APPENDIX I
DIAMOND DRILL LOGS
VOLUME 3
TCU04121 to TCU04141

Geological, Geochemical and Diamond Drilling Report on the Tulsequah Chief Property



MAR = 2 2005

Gold Commissioner's Office VANCOUVER, B.C.

Tulsequah River Area Northwestern BC NTS 104K/12

Atlin Mining Division

58°43'N 133°35'W

Owner & Operator:
Redfern Resources Ltd.
760 - 777 Hornby Street,
Vancouver, BC



Hole-ID: TCU04121 Page: 1

Collar Coordinates

North (m): East (m) Elevation (m): 15545.00 10596.00

114.00

Azimuth (degrees):

Dip (degrees):

Length (m):

216.49 -62.29

740.36

Started: Completed: 11/08/2004 23/08/2004 Date Logged: Logged By: 11/08/2004

Report Printed:

MA. 17/12/2004

Down Hole Survey Tests

							DUW	II HOI	e Surve	y resia	>						
Depth (m)	Azimuth	n Dip	Depth (m)	Azimuth	Dip	Dep (m	th Azimutl)	n Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimutl	h Dip
0.00	216.49	-62.29	75.73	215.94	-62.94	151.4	7 215.61	-63.47	227.20	216.60	-64.26	302.93	216.60	-65.08	378.67	216.85	-65.32
2.91	216.43	-62.30	78.65	215.71	-62.92	154.3	88 215.61	-63.48	230.11	216.60	-64.29	305.85	216.55	-65.09	381.58	216.75	-65.34
5.83	216.50	-62.29	81.56	215.56	-62.94	157.2	9 215.61	-63.52	233.03	216.67	-64.33	308.76	216.48	-65.15	384.49	216.63	-65.32
8.74	216.43	-62.30	84.47	215.51	-63.01	160.2	21 215.65	-63.56	235.94	216.69	-64.36	311.67	216,49	-65.19	387.41	216.60	-65.30
11.65	216.29	-62.32	87.38	215.49	-63.04	163.1	2 215.71	-63.58	238.85	216.72	-64.41	314.58	216,50	-65.20	390.32	216.55	-65.28
14.56	216.21	-62.34	90.30	215.52	-63.07	166.0	3 215.82	-63.60	241.76	216.72	-64.49	317.50	216.47	-65.22	393.23	216.55	-65.26
17.48	216.22	-62.37	93.21	215.55	-63.07	168.9	4 215.85	-63.62	244.68	216.68	-64.54	320.41	216,44	-65.24	396.14	216.55	-65.25
20.39	216.17	-62.39	96.12	215.55	-63.06	171.8	86 215.90	-63.63	247.59	216.63	-64.55	323.32	216.46	-65.27	399.06	216.41	-65.26
23.30	216.05	-62.40	99.04	215.58	-63.09	174.	7 215.94	-63.66	250.50	216.61	-64.54	326.24	216.49	-65.28	401.97	216.30	-65.23
26.22	216.02	-62.42	101.95	215.57	-63.10	177.6	8 215.99	-63.69	253.42	216.62	-64.54	329.15	216.50	-65.25	404.88	216.22	-65.20
29.13	216.01	-62.48	104.86	215.54	-63.10	180.	9 216.07	-63.72	256.33	216.66	-64.60	332.06	216.57	-65.27	407.79	216.03	-65.23
32.04	216.04	-62.53	107.77	215.50	-63.17	183.	51 216.13	-63.73	259.24	216.69	-64.65	334.97	216.70	-65.27	410.71	215.75	-65.26
34.95	216.09	-62.56	110.69	215.44	-63.21	186.4	216.15	-63.75	262.15	216.69	-64.68	337.89	216.69	-65.28	413.62	215.51	-65.24
37.87	216.03	-62,58	113.60	215.41	-63.21	189.3	33 216.28	-63.78	265.07	216.66	-64.72	340.80	216.72	-65.30	416.53	215.43	-65.23
40.78	216.05	-62.62	116.51	215.48	-63.24	192.2	25 216.32	-63.80	267.98	216.68	-64.74	343.71	216.80	-65.30	419.45	215.32	-65.28
43.69	216.10	-62.66	119.43	215.48	-63.30	195.	16 216.34	-63.82	270.89	216.74	-64.74	346.63	216.79	-65.31	422.36	215.04	-65.37
46.61	216.10	-62.73	122.34	215.54	-63.34	198.0	7 216.38	-63.85	273.81	216.75	-64.73	349.54	216.80	-65.31	425.27	214.79	-65.45
49.52	216.13	-62.79	125.25	215.61	-63.38	200.9	98 216.40	-63.89	276.72	216.79	-64.73	352.45	216.84	-65.30	428.18	214.60	-65.52
52.43	216.16	-62.84	128.16	215.59	-63.39	203.9	0 216.41	-63.94	279.63	216.80	-64.74	355.36	216.82	-65.30	431.10	214.43	-65.58
55.34	216.17	-62.89	131.08	215.58	-63.37	206.8	31 216.36	-64.01	282.54	216.83	-64.77	358.28	216.83	-65.31	434.01	214.26	-65.66
58.26	216.18	-62.89	133.99	215.62	-63.36	209.	2 216.33	-64.07	285.46	216.81	-64.81	361.19	216.83	-65.34	436.92	214.08	-65.70
61.17	216.20	-62.89	136.90	215.64	-63.39	212.0	34 216.37	-64.11	288.37	216.78	-64.86	364.10	216.91	-65.35	439.84	213.84	-65.73
64.08	216.25	-62.91	139.82	215.65	-63.40	215.	55 216.39	-64.16	291.28	216.69	-64.90	367.02	216.92	-65.36	442.75	213.66	-65.82
66.99	216.25	-62.92	142.73	215.68	-63.44	218.4	16 216.38	-64.17	294.19	216.61	-64.96	369.93	216.94	-65.37	445.66	213.60	-65.93
69.91	216.21	-62.94	145.64	215.65	-63.46	221.3	37 216.49	-64.19	297.11	216.60	-65.02	372.84	216.98	-65.36	448.57	213.54	-66.01
72.82	216.16	-62.96	148.55	215.64	-63.46	224.	29 216.57	-64.22	300.02	216.58	-65.06	375.75	216.91	-65.33	451.49	213.55	-66.07



Hole-ID: TCU04121 Page: 2

Collar Coordinates

North (m): East (m) Elevation (m): 15545.00 10596.00

114.00

Azimuth (degrees):
Dip (degrees):

Length (m):

216.49 -62.29 740.36 Started: Completed:

11/08/2004 23/08/2004 Date Logged: Logged By: 11/08/2004 MA.

Report Printed:

17/12/2004

Down Hole Survey Tests

							D011		Ou. To	,	•						
Depth (m)	Azimut	h Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	n Dip	Depth (m)	Azimuth	h Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip
454.40	213.52	-66.12	530.13	214.39	-68.16	605.87	212.11	-69.52	681.60	198.04	-71.08						
457.31	213.43	-66.17	533.05	214.28	-68.33	608.78	211.93	-69.60	684.51	197.88	-71.14						
460.23	213.39	-66.23	535.96	214.08	-68.52	611.69	211.57	-69.72	687.43	197.77	-71.15						
463.14	213.40	-66.28	538.87	213.91	-68.64	614.61	211.21	-69.78	690.34	197.59	-71.23						
466.05	213.40	-66.33	541.78	213.83	-68.69	617.52	210.97	-69.80	693.25	197.42	-71.32						
468.96	213.42	-66.40	544.70	213.62	-68.77	620.43	210.69	-69.88	696.16	197.20	-71.39						
471.88	213.56	-66.49	547.61	213.40	-68.88	623.34	210.45	-69.94	699.08	196.79	-71.41						
474.79	213.64	-66.55	550.52	213.27	-68.97	626.26	210.28	-70.05	701.99	196.36	-71.35						
477.70	213.67	-66.63	553.44	213.02	-69.07	629.17	210.22	-70.13	704.90	195.96	-71.32						
480.62	213.65	-66.73	556.35	212.88	-69.16	632.08	210.06	-70.20	707.82	195.66	-71.35						
483.53	213.59	-66.86	559.26	212.82	-69.22	635.00	209.87	-70.30	710.73	195.31	-71.33						
486.44	213.59	-67.03	562.17	212.73	-69.24	637.91	209.68	-70.33	713.64	194.95	-71.30						
489.35	213.63	-67.14	565.09	212.62	-69.26	640.82	209.47	-70.31	716.55	194.60	-71.36						
492.27	213.69	-67.23	568.00	212.57	-69.28	643.73	209.14	-70.27	719.47	194.26	-71.48						
495.18	213.83	-67.34	570.91	212.53	-69.35	646.65	208.69	-70.29	722.38	193.93	-71.57						
498.09	213.95	-67.40	573.83	212.57	-69.37	649.56	207.92	-70.38	728.47	193.42	-71.69						
501.01	214.04	-67.44	576.74	212.53	-69.38	652.47	207.01	-70.51									
503.92	214.10	-67.48	579.65	212.56	-69.42	655.38	206.27	-70.60									
506.83	214.14	-67.52	582.56	212.58	-69.44	658.30	205.47	-70.66									
509.74	214.22	-67.55	585.48	212.59	-69.43	661.21	204.55	-70.79									
512.66	214.28	-67.55	588.39	212.68	-69.38	664.12	203.48	-70.98									
515.57	214.25	-67.56	591.30	212.63	-69.39	667.04	202.45	-71.09									
518.48	214.23	-67.62	594.22	212.58	-69.40	669.95	201.31	-71.09									
521.39	214.21	-67.72	597.13	212.56	-69.41	672.86	200.26	-71.01									
524.31	214.22	-67.86	600.04	212.48	-69.43	675.77	199.18	-70.94									
527.22	214.30	-68.03	602.95	212.27	-69.49	678.69	198.39	-70.97									



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Pb Zn

% %

Cu %

Sample From To Interval Au

Interva	ıl (m)	Description
From	То	
0.00	0.93	Casing:
		No core recovered, cased to 1.22 m
0.93	18.03	Feldspar-phyric Basalt Flow: Chlorite; Cordierite
		Basalt Flows, with interbedded VSD. Pervassive chl alt'n, patchy epdiote. Wavy flow banding approx
		30 degrees TCA. Possible minor qtz or chl filled amygudules, 1cm. Prominent seams of mag, chl,
		carb, +/- py and cpy, possible pillow margins? Lower contact is transitional from Basalt Flow
		dominant to sed dominant. 14.64 15.67 Basalt Lapilli Tuff: Clastic interval, subangular to angular fragments to 7 cm.
		Possible rhyolite clasts.
18.03	33.10	Volcanic Sediment: ; Bleached; Calcite
		Volcanic Sediments, with interbedded Basalt flows. Seds are silceous, glassy. Abundant brittle
		fracturing throughout with minor sand on fractures, no real gouge. Local bleaching in intensely
		fractured areas. Fractures bare or coated with thin CHL, CAL, or HEM. Wavy bedding 35-45 degrees
		TCA. Moderately magnetic. Trace DPY, patchy wk ep alt'n wk stockwork of white calcite veins.
		Lower contact transitional/conformable marked by last major band of seds. Contact itself
		mechanically shattered.
		29.26 32.00 Volcanic Sediment: Bleached; Patchy pale creamy bleaching.
33.10	60.63	Feldspar-phyric Basalt Flow: Chlorite
		Feldspar Phyric Basalt flows (INT??) Pervassive CHL alt'n. Dark green throughout. Feldspars well
		formed white to pale green, somewhat square, coarse, locally to 5 mm ****Possible QFP????****.
		Wkly magnetic. Upper portion of interval has prominent white calcite veins, fracture fill? Rare
		late qtz-vein. Lower contact sharp, wavy, 40 degrees TCA, non conformable, possibly intrusive.
60.63	84.68	
		Variably bleached Volc seds. VFG siliceous seds. Somewhat massive, no distinct bedding. VFG py
		in unbleached intervals, moderately to strongly magnetic, Minor carb on late fractures. Lower
		contact sharp, wavy, intrusive, 70 degrees TCA.
84.68	206.37	Feldspar-phyric Basalt Intrusive: Chlorite



Sample

No.

From

(m)

То

(m)

Interval Au

(m)

Hole-ID: TCU04121 Page: 4

> Pb %

Zn

Cu %

Interva	al (m)	Description
From	То	
		Variably chl alt'd massive coarse feldspar phyric BIN. Feathery feldspars to 3 mm in a chl matrix. Upper 8 m strongly chl alt'd, chill margin? Chl alt'n partially obscures feldspars. Rare patch of mag almost veinlike. Rare VSD xeno noted, <15cm partially absorbed to angular. 146.53 152.18 Basalt Intrusive: Talc; Talcose alt'd BIN. Highly magnetic, v-dark blue with pyroxenes (?) Rare Po or Py upper contact gradual, decreased CHL alt'n (?) Lower contact is shattered.
206.37	212 45	Volcanic Sediment: Cordierite; Hematite
200.07	212.70	Volcanic Seds, Purpleish grey to v dark purple. Possibly bleached at contact?? Moderately magnetic. Small 1-2 mm cord noted, vfg siliceous interval almost glasy cut by several 1-4 mm qtz-chl veins >60degrees TCA. Bedding 40 degrees TCA, Rare ep stringer. Unit coarsens with depth passing to RLAT conformably, ep vein marks contact.
212.45	223.67	Rhyolite Lapilli Ash Tuff: Jasper, Chlorite; Magnetite Dark heterolithic rhyolite lapilli ash tuff, with interbedded VSD. Promient heterolithic lapilli. Mafic lapilli to 4 cm, angular, chl alt'd. Rhyolite frags smaller, 1 cm, also angular. Abundant jasper chips, rare muddy bleached fracture. Lower contact razor sharp, marked by 1 cm calcite vein and bleaching, intrusive, 25 degrees TCA.
223.67	239.08	Basalt Intrusive: Chlorite; Magnetite CHL alt'd Basalt Intrusive. Feathery overprint of feldspars by CHL, but locally white feldspars are preseved, swimming in a CHL matrix, phyric. Pervasively magnetic, rare qtz-chl +/- mag veins, 1-3 cm. Unit fines with depth, becoming somewhat glassy. LC marked by qtz-chl mag vein 40 degrees TCA.
239.08	246.33	Volcanic Sediment: Magnetite; Hematite; Pyrite Fine grained siliceous VSD similar to above, deep purple, black, possible hem?? Wk-mod magnetic. Py as clots and in fractures, -clotty PY possible indication of an anoxic deepwater environment??? V faint bedding 50 degrees TCA, unit coarsens with depth, passing to RLAT conformably.
246.33	249.63	Rhyolite Lapilli Ash Tuff: Sericite; Jasper

Rhyolite Lapilli Ash Tuff. Heterolithic lapilli, generally granular. Basalt lapilli may have rare



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Description Interval (m) From То Cu Рb Zn Sample Interval Au % % No. (m) (m) (m) g/t g/t From То amygdules. <4cm. Rhyolite lapilli to 12 cm, angular, 1-5 mm angular Jasper chips. Appears to be deposited in a chaotic environment. Groundmass is wkly ser alt'd. Lower contact marked by sudden drop in particle size, possibly an erosive contact?? Slight change in alt'n. I think erosive b/c it's large particles deposited on top of a soft sediment (see bellow) as these large lapilli moved across the seafloor a certain amount of scouring of soft seds may have taken place. 249.63 253.40 Volcanic Sediment: Hematite; Magnetite Volcanic seds. VFG siliceous seds, as above, minor clastic intervals. ****Sedimentary repetion of packages**** LC gradual increase in grain size, passing conformably into RLAT. 317.67 Rhyolite Lapilli Ash Tuff: Jasper; Cordierite; Sericite 253.40 SER and CORD alt'd Rhyolite Lapilli Ash Tuff. Similar to above, heterolithic lapilli, rounded rhyolite lapilli to 4 cm, angular amydgaloidal (?) basalt lapilli, 2-3 cm, small jasper chips. More ser alt'n than earlier intervals, with intensity increasing with depth. Associated pale yellowy beige leucoxene associated with SER. Abundant blue to pink CORD porphoblasts, up to 1 cm, margins of porphoblast somewhat fuzzy. Minor Ashy intervals, rare bleached carb coated fracture/micro-fit. Bleached muddy fracture zone (nested) marks end of interval 311.13 317.67 Rhyolite Lapilli Ash Tuff: Bleached; Quartz Vein; Bleached zone, minor muddy fractures, no carb, wormy qtz-chl veins. 317.67 326.52 Rhyolite Debris Flow: Jasper, Cordierite 0.00 0.00 0.00 0.00 9602 325.52 326.52 1.00 0.03 Rhyolite Debris flow. Bleached rhyolite clasts within an ashy matrix. Matrix is variably cord alt'd This RDF is somewhat unusual in that it is heterolithic. Basalt clasts, somewhat flattened to 8 cm. Disarticulated jasper noted to 30 cm, 1 py clast (?) or mass noted. This unit may be a coarse interval within a the sed package. Lower contact is dyked out. 319.59 321.48 Basalt Dyke; Chlorite; Quartz Vein; CHL alt'd qtz-veined BDY. HW sharp, straight, broken 30 degrees TCA. FW sharp straight 70 degrees TCA. Ladder like qtz-chl veins. 325.80 326.52 Basalt Dyke; Chlorite; Quartz Vein; Chl alt'd BDY, minor sugary qtz veins. HW alt'd, obscure, 55 degrees TCA, TW wavy, 50 degrees TCA. 326.52 357.45 Rhyolite Lapilli Ash Tuff: Cordierite; Pyrite; Sericite Cord, ser, bio alt'd Rhyolite Lapilli Ash Tuff. Greenish brown. Abundant VFG py as a component of 9603 326.52 328.50 1.98 0.58 18.10 0.24 1.17 3.28



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Interval (m) From To	Description	Sample No.	From (m)	To 1 (m)	nterval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %
	the ser matrix. Ser alt'n appears to be preferentially altering the mafic (pumice??) lapilli.	9604	328.50	330.50	2.00	0.25	9.40	0.19	0.44	1.39
	Rhyolite lapilli stand out as bleached and possibly flattened. There appears to be a second	9605	330.50	332.50	2.00	0.03	0.00	0.00	0.00	0.00
	generation of mineralization, coarse cpy, py +/-gal somewhat patchy. Best observed on broken	9606	332.50	334.50	2.00	0.03	0.00	0.00	0.00	0.00
	surface. Rare py clast, DBF??	9607	334.50	336.50	2.00	0.03	0.00	0.00	0.00	0.00
	341.50 348.76 Bleached: Silica; Intense silicification/bleaching overprints all primary txt's	9608	336.50	338.50	2.00	0.03	0.00	0.00	0.00	0.00
	Silver grey, depleted sulphides for this interval.	9609	338.50	340.50	2.00	0.03	0.00	0.00	0.00	0.00
		9610	340.50	341.50	1.00	0.03	0.00	0.00	0.00	0.00
		9611	341.50	343.50	2.00	0.03	0.00	0.00	0.00	0.00
		9613	343.50	345.50	2.00	0.03	0.00	0.00	0.00	0.00
		9614	345.50	347.50	2.00	0.03	0.00	0.00	0.00	0.00
		9615	347.50	348.76	1.26	0.03	0.00	0.00	0.00	0.00
		9616	348.76	350,50	1.74	0.03	0.00	0.00	0.00	0.00
		9617	350.50	352.50	2.00	0.03	0.00	0.00	0.00	0.00
		9619	352.50	354.50	2.00	0.08	0.00	0.00	0.00	0.00
		9620	354.50	356.50	2.00	0.31	0.00	0.00	0.00	0.00
		9621	356.50	357.45	0.95	0.26	0.00	0.00	0.00	0.00
357.45 380.25	Quartz-Sericite-Pyrite Alteration: Zinc Facies Massive Sulphide; Tetrahedrite									
	Mineralized Qtz-Ser-Py? Abundant shear indicators, rolled grains with twisted pressure shadows.	9622	357.45	358.50	1.05	0.72	140.00	0.17	0.92	2.06
	Moderate to str fol 20-40 degrees TCA, interestingly, possible tension gashes filled with barite	9623	358.50	359.50	1.00	2.63	138.00	0.03	0,58	0.97
	noted in fractured rhyolite clasts. Shears are sericitic to sphal bearing with possible Tet or	9625	359.50	360.50	1.00	0.81	0.00	0.00	0.00	0.00
	black Chl. Sphal pale brown to yellow, rarely as small 5mm clots, 10% of interval. On broken	9626	360.50	361.00	0.50	1.78	238.00	0.04	0.60	0.92
	surface interval is speckled with VFG purple/black mineral, Tet, Gal, Bo?? Rare x-cutting	9627	361.50	362.50	1.00	0.47	36.70	0.05	0.44	0.74
	chl+/-cpy+/- bo stringers. Sericite becomes darker and less sheared with depth. Lower contact	9628	362.50	363.50	1.00	0.35	0.00	0.00	0.00	0.00
	marked by a massive increase in ser and py -alt'n contact.	9629	363.50	364.50	1.00	0.28	0.00	0.00	0.00	0.00
	376.45 37.59 Basalt Dyke: Chlorite; Feldspar phyric, BDY, wk chl alt'n contacts wavy, broken 70	9630	364.50	365.50	1.00	0.23	0.00	0.00	0.00	0.00
	degrees TCA.	9631	365.50	366.50	1.00	0.20	18.70	0.04	0.92	1.19
		9632	366.50	367.50	1.00	0.12	0.00	0.00	0.00	0.00
		9633	367.50	368.50	1.00	0.30	0.00	0.00	0.00	0.00
		9634	368.50	369.50	1.00	0.33	0.00	0.00	0.00	0.00
		9635	369.50		1.00		0.00			0.00
		9636	370.50	371.90	1.40	0.06	0.00	0.00	0.00	0.00



