic epidote	0.5	2			114560	0.007	0.015
325.00	327.00		0.5	7 FLT	20 2	Minor brittle fault w/ gouge near 326.90m.	114561	0.012	0.02
327.00	329.00	Fine-coarse grained green-grey fragmental chloritic	0.1	17			114562	0.003	0.008
329.00	331.00		0.5	25			114563	0.019	0.012
331.00	333.00		0.1	26			114565	0.004	-2
333.00	335.00	Fine-coarse grained green-grey fragmental chloritic sericitic	0.1	23			114566	0.009	0.016
335.00	337.00	Fine-coarse grained green-grey fragmental chloritic		28			114567	0.016	0.016
337.00	338.80		0.1	3 FLT	45 5	Minor brittle fault w/ gouge near 337.70 m.	114568	0.012	0.016
338.80	341.00	Fine-coarse grained green-grey fragmental sericitic chloritic	5.0	3			114569	0.078	0.255
341.00	343.00		5.0	6			114570	0.052	0.125
343.00	345.00		1.0	9			114571	0.033	0.071
345.00	347.00	Fine-coarse grained green-grey fragmental chloritic	0.1	22 SHR	45 2	Minor shear with slip planes @ 45 to c.a. near 346.30	114572	0.015	0.03
347.00	349.00	Fine-coarse grained green-grey fragmental chloritic epidote	0.1	26			114573	0.003	0.006
349.00	351.00	Fine-coarse grained green-grey fragmental chloritic	0.1	2			114574	0.007	0.017
351.00	353.00		0.1	39			114575	0.004	0.007

Hole Number: KN-02-42

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
353.00	355.00	Fine-medium-grained green-grey fragmental chloritic	0.1	23			114576	0.009	0.016
355.00	355.75	Fine-coarse grained orange grey fragmental chloritic carbonate	0.1	29			114577	0.005	0.043
355.75	359	POLYLITHIC TUFF MONZONITE							
355.75	357.00	Medium-coarse-grained orange grey brecciated carbonate clay	0.1	30			114578	0.008	0.017
357.00	359.00		0.5	36		Brecciated fine grain phaneritic monzonite/poly lithic tuff (andesitic) showing decimetric - width intercalated of intervals of clast supported breccia (monzonite) / and matrix supported tuff. Matrix of tuff is fairly coarse (fine to medium grained phaneritic). Rock is fractured and injected with 2-5% yellowish - white to orange carbonate/calcite	114579	0.001	0.024
359	367	POLYLITHIC TUFF TOODOGGONE							
359.00	361.00	Fine-coarse grained green-grey fragmental chloritic carbonate	0.1	0 12			114580	0.003	0.01
361.00	363.00		0.1	28		Fragments of recognizable BFP	114581	0.01	0.013
363.00	365.00	Medium-coarse-grained orange grey fragmental chloritic carbonate	0.1	30			114582	0.002	-2
365.00	367.00		0.1	19		Minor shear / slip plane @50 to c.a. near 366.50 m.	114583	0.002	-2
367	381	MONZONITE TOODOGGONE							
367.00	369.00	Medium-coarse-grained orange grey brecciated sericitic carbonate	0.1	37		Brecciated monzonite unit (hypabyssal intrusive?) or coarse crystal tuff	114584	0.001	-2
369.00	371.00		0.1	53		Vuggy aspect, possibly due to clay washing out of an altered feldspar grains	114585	0.002	-2
371.00	373.00		0.1	67			114586	0.001	-2
373.00	375.00		0.1	48			114587	0.005	-2
375.00	377.00		0.1	17			114588	0.01	0.007
377.00	379.00		0.5	35			114589	0.007	-2
379.00	381.00	Medium-coarse-grained green-grey brecciated chloritic carbonate	0.1	7			114591	0.009	0.012
381	382.06	POLYLITHIC TUFF TOODOGGONE							
381.00	382.06	Medium-coarse-grained green-grey fragmental chloritic carbonate	0.2	3 SHR	45 10	Toodoggone sheared @ contact w/ syenite dyke	114592	0.008	0.005

Hole Number: KN-02-42

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
382.06	392.1	SYENITE							
382.06	384.00	Medium-fine-grained orange grey porphyritic		21		Post mineral syenite, fractured 2 - 5 % carbonate / zeolite veins	114593	0.003	-2
384.00	386.00			20			114594	0.003	-2
386.00	388.00			18			114595	0.002	-2
388.00	390.00			22			114596	0.002	-2
390.00	392.10			16			114597	0.001	-2
392.1	419	TUFF TOODOGGONE							
392.10	394.00	Fine-medium-grained orange grey carbonate	0.1	36		Toodoggone crystal tuff. Carbonate veins form 5 - 10 % of core	114598	0.002	-2
394.00	396.00	Fine-medium-grained orange grey carbonate sericitic		9		weak local sericite alteration	114599	0.005	-2
396.00	398.00			24		core soaks up water rapidly, suggesting either clay or diffusive sericite alteration	114600	0.004	-2
398.00	400.20			26			114601	0.005	-2
400.20	406.48		0.1	23		Broken core, low recovery, sample spanning all the broken stuff	114602	0.014	0.042
406.48	408.00		0.1	25			114603	0.003	-2
408.00	409.71		0.1	6		Minor brittle faults w/ gouge @ 35 to c.a.	114604	0.002	-2
409.71	411.15	Fine-medium-grained orange grey sericitic	0.1	0		Yellow sericite alteration, strong in intensity	114605	-2	-2
411.15	413.00	Fine-medium-grained orange grey chloritic sericitic		5			114606	0.002	-2
413.00	415.00			4			114607	-2	-2
415.00	417.00			17			114608	-2	-2
417.00	419.00	Fine-medium-grained dark grey chloritic sericitic		19			114609	-2	-2
419	419.83	POLYLITHIC TUFF TOODOGGONE							
419.00	419.83	Fine-coarse grained dark grey fragmental sericitic chloritic		8			114610	-2	-2
419.83	440.7	ANDESITE TOODOGGONE							
419.83	422.00	Fine-medium-grained light grey massive silicic sericitic		0		Light gray, massive andesitic (?) flow, strongly silicified and sericitized	114611	-2	-2

Hole Number: KN-02-42

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
422.00	424.00	Fine-medium-grained light grey massive silicic sericitic		0			114612	-2	-2
424.00	426.00			0			114613	0.001	-2
426.00	428.00			1			114614	-2	-2
428.00	430.00			0			114615	-2	-2
430.00	432.00			0			114617	0.001	-2
432.00	434.00			1			114618	-2	-2
434.00	436.00			0			114619	0.001	-2
436.00	438.00		0.5	0			114620	0.008	0.007
438.00	440.00			0			114621	0.001	-2
440.00	440.70	Fine-medium-grained light grey flow brecciated silicic sericitic		0	CTC 45	Flow breccia	114622	0.029	0.024
440.7	471.6	POLYLITHIC TUFF TOODOGGONE							
440.70	442.00	Fine-coarse grained fragmental chloritic	0.5	6	FLT 45 10	Greenish black lapilli tuff, brittle fault @ contact with previous unit @45 t.c.a.	114623	0.004	0.009
442.00	443.80		0.1	22			114624	0.009	0.007
443.80	444.40	Fine-coarse grained pink fragmental clay sericitic	0.5	5			114625	0.009	0.008
444.40	446.00	Fine-coarse grained fragmental chloritic	0.5	26			114626	0.007	0.008
446.00	448.00		0.5	8			114627	0.007	0.007
448.00	450.00		0.1	12			114628	0.004	-2
450.00	452.00		0.1	22			114629	0.004	-2
452.00	454.00		0.1	23			114630	0.006	-2
454.00	456.00			34			114631	0.006	-2
456.00	458.00			25			114632	0.002	-2
458.00	460.00			37			114633	0.002	-2
460.00	462.00		0.1	24			114634	0.006	-2
462.00	464.00	Fine-coarse grained orange grey fragmental	0.1	5			114635	0.004	-2
464.00	466.00			4			114636	0.005	-2