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Interval (m) Des From To	scription	Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %
		9637	371.90	372.	77 0.87	0.03	0.00	0.00	0.00	0.00
		9639	372.77	374.	55 1.78	0.03	0.00	0.00	0.00	0.00
		9640	374.55	375.	50 0.95	0.30	0.00	0.00	0.00	0.00
		9641	375.50	377.0	00 1.50	0.35	0.00	0.00	0.00	0.00
		9643	377.00	378.	50 1.50	0.37	0.00	0.00	0.00	0.00
		9644	378.50	380.	00 1.50	0.28	0.00	0.00	0.00	0.00
		9645	380.00	381.	50 1.50	0.62	4.80	1.27	0.01	0.02
380.25 435.47 Ser	mi-Massive Sulphide: Sericite; Pyrite Facies Massive Sulphide; Leucoxene									
Ser	mi massive py in a waxy dark green-brown sericite matrix. Moderately banded 5-20 degrees TCA, Py	9646	381.50	383.	00 1.50	0.77	5.70	1.17	0.01	0.02
	ies from 15-60% of core. Minor cpy noted, 1-2%, no sphal or barite. Leucoxene is well dissem	9647	383.00	384.	50 1.50	1.11	0.00	0.00	0.00	0.00
thro	ough sericite, locally coarser than usual, 3 mm. Varies from quite soft (ser) to hard (qtz).	9648	384.50	386.	00 1.50	0.47	0.00	0.00	0.00	0.00
Sul	phides appear to be associated dominantly with sericite and leucoxene intervals. Sections with	9649	386.00	387.	50 1.50	0.43	0.00	0.00	0.00	0.00
	agmental txt, frags >7cm, alternating with sections where frags are not well defined with	9650	387.50	389.	00 1.50	0.33	0.00	0.00	0.00	0.00
blur	rry contacts, to sections where ser obliterates primary txts' Lower contact sharp, irregular,	9651	389.00	390.	50 1.50	0.14	0.00	0.00	0.00	0.00
65 (degrees TCA.	9653	390.50	392.	00 1.50	0.25	0.00	0.00	0.00	0.00
432	2.43 433.83 Semi-Massive Sulphide: Barite, Intervals with approx 8% barite, and elongated	9654	392.00	393.	50 1.50	0.32	4.90	1.14	0.01	0.03
	patches and bands aligned to foliation 50 degrees TCA, predominately associated with	9655	393.50	395.	00 1.50	0.06	0.00	0.00	0.00	0.00
	pyrite mineralization (20%), sericite (30%) and leucoxene, specks from <0.5 to 2mm	9656	395.00	396.	50 1.50	0.05	0.00	0.00	0.00	0.00
	evenly scatted within sericite. Upper contact, sharp, 30 degrees TCA, marked by a	9657	396.50	398.	00 1.50	0.38	0.00	0.00	0.00	0.00
	sudden increase in py at contact, and decreased size of py crystals. Lower contact,	9658	398.00	399.	50 1.50	0.86	0.00	0.00	0.00	0.00
	sharp broken core, 65 degrees TCA?	9659	399.50	401.	00 1.50	1.47	0.00	0.00	0.00	0.00
		9660	401.00	402.	50 1.50	0.32	0.00	0.00	0.00	0.00
		9661	402.50	404.	00 1.50	0.62	0.00	0.00	0.00	0.00
		9662	404.00	405.	50 1.50	0.31	0.00	0.00	0.00	0.00
		9663	405.50	407.	00 1.50	0.38	0.00	0.00	0.00	0.00
		9664	407.00	408.	50 1.50	0.25	0.00	0.00	0.00	0.00
		9665	408.50	410.	00 1.50	0.39	9.40	1.13	0.01	0.11
		9666	410.00	411.	50 1.50	0.35	0.00	0.00	0.00	0.00
		9668	411.50	413.	00 1.50	0.08	0.00	0.00	0.00	0.00
		9669	413.00	414.	50 1.50	0.13	5.80	0.35	0.02	1.10
		9671		416.	00 1.50	0.13	0.00	0.00	0.00	0.00



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9672 416.00 417.50 1.50 0.56 0.00 0.00 0.00 0.00 0.00 0.00 0	Interval (m) From To	Description		Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %
1				9672	416.00	417.5	50 1.50	0.56	0.00	0.00	0.00	0.00
45.17 September Septembe				9673	417.50	419.0	0 1.50	0.71	0.00	0.00	0.00	0.00
\$4				9674	419.00	420.5	0 1.50	0.21	0.00	0.00	0.00	0.00
10 10 10 10 10 10 10 10				9675	420.50	422.0	00 1.50	0.12	0.00	0.00	0.00	0.00
1				9676	422.00	423.5	0 1.50	0.11	0.00	0.00	0.00	0.00
10 10 10 10 10 10 10 10				9677	423.50	425.0	0 1.50	0.31	0.00	0.00	0.00	0.00
10 10 10 10 10 10 10 10				9678	425.00	426.5	50 1.50	0.20	0.00	0.00	0.00	0.00
10 10 10 10 10 10 10 10				9679	426.50	428.0	0 1.50	0.34	0.00	0.00	0.00	0.00
455.47 Rhyolite Lapilli Ash Tuff: Jasper; Sericite; Leucoxene Dark green grey, brown grey, beige grey slightly maroon colored rhyolite lapilli ash tuffQSP all'd Subrounded to angular fragments partially elongated squished and rotated to foliation, 30-40 degrees TCA. Matrix is about 30%, sericite waxy olive green, dark greeen with evenly scattered sub mm sized leucoxene specks. Jasper specks/fragments from sub mm to 1cm, irregular shaped and wavy jasper lenses and undulating layers, from 0.5-3mm, aligned to foliation. >85% of lapilli sized fragments are polylithic, lapilli of basalt and rhyolite composition noted. Lower contact dyked out. 450.16 P65.77 Rhyolite Debris Flow: Sericite; Chlorite; Disseminated Pyrite Rhyolite Debris flow. Abundant variably bleachd clasts in a ser and chl all'd ashy matrix. Rarely cord all'd Minor qtz-carb-chl veins at HW associated with BDY. Rare poorly developed bedding in ashy intervals, 60 degrees TCA. Ser all'n appear to overprint bleaching in clasts, feldspars converted to ser. Sericite alteration decreases with depth passing to chl. Clasts to 60 cm, rounded to subrounded, generally 4-10 cm. Lower contact dyked out. 454.29 454.53 Basalt Dyke: Chlorite; Wkly chl all'd basalt dyke. HW broken, possible CORD alth'				9680	428.00	429.5	50 1.50	0.09	0.00	0.00	0.00	0.00
450.16 Rhyolite Lapilli Ash Tuff: Jasper; Sericite; Leucoxene Dark green grey, brown grey, beige grey slightly maroon colored rhyolite lapilli ash tuffQSP all'd Subrounded to angular fragments partially elongated squished and rotated to foliation, 30-40 degrees TCA. Matrix is about 30%, sericite waxy olive green, dark greeen with evenly scattered subman sized leucoxene specks. Jasper specks/fragments from sub mm to 1cm, irregular shaped and wavy jasper lenses and undulating layers, from 0.53 mm, aligned to foliation. 365% of lapilli sized fragments range from 2-5 mm very few above 1 cm. Fragments up to 5 cm size are very rare, 1%. Fragments are polylithic, lapilli of basalt and rhyolite composition noted. Lower contact dyked out. 450.16 Se5.77 Rhyolite Debris Flow: Sericite; Chlorite; Disseminated Pyrite Rhyolite Debris flow. Abundant variably bleachd clasts in a ser and chi all'd ashy matrix. Rarely cord all'd Minor qtz-carb-chl veins at HW associated with BDY. Rare poorly developed bedding in ashy intervals, 60 degrees TCA. Ser all'n appear to overprint bleaching in clasts, feldspars converted to ser. Sericite alteration decreases with depth passing to chi. Clasts to 60 cm, rounded to subrounded, generally 4-10 cm. Lower contact dyked out.				9681	429.50	431.0	00 1.50	0.28	0.00	0.00	0.00	0.00
435.47 8.016 Rhyolite Lapilli Ash Tuff: Jasper; Sericite; Leucoxene Dark green grey, brown grey, beige grey slightly maroon colored rhyolite lapilli ash tuffQSP all'd Subrounded to angular fragments partially elongated squished and rotated to foliation, 30-40 degrees TCA. Matrix is about 30%, sericite waxy olive green, dark greeen with evenly scattered sub mm sized leucoxene specks. Jasper specks/fragments from sub mm to 1cm, irregular shaped and wavy jasper lenses and undulating layers, from 0.5-3mm, aligned to foliation. >85% of lapilli sized fragments range from 2-5 mm very few above 1 cm. Fragments up to 5 cm size are very rare, 1%. Fragments are polylithic, lapilli of basalt and rhyolite composition noted. Lower contact dyked out. 450.16 \$65.77 Rhyolite Debris Flow: Sericite; Chlorite; Disseminated Pyrite Rhyolite Debris flow. Abundant variably bleachd clasts in a ser and chl alt'd ashy matrix. Rarely cord alt'd Minor qtz-carb-chl veins at HW associated with BDY. Rare poorly developed bedding in ashy intervals, 60 degrees TCA. Ser alt'n appear to overprint bleaching in clasts, feldspars converted to ser. Sericite alteration decreases with depth passing to chl. Clasts to 60 cm, rounded to subrounded, generally 4-10 cm. Lower contact dyked out. 454.29 454.53 Basalt Dyke: Chlorite; Wkly chl alt'd basalt dyke. HW broken, possible CORD altn'				9682	431.00	432.4	1.43	0.18	0.00	0.00	0.00	0.00
453.47 450.16 Rhyolite Lapilli Ash Tuff: Jasper; Sericite; Leucoxene Dark green grey, brown grey, beige grey slightly maroon colored rhyolite lapilli ash tuffQSP alt'd Subrounded to angular fragments partially elongated squished and rotated to foliation, 30-40 degrees TCA. Matrix is about 30%, sericite waxy olive green, dark greeen with evenly scattered sub mm sized leucoxene specks. Jasper specks/fragments from sub mm to 1cm, irregular shaped and wavy jasper lenses and undulating layers, from 0.5 -3mm, aligned to foliation. >85% of lapilli sized fragments range from 2-5 mm very few above 1 cm. Fragments up to 5 cm size are very rare, 1%. Fragments are polylithic, lapilli of basalt and rhyolite composition noted. Lower contact dyked out. 450.16 Foliation of the properties of the propertie				9683	432.43	433.8	33 1.40	0.61	0.00	0.00	0.00	0.00
Dark green grey, brown grey, beige grey slightly maroon colored rhyolite lapilli ash tuffQSP alt'd Subrounded to angular fragments partially elongated squished and rotated to foliation, 30-40 degrees TCA. Matrix is about 30%, sericite waxy olive green, dark greeen with evenly scattered sub mm sized leucoxene specks. Jasper specks/fragments from sub mm to 1cm, irregular shaped and wavy jasper lenses and undulating layers, from 0.5 -3mm, aligned to foliation. >85% of lapilli sized fragments range from 2-5 mm very few above 1 cm. Fragments up to 5 cm size are very rare, 1%. Fragments are polylithic, lapilli of basalt and rhyolite composition noted. Lower contact dyked out. 450.16 565.77 Rhyolite Debris Flow: Sericite; Chlorite; Disseminated Pyrite Rhyolite Debris flow. Abundant variably bleachd clasts in a ser and chl alt'd ashy matrix. Rarely 9904 462.00 463.40 1.40 0.03 0.00 0.00 0.00 0.00 cord alt'd Minor qtz-carb-chl veins at HW associated with BDY. Rare poorly developed bedding in 9905 463.40 464.80 1.40 0.03 0.00 0.00 0.00 0.00 ashy intervals, 60 degrees TCA. Ser alt'n appear to overprint bleaching in clasts, feldspars 9906 464.80 466.20 1.40 0.03 0.00 0.00 0.00 0.00 converted to ser. Sericite alteration decreases with depth passing to chl. Clasts to 60 cm, rounded to subrounded, generally 4-10 cm. Lower contact dyked out.				9684	433.83	435.4	7 1.64	0.10	0.00	0.00	0.00	0.00
Rhyolite Debris flow. Abundant variably bleachd clasts in a ser and chl alt'd ashy matrix. Rarely cord alt'd Minor qtz-carb-chl veins at HW associated with BDY. Rare poorly developed bedding in ashy intervals, 60 degrees TCA. Ser alt'n appear to overprint bleaching in clasts, feldspars 9906 464.80 466.20 1.40 0.03 0.00 0.00 0.00 0.00 converted to ser. Sericite alteration decreases with depth passing to chl. Clasts to 60 cm, rounded to subrounded, generally 4-10 cm. Lower contact dyked out. 454.29 454.53 Basalt Dyke: Chlorite; Wkly chl alt'd basalt dyke. HW broken, possible CORD altn'		mm sized leucoxene specks. Jasper specks/fragme jasper lenses and undulating layers, from 0.5 -3mm, fragments range from 2-5 mm very few above 1 cm. Fragments are polylithic, lapilli of basalt and rhyolite	ents from sub mm to 1cm, irregular shaped a aligned to foliation. >85% of lapilli sized Fragments up to 5 cm size are very rare, 1	nd wavy								
Rhyolite Debris flow. Abundant variably bleachd clasts in a ser and chl alt'd ashy matrix. Rarely cord alt'd Minor qtz-carb-chl veins at HW associated with BDY. Rare poorly developed bedding in ashy intervals, 60 degrees TCA. Ser alt'n appear to overprint bleaching in clasts, feldspars 9906 464.80 466.20 1.40 0.03 0.00 0.00 0.00 0.00 converted to ser. Sericite alteration decreases with depth passing to chl. Clasts to 60 cm, rounded to subrounded, generally 4-10 cm. Lower contact dyked out. 454.29 454.53 Basalt Dyke: Chlorite; Wkly chl alt'd basalt dyke. HW broken, possible CORD altn'	450 16 565 T	7 Phyolita Dobris Flow: Sarioita: Chlorita: Dissaminata	d Purite									
cord alt'd Minor qtz-carb-chl veins at HW associated with BDY. Rare poorly developed bedding in ashy intervals, 60 degrees TCA. Ser alt'n appear to overprint bleaching in clasts, feldspars 9906 464.80 466.20 1.40 0.03 0.00 0.00 0.00 0.00 converted to ser. Sericite alteration decreases with depth passing to chl. Clasts to 60 cm, rounded to subrounded, generally 4-10 cm. Lower contact dyked out. 454.29 454.53 Basalt Dyke: Chlorite; Wkly chl alt'd basalt dyke. HW broken, possible CORD altn'	-50.10 505.1		-	9904	462 00	463 4	10 1 40	0.03	0.00	0.00	0.00	0.00
ashy intervals, 60 degrees TCA. Ser alt'n appear to overprint bleaching in clasts, feldspars 9906 464.80 466.20 1.40 0.03 0.00 0.00 0.00 converted to ser. Sericite alteration decreases with depth passing to chl. Clasts to 60 cm, rounded to subrounded, generally 4-10 cm. Lower contact dyked out. 454.29 454.53 Basalt Dyke: Chlorite; Wkly chl alt'd basalt dyke. HW broken, possible CORD altn'			· · · · · · · · · · · · · · · · · · ·									
converted to ser. Sericite alteration decreases with depth passing to chl. Clasts to 60 cm, rounded to subrounded, generally 4-10 cm. Lower contact dyked out. 454.29 454.53 Basalt Dyke: Chlorite; Wkly chl alt'd basalt dyke. HW broken, possible CORD altn'		·										
rounded to subrounded, generally 4-10 cm. Lower contact dyked out. 454.29 454.53 Basalt Dyke: Chlorite; Wkly chl alt'd basalt dyke. HW broken, possible CORD altn'		, -	• • • • • • • • • • • • • • • • • • • •									•
454.29 454.53 Basalt Dyke: Chlorite; Wkly chl alt'd basalt dyke. HW broken, possible CORD altn'			· · · · ·									
		· · · · · · · · · · · · · · · · · · ·		tn'								
			and a greet that brokers, possible control at	•••								



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Interval (r	n)	Description				Sample	From		Interval					Zn
From	То				e .	No.	(m)	(m)	(m)	g/t	g/t	%	%	%

- 458.25 459.16 Basalt Dyke: Chlorite; Quartz Vein; CHL alt'd Basalt dyke. Feldspar phyric txt's. Rare 1-2 cm qtz-chl vein, HW irregular, 20 degrees TCA, FW irregular 40 degrees TCA,
- 459.16 460.62 Rhyolite Debris Flow: Cordierite; Sericite; Strong CORD plus SER alteration. Sugary atz-vein, possible shear?? Fol 50 degrees TCA, cord somewhat flattened or alligned, interval speckled with leuc. Last of the sericite alteration.
- 503.54 505.50 Basalt Dyke: Chlorite; CHL alt'd Basalt Dyke. Minor Magnetite seams contacts sharp, wavy, 70-90 degrees TCA.
- 532.80 531.10 Basalt Dyke: Chlorite; Broken chi alt'd BDY.
- 535.59 536.68 Basalt Dyke: CHL alt'd basalt dyke. HW irregular 40 degrees TCA. FW 90 degrees TCA.
- 548.83 549.10 Basalt Dyke: Quartz Vein; Magnetite; Magnetic chl alt'd basalt dyke. qtz-veined. HW defined my 10 cm qtz-chl vein 45 degrees TCA, FW sharp straight 90 degrees TCA.
- 558.20 558.30 Basalt Dyke: Chlorite; CHL alt'd Basalt Dyke. Contacts razor sharp, parallel, 30 degrees TCA.
- 563.11 565.77 Basalt Dyke: Chlorite; Quartz Vein; Chalcopyrite; Qtz-veined basalt dyke. Feldspar phyric in intervals. Minor CPY in wormy irregular qtz-chl veins HW 45 degrees TCA, FW 65 degrees TCA. This dyke marks the LC of the RDF interval.

565.77 575.60 Quartz-Sericite-Pyrite Alteration: Sphalerite; Disseminated Pyrite; Leucoxene

Unusual QSP. Olive green brown with a purple hue. Minor to trace sphal, wavy foliation? Sub // TCA. Abundant CHL alt'd BDY and qtz veins. Trace py, vfg leucoxene with sericite.

569.70 571.30 Basalt Dyke: Quartz Vein; CHL alt'd basalt dyke. qtz-veined, with strong alteration halo-chl around vein. HW 45 degrees TCA, FW 20 degrees TCA. minor QSP xeno.

572.35 572.72 Basalt Dyke: Chlorite; Biotite; BIO/CHL alt'd basalt dyke

573.15 574.38 Basalt Dyke: Chlorite; Quartz Vein; Pyrrhotite; Basalt dyke with torn qtz veins, microfits. Grainy mass of Po noted.

575.32 575.60 Basalt Dyke: Chlorite; CHL alt'd basalt dyke. marks FW or QSP. contacts sharp, parallel, 50 degrees TCA.

588.34 Rhyolite Debris Flow: 575.60

Rhyolite Debris Flow. Creamy bleached rhyolite clasts to 15 cm in an ashy feldspar bearing matrix.