Hole Number: KN-02-42

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
466.00	468.00	Fine-coarse grained fragmental chloritic		28			114637	0.004	-2
468.00	470.00			26			114638	0.006	-2
470.00	471.60			21			114639	0.006	-2
471.6	473.6	SYENITE							
471.60	473.60	Medium-fine-grained orange grey porphyritic		18		Post- mineral syenite	114640	0.006	0.015
473.6	477.32	POLYLITHIC TUFF TOODOGGONE							
473.60	475.00	Fine-coarse grained fragmental chloritic		30			114641	0.006	0.014
475.00	477.32			23			114643	0.005	0.073
477.32		EOH							

Kemess North 2002 - Diamond Drill Log



Hole Number: **KN-02-43**

Northing: 15010.3	Total Depth: 703.14m
Easting: 8837.71	Azimuth: 360°
Elevation: 1808.6	Dip: -80°

Geologist: B. LaPeare
Logged Date: 9/22/2002

Survey Depth	Azimuth	Dip	Comments:
61 m	291 °	-82 °	
152 m	21 °	-74 °	Magnetic
244 m	24 °	-63 °	Magnetic
335 m	295 °	-84 °	
427 m	13 °	-86 °	Magnetic
518 m	23 °	-68 °	Magnetic
610 m	3 °	-82 °	Magnetic
701 m	208 °	-77 °	Magnetic

Kemess North 2002 - Summary Drill Log



Hole Number: **KN-02-43**

From (m)	To (m)	Rock Type	Comments
0	2.13	CASING	
2.13	39.85	ANDESITE FLOW	Rubbly mod/weekly oxidized; wkly magnetic
39.85	42.45	BASALT POST-MINERAL DYKE	Black, calcic amygdules; wkly magnetic
42.45	57.8	ANDESITE FLOW	Local epi w/ qtz+calc infill; wkly magnetic
57.8	58.95	BASALT POST-MINERAL DYKE	Same as 118273
58.95	160.5	ANDESITE FLOW	Py+cpy w/ qtz infill; 2 vnlt in sample
160.5	161.85	BASALT POST-MINERAL DYKE	Mafic dyke
161.85	209.5	ANDESITE FLOW	Local wk stockwork; locally diss py
209.5	213.55	BASALT POST-MINERAL DYKE	Calcic amygdules
213.55	355	ANDESITE FLOW	Highly irregular calc + qtz stringers; one qtz vnlt at 80 deg t.c.a.
355	359	ANDESITE QUARTZ VEIN ZONE	START OF MAG+/-CPY ZONE; 30 cm qtz vn // c.a. w/ blebs of cpy and w.d mag in selvage
359	377	ANDESITE FLOW	Cpy locally w.d on fx's; py finely diss
377	381	ANDESITE QUARTZ VEIN ZONE	Sub // vnlt from above and low angle qtz vn w/ py +/- cpy w/ mag as // bands within vn
381	399	ANDESITE FLOW	Qtz vnlt +/- mag @ 1-3 cm wide; mostly barren to rare specks of cpy
399	402.1	ANDESITE QUARTZ VEIN ZONE	Mag inc drill holes; py blebs w/ qtz; patchy mag in vnlt/selvages

Hole Number:

KN-02-43

From (m)	To (m)	Rock Type	Comments
402.1	403.8	ANDESITE FLOW	Local qtz infill/flooding @ lower 40 cm of sample; poorly mineralized
403.8	406.8	ANDESITE QUARTZ VEIN ZONE	Py locally w.d over 5 cm width; minor blebs of py +/- cpy in vnl't
406.8	419	ANDESITE FLOW	Wk epi w/ vnl'ts
419	421	ANDESITE QUARTZ VEIN ZONE	Mag as infill in qtz vnl't and w/ wk vuggy calc + rare py stringers
421	448.9	ANDESITE FLOW	Local mag stringers; one qtz+calc vnl't w/ patchy py+cpy
448.9	472.1	ANDESITE QUARTZ VEIN ZONE	Qtz flooding and vnl'ts; mag as patchy to wispy within vnl'ts
472.1	487.75	QUARTZ MONZONITE QUARTZ VEIN ZONE	V.f.g biotitic groundmass w/ > 50% med gr plag phenocrysts; local diss py in vnl'ts
487.75	537.5	ANDESITE QUARTZ VEIN ZONE	Intercalated contact w/ lower vol'c
537.5	545	QUARTZ MONZONITE	Py or cpy w/ local fe stained stringers; matrix is magnetic
545	547	QUARTZ MONZONITE QUARTZ VEIN ZONE	Continuation of ser alt'n from above w/ pinkish vnl'ts + py 20 cm into sample
547	551	QUARTZ MONZONITE	Mag in local vnl'ts
551	561	QUARTZ MONZONITE QUARTZ VEIN ZONE	One x-cutting py stringer; py also locally dl'ss
561	587.25	QUARTZ MONZONITE	Inc in fe staining/alt'n; py in one qtz vnl't
587.25	595.5	ANDESITE QUARTZ VEIN ZONE	Strongly magnetic thru out; py stringers x-cut qtz and also // within; 10 cm qmz dykelet
595.5	634.95	QUARTZ MONZONITE	Py within and x-cutting vnl'ts; one fe carb stringer x-cuts py
634.95	658.8	ANDESITE FLOW	Locally phyr'ic; med gr mafic crysts within f.g but euhedral felted plag laths

Hole Number: **KN-02-43**

From (m)	To (m)	Rock Type	Comments
658.8	660.7	BASALT POST-MINERAL DYKE	Contacts at 70 deg c.a.
660.7	664	ANDESITE FLOW	Qtz is discontinuous
664	674.65	QUARTZ MONZONITE	Fe carb w/ fe staining on w.r +/- py
674.65	703.17	ANDESITE FLOW	Cpy specks in one qtz+mag vnlit

Kemess North 2002 - Detail Drill Log



Hole Number: KN-02-43

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm	
0	2.13	CASING								
0.00	2.13						43	-2	-2	
2.13	39.85	ANDESITE FLOW								
2.13	4.00	Fine-grained dark grey massive biotite sericitic	0.5	1	15	Rubbly mod/weekly oxidized; wkly magnetic	118253	0.022	0.026	
4.00	6.00		0.5	1	6 QCCV	3	118254	0.024	0.031	
6.00	8.00		2.0	0.1	1	1 QCCV	3	118255	0.08	0.177
8.00	10.00		3.0	0.1	2	23 QCCV	5	118256	0.05	0.062
10.00	12.00		2.0	2	17 QVN	4	118257	0.021	0.03	
12.00	14.00		2.0	2	4 QCCV	3	118258	0.06	0.075	
14.00	16.00		4.0	1	3 QCCV	4	118259	0.097	0.149	
16.00	18.00		4.0	0.1	3	16 CCQVN	7	118261	0.073	0.118
18.00	20.00		4.0	1	1 CCQVN	5	118262	0.13	0.204	
20.00	22.00		3.0	2	39 CCQVN	2	118263	0.041	0.057	
22.00	24.00		3.0	3	25 CCQVN	4	118264	0.094	0.146	
24.00	26.00		3.0	2	68 QVN	20	2	118265	0.065	0.09
26.00	28.00		3.0	2	32 QCCV	3	118266	0.143	0.193	
28.00	30.00		3.0	2	34 CCQVN	5	118267	0.044	0.104	
30.00	32.00		3.0	2	16 CCQVN	5	118268	0.063	0.071	
32.00	34.00		2.0	2	17 QMTVN	30	3	118269	0.074	0.136
34.00	36.00		2.0	1	3 QCCV	3	118270	0.082	0.195	
36.00	38.00		3.0	0.1	1	2 QCCV	4	118271	0.098	0.145