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Interva	l (m)	Description	Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From	То		No.	(m)	(m)	(m)	g/t	g/t	%	%	%
-		Crude bedding 60 degrees TCA, minor crackly-angular chl-ep veins with bleached margins. Locally									
		wkly magnetic. Lower contact marked by a decrease in clast size, and a sharp increase in cord									
		alt'n.									
500.04	222 17	District Country of Country in Country of Country Coun									
588.34	609.47	Rhyolite Lapilli Tuff: Cordierite; Sericite; Silica	9685	608.47	600.4	7 1.00	0.03	0.00	0.00	0.00	0.00
		Intensely CORD att'd interval of Rhyolite Lapilli Tuff (?) Possible crystal lapilli tuff, abundant	9000	606.47	009.4	1.00	0.03	0.00	0.00	0,00	0.00
		1-2 mm feldspars in a highly altered matrix. Cord porphroblasts to 8 mm, rarely with feldspar									
		cores. Lapilli may be hetrolithic, small wormy rhyolites to 4 cm, ser-chl alt'd to bleached, 1 odd ep alt'd clasts noted, alt'd mafic??? Interval is somewhat glassy feelingSilcified? Lower									
		contact marked by a decrease in CORD alt'n and change in matrix to a more ashy material. Probably									
		confromable. <litho -="" 589.5m="" 599.9m="" a="" and="" b="" geochem,="" rhyolite="">.</litho>									
		594.94 595.50 Basalt Dyke: Chlorite; Epidote; Quartz Vein; Brownish green EP/CHL alt'd dyke. HW									
		wavy 30 degrees TCA. FW 10 degrees TCA.									
609.47	624.54	Quartz-Sericite-Pyrite Alteration: Sphalerite; Cordierite; Fuchite									
		QTZ-SER-PY alt'n zone, protolith appears to be RLAT or DBF. 3 prominent py clasts approximately	9686	609.47	611.0	0 1.53	0.03	0.00	0.00	0.00	0.00
		1.5 cm square noted, subrounded. Possible sivery flattened pumice clasts. Interval is silver to	9687	611.00	612.5	0 1.50	0.03	0.00	0.00	0.00	0.00
		beige green locally with waxy sericite. Trace cord noted in darker bands, Somewhat foliated or	9688	612.50	614.0	0 1.50	0.03	0.00	0.00	0.00	0.00
		bedded 30 degrees TCA. Minor masses of reddish brown sphal, and possible Tet of BO in fractures.	9689	614.00	615.5	0 1.50	0.08	0.00	0.00	0.00	0.00
		Rare piece of vibrant green fuchsite. Lower contact wavy and irregular. <litho geochem,="" rhyolite<="" td=""><td>9690</td><td>615.50</td><td>617.0</td><td>0 1.50</td><td>0.03</td><td>0.00</td><td>0.00</td><td>0.00</td><td>0.00</td></litho>	9690	615.50	617.0	0 1.50	0.03	0.00	0.00	0.00	0.00
		A/B - 610.7m; Rhyolite A - 619.3m>.	9692	617.00	618.5	0 1.50	0.05	0.00	0.00	0.00	0.00
			9693	618.50	620.0	0 1.50	0.04	0.00	0.00	0.00	0.00
			9695	620.00	621.5	0 1.50	0.04	0.00	0.00	0.00	0.00
			9696	621.50	623.0	0 1.50	0.06	8.00	0.06	0.42	1.08
			9697	623.00	624.5	4 1.54	0.14	0.00	0.00	0.00	0.00
624.54	630.13	Quartz-Sericite-Pyrite Alteration: Sphalerite; Chalcopyrite									
		Unusual QTZ-SER-PY alt'd zone. Protolith uncertain, possible amygules, possible sulphide clasts,	9698	624.54	626.0	0 1.46	1.19	44.00	0.04	0.13	0.41
		wormy chert clasts noted. Amydules (?) qtz and sulphide filled, rounded masses, generally sulphide	9699	626.00	627.5	0 1.50	0.08	0.00	0.00	0.00	0.00
		fill is sphal, minor py. Chrety clasts/veins have minor cpy as a fracture fill. Local leucoxene,	9700	627.50	629.0	0 1.50	0.03	0.00	0.00	0.00	0.00
		somewhat darker than usual, more brown than yellow. Lower contact wavy, irregular, 25 degrees TCA.	9701	629.00	630.1	3 1.13	0.05	0.00	0.00	0.00	0.00



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Interval From	(m) To	Description	Sample No.	From (m)	To Interval (m) (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %
30.13	633.84	Sloko Rhyolite Dyke:								
		Sloko Rhyolite Dyke. Pale creamy green to grey. Well banded to with abundant black laths.	9702	630.13	632.16 2.03	0.04	0.00	0.00	0.00	0.0
		Banding 25 degrees TCA. FW 40 degrees TCA.	9703	632.16	633.84 1.68		0.00		0.00	0.0
33.84	673.96	Amygdaloidal Basalt: Pyrite; Chalcopyrite; Sphalerite								
		Mineralized amygdaloidal basalt flows. Intensely ser alt'd. Unusual in that the BFL contains	9704	633.84	635.00 1.16	0.03	0.00	0.00	0.00	0.0
		lapilli sized fragments of rhyolite and sulphides. Minor cherty clasts and veins. Beige brown	9705	635.00	636.50 1.50	0.03	0.00	0.00	0.00	0.0
		(ser) to purple black (bio?) Minor sulphide layers, 45-50 degrees TCA. Amydules filled with	9706	636.50	638.00 1.50	0.04	0.00	0.00	0.00	0.0
		qtz-sphal and py. Sphal varies from red to honey brown. Local CORD alteration. Small intervals	9707	638.00	639.50 1.50		0.00			
		of SMS. 5-10 % sphal throughout, minor intervals of SMS py. Lower contact somewhat gradual,	9708	639.50	641.00 1.50	0.03	0.00			
		sulphides increasing with depth. <litho -="" 634.2m="" 650.7m="" and="" cr-no="" fw="" geochem,="" low="" mafic="">.</litho>	9709	641.00	642.50 1.50	0.03	0.00	0.00	0.00	0.0
		644.88 666.77 Amygdaloidal Basalt: Calcite; Chlorite; Breccia; CHL-Carb alt'd Basalt Flows.	9710	642.50	644.00 1.50			0.10		
		Locally brecciated, possible fit 40 degrees TCA, lower contact of alteration v sharp,	9711	644.00	645.50 1.50			0.08		
		possibly fltd.	9713	645.50				0.00		
		666.77 670.47 Amygdaloidal Basalt: Cordierite; Intensely CORD alt'd BFL, possible sed influence?	9714	647.00	648.50 1.50			0.00		
		Still amyduloidal at FW 25 degrees TCA.	9715	648.50	650.00 1.50				0.00	
			9716	650.00	651.50 1.50			0.00	0.00	0.0
			9717	651.50	653.00 1.50	0.03	0.00	0.00	0.00	0.0
			9719	653.00	654.50 1.50	0.03	0.00	0.00	0.00	0.0
			9720	654.50	656.00 1.50	0.10		0.00		
			9721	656.00	657.50 1.50	0.07	0.00	0.00	0.00	0.0
			9722	657.50	659.00 1.50	0.07	0.00	0.00	0.00	0.0
			9723	659.00	660,50 1,50	0.06	0.00	0.00	0.00	0.0
			9725	660.50	662.00 1.50	0.05	0.00	0.00	0.00	0.0
			9726	662.00	663.50 1.50	0.06	0.00	0.00	0.00	0.0
			9727	663.50	665.00 1.50	0.04	0.00	0.00	0.00	0.0
			9728	665.00	666.50 1.50	0.04	0.00	0.00	0.00	0.0
			9729	666.50	668.00 1.50	0.04	0.00	0.00	0.00	0.0
			9730	668.00	669.50 1.50	0.04	0.00	0.00	0.00	0.0
			9731	669.50	671.00 1.50	0.04	0.00	0.00	0.00	0.0
			9732		672.50 1.50	0.00		0.00	0.00	0.0



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interva From	l (m) To	Description	Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %
			9733	672.50	673.9	6 1.46	0.07	0.00	0.00	0.00	0.00
673.96	674.60	Massive Sulphide: Pyrite Facies Massive Sulphide; Sphalerite; Chalcopyrite									
373.90	074.00	Massive Sulphide. Fyrite Facies Massive Sulphide, Sphalence, Shaloopyrite Massive Py with minor red spahl and cpy masses. Granular, med-coarse grained, no distinct bedding.	9734	673.96	674 6	0.64	0.24	32.00	1 21	0.03	0.39
		FW 10 degrees TCA, appears to be conformable.	0,04	070.00	0 7 ∓.€	0.01	0.2.	02.00		0.00	0.00
		T TO degrees 10/1, appears to be commented.									
374.60	675.50	Amygdaloidal Basalt: Chalcopyrite; Disseminated Pyrite; Sericite									
		Highly Sericite alt'd Amygdaloidal basalt flows. Abundant PY in amygdules, CPY clast/clots to 2.5	9735	674.60	675.5	50 0.90	0.12	0.00	0.00	0.00	0.00
		cm. LC extremely irregular, possible flame structure.									
75,50	675.74	Massive Sulphide: Pyrite Facies Massive Sulphide									
		Massive py with 1-2% cpy as an intergrowth or blebs, lower contact Razor sharp, 60 degrees TCA.	9736	675.50	676.2	20 0.70	0.26	0.00	0.00	0.00	0.00
75.74	676.20	Quartz-Feldspar Porphyry Dyke:									
		Late Basalt dyke, virtually uneffected by ser alt'n. Dyke is wkly chl alt'd possible amygdules.									
		Lower contact Razor sharp, 40 degrees TCA.									
76.20	692.20	Amygdaloidal Basalt: Massive Sulphide; Sericite; Pyrite									
		Sericite altered amygdaloidal Basalt Flows with 50% massive sulphide. Hole appears to have cut the	9737	676.20	678.2	20 2.00	0.09	0.00	0.00	0.00	0.00
		contact between a massive sulphide lens and basalt flows. Very frothy basalt. Bedding or	9739	678.20	680.2	20 2.00	0.12	7.90	0.08	0.01	1.24
		foliation wavy, sub parallel to core axis. Possible torn QTZ veins. 30% py through interval, 1-2	9740	680.20	682.2	20 2.00	0.16	0.00	0.00	0.00	0.00
		% py, tr sphal. Lower contact extremely irregular.	9741	682.20	684.2	20 2.00	0.14	0.00	0.00	0.00	0.00
			9743	684.20	686.2	20 2.00	0.16	0.00	0.00	0.00	0.00
			9744	686.20	688.2	20 2.00	0.13	0.00	0.00		0.00
			9745	688.20		20 2.00		0.00	0.00		0.00
			9746	690.20	692.2	20 2.00	0.12	0.00	0.00	0.00	0.00
92.20	692.70	Massive Sulphide: Pyrite Facies Massive Sulphide									
		Small massive py pod. trace cpy. Fine to coarse py, minor clasts of BFL5, is this a vein or a	9747	692.20	692.	70 0.50	0.30	0.00	0.00	0.00	0.00
		pod. Lower contact gradual, suggests a pod.									
92.70	693.64	Amygdaloidal Basalt: Pyrite; Chlorite; Sericite									



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interva	al (m)	Description	Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From	То		No.	(m)	(m)	(m)	g/t	g/t	%	%	% ,
		SER and CHL alt'd Amygdaloidal Basalt Flows, moderate sericite alteration possible relicts of chl alteration. Foliation or bedding 20 degrees TCA. Lower contact broken.	9748	692.70	693.6	4 0.94	0.04	0.00	0.00	0.00	0.00
693.64	695.69	Massive Sulphide: Copper Facies									
		Massive py and cpy. Upper portion truly massive. 5-8% cpy with trace brown sphal. Poorly bedded	9749	693.64	694.2	7 0.63	0.07	21.50	2.27	0.01	0.90
		or foliated, 40 degrees TCA towards lower contact. Gradual decrease in sulphides with depth.	9750	694.27	694.7	3 0.46	0.03	0.00	0.00	0.00	0.00
		694.27 694.73 Amygdaloidal Basalt: Sericite; Broken basalt flows. Sericite altered.	9751	694.73	695.6	9 0.96	0.11	0.00	0.00	0.00	0.00
695.69	740.36	Amygdaloidal Basalt: ; Pyrite									
		Amygdaloidal Basalt Flows. Silicified. Heavily py altered. Amygdules are qtz-py filled. Local patches cord alteration. 5mm blueish masses. Bandy granular py 35-45 degrees TCA, with associated	9753	695.69	697.6	9 2.00	0.04	0.00	0.00	0.00	0.00
		cpy or sph. Minor bluish qtz-chert or vein with associated cpy.									
		708.88 740.36 Amygdaloidal Basalt: Bleached; Silica; Bleached BFL, str silc'd decreased sulphides									
		and amygdules, STWK?? Fractured transition possibly wkly flt'd. Rare bleb cpy.									

740.36 740.36 End of Hole:



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Assays

Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn	SG	Cu	Pb	Zn	Λ.,	۸۵	۸۵	Al	Po	Bi	Co	Cd	Co
No.	(m)	(m)	(m)	g/t	g/t	%	%	.%	30	ppm	ppm	ppm	Au ppb	Ag ppm	As ppm	%	Ba ppm	ppm	Ca %	ppm	ppm
9602	325.52	326.52	1.00	0.03	0.00	0.00	0.00	0.00	0.00	123	86	255	0	0.4	25	5.76	60	5	2.96	1	24
9603	326.52	328.50	1.98	0.58	18.10	0.24	1.17	3.28	2.79	2437	10000	10000	0	17.8	75	1.26	15	5	0.60	178	13
9604	328.50	330.50	2.00	0.25	9.40	0.19	0.44	1.39	2.83	1926	4454	10000	0	9.1	75	1.88	15	5	0.54	84	11
9605	330.50	332.50	2.00	0.03	0.00	0.00	0.00	0.00	0.00	84	96	284	0	0.6	20	1.98	25	. 5	0.32	1	6
9606	332.50	334.50	2.00	0.03	0.00	0.00	0.00	0.00	0.00	189	50	164	0	0.2	20	1.97	20	5	0.48	1	7
9607	334.50	336.50	2.00	0.03	0.00	0.00	0.00	0.00	0.00	478	44	188	0	0.2	15	1.85	15	5	0.55	1	7
9608	336.50	338.50	2.00	0.03	0.00	0.00	0.00	0.00	0.00	338	16	115	0	0.2	25	2.12	10	5	0.46	1	8
9609	338.50	340.50	2.00	0.03	0.00	0.00	0.00	0.00	0.00	573	20	68	0	0.2	40	1.90	25	5	0.54	1	6
9610	340.50	341.50	1.00	0.03	0.00	0.00	0.00	0.00	0.00	131	12	40	0	0.2	40	1.50	35	5	0.36	1	6
9611	341.50	343.50	2.00	0.03	0.00	0.00	0.00	0.00	0.00	221	16	57	0	0.2	40	1.57	40	5	0.35	1	6
9613	343.50	345.50	2.00	0.03	0.00	0.00	0.00	0.00	0.00	51	16	39	0	0.2	20	1.44	40	5	0.37	1	5
9614	345.50	347.50	2.00	0.03	0.00	0.00	0.00	0.00	0.00	50	24	33	0	0.3	35	1.24	20	5	0.42	1	5
9615	347.50	348.76	1.26	0.03	0.00	0.00	0.00	0.00	0.00	38	18	54	0	0.2	30	1.54	25	5	0.45	1	5
9616	348.76	350.50	1.74	0.03	0.00	0.00	0.00	0.00	0.00	1272	24	101	0	0.5	70	1.36	20	5	1.02	1	6
9617	350.50	352.50	2.00	0.03	0.00	0.00	0.00	0.00	0.00	1647	22	154	0	0.4	30	1.81	20	5	0.64	1	6
9619	352.50	354.50	2.00	0.08	0.00	0.00	0.00	0.00	0.00	2198	170	631	0	2.9	80	2.32	15	5	0.59	2	7
9620	354.50	356.50	2.00	0.31	0.00	0.00	0.00	0.00	0.00	29	90	237	0	0.7	65	2.66	70	5	0.67	1	7
9621	356.50	357.45	0.95	0.26	0.00	0.00	0.00	0.00	0.00	33	318	935	0	7.5	50	1.97	25	5	0.78	1	7
9622	357.45	358.50	1.05	0.72	140.00	0.17	0.92	2.06	2.80	1764	9189	10000	0	30.0	570	0.43	15	5	0.63	72	3
9623	358.50	359.50	1.00	2.63	138.00	0.03	0.58	0.97	2.81	248	5780	9835	0	30.0	90	0.44	20	5	0.25	40	4
9625	359.50	360.50	1.00	0.81	0.00	0.00	0.00	0.00	0.00	26	320	527	0	22.4	35	0.47	20	5	0.45	1	5
9626	360.50	361.00	0.50	1.78	238.00	0.04	0.60	0.92	2.77	413	6054	9177	0	30.0	135	0.54	15	5	0.29	40	4
9627	361.50	362.50	1.00	0.47	36.70	0.05	0.44	0.74	2.65	528	4478	7778	0	30.0	165	0.61	15	5	0.32	33	7
9628	362.50	363.50	1.00	0.35	0.00	0.00	0.00	0.00	0.00	388	6114	7682	0	19.6	255	1.01	10	5	0.38	32	8
9629	363.50	364.50	1.00	0.28	0.00	0.00	0.00	0.00	0.00	318	4730	7878	0	10.7	385	0.63	5	5	0.31	29	7
9630	364.50	365.50	1.00	0.23	0.00	0.00	0.00	0.00	0.00	400	5688	9682	0	11.2	150	0.55	20	5	0.26	47	4
9631	365.50	366.50	1.00	0.20	18.70	0.04	0.92	1.19	2.69	430	9177	10000	0	18.8	170	0.55	10	5	0.32	55	7
9632	366.50	367.50	1.00	0.12	0.00	0.00	0.00	0.00	0.00	454	4136	9006	0	10.8	165	0.55	10	5	0.26	41	5
9633	367.50	368.50	1.00	0.30	0.00	0.00	0.00	0.00	0.00	340	4596	5336	0	14.1	120	0.74	10	5	0.37	23	5
9634	368.50	369.50	1.00	0.33	0.00	0.00	0.00	0.00	0.00	479	2594	9870	0	7.5	95	0.85	5	5	0.36	45	6
9635	369.50	370.50	1.00	0.17	0.00	0.00	0.00	0.00	0.00	192	414	5481	0	2.9	50	1.67	15	5	0.44	27	7
9636	370.50	371.90	1.40	0.06	0.00	0.00	0.00	0.00	0.00	195	78	2296	0	1.4	25	1.72	15	5	0.81	11	8
9637	371.90	372.77	0.87	0.03	0.00	0.00	0.00	0.00	0.00	138	54	206	0	0.9	30	3.25	270	5	2.70	1	25



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Assays ... continued

Sample No.	From (m)	To (m)	Interval (m)	Cr ppm	Fe %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P	Sb ppm	Sn ppm	Sr ppm	Ti %	U	V ppm	W	Y
602					4.33		3.65	507	1	0.30	169	1160		20	314	0.08	10	104	10	6
9603		326.52 328.50		315 37	4.33 3.79	20 10	3.05 38.0	145	1	0.07	1	500	10	20	314 75	0.08	10	3	10	4
9604	328.50			63	5.62	20	1.21	124	1	0.07	1	300	10	20	63	0.02	10	1	10	3
9605		332.50		89	2.99	10	1.27	232	1	0.11	9	230	5	20	19	0.05	10	1	10	2
9606		334.50		94	3.58	10	1.09	231	1	0.14	9	190	5	20	33	0.08	10	1	10	3
607		336.50		86	4.14	10	0.91	214	1	0.15	7	220	5	20	40	0.06	10	1	10	3
608	336.50			100	5.14	20	1.21	257	1	0.14	10	190	5	20	35	0.09	10	1	10	3
609	338.50	340.50	2.00	89	3.12	10	0.97	230	1	0.14	9	210	5	20	49	0.07	10	1	10	4
610	340.50	341.50	1.00	88	2.34	10	0.87	244	2	0.10	8	150	5	20	20	0.06	10	1	10	3
9611	341.50	343.50	2.00	71.	2.32	10	0.95	241	1	0.09	9	140	5	20	19	0.02	10	1	10	3
9613	343.50	345.50	2.00	74	1.94	10	0.81	205	1	0.11	6	120	5	20	15	0.01	10	1	10	2
614	345.50	347.50	2.00	82	2.62	10	0.56	153	1	0.12	6	130	5	20	25	0.01	10	1	10	2
615	347.50	348.76	1.26	99	2.32	10	0.67	184	1	0.13	7	140	5	20	14	0.01	10	1	10	2
616	348.76	350.50	1.74	95	2.98	10	0.59	194	1	0.13	8	250	5	20	43	0.02	10	1	10	3
617	350.50	352.50	2.00	91	3.11	10	0.91	284	1	0.17	9	350	10	20	29	0.02	10	1	10	3
619	352.50	354.50	2.00	88	5.59	20	1.53	302	1	0.10	9	390	10	20	. 29	0.05	10	1	10	3
620	354.50	356.50	2.00	46	2.14	10	1.76	357	1	0.11	10	510	5	20	35	0.04	10	_ 1	10	4
621	356,50	357.45	0.95	43	2.40	10	1.13	220	1	0.09	9	470	10	20	60	0.01	10	1	10	3
622	357.45	358.50	1.05	60	0.85	10	0.07	19	1	0.02	1	40	370	20	70	0.01	10	2	10	2
623	358.50	359.50	1.00	57	1.05	10	0.06	9	1	0.01	1	40	90	20	76	0.01	10	2	10	2
625	359.50	360.50	1.00	57	1.44	10	0.09	7	3	0.03	3	150	10	20	53	0.01	10	2	10	2
9626	360.50	361.00	0.50	83	1.75	10	0.16	30	1	0.03	1	210	120	20	20	0.01	10	3	10	2
627	361.50			106	2.66	10	0.26	61	1	0.04	5	220	75	20	13	0.01	10	3	10	2
628	362.50			72	5.47	10	0.53	97	1	0.08	2	240	60	20	7	0.01	10	2	10	1
629	363.50			100	6.76	20	0.26	1	1	0.06	- 1	280	35	20	7	0.01	10	2	10	1
9630		365.50		78	1.91	10	0.16	27	.1	0.03	1	390	55	20	5	0.01	. 10	2	10	2
9631	365.50			98	3.15	10	0.19	30	1	0.03	1	360	60	20	7	0.01	10	2	10	2
632	366.50			88	2.33	10	0.18	23	1	0.04	1	260	60	20	15	0.01	10	1	10	1
633	367.50			107	3.12	10	0.35	73	1	0.06	2	290	40 45	20	42	0.01	10	1	10	1
634	368.50			85	3.34	10	0.42	84	1	0.06	1	370	15	20	29	0.01	10	1	10	2
9635	•	370.50		109	3.98	10	1.26	389	1	0.06	6 10	300	5	20	111	0.03	10	1	10	2
)636)637		371.90		87 184	3.48	10	1.28	356 506	7	0.08	10 57	520	5 5	20	112	0.03	10 10	11	10 10	4
9637	3/1.90	372.77	0.87	184	4.96	20	2.48	586	1	0.34	57	3230	. 5	20	166	0.17	10	148	10	11



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Assays

Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %	SG	Cu ppm	Pb ppm	Zn ppm	Au ppb	Ag ppm	As ppm	AI %	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm
9639	372.77	374.55	1.78	0.03	0.00	0.00	0.00	0.00	0.00	139	50	178	0	0.6	35	3.62	325	5	2.44	1	28
9640	374.55	375.50	0.95	0.30	0.00	0.00	0.00	0.00	0.00	682	36	240	0	4.0	105	0.51	5	5	0.48	1	. 7
9641	375.50	377.00	1.50	0.35	0.00	0.00	0.00	0.00	0.00	779	40	222	0	2.9	160	0.35	5	5	0.21	1	9
9643	377.00	378.50	1.50	0.37	0.00	0.00	0.00	0.00	0.00	2504	48	1092	0	3.8	305	0.23	. 5	5	0.09	1	6
9644	378.50	380.00	1.50	0.28	0.00	0.00	0.00	0.00	0.00	2170	80	601	0	4.0	505	0.34	5	5	0.14	1	7
9645	380.00	381.50	1.50	0.62	4.80	1.27	0.01	0.02	2.92	10000	26	268	0	4.6	620	0.47	10	5	0.21	1	9
9646	381.50	383.00	1.50	0.77	5.70	1.17	0.01	0.02	3.00	10000	18	168	0	5.4	690	0.58	15	5	0.21	. 1	12
9647	383.00	384.50	1.50	1.11	0.00	0.00	0.00	0.00	0.00	8696	38	743	Ó	9.6	2885	0.41	5	5	0.15	້ 1	11
9648	384.50	386.00	1.50	0.47	0.00	0.00	0.00	0.00	0.00	8295	20	586	0	7.8	1890	0.41	5	5	0.25	1	9
9649	386.00	387.50	1.50	0.43	0.00	0.00	0.00	0.00	0.00	3602	8	108	O	2.3	610	0.38	5	5	0.19	1	10
9650	387.50	389.00	1.50	0.33	0.00	0.00	0.00	0.00	0.00	700	26	101	0	3.2	335	0.38	5	5	0.08	1	10
9651	389.00	390.50	1.50	0.14	0.00	0.00	0.00	0.00	0.00	1557	18	171	0	3.0	630	0.35	5	5	0.09	1	6
9653	390.50	392.00	1.50	0.25	0.00	0.00	0.00	0.00	0.00	2926	32	48	0	3.2	335	0.43	5	5	0.14	. 1	10
9654	392.00	393.50	1.50	0.32	4.90	1.14	0.01	0.03	2.89	10000	2	250	Ó	5.1	985	0.37	5	5	0.21	1	8
9655	393.50	395.00	1.50	0.06	0.00	0.00	0.00	0.00	0.00	155	16	23	0	0.4	85	0.35	10	5	0.15	1	6
9656	395.00	396.50	1.50	0.05	0.00	0.00	0.00	0.00	0.00	66	26	38	0	0.3	90	1.52	40	5	1.18	1	11
9657	396.50	398.00	1.50	0.38	0.00	0.00	0.00	0.00	0.00	3725	24	142	0	2.1	1090	0.66	5	5	0.37	1	10
9658	398.00	399.50	1.50	0.86	0.00	0.00	0.00	0.00	0.00	184	38	27	. 0	1.1	185	0.38	5	5	0.11	1	11
9659	399.50	401.00	1.50	1.47	0.00	0.00	0.00	0.00	0.00	109	70	28	0	2.0	180	0.48	5	5	0.15	1	11
9660	401.00	402.50	1.50	0.32	0.00	0.00	0.00	0.00	0.00	75	48	16	0	1.3	140	0.50	5	5	0.18	1	15
9661	402.50	404.00	1.50	0.62	0.00	0.00	0.00	0.00	0.00	251	80	28	0	4.5	530	0.53	5	5 ,	0.19	1	17
9662	404.00	405.50	1.50	0.31	0.00	0.00	0.00	0.00	0.00	424	20	38	0	2.0	460	0.52	5	5	0.19	1	11
9663	405.50	407.00	1.50	0.38	0.00	0.00	0.00	0.00	0.00	230	30	68	0	2.0	240	0.38	5	5	0.15	1	8
9664	407.00	408.50	1.50	0.25	0.00	0.00	0.00	0.00	0.00	851	50	255	0	2.1	295	0.31	5	. 5	0.20	1	7
9665	408.50	410.00	1.50	0.39	9.40	1.13	0.01	0.11	2.77	10000	160	971	0	9.2	1515	0.36	5	. 5	0.15	- 1	7
9666	410.00	411.50	1.50	0.35	0.00	0.00	0.00	0.00	0.00	2935	110	385	0	4.5	515	0.46	5	5	0.19	1	9
9668	411.50	413.00	1.50	0.08	0.00	0.00	0.00	0.00	0.00	59	44	101	0	0.7	55	0.62	15	5	0.20	1	6
9669	413.00	414.50	1.50	0.13	5.80	0.35	0.02	1.10	2.69	3604	220	10000	0	5.6	1490	0.42	10	5	0.27	51	4
9671	414.50	416.00	1.50	0.13	0.00	0.00	0.00	0.00	0.00	630	30	445	0	3.0	290	0.64	5	5	0.38	1	9
9672	416.00	417.50	1.50	0.56	0.00	0.00	0.00	0.00	0.00	140	142	88	0	9.1	130	0.72	5	5	0.36	1	.13
9673	417.50	419.00	1.50	0.71	0.00	0.00	0.00	0.00	0.00	675	94	283	. 0	5.2	515	0.60	5	5	0.32	1	11
9674	419.00	420.50		0.21	0.00	0.00	0.00	0.00	0.00	92	30	28	0	0.5	110	0.51	5	5	0.31	1	6
9675	420.50	422.00		0.12	0.00	0.00	0.00	0.00	0.00	147	30	45	0	8.0	85	0.40	15	5	0.21	1	5



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Assays ...continued

Sample No.	From (m)	To (m)	Interval (m)	Cr ppm	Fe %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Sb ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W ppm	Y ppm
639	372.77	374.55	1.78	188	4.54	20	2.11	407	1	0.35	106	2890	5	20	230	0.21	10	129	10	10
640	374.55	375.50	0.95	138	7.76	20	0.34	1	1	0.03	9	150	5	20	48	0.01	10	7	10	1
9641	375.50	377.00	1.50	155	10.00	30	0.27	1	1	0.02	7	10	10	20	14	0.01	10	2	10	1
643	377.00	378.50	1.50	152	6.27	10	0.13	1	- 1	0.01	5	60	35	20	4	0.01	10	1	10	. 1
644	378,50	380.00	1.50	112	6.78	20	0.18	1	1	0.02	6	50	25	20	6	0.01	10	2	10	1
645	380.00	381.50	1.50	90	9.10	10	0.23	1	6	0.02	. 7	620	35	20	12.	0.01	10	2	10	4
646	381.50	383.00	1.50	89	10.00	10	0.27	1	7	0.03	8	610	20	20	8	0.01	10	2	10	6
647	383.00	384.50	1.50	94	9.34	10	0.20	1	8	0.02	4	340	135	20	8	0.01	10	2	10	4
648	384.50	386.00	1.50	91	8.19	10	0.19	1	2	0.02	2	580	145	20	16	0.01	10	2	10	4
649	386.00	387.50	1.50	75	9.94	10	0.19	1	2	0.02	2	590	25	20	5	0.01	10	_ 1	10	6
650	387.50	389.00	1.50	60	5.71	10	0.11	1	6	0.02	7	110	15	20	5	0.01	10	1	10	3
651	389.00	390.50	1.50	98	4.70	10	0.10	1	5	0.02	4	140	35	20	2	0.01	10	1	10	3
653	390.50	392.00	1.50	78	9.74	10	0.19	1	2	0.02	4	240	15	20	4	0.01	10	2	10	4
654	392.00	393.50	1.50	110	8.94	10	0.17	1	1	0.02	3	880	75	20	4	0.01	10	1	10	5
655	393.50	395.00	1.50	81	2.72	10	0.08	1	1	0.02	5	360	5	20	3	0.01	10	. 1	10	3
656	395.00	396.50	1.50	126	2.23	10	0.43	117	4	0.11	34	690	10	20	21	0.02	10	15	10	4
657	396.50	398.00	1.50	97	6.85	10	0.31	1	4	0.05	6	330	60	20	13	0.01	10	11	10	4
658	398.00	399.50	1.50	64	4.51	10	0.11	. 1	9	0.02	6	50	20	20	7	0.01	10	. 1	10	. 4
659	399.50	401.00	1.50	116	5.54	10	0.15	1	5	0.03	10	80	20	20	6	0.01	10	2	10	7
9660	401.00	402.50	1.50	51	4.77	10	0.16	1	1	0.03	14	210	15	20	4	0.01	10	1	10	6
661	402.50	404.00	1.50	84	10.00	10	0.28	. 1	9	0.03	13	120	40	20	9	0.01	10	2	10	9
662	404.00	405.50	1.50	78	6.31	.10	0.22	1	7	0.04	6	90	45	20	9	0.01	10	1	10	5
9663	405.50	407.00	1.50	117	4.89	10	0.13	1	4	0.02	6	70	20	20	9	0.01	10	1	10	3
664	407.00	408.50	1.50	119	4.51	10	0.14	1	8	0.01	4	60	20	20	25	0.01	10	. 1	10	2
665	408.50	410.00	1.50	130	6.26	10	0.17	1	9	0.01	5	570	80	20	8	0.01	10	. 1	10	2
9666		411.50		137	6.36	10	0.18	1	5	0.03	5	200	25	20	19	0.01	10	1	10	3
668	411.50	413.00	1.50	84	1.97	10	0.10	2	10	0.04	5	60	5	20	29	0.01	10	1	10	3
669	413.00	414.50	1.50	114	2.14	10	0.11	10	1	0.02	1	230	85	20	54	0.01	10	1	10	2
671	414.50	416.00	1.50	62	3.52	10	0.20	1	9	0.04	. 4	160	10	20	40	0.01	10	1	10	3
672	416.00	417.50	1.50	74	5.77	10	0.25	1	13	0.05	5	220	10	20	13	0.01	10	1	10	4
9673	417.50	419.00	1.50	95	7.58	10	0.23	1	9	0.03	3	160	25	20	18	0.01	10	2	10	5
674		420.50		67	3.20	10	0.17	. 1	6	0.03	3	180	5	20	37	0.01	10	1	10	3
9675	420.50	422.00	1.50	112	1.43	10	0.10	14	3	0.02	5	70	15	20	30	0.01	10	1	10	2



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Assays

Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %	SG	Cu ppm	Pb ppm	Zn ppm	Au ppb	Ag ppm	As ppm	AI %	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm
9676	422.00	423.50	1.50	0.11	0.00	0.00	0.00	0.00	0.00	18	4	13	0	0.6	40	0.33	35	. 5	0.15	1	3
9677	423.50	425.00	1.50	0.31	0.00	0.00	0.00	0.00	0.00	223	62	44	0	3.1	225	0.54	5	5	0.33	1	8
9678	425.00	426.50	1.50	0.20	0.00	0.00	0.00	0.00	0.00	84	68	21	0	2.8	140	0.56	5	5	0.40	1	7
9679	426.50	428.00	1.50	0.34	0.00	0.00	0.00	0.00	0.00	1519	44	116	0	7.1	695	0.64	5	5	0.64	1	8
9680	428.00	429.50	1.50	0.09	0.00	0.00	0.00	0.00	0.00	41	16	12	0	0.7	60	0.49	10	5	1.88	1	6
9681	429.50	431.00	1.50	0.28	0.00	0.00	0.00	0.00	0.00	182	24	28	0	1.2	175	0.55	- 5	5	0.50	1	8
9682	431.00	432.43	1.43	0.18	0.00	0.00	0.00	0.00	0.00	64	68	56	0	1.0	100	0.58	5	5	1.33	1	7
9683	432.43	433.83	1.40	0.61	0.00	0.00	0.00	0.00	0.00	137	744	2070	0	3.4	165	0.48	5	5	2.07	6	10
9684	433.83	435.47	1.64	0.10	0.00	0.00	0.00	0.00	0.00	193	896	1525	0	2.2	85	2.08	30	5	1.04	5	6
9685	608.47	609.47	1.00	0.03	0.00	0.00	0.00	0.00	0.00	22	34	94	0	0.2	5	2.55	495	5	0.52	1	6
9686	609.47	611.00	1.53	0.03	0.00	0.00	0.00	0.00	0.00	10	48	97	0	0.2	10	2.54	410	5	0.86	1	7
9687		612.50	1.50	0.03	0.00	0.00	0.00	0.00	0.00	13	32	64	. 0	0.2	15	1.31	235	5	0.24	1	5
9688	612.50		1.50	0.03	0.00	0.00	0.00	0.00	0.00	29	46	70	. 0	0.4	30	1.06	140	5	0.19	1	5
9689		615.50	1.50	0.08	0.00	0.00	0.00	0.00	0.00	67	64	121	0	8.0	80	1.67	125	5	0.27	1	9
9690	615.50		1.50	0.03	0.00	0.00	0.00	0.00	0.00	39	42	37	0	1.3	125	0.53	70	5	0.16	1	7
9692	617.00		1.50	0.05	0.00	0.00	0.00	0.00	0.00	28	40	58	0	1.5	105	0.53	85	5	0.19	1	8
9693				0.04	0.00	0.00	0.00	0.00	0.00	17	32	148	0	0.4	80	0.97	80	5	0.27	1	4
9695		621.50		0.04	0.00	0.00	0.00	0.00	0.00	92	1128	2408	0	2.2	85	0.49	35	5	0.23	7	4
9696		623.00	1.50	0.06	8.00	0.06	0.42	1.08	2.69	631	4444	10000	0	6.4	280	0.41	45	5	0.24	38	5
9697	623.00	624.54	1.54	0.14	0.00	0.00	0.00	0.00	0.00	421	2414	6145	0	9.5	185	0.52	50	5	0.44	22	5
9698	624.54	626.00	1.46	1.19	44.00	0.04	0.13	0.41	2.72	410	1298	4240	0	30.0	185	0.64	55	5	0.38	14	30
9699	626.00	627.50	1.50	0.08	0.00	0.00	0.00	0.00	0.00	382	84	5811	0	9.9	105	1.00	60	5	0.43	20	32
9700	627.50	629.00		0.03	0.00	0.00	0.00	0.00	0.00	984	76	1101	0	17.2	140	0.88	50	5	0.37	3	29
9701	629.00			0.05	0.00	0.00	0.00	0.00	0.00	888	110	484	0	5.1	100	0.80	40	5	0.29	. 1	41
9702	630.13	632.16		0.04	0.00	0.00	0.00	0.00	0.00	49	34	70	0	0.3	125	0.48	115	5	0.36	1	3
9703	632.16	633.84		0.05	0.00	0.00	0.00	0.00	0.00	11	26	67	0	0.2	25	0.44	60	5	0.36	1	2
9704				0.03	0.00	0.00	0.00	0.00	0.00	993	46	172	0	0.4	25	2.68	60	5	0.63	1	31
9705	635.00	636.50		0.03	0.00	0.00	0.00	0.00	0.00	1909	58	132	0	1.1	40	1.80	55	5	0.66	1	27
9706	636.50	638.00		0.04	0.00	0.00	0.00	0.00	0.00	1368	90	8445	0	0.7	60	0.91	45	5	0.47	32	29
9707		639.50		0.03	0.00	0.00	0.00	0.00	0.00	2295	76	3301	0	1.3	40	0.85	45	5	0.48	14	21
9708	639.50		1.50	0.03	0.00	0.00	0.00	0.00	0.00	1909	92	3228	0	1.2	25	1.19	60	5	0.65	14	25
9709	641.00	642.50	1.50	0.03	0.00	0.00	0.00	0.00	0.00	516	54	7622	0	0.5	35	1.76	50	5	0.43	31	28
9710	642.50	644.00	1.50	0.03	0.80	0.10	0.01	1.34	2.75	1028	48	10000	0	0.9	55	1.23	50	5	0.53	52	26



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Assays ... continued

Sample No.	From (m)	To (m)	interval (m)	Cr ppm	Fe %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	ppm P	Sb ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W ppm	Y ppm
676	422.00	423.50	1.50	109	0.99	10	0.06	14	4	0.01	4	110	5	20	48	0.01	10	1	10	2
677	423.50	425.00	1.50	91	5.84	10	0.18	1	4	0.03	4	60	15	20	28	0.01	10	1	10	3
678	425.00	426.50	1.50	79	4.59	10	0.17	1	3	0.03	. 3	110	10	20	41	0.01	10	1	10	4
679	426.50	428.00	1.50	107	5.49	10	0.18	• 1	6	0.04	7	400	60	20	34	0.01	10	1	10	4
680	428.00	429.50	1.50	103	2.85	10	0.16	1	2	0.03	11	200	5	20	110	0.01	10	1	10	3
681	429.50	431.00	1.50	74	5.35	10	0.13	1	5	0.05	4	140	15	20	21	0.01	10	1	10	4
682	431.00	432.43	3 1.43	65	4.62	10	0.15	1	5	0.06	5	40	5	20	79	0.01	10	1	10	3
683	432.43	433.83	3 1.40	95	7.56	10	0.25	1	1	0.03	10	50	10	20	124	0.01	10	1	10	4
684	433.83	435.47	7. 1.64	81	2.78	10	1.21	312	1	0.15	8	280	10	20	81	0.01	10	2	10	5
685	608.47	609.47	7 1.00	68	1.72	10	1.82	914	2	0.16	10	260	10	20	48	0.03	10	2	10	6
686	609.47	611.00	1.53	50	1.44	10	1.64	715	2	0.17	11	290	10	20	76	0.01	10	4	10	5
687	611.00	612.50	1.50	53	1.16	10	1.11	457	5	0.06	6	240	5	20	22	0.01	10	4	10	6
688	612.50	614.00	1.50	58	1.86	10	0.90	349	6	0.05	6	210	10	20	16	0.01	10	2	10	7
689	614.00	615.50	1.50	42	2.62	10	1.66	705	6	0.05	18	410	15	20	20	0.01	10	25	10	7
690	615.50	617.00	1.50	56	2.65	10	0.18	50	3	0.03	10	210	5	20	14	0.01	10	2	10	3
692	617.00	618.50	1.50	46	2.39	10	0.22	79	7	0.04	11	260	5	20	14	0.01	10	2	10	2
693	618.50	620.00	1.50	73	3.52	10	0.77	486	1	0.03	6	640	5	20	11	0.01	10	3	10	4
695	620.00	621.50	1.50	69	3.86	10	0.27	131	1	0.02	3	460	10	20	8	0.01	10	1	10	. 3
696	621.50	623.00	1.50	81	4.84	10	0.17	74	1	0.02	1	620	120	20	7	0.01	10	2	10	2
697	623.00	624.5	4 1.54	78	4.70	10	0.24	132	1	0.03	. 1	890	75	20	14	0.01	10	2	10	4
398	624.54	626.00	1.46	49	4.34	10	0.20	82	1	0.03	11	370	55	20	17	0.01	10	17	10	1
699	626.00	627.50	1.50	54	5.81	10	0.45	317	1	0.04	10	540	30	20	13	0.01	10	27	10	2
700	627.50	629.00	1.50	59	5.24	10	0.42	314	1	0.03	10	480	75	20	13	0.01	10	24	10	1
701	629.00	630.13	3 1.13	53	6.73	10	0.36	252	1	0.03	14	520	10	20	16	0.01	10	27	10	1
702	630.13	632.10	3 2.03	113	1.33	10	0.08	458	4	0.09	6	100	5	20	15	0.01	10	1.	10	6
703	632.16	633.84	4 1.68	96	1.21	10	0.11	605	5	0.09	5	100	5	20	10	0.01	10	1	10	6
704	633.84	635.00	1.16	81	7.61	10	1.90	2113	1	0.06	16	670	10	20	16	0.17	10	74	10	2
705	635.00	636.50	1.50	60	6.73	10	1.07	1004	1	0.05	13	640	10	20	20	0.06	10	46	10	1
706	636.50	638.0	1.50	69	7.99	10	0.34	229	1	0.03	. 8	560	5	20	15	0.01	10	23	10	1
707	638.00	639.5	0 1.50	65	6.01	10	0.33	270	1	0.03	9	390	15	20	8	0.01	10	20	10	1
708	639.50	641.0	1.50	59	5.83	10	0.58	660	1	0.03	9	670	15	20	16	0.04	10	28	10	4
709	641.00	642.50	1.50	50	6.10	10	1.27	1364	1	0.02	9	720	10	20	11	0.12	10	41	10	5
710	642.50	644.00	1.50	70	6.28	10	0.54	518	1	0.04	6	530	5	20	23	0.03	10	33	10	1