Hole Number: KN-02-43

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
38.00	39.85	Fine-grained dark grey massive biotite sericitic	2.0	0.1	2 23 QCCV	4 Decrease in epi; local irregular qtz + calc infill/vnlts w/ py or cpy	118272	0.094	0.149
39.85	42.45	BASALT POST-MINERAL DYKE							
39.85	42.45	Fine-grained homogeneous			2 102 CCVN 80	3 Black, calcic amygdules; wkly magnetic	118273	0.012	0.017
42.45	57.8	ANDESITE FLOW							
42.45	44.00	Fine-grained dark grey massive biotite sericitic	2.0		1 24 QCCV	2 Local epi w/ qtz+calc infill; wkly magnetic	118274	0.071	0.172
44.00	46.00		2.0	0.1	3 12 QVN	2 Mod magnetic throughout; very wk cpy w/py assoc w/ qtz vnlts	118275	0.07	0.369
46.00	48.00		2.0		3 49 QCCV	3 <1mm qtz +/- py stringers; one low angle calc + qtz vnlts	118276	0.034	0.23
48.00	50.00		1.0		3 75 QVN	2 Wk epi w/ local qtz stringers; decrease in py	118277	0.037	0.159
50.00	52.00		0.5		3 64 QCCV 60	2 Two // qtz+calc vnlts w/ epi alt'n	118278	0.031	0.069
52.00	54.00		1.0	0.1	3 50 QVN 70	4 One 8 cm qtz vnlts w/ wk cpy	118279	0.055	0.162
54.00	56.00		2.0		2 45 QCCV	2 15 cm qtz monzo dykelet at 60 deg t.c.a. w/ wk patchy py; non-magnetic locally	118280	0.148	0.278
56.00	57.80		1.0		1 QVN 70 10	30 cm interval of qtz infill/flooding w/ epi + ser alt'n; non-magnetic	118281	0.16	0.257
57.8	58.95	BASALT POST-MINERAL DYKE							
57.80	58.95	Fine-grained homogeneous			2 1 CCVN	2 Same as 118273	118282	0.023	0.05
58.95	160.5	ANDESITE FLOW							
58.95	60.00	Fine-grained dark grey massive biotite sericitic	2.0	1.0	1 8 QCCV	3 Py+cpy w/ qtz infill; 2 vnlts in sample	118283	0.2	0.416
60.00	62.00		2.0		1 63 QVN 20	2 Low angle qtz + py stringers	118284	0.478	1.1
62.00	64.00		2.0		1 2 QVN 20	2	118285	0.135	0.265
64.00	66.00		2.0	0.1	1 4 QVN	3 Locally wk kfsp alt'n assoc w/ qtz infill; wk cpy w/ py	118287	0.355	0.594
66.00	68.00		2.0		2 45 QVN	2 Very wk epi; inc in magnetite	118288	0.082	0.182
68.00	70.00		2.0		2 16 QVN	2 One qtz +mag+py stringer; one qtz+kfsp vnlts	118289	0.07	0.16
70.00	72.00		1.0	0.1	2 40 QVN	1 One qtz vnlts w/ patchy cpy	118290	0.064	0.133
72.00	74.00		2.0	0.5	2 32 QVN	1 One low angle py + cpy stringer	118291	0.099	0.174
74.00	76.00		2.0		2 52 QVN	1 One qtz+kfsp vnlts; py finely diss	118292	0.127	0.252
76.00	78.00		2.0		3 26 QVN 45	2 Epi w/ vnlts; slight inc in mag	118293	0.09	0.27

Hole Number: KN-02-43

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
78.00	80.00	Fine-grained dark grey massive biotite sericitic	1.0	3	36 QVN 60 1	One qtz vnlit	118294	0.032	0.122
80.00	82.00		2.0	3	32 QVN 2	Py wkly diss and w/ local vnlt	118295	0.061	0.161
82.00	84.00		1.0	3	54 CCQVN 2	Epi w/ vnlt and qtz infill	118296	0.043	0.084
84.00	86.00		1.0	3	69 QVN 2	Py as <1mm wide stringers	118297	0.063	0.125
86.00	88.00		2.0	3	55 QVN 45 3	One qtz + py vnlit w/ w.d epi w.r alt'n	118298	0.139	0.392
88.00	90.00		2.0	0.5	2 46 QCCV 4	Cpy noted twice within vnlt	118299	0.238	0.394
90.00	91.00		2.0	0.1	3 69 QCCV 60 3	Py + wk cpy in one qtz + calc vnlit - 6 cm wide	118300	0.096	0.222
91.00	93.00	Fine-medium-grained dark grey massive biotite sericitic	1.0	2	34 QVN 15 2	Med gr porphyritic flow x-cut by thin irregular mafic dykelets	118301	0.07	0.116
93.00	95.00	Fine-grained dark grey massive biotite sericitic	1.0	3	44 CCQVN 65 2	Wk epi w/ one vnlit	118302	0.057	0.091
95.00	97.00		1.0	3	48 QVN 60 3	Wispy epidote assoc w/ qtz infill	118303	0.117	0.208
97.00	99.00		1.0	3	46 QVN 2	Local thin py stringers	118304	0.092	0.233
99.00	101.00		1.0	3	19 QVN 45 2		118305	0.087	0.176
101.00	103.00		2.0	2	14 QVN 65 3	4 cm qtz vnlit w/ patchy py	118306	0.191	0.361
103.00	105.00		2.0	0.1	3 47	Very wk cpy w/ py assoc w/ calc infill (not vnlit)	118307	0.11	0.211
105.00	107.00		1.0	0.1	2 27 QCCV 25 5	Qtz+calc vnlt w/ w.d. epi + chl alt'n w/ one patch of cpy	118308	0.095	0.194
107.00	109.00		2.0	3	58 QCCV 1	Local patchy epi w/ calc infill	118309	0.062	0.179
109.00	111.00		1.0	2	46 QCCV 3	Very thin py stringers locally	118310	0.082	0.196
111.00	113.00		2.0	0.1	2 22 QCCV 55 2	Qtz+calc vnlt +/- mag +/- py is very local; wk cpy in vnlit	118311	0.089	0.137
113.00	115.00		2.0	2	37 CCZVN 15 2	Low angle pinkish calc vnlt w/ 'knotty' py	118313	0.068	0.142
115.00	117.00		2.0	0.1	2 16 QVN 30 4	One discontinuous py+cpy stringer and one purplish qtz vnlit w/patchy py	118314	0.101	0.237
117.00	119.00		2.0	0.1	2 21 QVN 2	Py+/-cpy w/ local calc qtz stringers; local w.d. low angle py stringers	118315	0.171	0.376
119.00	121.00		2.0	2	2 CCZVN 3	Rubby w/ calc and/ or laumontite on fx's; one mag stringer w/ calc	118316	0.235	0.717
121.00	123.00		2.0	2	28 QCCV 55 3	Py w/ local qtz vnlt	118317	0.103	1.55
123.00	125.00		3.0	3	35 QVN 3	Inc in py assoc w/ qtz vnlt and infill; w.d patchy mag over 3 cm	118318	0.271	0.671
125.00	127.00		1.0	2	83 QVN 2	Py w/ one vnlit	118319	0.059	0.101

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
127.00	129.00	Fine-grained dark grey massive biotite sericitic	2.0	2	58 QCCV 60 4	Py locally w/ calc vnlt at bottom of sample	118320	0.081	0.137
129.00	131.00		1.0	2	7 QCCV	3 Locally bx'd over 25 cm from qtz flooding	118321	0.158	0.222
131.00	133.00		1.0	2	39 QCCV	3 Wk py stringers; one qtz+kfsp vnlt at 55 deg c.a.	118322	0.1	0.153
133.00	135.00		1.0	2	48 QVN	2 Qtz vnlt barren of py	118323	0.055	0.133
135.00	137.00		2.0	2	45 QCCV	3 Moly w/ one qtz vnlt; py w/ local qtz + calc vnlt	118324	0.052	0.143
137.00	139.00		1.0	0.5	2 31 QCCV	2 Cpy w/ calc+qtz vnlt and as very thin (<1mm) discontinuous stringer	118325	0.066	0.158
139.00	141.00		2.0	3	50 QVN	2 Wk epi w/ one calc vnlt; local py stringers; one qtz+mag vnlt is x-cut by later qtz vnlt	118326	0.089	0.235
141.00	143.00		1.0	2	19 QVN	1 Minor patchy py + qtz stringers/vnlt	118327	0.053	0.082
143.00	145.00		2.0	0.1	2 20 QVN 60 7	15 cm qtz vnlt w/ one small speck of cpy	118328	0.186	0.368
145.00	147.00		2.0	2	22 QVN 75 7	One vnlt exhibits w.d. epi w/ patchy py	118329	0.039	0.231
147.00	149.00		1.0	2	56 QCCV	2 Rare thin py stringers	118330	0.033	0.119
149.00	151.00		1.0	2	56 QVN	3 Py w/ one qtz vnlt	118331	0.022	0.095
151.00	153.00		3.0	2	38 QCCV	4 Wispy but locally w.d. py at low angle	118332	0.041	0.443
153.00	155.00		1.0	2	57 QVN	1	118333	0.084	0.174
155.00	157.00		1.0	0.1	2 14 QVN 50 1	One qtz vnlt and one thin py + cpy stringer	118334	0.086	0.17
157.00	159.00		2.0	2	13 QVN	2 Patchy py w/ one qtz vnlt assoc w/ epi alt'n	118335	0.167	0.417
159.00	160.50		4.0	0.1	2 4 QVN 70 10	15 cm qtz vnlt and assoc qtz flooding over 1 m w/ mag + diss py and speck of cpy; one 4 cm wide qtz + py vnlt	118336	0.462	0.891
160.5	161.85	BASALT POST-MINERAL DYKE							
160.50	161.85	Fine-grained homogeneous		2	19	Mafic dyke	118337	0.011	0.006
161.85	209.5	ANDESITE FLOW							
161.85	163.00	Fine-grained dark grey massive biotite sericitic	1.0	2	45 QVN	4 Local wk stockwork; locally diss py	118339	0.177	0.467
163.00	165.00		2.0	2	36 QCCV	3 Epi locally w/ qtz + calc vnlt; 2 qtz + mag +/- py vnlt	118340	0.107	0.598
165.00	167.00		2.0	2	80 CCQVN	5 W.d. epi over 40 cm w/ calc infill	118341	0.151	0.63
167.00	169.00		1.0	2	0 QCCV 75 6	10 cm qtz vnlt w/ 1cm wide mag infill; wk py w/ local qtz+calc stringer	118342	0.214	0.511
169.00	171.00		2.0	2	67 QVN	3 Py w/ qtz vnlt	118343	0.105	0.224

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
171.00	173.00	Fine-grained dark grey massive biotite sericitic	0.5	2	10 QCCV	4	118344	0.176	0.333
173.00	175.00		1.0	0.1	4 37 QMTVN	7	118345	0.28	0.805
175.00	177.00		1.0	2	49 QCCV	3	118346	0.03	0.112
177.00	179.00		1.0	2	18 QVN	3	118347	0.027	0.063
179.00	181.00		1.0	3	21 QCCV	3	118348	0.093	0.282
181.00	183.00		2.0	3	33 QCCV	4	118349	0.08	0.215
183.00	185.00		1.0	3	49 QMTVN 70	12	118350	0.065	0.209
185.00	187.00		1.0	3	43 CCQVN	4	118351	0.026	0.085
187.00	189.00		1.0	3	42 CCQVN	4	118352	0.04	0.084
189.00	191.00		1.0	3	33 CCQVN	3	118353	0.029	0.073
191.00	193.00		2.0	3	24 QCCV 45	6	118354	0.05	0.1
193.00	195.00		3.0	1.0	4 93 QMTVN 20	4	118355	0.194	0.361
195.00	197.00		2.0	3	18 QCCV	3	118356	0.305	0.615
197.00	199.00		2.0	3	8 QCCV	3	118357	0.039	0.091
199.00	201.00		3.0	3	42 QCCV	6	118358	0.04	0.137
201.00	203.00		1.0	4	48 QMTVN	2	118359	0.193	0.492
203.00	205.00		1.0	3	32 QCCV 70	2	118360	0.087	0.173
205.00	207.00		0.5	0.1	4 165 QCCV	2	118361	0.027	0.052
207.00	208.70		1.0	3	58 QCCV	1	118362	0.077	0.249
208.70	209.50		2.0	0.1	4 15 QMTVN	3	118363	0.288	0.245
209.50	213.55	BASALT POST-MINERAL DYKE							
209.50	211.50	Fine-grained homogeneous		2	14 CCVN 60	2	118365	0.009	-2
211.50	213.55			2	18 CCVN 60	2	118366	0.01	0.015
213.55	355	ANDESITE FLOW							
213.55	215.00	Fine-grained dark grey massive biotite sericitic	0.5	3	20 CCQVN	5	118367	0.037	0.052
215.00	217.00		1.0	0.1	3 4 CCQVN	7	118368	0.067	0.158