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Assays

Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %	SG	Cu ppm	Pb ppm	Zn ppm	Au ppb	Ag ppm	As ppm	Al %	Ba ppm	Bi ppm	Ca %	Cd ppm	Co
9711	644.00	645.50	1.50	0.03	0.60	0.08	0.01	1.65	2.78	855	38	10000	0	0.6	105	0.99	75	5	0.45	67	30
9713	645.50	647.00	1.50	0.03	0.00	0.00	0.00	0.00	0.00	271	54	7353	0	0.2	80	1.01	50	5	0.48	28	35
9714	647.00	648.50	1.50	0.04	0.00	0.00	0.00	0.00	0.00	2570	108	220	0	1.2	55	1.15	40	5	0.52	1	30
9715	648.50	650.00	1.50	0.03	0.00	0.00	0.00	0.00	0.00	2714	312	426	Ó	2.2	65	1.63	45	5	0.59	1	47
9716	650.00	651.50	1.50	0.03	0.00	0.00	0.00	0,00	0.00	897	88	261	0	0.7	35	2.55	55	5	0.69	1	27
9717	651.50	653.00	1.50	0.03	0.00	0.00	0.00	0.00	0.00	718	68	381	0	0.5	30	3.20	60	. 5	0.68	1	43
9719	653.00	654.50	1.50	0.03	0.00	0.00	0.00	0.00	0.00	231	72	233	0	0.5	30	3.69	60	5	0.63	1	43
9720	654.50	656.00	1.50	0.10	0.00	0.00	0.00	0.00	0.00	196	202	572	0	8.0	70	3.09	50	5	0.69	2	40
9721	656.00	657.50	1.50	0.07	0.00	0.00	0.00	0.00	0.00	512	224	477	0	1.7	90	3.44	80	5	0.62	1	45
9722	657.50	659.00	1.50	0.07	0.00	0.00	0.00	0.00	0.00	747	58	222	0	8.0	25	4.18	70	5	0.56	1	36
9723	659.00	660.50	1.50	0.06	0.00	0.00	0.00	0.00	0.00	574	60	194	0	0.5	30	3.94	70	5	0.50	1	39
9725	660.50	662.00	1.50	0.05	0.00	0.00	0.00	0.00	0.00	863	62	920	0	0.7	55	4.04	70	5	0.52	2	44
9726	662.00	663.50	1.50	0.06	0.00	0.00	0.00	0.00	0.00	247	94	172	0	0.5	35	3.38	45	5	0.31	1	51
9727	663.50	665.00	1.50	0.04	0.00	0.00	0.00	0.00	0.00	667	64	314	0	0.6	5	3.22	75	5	0.75	1	41
9728	665.00	666.50	1.50	0.04	0.00	0.00	0.00	0.00	0.00	276	60	218	0	0.4	5	3.40	125	5	1.47	1	32
9729	666.50	668.00	1.50	0.04	0.00	0.00	0.00	0.00	0.00	931	48	224	0	0.6	5	3.72	80	5	0.56	1	34
9730	668.00	669.50	1.50	0.04	0.00	0.00	0.00	0.00	0.00	473	48	150	0	0.3	5	3.61	195	5	1.48	1	45
9731	669.50	671.00	1.50	0.04	0.00	0.00	0.00	0.00	0.00	375	54	170	0	0.2	10	3.80	130	-5	1.20	1	38
9732	671.00	672.50	1.50	0.03	0.00	0.00	0.00	0.00	0.00	83	42	110	0	0.2	15	2.72	110	5	1.45	1	50
9733	672.50	673.96	1.46	0.07	0.00	0.00	0.00	0.00	0.00	3003	74	838	0	6.7	90	1.79	35	5	0.81	2	49
9734	673.96	674.60	0.64	0.24	32.00	1.21	0.03	0.39	3.81	10000	242	3937	0	28.2	205	0.30	5	5	0.24	14	61
9735	674.60	675.50	0.90	0.12	0.00	0.00	0.00	0.00	0.00	2932	102	966	0	8.8	175	0.66	25	5	0.40	2	45
9736	675.50	676.20	0.70	0.26	0.00	0.00	0.00	0.00	0.00	2082	82	666	0	12.2	295	1.63	20	5	1.23	.1	54
9737	676.20	678.20	2.00	0.09	0.00	0.00	0.00	0.00	0.00	734	46	3103	0	3.2	130	0.73	25	5	0.35	10	45
9739	678.20	680.20	2.00	0.12	7.90	0.08	0.01	1.24	3.04	649	176	10000	0	7.6	270	0.76	5	5	0.27	55	40
9740	680.20	682.20	2.00	0.16	0.00	0.00	0.00	0.00	0.00	194	82	2081	0	6.4	215	1.59	15	5	0.14	5	40
9741	682.20	684.20	2.00	0.14	0.00	0.00	0.00	0.00	0.00	124	96	269	0	2.8	185	2.08	20	5	0.13	1	34
9743	684.20	686.20	2.00	0.16	0.00	0.00	0.00	0.00	0.00	97	100	268	0	1.3	195	2.51	15	5	0.14	1	40
9744	686.20	688.20	2.00	0.13	0.00	0.00	0.00	0.00	0.00	81	98	254	0	1.3	140	2.84	20	5	0.16	1	39
9745	688.20	690.20	2.00	0.10	0.00	0.00	0.00	0.00	0.00	93	68	2225	0	8.0	100	2.23	20	5	0.14	7	39
9746	690.20	692.20	2.00	0.12	0.00	0.00	0.00	0.00	0.00	227	70	1538	0	1.4	185	2.18	20	5	0.16	3	41
9747	692.20	692.70	0.50	0.30	0.00	0.00	0.00	0.00	0.00	226	184	434	0	2.8	400	2.09	5	5	0.07	1	57
9748	692.70	693.64	0.94	0.04	0.00	0.00	0.00	0.00	0.00	79	70	570	0	0.4	90	3.38	. 5	5	0.20	1	39



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Assays ...continued

Sample No.	From (m)	To (m)	Interval (m)	Cr ppm	Fe %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P	Sb ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W	Y ppm
9711	644.00	645.50	1.50	46	4.75	10	0.41	391	. 1	0.02	8	660	5	20	11	0.02	10	27	10	3
713	645.50	647.00	1.50	42	7.34	10	0.43	259	1	0.02	12	780	5	20	8	0.02	10	23	10	4
9714	647.00	648.50	1.50	55	7.78	10	0.47	221	1	0.03	13	470	10	20	14	0.02	10	30	10	1
9715	648.50	650.00	1.50	71	10.00	10	1.04	638	3	0.03	23	460	15	20	12	0.04	10	57	10	1
716	650.00	651.50	1.50	56	6.80	10	1.78	1498	1	0.04	17	460	10	20	14	0.09	10	72	10	1
717	651.50	653.00	1.50	74	8.90	10	2.45	2025	1	0.08	24	570	10	20	19	0.12	10	100	10	1
719	653.00	654.50	1.50	62	8.35	10	3.22	2274	1	0.08	25	770	5	20	15	0.13	10	124	10	1
720	654.50	656,00	1.50	64	8.76	. 10	2.46	1683	1	0.07	22	590	5	20	18	0.08	10	97	10	1
721	656.00	657.50	1.50	76	11.27	10	2.97	1975	1	0.07	24	680	5	20	11	0.10	10	122	10	1
722	657.50	659.00	1.50	88	8.33	10	3.64	2414	1	0.07	23	740	5	20	14	0.17	10	156	10	1
723	659.00	660.50	1.50	78	8.68	10	3.38	2278	1	0.06	24	680	10	20	10	0.18	10	141	10	2
725	660.50	662.00	1.50	68	9.23	10	3.40	2602	1	0.07	25	750	5	20	12	0.21	10	134	10	1
726	662.00	663.50	1.50	78	10.00	10	3.09	2351	1	0.03	33	490	5	20	4	0.18	10	151	10	1
727	663.50	665.00	1.50	101	7.99	10	3.28	3349	1	0.02	41	750	5	20	5	0.21	10	127	10	6
728	665.00	666.50	1.50	137	6.82	10	3.49	3523	1	0.02	67	790	5	20	30	0.18	10	137	10	4
729	666.50	668.00	1.50	64	8.28	10	3.46	3403	1	0.02	21	760	5	20	11	0.22	10	162	10	4
730	668.00	669.50	1,50	501	5.20	10	4.10	2079	1	0.02	337	1590	5	20	44	0.16	10	101	10	5
731	669.50	671.00	1.50	294	6.60	10	3.69	2731	1	0.05	155	1140	5 ,	20	52	0.22	10	190	10	5
732	671.00	672.50	1.50	598	5.03	10	3.28	2251	1	0.01	373	1630	5	20	48	0.14	10	75	10	6
733	672.50	673.96	1.46	52	8.44	10	1.77	1449	1	0.01	43	1100	15	20	7	0.08	10	74	10	1
9734	673.96	674.60	0.64	129	10.00	10	0.44	148	1	0.01	26	550	15	20	4	0.01	10	21	10	1
9735	674.60	675.50	0.90	67	9.84	10	0.58	438	1 -	0.01	19	720	10	20	4	0.02	10	29	10	1
9736	675.50	676.20	0.70	136	10.00	20	1.24	418	1	0.17	31	710	25	20	88	0.11	10	58	10	1
9737	676.20	678.20	2.00	58	8.75	10	0.64	393	1	0.01	19	750	10	20	149	0.01	10	31	10	1
9739	678.20	680.20	2.00	84	10.00	10	0.83	360	1	0.01	13	570	10	20	6	0.01	10	35	10	1
9740	680.20	682.20	2.00	80	11.54	10	1.77	1225	1	0.01	17	550	5	20	2	0.03	10	61	10	1
9741	682.20	684.20	2.00	89	10.00	10	2.61	1881	1	0.01	. 19	480	10	20	3	0.02	10	83	10	1
743	684.20	686.20	2.00	96	10.00	10	3.36	2482	1	0.01	21	510	10	20	4	0.02	10	115	10	. 1
744	686.20	688.20	2.00	99	10.00	10	3.68	2718	1	0.01	21	570	10	20	4	0.02	10	138	10	1
745	688.20	690.20	2.00	77	10.50	10	2.92	2201	1	0.01	20	490	10	20	3	0.02	10	93	10	1
746	690.20	692.20	2.00	75	10.00	10	2.69	1988	1	0.01	- 22	540	30	20	3	0.03	10	88	10	1
747	692.20	692.70	0.50	117	10.00	30	3.07	2186	- 1	0.01	30	150	5	20	1	0.02	10	89	10	1
748	692.70	693.64	0.94	97	8.95	10	4.10	3537	1	0.01	25	460	10	20	- 1	0.06	10	141	10	2



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Assays

Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %	SG	Cu ppm	Pb ppm	Zn ppm	Au ppb	Ag ppm	As ppm	Al %	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm
9749	693.64	694.27	0.63	0.07	21.50	2.27	0.01	0.90	3.55	10000	28	9034	0	19.9	90	1.01	5	5	0.30	52	21
9750	694.27	694.73	0.46	0.03	0.00	0.00	0.00	0.00	0.00	4343	82	1955	0	4.1	110	2.64	5	5	0.42	7	37
9751	694.73	695.69	0.96	0.11	0.00	0.00	0.00	0.00	0.00	2858	162	6265	0	3.3	160	1.19	5	5	0.21	27	32
9753	695.69	697.69	2.00	0.04	0.00	0.00	0.00	0.00	0.00	394	66	5097	0	0.5	70	2.69	5	5	0.23	21	35
9904	462.00	463.40	1.40	0.03	0.00	0.00	0.00	0.00	0.00	64	16	48	0	0.2	20	0.80	35	5	0.62	. 1	22
9905	463.40	464.80	1.40	0.03	0.00	0.00	0.00	0.00	0.00	31	24	52	Ŏ	0.2	15	1.94	30	5	0.57	1	40
9906	464.80	466.20	1.40	0.03	0.00	0.00	0.00	0.00	0.00	13	22	65	0	0.2	10	2.70	75	5	1.10	1	36



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Assays ...continued

Sample No.	From (m)	To (m)	Interval (m)	Cr ppm	Fe %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Sb ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W ppm	Y ppm
9749	693.64	694.27	7 0.63	126	10.00	40	1.68	1205	1	0.01	4	640	5	20	20	0.02	10	45	10	1
9750	694.27	694.73	0.46	108	10.00	20	3.52	2722	1	0.01	19	520	5	20	19	0.04	10	100	10	1
9751	694.73	695.69	0.96	114	10.00	40	1.90	1439	1	0.01	15	210	5	20	13	0.01	10	48	10	1
9753	695.69	697.69	2.00	85	8.10	10	2.99	2881	1	0.01	18	490	5	20	3	0.05	10	106	10	2
9904	462.00	463.40	1.40	140	3.46	10	0.66	133	. 1	0.07	52	450	5	20	1	0.06	10	59	10	4
9905	463.40	464.80	1.40	276	5.33	10	2.12	195	1	0.12	130	550	5	20	1	0.15	10	160	10	8
9906	464.80	466.20	1.40	328	4.90	10	3.20	448	. 1	0.10	128	460	5	20	1	0.15	10	177	10	7



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Collar Coordinates

North (m): East (m)

Elevation (m):

15636.00 10486.00

117.00

Azimuth (degrees):

Dip (degrees): Length (m): 360.00 -90.00

964.59

Started: Completed:

16/08/2004 06/09/2004 Date Logged:

16/08/2004 TS./ RGC.

/2004 Logged By: Report Printed:

17/12/2004

Down Hole Survey Tests

							DOMI	і поіе	Survey	resis	,						
Depth (m)	Azimutl	n Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip
0.00	302.66	-89.00	780.00	72.39	-85.00												
30.00	322.71	-89.20	810.00	72.25	-84.90												
60.00	353.14	-89.60	840.00	77.09	-84.30												
90.00	39.58	-89.60	850.00	79.00	-84.00												
120.00	43.01	-89.40	862.28	87.00	-84.30												
150.00	69.44	-89.10	902.13	85.45	-85.10												
180.00	88.86	-88.40	926.77	83.90	-84.60												
210.00	79.30	-88.40	957.57	89.50	-82.50												
240.00	82.72	-87.90															
270.00	81.15	-87.80															
300.00	71.59	-87.80															
330.00	68.88	-87.50															
360.00	76.17	-87.40															
390.00	72.60	-87.00															
420.00	70.02	-86.60															
450.00	67.45	-86.30															
480.00	71.01	-86.40															
510.00	66.54	-85.50															
540.00	69.10	-85.70															
570.00	67.66	-85.60															
600.00	68.33	-85.60															
630.00	72.88	-85.60															
660.00	73.44	-85.50															
690.00	73.99	-85.50															
720.00	75.55	-85.40															
750.00	72.09	- 84.90															



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Interval	(m)	Description	Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From	То		No.	(m)	(m)	(m)	g/t	g/t	%	%	%
0.00	1.22	Casing: Casing, no recovery.									
		Casing, no recovery.									
1 22	42.20	Basalt Flow Chlorite: Magnetite: Jasper									

22 42.20 Basalt Flow: Chlorite; Magnetite; Jasper

Dark green grey - dark grey, locally maroon colored, hematite stained mafic extrusive. Jasper specks, rounded - round, from < 1 mm - 4 mm, rarely 5 mm. Jasper fragments?, up to 0.5 cm size, irregular shaped, sub rounded. Hematite also disseminated (maroon colored sections and hematite stained fragments, see also below). Japer amounting to approx 2 %. Interval is locally feldspar phyric, with only few feldspars from < 0.5 cm - 2 mm, rarely 3 mm. Interval is moderately - strongly chloritic throughout. Hard. Several sections, often wider than 1 m with a fragmental texture: Sub rounded fragments, < 0.5 cm - > 5 cm, variably hematite stained, in a fine grained matrix, matrix supported, with matrix and fragments of the similar or same mafic composition. These sections are interpreted as hyaloclastites (picture taken). Chlorite, +/- quartz, +/- epidote, +/- magnetite veins, predominantly with hairline width, rarely up to 1 cm wide, @ various angles to CA from 10 deg to sub vertical, often clustered in zones from several cm width up to > 0.5 m, associated with bleaching and alteration halos and sometimes displaying wavy textures (flow tops?).

42.20 64.81 Fault Zone:

Fault zone, broken core: Approx 40 % of core broken into pieces < 5 cm, approx 50 % of material < than 10 cm. For Lithology see nested. Lower contact sharp, @ 40 deg to CA, associated with a 2.5 cm wide quartz vein, with signs of brecciation (mm - several cm sized, angular - sub rounded inclusions of host rock).

- 42.20 42.50 Fault: Chloritic, clayey fault gauge, associated with slickensides on fracture planes, which are sub parallel to CA. Fault is associated with a fine meshed (< 3 cm scale) vein stockwork, that extends to 43.33 m. It consists of carbonatious, chloritic vein mineralization, from hairline to approx 2 cm width, predominantly sub parallel and @ 30 deg to CA. Wider veins show tectonic brecciation: Angular fragments of host rock (< 1mm several cm) enclosed by vein mineralization. The veining results in a shattered appearance of the rock and is associated with pale green pale beige bleaching halos.
- 43.33 48.00 Basalt Undifferentiated: Dark green grey dark grey, green grey, locally pale green, variably bleached and altered, variably magnetic (non magnetic, with strongly



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Zn

Interval (m)

From

То

Description

Sample No.

From (m)

То (m) (m)

Interval Au g/t

Cu Pb

- magnetic patches), dense, fine grained, undifferentiated basaltic rock. At 48.0 a sharp contact @ 50 deg to CA with SRD.
- 48.00 56.65 Sloko Rhyolite Dyke: Broken Core; Pale beige pale green white, dense, fine grained, Sloko rhyolite dike. Approx 70 % of this interval is broken into pieces < 10 cm, approx 50 % into pieces < 5 cm. Within the first 70 cm of the upper contact the interval displays breccia veins, with fragments of the host rock from several mm several cm size, angular - sub rounded, enclosed in white, carbonate bearing vein mineralization. Width of vein appears to be larger than diameter of core. From 49.83 - 51.40 a sharp contact between the mafic host rock and the sloke rhyolite dike is displayed sub parallel to CA (drilling down the contact). Flow foliation (resembling a bedding in a sedimentary rock) between 25 deg to CA and subparallel to CA. Lower contact: Lost in broken core.
- 56.65 58.12 Broken Core: Dark green grey dark brown, fine grained, dense, homogeneous, mafic composition, moderately magnetic, undifferentiated basaltic rock.
- 58.12 58.40 Basalt Undifferentiated: Sharp contact @ 10 deg to CA with beige, locally pale green - pale green grey, fine grained, dense, homogenous unit, assumed to be an altered, undifferentiated basalt. Breccia veins, with angular - subrounded fragments of host from < 1 mm - 4 cm in white carbonate bearing veins, from hairline - 3 cm, @ 20 deg sub parallel to CA. Amount and width of veins decreasing downwards until 61.67 m.
- 61.67 62.23 Fault Zone: Fault gauge. Pale beige, pale grey, intensively shattered rock of unknown composition. Breaks down into clayey, slightly ductile, silty, sandy, gravely chlorite bearing, somewhat soapy gauge.
- 62.23 64.30 Broken Core: Dark green grey dark grey pale green grey, fine grained, dense, variably bleached, chloritic, undifferentiated basaltic rock, non magnetic.
- 64.30 64.69 Quartz-Calcite Vein: 40 cm wide carbonate, (minor) quartz vein, with few, sub rounded, chlorite altered fragments of host rock enclosed in vein mineralization. Upper contact: Sharp, @ 30 deg to CA, associated with ductile, clayey, chloritic fault gauge. Lower contact: Sharp, @ 30 deg to CA.