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
217.00	219.00	Fine-grained dark grey massive biotite sericitic	0.5	3	68 CCQVN 10	One vuggy calc vnlit w/ euhedral xtls	118369	0.053	0.14
219.00	221.00		1.0	0.5	3 60 QCCV	Py+cpy w/ low angle qtz vnlit	118370	0.089	0.207
221.00	223.00		1.0	0.1	4 212 QMTVN	Locally rubbly; one 5 cm qtz+mag+calc vnlit; 2 mag+qtz vnlt w/ py+cpy	118371	0.058	0.223
223.00	225.00		2.0	5	49 QMTVN 35 7	Mag common w/ vnlt; local fe carb; patchy py w/ mag in qtz	118372	0.172	0.516
225.00	227.00		1.0	3	80 QCCV	Py w/ qtz vnlt and rare mag stringers	118373	0.093	0.241
227.00	229.00		2.0	0.5	4 53 QMTVN 35 7	3 qtz vnlt w/ patchy to w.d mag +/- py +/- cpy	118374	0.029	0.124
229.00	231.00		2.0	0.1	5 22 QMTVN	Local w.d but patchy mag w/ qtz infill + py +/- wk cpy	118375	0.093	0.258
231.00	233.00		1.0	4	40 CCQVN	Local vuggy crystalline calc; decrease in py; thin local mag stringers	118376	0.109	0.279
233.00	235.00		1.0	0.1	3 36 QCCV	Wk cpy in one qtz+calc vnlit	118377	0.062	0.211
235.00	237.00		0.5	4	69 QCCV	Rare mag stringers; wk py	118378	0.048	0.099
237.00	239.00		1.0	0.5	3 21 CCVN	Epi locally w.d; finely mixed py+cpy w/ calc infill and patchy mag; bx'd at bottom of sample	118379	0.507	1.025
239.00	241.00		1.0	3	43 CCQVN	Local vnlt +/- mag in selvage; wk py within patchy minor epi	118380	0.024	0.05
241.00	243.00		1.0	3	55 CCQVN	Very wk epi; minor py in stringers	118381	0.113	0.267
243.00	245.00		2.0	5	27 QCCV	Mag stringers + qtz+/-calc vnlt; py+mag w/ one qtz vnlit	118382	0.153	0.531
245.00	247.00		1.0	3	4 QCCV	Minor vnlt +/- py	118383	0.052	0.181
247.00	249.00		1.0	3	2 QVN 65 1	2 qtz + py vnlt at end of sample	118384	0.105	0.194
249.00	251.00		2.0	1	36 QVN 25 4	Decrease in mag; low angle qtz vnlit w/ w.d py	118385	0.203	0.432
251.00	253.00		2.0	0.5	6 329 QCCV	Semi massive mag w/ py+cpy stringers at end of sample; local mottled kfsp all'n	118386	0.238	0.535
253.00	255.00		2.0	0.5	4 27 QVN	Bio all'n more pronounced; mostly non-magnetic; locally diss py+cpy; mag locally w.d	118387	0.342	0.834
255.00	257.00		2.0	0.5	3 72 QVN	Py in local qtz vnlt and also diss w/ cpy; mag destroyed where diss biotite stronger	118388	0.283	0.661
257.00	259.00		2.0	3	13 CCQVN 35 2	One qtz vnlit w/ wk py; minor epi stringers	118389	0.076	0.182
259.00	261.00		1.0	4	110 CCQVN	Phyric texture more pronounced; inc in calc vnlt; mag vnlt locally	118391	0.13	0.343
261.00	263.00		1.0	3	40	Rare mag stringers	118392	0.096	0.914

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
263.00	265.00	Fine-grained dark grey massive biotite sericitic	2.0	2	12 CCVN 5 7	Minor py stringers; low angle calc vnlit over 50 cm w/ locally vuggy w.r and diss py	118393	0.094	0.217
265.00	267.00		2.0	0.5	2 26 QCCV 3	One qtz vnlit w/ w.d py+cpy but only minor qtz+calc stringers thru out	118394	0.072	0.2
267.00	269.00		1.0	4	39 QCCV 5	Local mag stringers - phyrlic porphyritic flow	118395	0.042	0.138
269.00	271.00		2.0	3	11 QCCV 2	Locally x-cut by 40 cm mafic dyke; qtz w/ moly + py @ lower contact; dyke may not be PMD	118396	0.112	0.327
271.00	273.00		2.0	3	18 QCCV 20 5	Py+moly w/ qtz infill at upper contact/top of sample; locally w.d epi w/ low angle vnlit	118397	0.029	0.095
273.00	275.00		2.0	0.5	5 32 QVN 70 5	W.d patchy mag w/ qtz infill over 20 cm w/ py+cpy	118398	0.169	0.448
275.00	277.00		3.0	0.1	3 30 QCCV 5	W.d py in qtz + calc vnlit; moly in one qtz vnlit; wk cpy in qtz stringer	118399	0.146	0.367
277.00	279.00		1.0	3	34 QCCV 2	Locally fragmental - bx flow	118400	0.118	0.354
279.00	281.00		3.0	0.1	5 46 QCCV 2	Strongly magnetic locally; diss py +/- wk cpy over 40 cm w/ no mag	118401	0.149	0.364
281.00	283.00		1.0	3	63 QCCV 2	Phyrlic/chloritic; wk diss py; qtz+calc as irregular infill	118402	0.081	0.212
283.00	285.00		2.0	3	40 QVN 2	Locally w.d py w/ vuggy qtz vnlit; slightly mottled texture	118403	0.048	0.126
285.00	287.00	Fine-grained dark grey heterogeneous biotite sericitic	4.0	4	30 QVN 1	Qtz fragments (infill??) within magnetic vol'c w/ assoc py thru out	118404	0.076	0.243
287.00	289.00	Fine-grained dark grey massive biotite sericitic	2.0	4	50 QVN 3	20 cm semi massive py at bottom of sample	118405	0.056	0.208
289.00	291.00	Fine-grained dark grey heterogeneous biotite sericitic	2.0	3	94 QVN 3	Qtz frags/infill (?) w/ qmonzo frags/discontinuous dykelets -> texture shows evidence of both	118406	0.061	0.163
291.00	293.00	Fine-grained dark grey massive biotite sericitic	2.0	3	10 QCCV 35 1	As above but qmonzo as dykelet; py locally diss	118407	0.067	0.196
293.00	295.00		3.0	0.1	3 27 QCCV 3	Qmonzo as either frags or dykelets; locally discontinuous/angular; one cpy stringer w/ qtz vnlit	118408	0.067	0.149
295.00	297.00		3.0	0.5	5 239 QMTVN 4	Locally patchy cpy within qmonzo dykelet; py w/ qtz infill; strong mag is assoc w/ qtz infill	118409	0.101	0.218
297.00	299.00		3.0	0.5	4 12 QCCV 4	Py+/-cpy w/ low angle qtz+calc vnlt; minor qmonzo locally also magnetic	118410	0.217	0.632
299.00	301.00		3.0	3	14 QCCV 1	Locally diss py and py stringers; <5% as irregular qtz infill (frags??)	118411	0.105	0.275
301.00	303.00		1.0	4	25 CCVN 45 2	2 qmonzo dykelets; minor py; minor qtz infill/frags at end of sample	118412	0.075	0.222

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
421	448.9	ANDESITE FLOW							
421.00	423.00	Fine-grained dark grey massive biotite sericitic	2.0	0.5	7 83 QMTVN 35 4	Local mag stringers; one qtz+calc vnlit w/ patchy py+cpy	118477	0.139	0.412
423.00	425.00		0.5	0.5	4 60 QCCV 25 2	W.d. cpy in one qtz vnlit 7 mm wide	118478	0.181	0.517
425.00	427.00		0.5		5 85 QCCV 10 2	Wk epidote fx fill; calc locally cuts qtz	118479	0.095	0.279
427.00	429.00		0.5		3 42 QCCV 2	Pinkish stringers possibly fe carb + zeolite	118480	0.188	0.682
429.00	431.00		0.5		7 41 QMTVN 30 4	Significant inc in ser alt'n which accentuates phyric texture; inc in mag as stringers and w/ qtz	118481	0.049	0.185
431.00	433.00		0.5		10 89 QMTVN 20 10	Locally w.d mag w/ qtz	118482	0.048	0.138
433.00	435.00		3.0		10 108 QMTVN 15 7	Mostly low angle qtz w/ mag; one qtz vnlit at 55 deg c.a. w/ w.d py	118483	0.033	0.143
435.00	437.00		1.0	1.0	15 149 QMTVN 15 7	Stringer of cpy within and // w/ qtz vnlit; mag mostly w/ vnlt	118484	0.081	0.261
437.00	439.00		0.5	0.5	10 66 QMTVN 5 10	Blebs of cpy w/ qtz+mag vnlt	118485	0.046	0.249
439.00	441.00		0.5	0.5	15 173 QMTVN 5 10	Wk py+cpy diss in vnlt	118486	0.065	0.235
441.00	443.00		1.0	0.5	20 97 QMTVN 5 5	Wispy cpy locally in qtz	118487	0.159	0.342
443.00	445.00		1.0	0.5	15 168 QMTVN 5	As above	118488	0.222	0.456
445.00	447.00		2.0	0.5	10 66 QMTVN 5	Low angle py+/-cpy vnlit x-cuts local qtz vnlit; thin calc stringer x-cuts qtz	118489	0.064	0.18
447.00	448.90		2.0		25 374 QMTVN 35 10	Local py stringers // w/ qtz vnlt in w.r.; local diss py w/ epi	118490	0.059	0.232
448.9	472.1	ANDESITE QUARTZ VEIN ZONE							
448.90	450.00	Fine-grained dark grey massive biotite silicic	0.5		20 69 QMTVN 40	Qtz flooding and vnlt; mag as patchy to wispy within vnlt	118491	0.107	0.195
450.00	452.00		3.0	0.3	7 85 QMTVN 35 15	W.d py +/- wk cpy as infilling in qtz vnlit	118492	0.033	0.082
452.00	454.00		1.0		10 132 QMTVN 25 15	Epi locally w.d	118493	0.031	0.07
454.00	456.00		0.5		15 227 QMTVN 35 15	Variable epi thru out	118495	0.03	0.073
456.00	458.00		3.0		10 142 QMTVN 20 15	Inc in py mostly w/ vnlt but also diss	118496	0.053	0.107
458.00	460.00		0.5		15 160 QMTVN 15 20	Mag bands // within vnlt	118497	0.044	0.087
460.00	462.00		0.5	0.1	15 170 QMTVN 35 20	Wk epi thru out	118498	0.022	0.046
462.00	464.00		3.0		10 133 QMTVN 40 15	Py w/ vnlt +/- rare cpy	118499	0.028	0.068
464.00	466.00		2.0	0.5	10 164 QMTVN 30 10	Wk py w/ qtz assoc w/ mag	118500	0.03	0.063