64.81 69.95 Basalt Undifferentiated: Chlorite

> Dark green grey, fine grained, aphanitic, chloritic, non magnetic, mafic extrusive? sill?. Dense, massive, featureless, but with one propylitic altered zone (quartz, carbonate, chlorite,



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Pb Interval (m) Description Sample From То Interval Cu Zn No. (m) g/t % (m) (m) То From

pyrrhotite, epidote), 15 cm wide, with a fragmental (or pseudo fragmental?) texture: Jigsaw fit fragments of basaltic composition in a light colored, propylitic altered matrix (flow top?). Lower contact: Marked by a very sudden change to moderate - strong magnetism, finer grain size, glassy appearance and a mauve colored tint. Associated with an approx 15 cm wide, cloudy, chlorite, epidote alteration zone, no plane.

69.95 100.27 Volcanic Sediment: Magnetite; Chlorite; Broken Core

Very fine grained, dense, green grey, very dark grey - almost black, variably hematite stained, maroon colored mudstone (argillite?). Locally displaying a change of color, rather than a change of grain size or visible composition of grains, @ 35 deg to CA. Conchoidal fracturing with a very distinctive soapy feel on wet fracture planes. Wet core surface with a very "glassy" appearance. Very similar to the VSD interval below, described at "108.75 - 116.66". Variably magnetic:

Generally moderately - strongly magnetic throughout, with non magnetic sections and patches. Lack of magnetism seems to be linked to strong chlorite alteration, veining and light colors. Some fracture planes with a very outstanding and a sub mm thin jasper coating. More than 50 % of this interval is broken into pieces < 10 cm, more than 30 % into pieces < 5 cm, indicating faulting. Lower contact: Sharp but indistinct @ 60 deg to CA.

80.50 80.80 Chlorite: Epidote; Zone with intense chlorite epidote alteration.

84.00 85.00 Calcite Vein: Carbonate bearing veins @ shallow angel to CA, associated with bleaching.

97.60 99.00 Chlorite: Stockwork; Zone with a very fine meshed (< 0.5 cm scale) chlorite vein stockwork @ various angles to CA, but most conspicuous @ 30 deg, 50 deg to CA, associated with bleaching, which is highlighting a foliation @ 40 deg - 50 deg to CA.

100.27 108.75 Basalt Flow: Chlorite

Fine- rarely medium grained, dense, massive, dark green - dark grey, glassy, mafic extrusive? sill?, assumed to be a basaltic sheet flow. From 100.60 - 100.80 faintly developed textures, that are interpreted as hyaloclastites: Several mm - several cm sized fragments, rectangular - irregular shaped, in a fine grained groundmass, apparently of the same composition, rudimental jig saw fit. At 102.20 m: Round - oval, 0.5 - 1.5 cm sized outlines, filled with carbonate, magnetite, chlorite, epidote and minor sulfides (pyrite and pyrrhotite): Amygdules? From 107.60 - 107.90 m: Rectangular, dark green - black clots, that are softer than surrounding material, interpreted as



Hole-ID: TCU04122 Page: 5

Interval (m)

Τo

From

Description

Sample No. From (m)

To Interval (m) (m)

Au a/t \g

Cu

%

Pb Zn % %

chloritized feldspar. Propylitic altered zones (with chlorite, epidote, magnetite and pyrite) from < 10 cm - > 25 cm, with cloudy textures, stockworks of chlorite veinlets with hairline width and wavy or swirly textures (flow tops?). Lower contact: Potentially lost in broken core from 106.40 - 108.72, chosen with a color change to mauve - maroon color. No plane.

106.40 108.72 Fault Zone: Broken core. 100 % broken into pieces < 10 cm, 90 % broken into pieces < 5 cm. At 107.30 - 107.50 m fault gauge, clayey, ductile, associated with slickensides on fracture planes @ 50 deg - 60 deg to CA.

108.75 116.66 Volcanic Sediment: Magnetite; Chlorite

Very similar to 69.95 - 100.27 m", but with some coarser grained sections, for example at 109.42 - approx 110.80. This sections also displays weak grading. The lower part of this interval from 114 m - 116.5 m displays a sequence of several units, which are grading upwards from sandstone to mudstone, with the width of these units varying from 25 cm - > 1 m and bedding @ 35 deg to CA. Lower contact: Marked by broken core, no plane. <Litho Geochem, Low Cr-Ni mafic FW - 113.9m and 115.8m>.

116.66 140.32 Fault Zone:

Broken core. 70 % broken into pieces < 10 cm, 40 % broken into pieces < 5 cm. Lithology: VSD, similar to the VSD described @ 108.75 - 116.66. Variably intense veined (as described above) and bleached. Additionally sections with a fine meshed (< 5 cm, locally < 1 cm scale) stockwork of chlorite veins and veinlets: Predominantly with hairline width, rarely up to 3 mm, and one with 8 mm width, @ various angles to CA, most conspicuously @ 30 deg to CA, resulting in a shattered appearance, associated with bleaching to pale green beige color. Lower contact: Marked by decreasingly broken core, no plane.

- 122.56 122.84 Fault Zone: Quartz-Calcite Vein; Fault gauge, chloritic, silty, sandy, gravely at associated with slickensides on fracture planes, which are orientated sub parallel to CA; and a fine meshed quartz carbonate vein stockwork (< 1 cm scale) with veins varying from hairline width up to 4 mm at various angles to CA, conspicuously very shallow angles to CA.
- 130.35 131.14 Hematite: Chlorite; Red, green, beige rock, with a fragmental (pseudo fragmental) texture: Hematite stained, dirty white red, irregular shaped rounded, < 2 mm > 3 cm sized fragments in a beige matrix (matrix supported). Unit with a very fine meshed



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Interval (m)	Description					Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From	То						No.	(m)	(m)	(m)	g/t	g/t	%	%	%

(< 0.5 cm scale) hairline stockwork of chlorite veinlets @ various angles to CA: Among others 50 deg, 20 deg and most conspicuous 60 deg to CA. These chlorite veinlets give it the green color. 2 quartz veins per 1 m core, approx 5 mm wide @ 60 deg to CA. The unit is reminiscent to a RDF: Tectonic breccia? Proximal of a turbidite? Picture taken.

137.30 137.50 Fault Zone: Slickensides, associated with chlorite, carbonate vein mineralization, approx 3 mm wide on fracture planes @ 10 deg to CA.

140.32 166.49 Volcanic Sediment: Magnetite; Chlorite

Volcanic sediments, as described @ "108.75 - 116.66 m" and "69.95 - 100.27 m". Generally very fine grained, monotonous and featureless, but some very good examples of sandstone grading into mudstone and cm wide beds of sandstone alternating with mudstone at 148 - 148.5 m. Displays clearly a bedding @ 35 deg to CA. Picture taken. Lower contact: Sharp, irregular, associated with an ½ m wide propylitic alteration and veining zone in the underlying unit. Contact repeating itself over 20 cm (as result of drilling +/- parallel to the contact)?

- 142.65 146.15 Bleached: Chlorite; Pyrite; Intensively altered: Chlorite, pyrite and bleaching create a chaotic, cloudy wavy swirly texture. In the center of this section is an approx 30 cm long piece of sloko rhyolite dike in contact with the VSD along the middle of the core, indicating, that the drill hole is approaching a sloko rhyolite dike at a very shallow angle (drilling parallel to the contact). The alteration in this sub section is therefore considered to be contact metamorphism.
- 146.15 147.33 Sloko Rhyolite Dyke: Sloko rhyolite dike, pale green white, dense, fine grained, with < 1 mm approx 3 mm sized dark colored, unknown minerals. Faintly developed foliation @ 35 deg to CA. Upper contact: Sharp @ 30 deg to CA. Lower contact: Sharp @ 40 deg to CA.
- 161.60 165.60 Dacite: Prominent change in color from dark grey brown to pale beige light grey, pale beige green grey. This section does not display a significant increase of veining or broken core (approx 50 % broken into pieces < 10 cm; approx 30 % broken into pieces < 5 cm), but some parts have a somewhat shattered appearance with healed (chlorite quartz and pyrite) fracture planes resembling a small meshed (<1 cm scale) veinlet stockwork. These small sections (approx 30 cm) are few and far apart. A good portion of this sub sections appears relatively unaltered with a foliation @ 40 deg



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Interval (m) Description

Sample From To Interval Au Ag Cu Pb Zn No. (m) (m) (m) g/t g/t % % %

to CA. Non magnetic. Sample taken by Tim in order to determine, whether light color is a result of primary composition or secondary alteration. <Litho Geochem, Dacite(sediment) - 164m>.

166.49 251.25 Basalt Flow:

Very fine grained, rarely fine - medium grained, aphanitic, dark green grey - dark grey, locally dark brown, locally bleached to pale green grey, dense, homogeneous, glassy mafic (basaltic) flow? sill?. The unit is so remarkably featureless, that it is almost descriptive in itself. Occasionally fracture planes @ 20 deg to CA and sub parallel to CA, with several mm sized pyrite aggregates, sometimes associated with quartz-, chlorite- and carbonate veins and veinlets, up to several cm width. Mostly moderately magnetic, with few non magnetic - weakly magnetic patches and sections. Observed textures: see nested. Lower contact: Based on change in grain size and change of color. Possibly camouflaged by veining and associated alteration and bleaching over approx 40 cm. No plane. <Litho Geochem, Mod. Mg-Cr-Ni mafic - 225.4m>.

- 169.20 169.50 Amygdaloidal Basalt: Amygdules, 1 3 mm sized, rarely up to 1 cm, predominantly with quartz and chlorite mineralization.
- 174.10 175.20 Amygdaloidal Basalt: Amphobile; Amygdules, 1 3 mm sized, rarely up to 1.5 cm?, predominantly with quartz and minor chlorite, +/- epidote mineralization. Few scatterd sub mm up to mm sized black phenocrysts, particularly at 174.53 174.60: Amphibole?
- 188.50 219.00 Fault Zone: Broken core, indicating faulting, approx 70 % broken into pieces < 10 cm and 40 % broken into pieces < 5 cm.
- 207.58 208.30 Volcanic Sediment: Dark brown grey mudstone with bedding @ 30 40 deg to CA (based on faintly developed color change rather than change in grain size. Very similar to fine grained VSD described at 69.95 100.27 m. Upper contact: Very indistinct, conformable. Lower contact: Lost in broken core.
- 224.60 225.15 Amygdaloidal Basalt: Small (0.5 3 mm, rarely 4 mm sized) amygdules, filled with quartz, chlorite, +/- pyrite, +/- epidote. Very few, scattered, sub mm sized partially chloritized, subhedral (hexagonal) feldspar phenocrysts.
- 233.50 243.50 Fault Zone: Approx 50 % broken into pieces < 10 cm and 25 % broken into pieces < 5 cm)
- 243.60 244.15 Amygdaloidal Basalt: Amygdules, < 1 mm approx 7 mm, with quartz, chlorite, +/-



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Interval (m) Τo

From

Description

From (m)

Sample

То (m)

Interval (m)

Cu

Pb Zn % %

epidote mineralization, associated with a sharp contact (possibly between 2 flows) at 244.10 m @ 25 deg to CA.

- 245.00 245.30 Amygdaloidal Basalt: Amygdules, 1 5 mm sized, predominantly with chlorite, +/pyrite, +/- quartz mineralization. Very few, scattered 1 - 3 mm sized dark, indistinct phenocrysts with subhedral, trapezoid and/ or hexagonal shape, possibly amphibole, possibly chlorite altered.
- 248.00 251.25 Amphobile: 1 4 mm sized, dark green, subhedral, trapezoid to rhombic shaped phenocrysts, assumed to be amphiboles.

286.63 Basalt Undifferentiated: Chlorite 251.25

Dark green grey - dark grey - dark blue grey (but lighter colored than the previous interval), fine - rarely medium grained, dense, massive, very homogenous mafic rock. Possibly a sill or a basaltic extrusive. Variably magnetic, patchy and in sections. Generally decreasing from moderately strongly magnetic near upper contact to non - weakly magnetic near lower contact. Small dark green phenocrysts and amygdules scattered throughout, particularly within the upper part of this interval. Lower contact: Gradational over approx 1 m, chosen with a color change from green grey - blue grey to (increasingly darker) dark brown grey.

- 251.25 259.30 Amphobile: 1 4 mm sized, dark green, subhedral, trapezoid to rhombic shaped phenocrysts, assumed to be amphiboles (Particularly at 259.05 - 259.25).
- 252.70 254.10 Amphobile: Very dark green phenocrysts, 1 mm rarely 4 mm sized, subhedral with trapezoid or hexagonal shape, assumed to be chloritized amphiboles.
- 252.71 252.80 Amygdaloidal Basalt: Amygdules, approx 5 mm sized, predominantly with chlorite and pyrite mineralization.
- 266.60 268.72 Amygdaloidal Basalt: Groups of amygdules, 2 5 mm sized, with chlorite, quartz and +/- carbonate mineralization. Few scattered dark green phenocrysts as described above. Very small (usually < 0.5 mm) white mineral specks, usually in vaguely defined, 10 - 30 cm sized clouds, assumed to be possibly feldspar. Zones, from 0.5 -1.5 m width with intensive propylitic alteration (chlorite, +/- quartz, +/- epidote, +/- carbonate, +/- magnetite) with veins (often zoned), veinlets and patchy, swirly, wavy textures; alternating with up to 5 m wide dense, massive zones, as described above. Few fracture planes (for example @ 10 deg, and 80 deg to CA), with several mm sized pyrite aggregates.



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Interval (m)	Description			Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From To				No.	(m)	(m)	(m)	g/t	g/t	- %	%	%

272.81 275.25 Fault Zone: Broken core. Approx 65 % is broken into pieces < 10 cm and approx 30 % into pieces < 5 cm. Minor slickensides and carbonate mineralization (up to 7 mm wide) fracture planes subparallel and @ 10 deg to CA.

286.63 306.92 Basalt Flow: Chlorite

Dark brown grey - dark green grey, very fine grained, dense, aphanitic, mafic rock with a few, small feldspar phyric sections (feldspar phenocrysts from < 1 mm - 2 mm size), for example at 288.73 m, 290.20 - 290.25 m, 291.80 - 292.35 m. Intergranular texture displayed at 305.70 - 306.20 m. Variably magnetic, from non magnetic - very strongly magnetic, patchy and in sections, orderless. Disseminated magnetite is present in some sections, put magnetite mineralization also associated with propylitic alteration (typical swirly, wavy, patchy and veined zones within basalts). Lower contact: Indistinct, sharp @ 30 deg to Ca.

292.35 304.70 Fault Zone: Broken core. 85 % of this interval broken into pieces < 10cm and 70 % broken into pieces < 5 cm. Slickensides on fracture planes @ 20 deg to CA, 40 deg to CA and (most prominent and most abundant) sub parallel to CA, locally associated with chlorite, carbonate mineralization < 1 mm - approx 4 mm width.

306.92 317.08 Volcanic Sediment: Cordierite

Dark green grey - dark grey - dark brown grey - beige brown grey, locally beige brown - maroon colored, very fine grained, locally fine grained volcanic sediment. Very similar to the VSD described at 69.95 - 100.27". Generally non- weakly magnetic, with few small and far apart sections and patches with moderate - strong magnetism. At 314.4 m a sandy bed within the mud stone, displaying a bedding @ 40 deg to CA. At 308.8 m textures, which suggest slumping of wet muddy sediments. Lower contact: Indistinct, sharp, irregular, no plane.

309.50 309.90 Cordierite: 1 - 5 mm sized, round cordierite granoblasts within the primary mudstone, amounting to approx 60 %.

310.50 317.08 Fault Zone: Approx 70 % of this interval is broken into pieces < 10 cm, approx 50 % is broken into pieces < 5 cm. Prominent orientations of fracture planes: 70 deg, 60 deg, and more conspicuous 40 deg and sub parallel to CA. The planes @ 60 deg to CA and the sub parallel planes are associated with slickensides and chlorite-, carbonate mineralization up to 4 mm width.

316.60 317.08 Cordierite: 1 - 5 mm sized, round, indistinct cordierite granoblasts within the



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Interval (m) From To Description

Sample No. From (m) To Interval (m) (m)

Au a/t

Ag a/t Cu

%

Pb Zn

primary mudstone, amounting to approx 35 %.

317.08 330.10 Basalt Undifferentiated: Chlorite

Dark green grey - dark brown grey - dark grey, locally bleached to pale green grey, fine - medium grained, dense, massive, variably feldspar phyric mafic intrusive? volcanic rock?. Variably magnetic, from non magnetic - strongly magnetic, patches and sections, apparently orderless. Variably feldspar phyric with subhedral - anhedral, < 1 mm - 3 mm sized feldspar phenocrysts, amounting to 30 % in a few sections of up to 0.5 m length. At 223.51 m sharp, irregular contact between 2 basalt flows? Fracture planes with hematite stain, often strongly magnetic. Lower contact: Sharp @ 40 deg to CA.

318.21 329.60 Fault Zone: Broken core. 70 % of this interval broken into pieces < 10 cm and 50 % broken into pieces < 5 cm. Various orientations of fracture planes: 30 deg, 40 deg, 50 deg, 25 deg and - most conspicuous - sub parallel to CA. Fracture planes @ 25 deg and sub parallel to CA display slickensides. From 326 - 329.6: Pieces of broken core with a shattered appearance as a result of a very fine meshed (locally < 1 cm scale) stockwork of healed (chlorite, pyrite, carbonate) fracture planes. From 325.30 - 326: Pale green bleached section with a 10 cm wide, chlorite bearing quartz vein, containing 1 mm - 2 cm sized, angular - irregular shaped fragments of host rock enclosed by vein mineralization as a result of tectonic brecciation. Orientation of vein: 60 deg to CA. This sub section displays fracture planes (with slickensides and minor chloritic fault gauge), which cut through the vein and its margins @ 60 deg to CA (i.e. parallel to the orientation of the vein). The very few bigger core pieces in this sub section display a shattered appearance (as described above) and fracture planes with minor chlorite mineralization and slickensides.

330.10 337.50 Basalt Flow: Chlorite

Dark green grey - green grey, very fine grained - fine grained, aphanitic, dense, massive, mafic rock. Interval is predominantly non magnetic. Few amygdules at 331.53. Small lens of volcanic sediments at 332.05, suggesting that this interval is a basalt flow, rather than an intrusive. The interval displays the propylitic alteration, that is very typical for basalt flows, in this case primarily as zoned quartz-, chlorite-, +/- magnetite-, +/- carbonate-, +/- epidote veins, with variable width (from few mm up to approx 3 cm) and variable orientation (50 deg, sub parallel and



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Interval (m) То From

Description

Sample No.

From (m)

То Interval (m)

(m)

g/t

Cu

%

Zn

sub vertical) to CA.

331.53 331.80 Amygdaloidal Basalt: Few amygdules, 2 - 7 mm sized, with chlorite, minor carbonate and quartz mineralization.

332.05 332.20 Volcanic Sediment: Small lens of volcanic sediments, with bedding @ 40 deg to CA. 332.45 334.98 Fault Zone: Broken core. More than 50 % of the core is broken into pieces < 10 cm and more than 30 % of the core is broken into pieces < 5 cm. Interval displays chlorite carbonate veining (up to 2 cm wide) associated with slickensides and minor, very fine fault gauge and a very conspicuous fracturing, all sub parallel to CA.

337.50 339.69 Fault Zone: Chlorite

Broken core. 90 % of core is broken into pieces < 10 cm and 60 % of core is broken into pieces < 5 cm. Fracture planes have various orientations, most conspicuous and abundant are fracture plane sub parallel to CA, which are associated with slickensides. Lithology: Dark green grey - dark grey, medium grained, soft, highly chloritic, altered rock of mafic composition, possibly an altered basalt ash tuff? or an altered intrusive? Black, anhedral - subhedral, < 1mm - 5 mm sized phenocrysts, which are locally amounting to 8% and are assumed to be entirely chloritized. Interval non magnetic. Lower contact: Lost in broken core.

339.69 370.92 Basalt Intrusive: Chlorite

Dark green grey - dark grey, fine grained, dense, aphanitic, very massive, in sections glassy appearing, mafic rock. Variably magnetic: Mostly weakly - non magnetic, with moderately magnetic patches and sections. Few 2 - 8mm amygdules at 343 and 361m, smaller (up to 3 mm size) but more abundant amyodules within the last 50 cm above the lower contact. Few veins with the propylitic mineral assembly (quartz, chlorite, +/- magnetite, +/- epidote, +/- pyrite) from approx 2 mm - 2 cm width, with variable orientation, most conspicuously sub parallel and @ 35 - 50 deg to CA. Lower contact: Associated with a.m. amygdule cloud, sharp, irregular, @ +/- 45 deg to CA. 343.00 345.00 Amygdaloidal Basalt: Few amygdules, 2 - 8 mm sized with chlorite-, +/- pyrite-, +/carbonate mineralization.