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
466.00	468.00	Fine-grained dark grey massive biotite silicic	1.0	15	258 QMTVN 20 25	Mag patchy to well banded/wispy within qtz vnlt; one w.d bleb of cpy in vnlt	118501	0.035	0.061
468.00	470.00		2.0	0.5	15 216 QMTVN 30 35	Inc in mag similar to above; py locally w.d in vnlt	118502	0.04	0.069
470.00	472.10		1.0	15	294 QMTVN 20	Local py+cpy blebs in qtz	118503	0.016	0.044
472.1	487.75	QUARTZ MONZONITE QUARTZ VEIN ZONE							
472.10	474.00	Medium-grained grey-green porphyritic biotite silicic	1.0	10	152 QMTVN 30 20	V.f.g biotitic groundmass w/ > 50% med gr plag phenocrysts; local diss py in vnlt	118504	0.038	0.052
474.00	476.00		1.0	10	102 QMTVN 10 10	Local fe staining of plag crystals; wk local epi alt'n	118505	0.016	0.027
476.00	478.00		1.0	10	151 QMTVN 30 20		118506	0.013	0.031
478.00	480.00		1.0	10	120 QZV 40 15	Wk diss py + epi in vnlt	118507	0.022	0.063
480.00	482.00		0.5	15	200 QMTVN 35	Inc of mag w/ qtz; patchy epi w/ qtz locally	118508	0.01	0.017
482.00	484.00		2.0	0.8	15 106 QMTVN 30	Local wispy py +/- cpy in local vnlt	118509	0.035	0.059
484.00	486.00		5.0	0.5	15 138 QMTVN 35 35	Coarse patchy py+/-cpy in vnlt	118510	0.036	0.063
486.00	487.75		3.0	0.3	15 168 QMTVN 40 45	Py stringers within and x-cut qtz vnlt; wk cpy+py locally within intrusive	118511	0.039	0.103
487.75	537.5	ANDESITE QUARTZ VEIN ZONE							
487.75	489.00	Fine-medium-grained dark grey massive biotite silicic	2.0	25	330 QMTVN 40 55	Intercalated contact w/ lower volc	118512	0.027	0.035
489.00	491.00		0.5	0.5	25 322 QMTVN 50 40	One x-cutting cpy stringer noted	118513	0.019	0.037
491.00	493.00		2.0	0.5	25 327 QMTVN 30 50	Cpy noted in one vnlt; py common on x-cutting fx's of vnlt	118514	0.035	0.039
493.00	495.00		2.0	0.8	20 260 QMTVN 35 25	Includes 50 cm dykelet of qmnz; cpy w.d in one high angle qtz vnlt in volc	118515	0.027	0.035
495.00	497.00		3.0	0.1	25 277 QMTVN 35 35	Py on 50 deg c.a. fx's x-cutting qtz	118516	0.037	0.069
497.00	499.00		2.0	15	87 QMTVN 30 40	Py locally assoc w/ epi x-cutting qtz	118517	0.035	0.051
499.00	501.00		2.0	15	209 QMTVN 30	Local qmnz; py in local vnlt; patchy epi w/ veining	118518	0.039	0.225
501.00	503.00		2.0	0.5	15 157 QMTVN 35 45	Py+/-cpy in low angle microfx's of qtz	118519	0.03	0.107
503.00	505.00		1.0	20	253 QMTVN 45	Vnlt both high and low angle; py very wkly diss and x-cut qtz as stringers	118521	0.018	0.031
505.00	507.00		2.0	15	106 QMTVN 45	Slight inc in py	118522	0.03	0.044
507.00	509.00		2.0	15	96 QMTVN 45	Py patchy in qtz and along selvages	118523	0.028	0.049
509.00	511.00		2.0	0.5	20 267 QMTVN 30 35	W.d py+cpy in one high angle vnlt; inc in patchy epi	118524	0.017	0.031

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
511.00	513.00	Fine-medium-grained dark grey massive biotite silicic	1.0 0.3	25 391	QMTVN 25 70	Wispy // banded mag in vnlt; very local py+/-cpy as low angle stringers	118525	0.027	0.048
513.00	515.00		2.0 0.3	15 83	QMTVN 15 40	Patchy irregular epi	118526	0.026	0.048
515.00	517.00		2.0 0.3	20 52	QMTVN 5 30	Py as fx fill and as slightly higher angle stringers	118527	0.04	0.083
517.00	519.00		1.0 0.3	20 146	QMTVN 30 35	Py+/-cpy as fx fill	118528	0.011	0.03
519.00	521.00		2.0 0.3	15 81	QMTVN 20 45		118529	0.035	0.055
521.00	523.00		2.0 0.3	20 202	QMTVN 25 55	Py locally w.d w/ rare higher angle vnlt	118530	0.036	0.213
523.00	524.30		2.0 0.5	10 54	QMTVN 50	Py+/-cpy noted on fx's; qtz highly variable orientation	118531	0.07	0.139
524.30	525.95		12.0 0.5	5 46	QMTVN 90	Almost complete replacement by qtz; py as patchy to low angle vnlt QTZ+MAG+PY ZONE	118532	0.007	0.484
525.95	527.70		15.0 0.8	10 118	QMTVN 100	Local semi-massive py - no cpy visible within py QTZ+MAG+PY ZONE	118533	0.021	0.179
527.70	529.00		5.0 0.5	10 118	QMTVN 35 40	Py locally very w.d. over 15 cm within qtz QTZ+MAG+PY ZONE	118534	0.017	0.217
529.00	531.00		3.0 0.1	10 127	QMTVN 55 40	Py stringers x-cut qtz at opposing 55 deg angles QTZ+MAG+PY ZONE	118535	0.019	0.084
531.00	532.50		3.0 0.1	10 170	QMTVN 35	Qtz more as infill than as vnlt w/ local wk cpy w/ py QTZ+MAG+PY ZONE	118536	0.018	0.082
532.50	534.00		5.0 0.3	20 286	QMTVN 60	Qtz as above; wk cpy w/ py over 30 cm QTZ+MAG+PY ZONE	118537	0.009	0.071
534.00	535.30		10.0 0.1	15 214	QMTVN 55 60	Local semi-massive py (w/ cpy?); wispy ser alt'n within qtz QTZ+MAG+PY ZONE	118538	0.007	0.189
535.30	536.20		20.0 0.5	3 21	QMTVN 60 100	As above; crackle bx texture in qtz; contact zone w/ QMNZ QTZ+MAG+PY ZONE	118539	0.007	0.127
536.20	537.50	Medium-grained grey porphyritic biotite sericitic	2.0 0.5	7 78	QMTVN 25 30	Biotitic matrix; msv to wispy mag in qtz; local cpy w/ fe stained stringer	118540	0.01	0.036
537.5	545	QUARTZ MONZONITE							
537.50	539.00	Medium-grained grey porphyritic biotite sericitic	2.0 0.8	10 68	QMTVN 30 10	Py or cpy w/ local fe stained stringers; matrix is magnetic	118541	0.026	0.086
539.00	541.00		1.0	5 90	QMTVN 40 7	Rare py stringer; wk epi alt'n	118542	0.005	0.013
541.00	543.00		2.0 0.5	5 73	QMTVN 75 12	Py+/-cpy patchy within qtz	118543	0.015	0.031
543.00	545.00		4.0	4 13	QCCV 35 10	Py locally w.d assoc w/ pinkish fe carb (zeo?) occurring within strong green sericitic alt'n	118544	0.044	0.101
545	547	QUARTZ MONZONITE QUARTZ VEIN ZONE							