361.00 361.70 Amygdaloidal Basalt: Few amygdules, 2 - 8 mm sized with chlorite-, +/- pyrite-, +/carbonate mineralization.



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Interval (m)

From

To

Description

Cu Рb Zn Sample From To Interval No. (m) (m) (m) g/t g/t %

Very dark brown grey - dark grey - green grey, fine - medium grained volcanic sediments, possibly alternating with thin (1 - 2 m wide) basaltic sheet flows. Interval is variably magnetic. Generally the unit begins with approx 3 m dark brown grey mudstone, with bedding @ 35 deg to CA (non magnetic, increasing to moderately magnetic downwards). The contact to the central green grey section is lost in broken core. The central part of the interval begins with 1 m homogenous, massive, green grey siltstone (or possibly a basalt sheet flow) with sharp, irregular contact to 2 m sandstone with very prominent grading from fine gravel and coarse sand to silt and mud (375.35 -376.25) over approx 70 cm width (moderately - strongly magnetic). Bedding @ 30 deg to CA. Picture taken. The lower dark green grey, homogenous, massive, dense 2 m are possibly a VSD comprised of predominantly silt sized fragments or a basaltic sheet flow (strongly magnetic, grading into non magnetic near lower contact). Few veins with the propylitic mineral assembly (quartz, chlorite, magnetite), up to 2 cm wide, predominantly sub vertical to CA. Lower contact: Sharp, broken core, no plane.

378.85 382.19 Andesite Dyke: Chlorite; Epidote

> Light yellow green - medium grey, dense, homogenous, feldspar phyric andesite porphyry dike, with a chloritic matrix. Feldspar phenocrysts (approx 0.5 - 2 mm, rarely up to 4 mm near the center of the interval) with yellow green color (epidote alteration?). Lower contact: Sharp, with a 10 cm wide chill margin (decreasing size of feldspar phenocrysts towards lower contact, grading into aphanitic), irregular, broken core, no plane. The contact is associated with a breccia vein (mm -3.5 cm sized, sub rounded fragments of host rock enclosed in approx 7 cm wide quartz-, carbonate-, minor chlorite mineralization) in underlying unit.

382.19 419.10 Volcanic Sediment:

Dark brown grey - dark grey - brown - beige grey, very fine - medium grained (mostly very fine fine grained), hard volcanic sediments, alternating with thin (occasionally only 2 m thick) basalt sheet flows. Variably magnetic: Mostly moderately - strongly magnetic, patchy, with non- to weakly magnetic patches and sections. Very similar to VSD described at 69.95 - 100.27 m", but with approx 0.5 m wide sandy beds, particularly well developed and prominent at 413.72 - 414.10 m, displaying a bedding @ 25 deg to CA, versus approx 40 deg to CA in the upper portion of this interval. Many observable bedding contacts are irregular, indicating slumping and/ or other movement of the wet sediment. Several graded units, with sandy beds (approx 30 cm wide) at the bottom, grading into 1.5



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Interval (m)

From

Description

To

Zn Sample From То Interval Au Cu (m) % No. (m) (m) g/t

m wide homogenous, dense, mud beds, with sharp contact to the next overlying sand bed, that grades into mud again upwards. These sequences are interpreted as mud turbidity currents, for example at 399.10 - 402.09 (At 399.10 sharp contact between basalt and mud. Mud grading into sand downwards. At 400.44 sharp contact between sand and mud. Mud grading into sand downwards. At 409.09 sharp contact between sand and mud...). Lower contact: Very sharp @ 25 deg to Ca, associated with an approx 25 cm wide, cloudy epidote alteration halo.

- 382.19 392.94 Basalt Flow: Dark green grey dark grey, locally bleached to pale green pale beige grey, mafic, fine grained, dense, aphanitic rock. Moderately - strongly magnetic throughout. From 384 - 385 m bleached to pale beige grey - green grey, mottled, patchy, with zoned quartz-, carbonate-, chlorite-, pyrite veins, partially irregular shaped, from 1 mm - 1 cm width, with various orientations, predominantly @ 15 and 50 deg to CA. At 385.23 sharp contact @ approx 30 deg to CA between two flows? Subsection is non magnetic, tectonic origin of described textures is assumed. Lower contact: Chosen with apparent sedimentary textures, indistinct, broken core, no plane.
- 396.65 399.10 Amygdaloidal Basalt: Very similar to interval "382.19 392.94m", but without bleached zones. Few amygdules near upper contact, 2 - 4 mm sized, with chlorite mineralization. Few amygdules, 4 - 5 mm sized, with carbonate and minor chlorite mineralization at 396.95 m. Upper contact: Indistinct, sharp @ 50 deg to CA, associated with a cloudy, wavy, wispy, patchy, swirly epidote- and minor chlorite alteration halo (flow top). Lower contact: Indistinct, very sharp but irregular, no plane.

419.10 650.90 Amphibole-phyric Basalt Intrusive:

Fine - coarse grained, dense, massive, homogenous, dark green grey - dark grey, amphibole phyric mafic intrusion. Euhedral, 1 - 4 mm sized (sometimes > 5 mm, overall size of phenocrysts varying in sections) amphibole phenocrysts, amounting to 12 - 15 %, enclosed in an aphanitic matrix. Interval is non - weakly magnetic near upper contact, grading into weakly magnetic with moderately magnetic patches and sections after several m downwards. Very sudden change to non magnetic at 437.4 - 443.3 m. From 443.3 m downwards very weakly magnetic with a few patches and sections displaying weak moderate magnetism. Fine grained pyrite scattered throughout this section, hairline veinlets and wisps with pyrite mineralization @ various angles to CA. Fracture planes (various orientations: 10



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Interval (m) To

From

Description

Cu Pb Zn Sample From То Interval No. (m) g/t g/t (m) (m)

deg. 60 deg and sub parallel to CA) with up to several mm sized (rarely up to 5 mm) pyrite aggregates. From 496 m downwards the interval is somewhat less homogeneous: Sections as described above, alternating with finer grained, locally aphanitic, glassy and dark brown colored sections. Phenocrysts are generally decreasing in size and becoming less abundant. Amphibole phenocrysts are increasingly chloritized (in sections). Occasionally few and usually small amygdules (< 3 mm, very rarely up to 7 mm), with chlorite mineralization and very rarely with carbonate mineralization. Locally relicts of feldspar phenocrysts? Lower contact: Very indistinct, sharp @ 75 deg to CA. 420.31 421.00 Quartz-Calcite Vein: Bleached; 1 cm wide, chlorite bearing quartz-, carbonate vein @ 10 deg to CA, associated with a 70 cm wide bleaching and alteration halo: The groundmass is bleached to green - beige - grey and the amphibole phenocrysts are chloritized.

- 440.80 447.15 Quartz Vein: Chlorite; Epidote; Subsection with relative intensive propylitic alteration, approx 8 veins per m core (quartz-, chlorite-, epidote-, +/- magnetite mineralization), ranging from (very rarely) mm width up to 11 cm width, at various orientations to CA, most conspicuously @ approx 50 deg to CA.
- 453,70 455,25 Calcite Vein: Bleached; The matrix is bleached to pale green grey, with phenocrysts altered to dark green (chloritized amphibole), as an alteration halo to a 1.5 - 2 cm wide calcite vein at 454.40 - 454.60 m, orientated sub parallel to CA.
- 459.27 465.20 Quartz Vein: Silica; Chlorite; Highly siliceous interval with chlorite (+/magnetite) bearing quartz veins, of up to > 20 cm width, @ 25 deg, 40 - 60 deg and sub parallel to CA. Veins are partially very irregular, creating a mottled appearance. Quartz veining amounts to approx 25 % of the entire interval, including sections of up to 1.5 m width, which do not display veining or visible alteration. In some sections the quartz veining amounts to > 50 %. At 462.01 sharp contact, irregular @ 45 deg to CA, to silicified and pyritized VSD: The upper 1.5 m are quartz veined as described above, with additional scattered quartz pockets and clots, grading into a more or less pervasive silicification. The host rock displays wavy bands and clouds of very fine - fine grained pyrite. Quartz veining decreases downwards to beige brown - dark brown mottled VSD with a wavy, often indistinct foliation @ +/- 60 deg to CA. This subsection is more or less pervasively pyrite altered: Wavy bands and clouds (locally aligned to foliation) of very fine - fine grained pyrite and small patches with up to 0.5 mm sized pyrite crystals. Enclosed in



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Interval (m)

To

From

Description

Descriptio

Sample From To Interval Au Ag Cu Pb Zn No. (m) (m) (m) g/t g/t % % %

the pyritic, beige brown groundmass are dark brown, non pyritic, up to 10 cm sized patches (pseudo fragments: Relicts of unaltered protolith) with often razor sharp, curviplanar outlines, resulting in a mottled, patchy appearance. These textures are believed to be a pseudobreccia as a result of quartz-, pyrite alteration, with the protolith believed to be very similar to the VSD overlying the BIN3, possibly indicating fingering of the intrusion? a xenolith?

- 494.40 495.70 Quartz Vein: Silica; Subsection with relative intensive propylitic alteration. Fine grained, very dark brown (vs. dark green grey), without visible phenocrysts, silicified: Locally wavy, brownish quartz veins (up to 5 mm wide and with an orientation of 30 deg to CA), associated with elongated quartz clots (0.5 1 cm long), which are aligned parallel to a.m. veins.
- 538.50 538.70 Fault: Broken core. Quartz-, chlorite-, albite mineralization and a white, soft unknown mineral (assumed to be gypsum, maybe barite). Intense chlorite alteration and bleaching over a very short interval.
- 615.93 615.97 Garnet: 2 cm wide vein, cutting CA @ 30 deg. Vein mineralisation is composed to approx 80 % of red garnet, with minor (approx 8 %) pyrite and/ or pyrrhotite, +/- magnetite? It is associated with an approx 1 cm wide epidotic?, bleached? alteration halo on each side.

650.90 812.06 Basalt Flow:

Dark green grey - dark grey, locally (particularly near upper contact) dark brown grey (with small slightly mauve colored sections), fine grained, amygdaloidal basalt flow. Interval is variably magnetic: Mostly weakly - rarely moderately magnetic with non magnetic patches and sections. There appears to be a very weakly developed trend, that magnetism generally increases downwards (between 750 and 800 m the interval appears to be predominantly moderately magnetic). Amygdules from 1 mm - approx 10 mm size (mostly 3 - 5 mm sized) with quartz chlorite, minor carbonate, minor pyrite and very rarely epidote mineralization. Amygdules are particularly abundant within the first 6 m downwards from upper contact and decreasing from 656.5 m downwards to occasional clouds and/ or sparsely scattered in sections. Dense, massive, featureless sections alternating with amygdaloid sections. Frequency of amygdules within 1 m above lower contact sharply increasing. These amygdules are filled with a.m. minerals and additionally partly with garnet mineralization (and they are partially associated with light green bleaching- and or alteration halos). From 651 - 670



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Interval (m)

То

From

Description

Cu Pb Zn Sample From To Interval % No. (m) (m) g/t (m)

m, few (approx 2 per 1 m core) 2 - 4 mm wide (very rarely up to 8 cm wide) veins, indicating propylitic alteration (+/- quartz, +/- epidote, +/- chlorite, +/- pyrite +/- minor carbonate) with various orientations to CA, from 30 deg - 70 deg (- sub parallel) to CA. From 671 m downwards few (approx 2 - 3 veins per 1 m core) chlorite-, epidote-, +/- quartz, +/- garnet-, +/- pyrrhotite (only locally), +/- minor magnetite veins (garnet content appears to be increasing downwards), with various orientations (approx 25 deg to CA, approx 65 deg to CA and most conspicuously @ 45 - 50 deg to CA). Veins are usually associated with light green alteration halos (chlorite?, epidote?, bleaching?), which highlight the veins and obscure their true width. From 712 - 722.37 m: Quartz-, minor calcite-, barite-?, gypsum-?, epidote-, garnet, +/- pyrrhotite and/ or magnetite veins with various orientations to CA. Very few veins @ steep angles to CA (50 deg - sub vertical to CA), few veins @ shallow angles to CA (approx 30 deg to CA) and most conspicuously veining sub parallel to CA. In sections up to 30 % of core consisting of vein mineralisation. Width of the predominantly white appearing veins from several mm up to > 4.5 cm, occasionally exceeding the diameter of the core. Locally signs of tectonic brecciation, angular fragments from several mm up to several cm size, enclosed in the vein mineralization. Few pyrite specks on fracture planes (parallel to CA) up to several mm size. Lower contact: Sharp, @ 35 deg to CA.

- 650.90 653.00 Breccia: Basalt Hyaloclastite; Volcanic Sediment; Somewhat fragmental, brecciated texture: Very angular - rounded fragments, 5 mm to > 15 cm sized, with sharp and sometimes wavy, multiply seamed contacts (flowbanding? chill margins?) in a partially basaltic and partially sedimentary groundmass? (sediments filtered down from overlying volcaniclastic deposits?). These textures could be interpreted as a hyaloclastites or as outer margins of pillows or basalt flows, that have spalled. Picture taken.
- 696.83 702.00 Basalt Flow: Chlorite; Subsection is coarser grained, locally displaying a foliation? contacts? @ 40 deg - 50 deg to CA. Clasts? or grains? from 1 - 2 mm, rarely up to 3 mm size, locally grading into very fine grain size (fining upwards). This section appears to be stronger chloritized than the rest of this interval. Amygdules are entirely lacking. Magnetism is variable from non magnetic - moderately magnetic, patchy. This section could be interpreted as central part of a basalt flow or possibly as volcaniclastic sediments within the basaltic extrusives.
- 759.00 765.00 Quartz-Calcite Vein: Fault Zone; Subsection with a locally shattered appearance, relatively intensively veined. Irregular orientated fracture planes, healed with



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Interval (m)

From

Description

To

Description

Sample No. From (m)

To Interval (m) (m)

l Au g/t

Ag g/t Cu Pb Zn % %

quartz-, chlorite-, carbonate mineralization (carbonate content is locally very high).

812.06 817.31 Volcanic Sediment:

Dark green grey - dark brown grey, slightly mauve tinted, very fine - medium grained (sandstone) volcaniclastic. Generally weakly magnetic with very few moderately magnetic patches. Alternating sequence of sand- and mudstone beds, from < 1 cm - > 20 cm width. Upper part of this interval with higher amount of mud sized clasts than lower part, with higher content of sand sized clasts. Upper fine grained sections displaying a bedding (based on faintly developed color changes) @ 25 - 40 deg to CA. Coarser grained lower sections displaying bedding (based on change in grain size and color) @ 30 - 35 deg to CA. Very fine grained dusty and disseminated pyrite amounts to 5 - 10 %. Lower contact: Sharp and conformable @ 35 deg to CA.

817.31 820.14 Rhyolite Lapilli Ash Tuff:

Medium grey - dark grey - dark green grey, slightly mauve colored rhyolite lapilli ash tuff? Approx 30 % lapilli sized fragments, predominantly of felsic composition (rarely irregular shaped and angular, predominantly rounded - sub rounded, frequently with blurry contacts), in a dark green grey - dark brown grey, slightly mauve colored ash matrix, which is assumed to have an intermediate composition. Lapilli sized fragments seemingly with an inversely proportional relationship between size and frequency, with only only 1 fragment approx 6 cm sized and most conspicuous lapilli from 1 - 3 cm size amounting to approx 7 %. Magnetism very variable, from non magnetic - strongly magnetic, patchy and sections. Very minor and small jasper fragments and/ or specks. Strong epidotic alteration near upper contact. Lower contact: Indistinct, sharp, very irregular, no plane.

820.14 824.47 Basalt Flow: Broken Core; Chlorite

Broken core: Approx 60 % of interval is broken into pieces < 10 cm and approx 35 % < 5 cm. Locally dark green grey, predominantly pale green grey - light grey bleached basalt flow. Very variably magnetic (from non- to strongly magnetic), patchy. Quartz and (minor) chlorite filled amygdules from 1 mm - 5 mm, very frequent with in first m downwards from upper contact. The interval is strongly bleached and altered (chlorite and epidote). Central part of interval displaying approx 1 mm sized chlorite specks, which are assumed to be chlorite altered (feldspar?) phenocrysts. Locally iasper specks and/ or clots, aligned to bands. Lower contact: Sharp, very indistinct, @ 12 deg to



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interval (m)

From

To

Description

Sample No.

To (m)

From

(m)

Interval (m) g/t

g/t

Cu

%

Pb Zn %

CA?

824.47 840.35 Volcanic Sediment:

Dark green grey - dark brown grey, mauve tinted sections, pale beige grey (bleached?) sections. Fine - medium (sand) grained. Variably magnetic, from non magnetic - moderately magnetic, patchy and sections; overall rather non- to weakly magnetic. Near upper contact bedding foliation varying from sub parallel to CA to approx 20 deg to CA, indicating movement in the wet, unconsolidated sediment, which was possibly induced by the overlying basalt flow. Generally bedding @ 15 - 25 deg to CA, based on color change and change in grain size. Interval is an alternating sequence of sandand mudstone beds from < 1 cm to > 15 cm width. Very similar to the interval described at "812.06 -817.31 m". The section between the nested interval (mentioned below) and the lower contact displays cordierite granoblasts (1 - 5 mm) amounting to 30 - 40 %. Lower contact: Sharp, @ 40 deg to CA. 829.25 835.20 Fault Zone: Bleached; Interval with shattered appearance, healed fractures, from

hairline width up to approx 2 cm wide, with various orientations to CA, most conspicuously @ shallow angle to CA, frequently irregular. Mineral fillings of fractures consists of chlorite, +/- quartz?, +/- minor carbonate and a white, hard mineral (albite?). Interval is bleached to pale green grey - pink grey; locally devoid of primary textures, locally a bedding foliation is still recognizable. Overall a mottled, blotchy, chaotic appearance in the upper part and a bleached appearance in the lower part. Broken core within 1.5 m downward from upper contact. Picture taken. Bedding dips @ 20 deg to CA, totally bleached and silicified. The presence of a sloke rhyelite dike can not be ruled out for part of this interval, however the contacts are not sharp enough to definitely determine so. Lower contact: Broken core, color change from bleached to brown green grey.

840.35 851.00 Basalt Flow:

Fine grained, dark green grey - green grey - dark grey - grey, slightly mauve tinted amygdaloid basalt flow. Generally moderately magnetic throughout, with few non magnetic patches and strongly magnetic sections. Few amygdules (several mm up to 1 cm), scattered throughout, mineralized with quartz, chlorite and minor carbonate. Few quartz-, chlorite-, garnet-, carbonate-, +/- jasper veins, with width varying from hairline up to approx 2 cm; most conspicuous orientation is approx @ 40 - 50 deg to CA.



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Interval (r	n)	Description				From	То	Interval					
From	То				No.	(m)	(m)	(m)	g/t	g/t	%	%	%

847.50 848.42 Volcanic Sediment: Small sediment lens within the basalts. Fine beds of sand- and predominantly mudstone, with bedding @ approx 30 deg to CA. This interval is almost entirely broken into pieces < 10 cm. Non magnetic. Upper contact: Sharp @ 40 deg to CA. Lower contact: Sharp @ 30 deg to CA.

851.00 851.52 Fault:

Fault: Silty, sandy, gravely fault gauge. Gauge zone is approx 35 cm wide and associated with a small section of intensively shattered basaltic rock. Some of the material is still in place and gains volume when exposed to air and water and the pressure of the overlying units lacking. When picked up it crumbles to sand and fine gravel. Green grey - dark grey fault gauge is moderately magnetic. No signs indicating alteration.

851.52 860.93 Basalt Flow:

Same as 840.36 to 851 meters.

860.93 864.50 Fault Zone:

Fault zone with same type of fault as 851 to 851.52 meters. Several crushed, sandy zones (860.93-861.0; 861.4-862.0; 862.4-862.6; 862.85-863.0; 863.7-863.9; 864.4-864.5) are noted; dark green and crumbly. Core between sand seams is same BFL as over and underlying sections and is not particularly crushed or broken.

864.50 867.20 Basalt Flow:

Same as 840.36 to 851 meters. Lower contact is sharp and conformable, dips at 20 degrees.

867.20 885.80 Volcanic Sediment:

Well-bedded, brownish-green volcanic sediment or basalt ash tuff. Unit is very fine-grained and bedding is on a 1 to 30 cm scale and dips steeply to core axis (10-20 degrees). Bedding is very well-defined and delicate textures are preserved. Unit is locally strongly magnetic and a few scattered pyrite and magnetite granblasts (2-5mm) are noted. This section is fairly typical of the VSD towards the bottom of the hangingwall basalts. Lower contact is broken and not clear. 881.90 885.80 Broken Core: Core is moderately broken over this interval.