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
545.00	547.00	Medium-grained grey porphyritic biotite sericitic	3.0	7	59 QCCV 35 20	Continuation of ser alt'n from above w/ pinkish vnlt + py 20 cm into sample	118545	0.03	0.073
547	551	QUARTZ MONZONITE							
547.00	549.00	Medium-grained grey porphyritic biotite sericitic	1.0	7	61 QMTVN 40 10	Mag in local vnlt	118547	0.015	0.021
549.00	551.00		3.0	0.5	5 47 QMTVN 50 7	3 py vnlt <= 1 cm wide +/- cpy	118548	0.016	0.031
551	561	QUARTZ MONZONITE QUARTZ VEIN ZONE							
551.00	553.00	Medium-grained grey porphyritic biotite sericitic	1.0	10	102 QMTVN 40 20	One x-cutting py stringer; py also locally diss	118549	0.015	0.026
553.00	555.00		2.0	10	135 QMTVN 40 15	Py as thin stringers and locally diss; wk epi alt'n	118550	0.012	0.029
555.00	557.00		1.0	10	81 QMTVN 50 25	Rare wispy py in qtz	118551	0.009	0.021
557.00	559.00		1.0	5	49 QMTVN 45 15	Milky white qtz vnlt x-cut smoky grey qtz+/-mag vnlt	118552	0.016	0.03
559.00	561.00		1.0	4	16 QVN 60 7	Wk local fe staining as w.r alt'n	118553	0.014	0.025
561	587.25	QUARTZ MONZONITE							
561.00	563.00	Medium-grained grey porphyritic biotite sericitic	2.0	2	11 QVN 60 2	Inc in fe staining/alt'n; py in one qtz vnlt	118554	0.014	0.02
563.00	565.00		2.0	2	18 ZQCCV 70 2	Fe staining and strong ser alt'n locally assoc w/ pinkish fe carb stringers	118555	0.013	0.015
565.00	567.00		2.0	2	16 ZQCCV 2	As above; stringers are planar but variable	118556	0.011	0.02
567.00	569.00		2.0	2	22 ZQCCV 2		118557	0.009	0.016
569.00	571.00		3.0	2	3 ZQCCV 4	Py mostly as random thin stringers; inc in fe carb (zeo) vnlt	118558	0.008	0.018
571.00	573.00		3.0	2	2 ZQCCV 3	Py as stringers and within one qtz vnlt and locally diss	118559	0.018	0.033
573.00	575.00		3.0	4	50 ZQCCV 2	Pinkish fe carb stringers x-cut qtz; mag mostly w/ vnlt but also wkly magnetic thru out	118560	0.015	0.029
575.00	577.00		2.0	3	17 QVN 7	Fe staining but fe carb absent	118561	0.03	0.055
577.00	579.00		2.0	4	14 QMTVN 4	Mag in qtz and diss; py x-cuts	118562	0.017	0.023
579.00	581.00		3.0	5	23 QVN 4	Py and fe staining on fx's assoc w/ vnlt	118563	0.02	0.03
581.00	583.00		3.0	4	17 QMTVN 4	Py locally w.d w/ one qtz+mag vnlt	118564	0.018	0.026
583.00	585.00		3.0	3	15 QVN 35 4	One py+cpy stringer x-cuts qtz vnlt; 2 cm py vnlt also x-cuts; fe staining locally w.d.	118565	0.022	0.068

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
585.00	586.10	Medium-grained grey porphyritic biotite sericitic	3.0	4	33 QMTVN 35 5	Slight inc in mag; x-cutting py stringers locally; fe staining+ser alt'n locally w.d.	118566	0.019	0.02
586.10	587.25		3.0	4	46 QMTVN 35 10	Local py stringers @ 50 deg c.a. w/ black chl+bio(?) w.r. alt'n; qtz+py vnlt w/ wk epi	118567	0.028	0.045
587.25	595.5	ANDESITE QUARTZ VEIN ZONE							
587.25	589.00	Fine-grained dark grey massive biotite silicic	3.0	7	96 QMTVN 40 25	Strongly magnetic thru out; py stringers x-cut qtz and also // within; 10 cm qmnz dykelet	118568	0.036	0.068
589.00	591.00		3.0	7	40 QMTVN 50 25	As above w/ 25 cm qmnz dykelet	118569	0.029	0.054
591.00	593.00		3.0	0.1	7 43 QMTVN 50 25	One speck of cpy in vnlt; py locally w/ qtz and locally diss	118570	0.04	0.063
593.00	594.55		3.0	7	33 QMTVN 30	Local random py stringers w.d over 20 cm	118571	0.028	0.042
594.55	595.50		3.0	7	97 QMTVN 30	Py w/ qtz; vnlt highly random	118573	0.023	0.04
595.5	634.95	QUARTZ MONZONITE							
595.50	597.00	Medium-grained grey porphyritic biotite sericitic	2.0	5	2 QVN 40 7	Py within and x-cutting vnlt; one fe carb stringer x-cuts py	118574	0.027	0.034
597.00	599.00		2.0	5	30 QVN 40 7		118575	0.019	0.027
599.00	601.00		2.0	5	40 QVN 55 7	Wk local fe staining	118576	0.017	0.028
601.00	603.00		2.0	4	23 QVN 45 7	Fe staining w/ strong ser alt'n over 50 cm; 15 cm mafic dyke	118577	0.018	0.031
603.00	605.00		2.0	3	28 QMTVN 55 5	Py w/ patchy mag in one vnlt <1 cm wide	118578	0.021	0.06
605.00	607.00		2.0	4	73 QVN 55 5	Fe staining rare but w.d w/ one vnlt	118579	0.011	0.024
607.00	609.00		1.0	4	19 QVN 45 7	Fe staining locally w.d w/ vnlt	118580	0.011	0.028
609.00	611.00		1.0	4	9 QMTVN 45 3	One mag vnlt	118581	0.016	0.061
611.00	613.00		1.0	3	1 QCCV 60 5	One 10 cm qtz vnlt w/ strong ser w.r. alt'n + fe staining; blebs of py in one vnlt	118582	0.01	0.028
613.00	615.00		1.0	3	9 QVN 60 1	One thin qtz+py vnlt	118583	0.014	0.032
615.00	617.00		1.0	3	6 QCCV 45 1	Msv intrusive	118584	0.01	0.031
617.00	619.00		1.0	3	20 QCCV 45 3	Wk ser alt'n + fe staining locally as w.r alt'n	118585	0.008	0.021
619.00	621.00		1.0	3	22 QCCV 45 5	As above	118586	0.008	0.023
621.00	623.00		1.0	3	3	Msv intrusive; py as very thin stringers	118587	0.005	0.01
623.00	625.00		2.0	3	7 QCCV 2	Local fe carb stringers w/ fe staining	118588	0.009	0.024
625.00	627.00		1.0	3	10 QAVN 45 2	Anhydrite w/ one thin qtz vnlt	118589	0.009	0.016

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
627.00	629.00	Medium-grained grey porphyritic biotite sericitic	1.0	3	34 CCVN 65 2	Local wk fe staining	118590	0.018	0.028
629.00	631.00		0.5	3	48 QVN 15 2	Epi in one qtz vnl	118591	0.01	0.023
631.00	633.00		2.0	3	39 QVN 45 2	50 cm volc xenolith which contains 2 py vnls	118592	0.041	0.057
633.00	634.95		2.0	2	13 QVN 40 2	Py stringers all at 50 deg c.a.	118593	0.023	0.041
634.95	658.8	ANDESITE FLOW							
634.95	637.00	Fine-grained dark grey massive biotite silicic	2.0	3	21 QCCV 45 7	Locally phyrlic; med gr mafic crystals within f.g but euhedral felted plag laths	118594	0.028	0.051
637.00	639.00		2.0	5	58 QMTVN 45 7	Wispy banded mag in local vnls	118595	0.033	0.146
639.00	641.00		3.0	4	16 QVN 60 4	Py as patchy/diss in volc and w/ local vnls	118596	0.041	0.115
641.00	643.00		2.0	3	20 QCCV 40 5	Local mag stringers	118597	0.045	0.197
643.00	644.80		2.0	0.8	3 20 QCCV 5	Cpy+py locally w.d in 8 cm qtz vn w/ mag + epi + fe carb (zeo?)	118599	0.051	0.14
644.80	647.00		3.0	4	60 QVN 45 5	Top half id mafic dyke; lower half w/ locally w.d. py w/ vnls in volc	118600	0.028	0.072
647.00	649.00		3.0	0.5	3 15 QVN 55 10	Local py vnls; rare patchy cpy w/ qtz infill	118601	0.04	0.091
649.00	651.00		2.0	4	18 QVN 55 4	Wispy to patchy py; one 20 cm mafic dykelet	118602	0.035	0.077
651.00	653.00		3.0	5	18 QVN 65 4	Py as stringers or within qtz vnls	118603	0.055	0.103
653.00	655.00		5.0	0.1	5 20 QVN 50 3	Locally w.d py assoc w/ mag +/- qtz; py also wispy/patchy in volc	118604	0.107	0.19
655.00	657.00		3.0	0.3	5 25 QVN 60 7	Wispy py+cpy in local vnls; py x-cuts qtz; one diffuse 30 cm qmz dykelet	118605	0.05	0.103
657.00	658.80		0.5	5	22 QVN 75 5	Very diffuse qmz over 20 cm; wk py locally	118606	0.036	0.166
658.8	660.7	BASALT POST-MINERAL DYKE							
658.80	660.70	Fine-grained massive		2	17	Contacts at 70 deg c.a.	118607	0.007	0.006
660.7	664	ANDESITE FLOW							
660.70	662.00	Fine-grained dark grey massive biotite silicic	0.5	4	74 QMTVN 80 2	Qtz is discontinuous	118608	0.068	0.567
662.00	664.00		0.5	4	45 QMTVN 55 4	Wk epi w/ vnl; lower contact @ 80 deg c.a.	118609	0.033	0.048
664	674.65	QUARTZ MONZONITE							
664.00	666.00	Medium-grained grey porphyritic biotite sericitic	1.0	3	37 QCCV 55 4	Fe carb w/ fe staining on w.r +/- py	118610	0.009	0.026

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From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (CA-%)	Comments	Sample#	Cu %	Au ppm
666.00	668.00	Medium-grained grey porphyritic biotite sericitic	2.0	7	8 QCCV	3 Py w/ w.d. mag (1 cm wide) as w.r of qtz vnlit; fe staining locally extensive	118611	0.032	0.046
668.00	670.00		1.0	5	27 QVN	55 5 Fe staining assoc w/ vnlt; py x-cuts qtz	118612	0.009	0.027
670.00	672.00		1.0	3	30 QCCV	3 15 cm vol'c xenolith; py locally w/ fe carb + qtz	118613	0.011	0.02
672.00	673.00		0.5	2	19 QCCV	50 2 Xenoliths w/ diffuse boundaries	118614	0.014	0.026
673.00	674.65		1.0	3	50 QMTVN	40 1 Fe staining w/ fe carb stringers; py+mag w/ qtz stringers	118615	0.007	0.014
674.65	703.17	ANDESITE FLOW							
674.65	676.00	Fine-grained dark grey massive biotite silicic	1.0	0.3	5 43 QCCV	5 Cpy specks in one qtz+mag vnlit	118616	0.014	0.044
676.00	678.00		2.0	5	74 QCCV	3 Low angle to irregular calc over 15 cm' local patchy mag+py	118617	0.069	0.163
678.00	680.00		2.0	5	58 QVN	3 Local py stringers @ various angles	118618	0.056	0.108
680.00	682.00		4.0	3	27 QAVN	40 7 15 cm qtz+anhydrite vn @ 40 deg t.c.a. with/ py+moly; one 5 cm py vnlit @ 45 deg c.a.	118619	0.057	0.118
682.00	684.00		2.0	3	22 QAGV	45 3 Gyp+anhy // w/ t.c.a. and x-cuts high angle qtz + mag vnlt	118620	0.072	0.167
684.00	686.00		1.0	4	57 QCCV	0 4 Qtz+calc // c.a.; w/ wk local py	118621	0.09	0.189
686.00	688.00		2.0	0.3	3 36 QAVN	50 3 2 anhy +/- qtz vnlt @ 45/60 deg c.a.; rare patchy py+cpy w/ mag; one mag vnlit	118622	0.064	0.189
688.00	690.00		2.0	0.5	3 31 QAVN	30 2 Patchy py proximal to qtz infill and within qtz; rare x-cutting py stringers	118623	0.03	0.053
690.00	692.00		2.0	0.5	5 24 QVN	50 2 One cpy stringer; local py stringers and wkly diss	118625	0.067	0.118
692.00	694.00		1.0	0.5	4 62 QMTVN	75 2 Msv, silicified vol'c w/ py +/- cpy as rare thin stringers usually w/ qtz	118626	0.061	0.11
694.00	696.00		1.0	0.5	4 10 QAVN	35 4 As above but w/ qtz+anhy vnlt; py+/-cpy w/ qtz vnlt and x-cut vnlt and fx fill	118627	0.129	0.243
696.00	698.00		3.0	0.8	3 44 AQVN	4 Inc in CaSO4 veining; py w/ qtz stringers and locally diss; one feldspar porphyry fragment	118628	0.166	0.27
698.00	700.00		2.0	0.3	3 22 QVN	20 2 Rare thin py+/-cpy stringers	118629	0.083	0.171
700.00	702.00		3.0	0.3	3 41 QVN	60 3 W.d py w/ mag+py vnlit - 4 cm wide	118630	0.132	0.246
702.00	703.17		1.0	4	23 QMTVN	25 3 Mag w/ qtz vnlit	118631	0	0
703.17		EOH							