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Interval (m)	Description			Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From To				No.	(m)	(m)	(m)	g/t	g/t	%	%	%

885.80 907.55 Basalt Flow:

Moderately to strongly magnetic section of fine-grained, dark greenish-black basalt. Weakly feldspar-phyric in places - interpreted as a flow. Occasional auto-brecciated sections (eg. 894.3 m) suggest flow breccia. Magnetite is disseminated throughout and section is cut by scattered quartz-garnet-epidote-chlorite veinlets (1-10mm; 1 per meter), lower contact sharp, but broken.

907.55 918.38 Volcanic Sediment:

Dark brown to grey, fine to medium grained, strongly magnetic volcanic sediment or ash tuff. This is basically one thick, fining upwards bed. Upper part is very fine grained (almost argillaceous) with distinct laminae of magnetite (to 5mm) which dip 20 degrees to core axis. This coarsens down-hole into a lapilli ash tuff. A couple of flattened, moderately rounded fragments (1 x 3 cm) are noted at 916.2 meters - these are grey and siliceous, probably rhyolite. Average grain size here is 0.5 to 1 mm, and a few bright red jasper chips are seen. Lower contact is sharp, dips 50 degrees - possibly intrusive?

918.38 926.25 Basalt Intrusive:

Strongly magnetic feldspar-phyric basalt. Porphyritic texture and contacts suggest this is an intrusive. Lower contact is broken, but appears to be a chilled margin leading up to it. Feldspar pheno's are pale greenish-white, sub- to anhedral, 1-3mm and up to 15%. These sit in a massive, very fine-grained dark green groundmass. Quartz-epidote-chlorite-garnet veins are noticeably more abundant in this interval as compared to the over and underlying sections. They are 5 - 10 per meter, 0.1 to 10cm.

926.25 955.35 Rhyolite Lapilli Ash Tuff:

Medium-grey, homogeneous, fairly massive rhyolite lapilli ash tuff. Characterized by very sparsely scattered (<1%) red jasper chips and larger moderately well - rounded, pale grey siliceous lithic fragments. This is essentially a continuation of the lithology above the BIN. Crude fabric probably represents bedding, dips consistently at 25 degrees to core axis. Lithic fragments are typically <1 cm, however a couple of larger ones are noted at about 946 meters, another at 950.20 meters. These are darker green and amygdaloidal - probably basalt. Fragment size generally increases towards the lower contact which is sharp and conformable and marked by the first clear jasper bed which dips 20-25 degrees. Section is not magnetic.



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Interval ((m)	Description			,			Sample			Interval		_			
From	То							No.	(m)	(m)	(m)	g/t	g/t	%	%	%

951.55 951.90 Rhyolite Flow: Feldspar; Purplish cream coloured mottled, feldspar phyric rhyolite looks like lithology is rhyolite flow (or sill). This appears to be a large fragment or dyke over this short interval, contacts suggest former. UC dips 17 degrees, LC dips 20 degrees. Ghosted white feldspar phenocrysts are about 1%, 1-2mm.

955.35 958.00 Rhyolite Ash Tuff: Jasper

This is a very distinct section of well-bedded, jasper-rich rhyolite ash tuff. Bright red jasper layers are up to 5 cm, occasionally with significant magnetite. These are separated by a greenish, weakly layered ash tuff similar to the overlying interval. Bedding dips fairly consistently at 20 to 25 degrees, but is somewhat wany due to soft-sediment deformation. Lower contact sharp and conformable at 15 degrees.

958.00 962.26 Rhyolite Intrusive:

This entire interval appears to be a pepperitic contact between the overlying tuff and an underlying rhyolite intrusive which has been truncated by the fault. Rhyolite here is a grey, fine-grained to almost aphanitic rock which is in very sharp contact with tuff fragments throughout the interval. In sections, it becomes feldspar-phyric and looks similar to the section at 951.55 meters. Unfortunately, this unit is truncated by the underlying fault.

962.26 964.59 Fault: Sandy Gouge

This is a horrendous fault zone characterized by khaki green, sandy gouge and crushed swelling sections of core. Rods were stuck fast at this depth and had to be blasted off resulting in the demise of the hole. Fabric dips 15 degrees to core axis.

964.59 964.59 End of Hole:



Redfern Resources Ltd. **Diamond Drill Log**

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Collar Coordinates

North (m): East (m) Elevation (m):

750.00 72.09 -84.90

15636.00 10486.00

117.00

Azimuth (degrees): Dip (degrees):

Length (m):

360.00 -90.00

1005.68

Started: Completed:

12/09/2004

Date Logged: Logged By:

15/09/2004

26/09/2004

Report Printed:

TS. 17/12/2004

								Down	Hole	Survey	/ Tests							
	pth m)	Azimuth	Dip	Depth (m)	Azimuth	n Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip
. (0.00	302.66	-89.00	780.00	72.39	-85.00												
30	00.0	322.71	-89.20	810.00	72.25	-84.90												
60	00.0	353.14	-89.60	840.00	77.09	-84.30												
90	00.0	39.58	-89.60	850.00	79.00	-84.00												
	0.00		-89.40	860.00	78.88													
	0.00		-89.10	870.00														
	0.00		-88.40		101.64				**									
	0.00	79.30			106.60													
	0.00	82.72 81.15			111.48 130.60													
	0.00	71.59			130.60													
	0.00	68.88			126.80													
	0.00	76.17			132.10													
	0.00	72.60				,												
	0.00	70.02																
	0.00	67.45	-86.30															
480	0.00	71.01	-86.40															
510	0.00	66.54	-85.50															
540	00.0	69.10	-85.70															
570	0.00	67.66	-85.60															
600	0.00	68.33	-85.60															
	0.00		-85.60															
	0.00		-85.50															
	0.00		-85.50															
720	0.00	75.55	-85.40															



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Interval (m)	Description		Samp	e From	То	Interval	Au	Ag	Cu	Pb	Zn
From To			No.	(m)	(m)	(m)	g/t	g/t	%	%	%

863.40 864.35

Kick off TCU04-122. Cement 863.07 - 863. 40. Can see hole cutting off 863.40 - 864.35. 864.35 is start of round core. AQ to 866.55 m.

864.35 892.50 Basalt Intrusive: Magnetite; Chlorite; Feldspar

Dark green basalt, tentatively interpreted as a flow, possibly an ash tuff down to 871 or so. Below this the interval is massive and homogeneous and conatains << 1 % white spots, 1 - 2 mm, which may be Feldspar phenocrysts, possibly indicating an intrusive origin. The section from 882.50 - 883.45 appears to be rhyolite, possibly a xenolith. The entire section is moderately magnetic. 875.69 - 889.41 is AQ core. Lower contact: Sharp, but disrupted by quartz-, chlorite veining and difficult to categorize.

875.69 889.41 Rhyolite Debris Flow: Magnetite; Charcoal grey section of ambiguous rhyolite; one large fragment at 889.3 m suggests a rhyolite debris flow. Strongly magnetic. Upper contact is broken; lower contact is broken at a joint dipping 40 deg.

891.40 891.60 Fault: A slip plane with section of quartz-, epidote-, carbonate veining dips 30 deg.

892.50 895.87 Basalt Intrusive: Magnetite; Silica

This interval very similar to overlying section, but the color is more charcoal grey and this section is quite siliceous. Strongly magnetic. probably a variation of BIN, possibly rhyolite. Lower contact is sharp, irregular, @ 80 deg to CA. Additional remarks: Dark brown grey, fine - medium grained, feldspar phyric mafic intrusive?, possibly a crystal ash tuff? Subhedral - euhedral feldspar phenocrysts from sub mm up to approx 4 mm size are scattered throughout, locally sections with increased abundance of feldspar phenocrysts, amounting to approx 5 %, overall amounting to approx 2 - 3 %. Particularly near the upper contact with 2 - 3 mm sized, sub rounded - round, pale, indistinct, beige grey phenocrysts, amounting to approx 35 % in sections. Lower contact: Sharp, indistinct, possibly @ 65 deg to CA, and associated with chlorite stringers, which cut the core axis most conspicuously @ 15 deg and 40 deg to CA, which are enclosed by bleaching/ alteration envelopes, camouflaging the contact.

895.87 912.55 Rhyolite Lapilli Ash Tuff:

Grey - dark grey, slightly mauve tinted (changing to dark brown grey near lower contact), rhyolite



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Interval (m)
From To

Description

Pb Sample From То Au Cu Zn Interval % % No. (m) (m) (m) g/t g/t

ash tuff, that grades into a rhyolite lapilli ash tuff. Interval displays prominent grading, with ash sized clasts amounting to > 85 %near upper contact. Fines decreasing downwards and ash sized clasts amounting to < 45 % near lower contact. Upper and central part with very few polylith lapilli, with up to approx 1 cm size. Some lapilli with up to 6 cm size and blocks up to 10 cm size near lower contact. Bedding foliation @ approx 40 deg to 60 deg to CA. Upper approx 1.75 m moderately - strongly magnetic with a very abrupt change to non magnetic at 897.55 m throughout the main part of the interval and moderately magnetic patches within 50 cm of the lower contact. Lapilli with felsic (presumably rhyolitic) composition and dark grey, fine grained (mafic?) composition. Both (light colored felsic and dark colored, presumably mafic fragments with sub round - round, sub mm - approx 4 mm sized jasper inclusions. Additionally few, rare jasper lapilli of up to approx 1 cm size. Lower contact: Indistinct, associated with increasing magnetism and incipient lack of sedimentary textures and with several (count 6) quartz-, epidote veins(from mm up to > 1.5 cm width), which cut the CA @ steep angles. The veins are located within a 15 cm section near the lower contact and camouflage the lower contact: No plane.

912.55 916.8

916.80 Basalt Intrusive: Magnetite

Dark brown grey - dark green grey, fine - medium grained, moderately magnetic throughout, mafic intrusive? possibly a homogeneous, dense VSD? With up to approx 20 cm wide sections displaying subhedral - anhedral, white phenocrysts (feldspar?) up to several mm size, mostly 1 - 2 mm size. With the exception of approx 16 - 25 cm wide, finer grained, dense, massive and weakly magnetic sub sections the interval displays 1 - > 5 mm sized, indistinct, pale mauve grey, round - lathy, irregular shaped phenocrysts or granoblasts, that are believed to be cordierite, possibly amphibole. Moderately magnetic throughout, with few weaker magnetic patches and sections. Lower contact: Indistinct, believed to be gradational over approx 30 cm, no plane.

916.80 929.05

929.05 Rhyolite Flow:

Dark green grey - green grey, fine - medium grained, variably feldspar phyric rhyolite flow?. White - light green (slightly chloritized) sub mm up to > 5 mm, subhedral, rarely euhedral feldspar phenocrysts. Their abundance is increasing in sections, overall amounting to approx 25 %. Chloritic throughout. Overall moderately - strongly magnetic, with non-weakly magnetic patches and sections. The entire interval is heavily veined, with hairline up to > 5 cm wide quartz-, chlorite-, +/- epidote-, +/- garnet-, +/- magnetite veins, with variable orientation: From sub vertical - sub



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Interval (m) From To Description

Sample No.

From (m)

То Interval (m)

Αu g/t Cu

g/t

Pb Zn % %

parallel, most conspicuously @ approx 60 deg to CA. The veins are frequently irregular shaped, arcuated, pinching, which results in swirly, wavy textures and a chaotic mottled appearance overall. The interval comprises approx 10 % of vein mineralization, which is associated with faintly to obviously developed bleaching and alteration halos. Locally veins grade into breccia veins: Up to several cm sized fragments of host rock are enclosed in the vein mineralization. Lower contact: Indistinct, associated with irregular, wavy, patchy veining, which obscures the contact zone, Broken core: No plane.

929.05

935.50 Rhyolite Ash Tuff:

Dark grey - grey, locally green grey, slightly mauve tinted rhyolite ash tuff. Interval is very similar to "895.80 - 912.55 m" upper part), but it contains less lapilli sized fragments. Prominent (bedding) foliation @ approx 20 - 40 deg to CA. Few lapilli sized (mostly < 5 mm, rarely up to 10 mm sized), polylithic, fragments. Very few, up to several mm sized, jasper lapilli. Non magnetic throughout. Abundance of lapilli appears to be increasing very slightly downwards. Near upper contact and within approx 1.5 m of lower contact it displays pale green, irregular shaped, up to several cm sized patches, that may be interpreted as larger lapilli or as alteration/ bleaching zones, which are associated with chlorite stringers. Zoned, up to 1.5 cm wide, +/- (minor) quartz-, +/- chlorite-, magnetite veins, with an preferred orientation of 15 deg - 20 deg to CA. Lower contact: Indistinct, sharp, highly irregular, cutting CA @ approx 10 deg to CA, visible over a section of approx 20 cm. The wavy, meandering contact suggests the deposition of RAT on a soft, unsolidified underlying unit.

935.50

936.75 Basalt Flow:

Dark brown - dark brown grey, very fine grained, featureless rock of unknown origin. Possibly a mudstone (as suggested by irregular, upper contact), an ash tuff or another fine grained, dense volcaniclastic, possibly a basalt flow. Variably magnetic: Non magnetic patches and sections alternating with moderately magnetic patches and sections. Shattered appearance as a result of irregular, partially discontinuous and variably orientated quartz-, chlorite stringers. Lower contact: Fracture plane, @ 35 deg to CA.

936.75

939.91 Fault:

Fault: Beige brown - green grey, fault gauge, clayey - ductile, silty, sandy, gravely and



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Interval (m) То

From

Description

Sample No.

From То (m)

(m) (m)

g/t g/t

Cu % Pb Zn %

increasingly gravely towards lower contact. Fault gauge locally resembling ash. Lower contact: Sharp, associated with a fracture plane, which cuts CA @ 60 deg to CA. Zone with rock flakes (resembling ash flakes) exfoliating of brittle core pieces.

945.50 Volcanic Sediment: Magnetite 939.91

NQ core from 941.22 downwards. Volcanic sediments?: This interval is very similar to 935.50 -936.75. Dark brown grey, very slightly maroon tinted, very fine grained - fine grained, featureless rock. Moderately - strongly magnetic throughout. Locally - particularly near upper contact, very faintly developed textures, that could be interpreted as bedding? foliation? @ approx 10 deg - 20 deg to CA. Within 50 cm of lower contact the grain size appears to be increasing to sand sized clasts, possibly indicating grading and/ or bedding. The coarsening is associated with an abrupt decline in magnetism and a change of color towards slightly beige. Lower contact: Sharp, orientated @ approx 25 deg to CA and associated with an approx 2 cm wide quartz-, chlorite-, epidote-, albite-? vein, which is orientated parallel to the contact.

940.07 944.31 Basalt Undifferentiated: Chlorite; Very fine grained - medium grained, dark brown grey rock, with approx 3 mm - 5 mm sized, feathery - blurry, olive green - dark green, phenocrysts? mineral aggregates?, possibly chloritized amphiboles, which may indicate a mafic dike within the volcaniclastics, or they may indicate the entire interval to be a mafic intrusion?.

941.00 941.22 Fault: Fault. No signs of alteration; material is still in place, but the drill core can be crumbled to silt, sand and gravel, when picked up. The fault gauge is magnetic and very reminiscent to sections of 936.75 - 939.91.

945.50 949.45 Rhyolite Lapilli Ash Tuff:

Grey - green grey - dark grey rhyolitic lapilli ash tuff. Estimated approx 50 % ash sized clasts and approx 20 % lapilli, which are slightly larger than 2 mm and very few lapilli up to 1.5 cm size. Near the lower contact the abundance of lapilli up to several cm size (subrounded - rounded) increases and 1 approx 8 cm sized block can be noticed, which may interpreted as weak grading. Interval is ash supported throughout. The larger sized lapilli suggests a polylithic composition of the interval: Near the center of the interval the larger lapilli are black and near the lower contact they tend to be green grey with black spots (chloritized feldspar). The interval is non magnetic, with very few weakly magnetic patches and overall rather soft. The orientation of the



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Interval (m)

From

То

Description

Sample No. From (m)

To interval (m) (m)

Au Ag g/t g/t Cu Pb

Pb Zn % %

frequently faintly developed foliation (presumably bedding foliation) alternates from approx 25 deg to CA to approx 50 deg to CA and most conspicuously cuts the CA @ approx 45 deg. Very few, zoned quartz-, chlorite-, +/- pyrite-, +/-magnetite-, +/- garnet-, +/- epidote veins, width varying from hairline up to approx 1 cm and with variable orientation, most conspicuously steep and @ approx 35 deg to CA.

949.45 954.17 Rhyolite Flow:

Grey - dark grey, feldspar phyric rhyolite flow. Interval is non magnetic with few weakly magnetic patches. Feldspar phenocrysts, mostly subhedral - anhedral, amounting to approx 10 %, in sections up to approx 50 %. Also the interval displays a few hematite specks. Locally a more or less faintly developed foliation (flow foliation) with its orientation varying from 25 deg - 45 deg to CA (most conspicuously @ 25 deg to CA) can be noted. Near the upper contact an approx 4 cm sized, pale beige, slightly chloritized rhyolite fragment with dark spots (which are assumed to be chloritized feldspar phenocrysts) is displayed. Ashy sections (locally possibly with few, up to several mm sized lapilli inclusions) are possibly the result of picked up material from the underlying ash tuff. Interval with few quartz, (minor) chlorite, +/- magnetite veins, from mm up to cm width, cutting CA @ 40 - 50 deg. Lower contact: Sharp, conformable, @ 45 deg to CA.

954.17 956.42 Rhyolite Ash Tuff:

Dark green grey - grey, very slightly mauve tinted rhyolite ash tuff. Interval is non magnetic with weakly magnetic patches and displays few approx 1 - 2 mm sized feldspar phenocrysts and/ or crystal fragments. The interval is fairly homogeneous and is almost entirely composed of ash sized clasts, with few, up to several mm sized lapilli. The locally wavy, alternating bedding foliation cuts CA most conspicuously @ 35 deg to CA. Within 1 m above the lower contact the interval displays gradations decrease of sedimentary textures (foliation), associated with a gradational color change to mauve grey and an increasingly mottled appearance (pale green grey - cream colored, frequently elongated patches from several mm up to approx 2 cm size, frequently very irregular, locally clustered), possibly the result of lapilli increasing in size (grading), or welding of clasts, or rapid cooling, or veining. Aslo it can not be excluded, that this section is part of the underlying interval. It displays a very crude foliation @ 30 deg to CA. 1 approx 5 mm wide garnet-, chlorite-, epidote-, magnetite vein, that cuts the CA @ 15 deg and is associated with a pale green - cream colored, several mm up to approx 1 cm wide alteration/ bleaching halo.



Hole-ID: TCU04122A

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Interval (m) From To Description

Sample No.

From (m)

Τo Interval (m) (m)

Αu g/t

g/t

Pb Zn

Cu % % %

956.42 959.42 Rhyolite Flow:

> Light grey - mauve colored rhyolite flow, variably feldspar phyric. Interval displays sections with anhedral, up to 4 mm sized, white, frequently very non distinct (with blurry contacts) white spots, that are believed to be - at least partially - feldspar phenocrysts, amounting locally to 40 % and overall to approx 25 %. Material is weakly magnetic, grading into non magnetic within bleached zones and halos associated with veins. The interval is heavily overprinted with quartz (minor) chlorite, epidote, +/- garnet veins and veinlets from hairline up to approx 1 cm, with orientation varying from approx 15 deg to steep angle to CA, most conspicuously @ approx 50 deg to CA. The veins are associated with several mm - several cm wide, white alteration halos, highlighting the veins and superficially often resembling fragments within a rhyolite debris flow and resulting in a mottled - blotchy appearance. Lower contact: Very sharp, distinct, slightly irregular and @ steep angle to CA.

959.42 965.85 Rhyolite Ash Tuff:

> Dark grey - medium grey - green grey, variably feldspar phyric rhyolite ash tuff, which is predominantly non magnetic, with some weakly magnetic patches. Interval with few lapilli, up to 3 -4 mm size, sub angular - sub rounded and very rarely sub rounded lapilli up to approx 3 cm size. Abundance of larger lapilli (polylithic?) appears to be increasing downwards, associated with a decreasing degree of rounding of the clasts. Volume estimates are difficult, since fragments are indistinct and frequently not definite to identify throughout the interval, possibly a result of welding and/ or monolithic composition? Sections with faintly developed foliation @ 20 deg - 50 deg to CA, mostly alternating between 30 and 40 deg to CA. Large portions of the interval without identifiable foliation. The upper part of the interval - with the exception of the first 50 cm displays subhedral - anhedral feldspar phenocrysts and/ or crystal fragments, sub mm - 3 mm sized, amounting to approx 15 %. Near the center of the interval visible feldspar crystals decrease to 0 %. Sections with a grainy, clastic appearance grade into sections with a dense, massive, holocrystalline (resembling a rhyolite flow breccia) appearance (picture taken) and light green grey sections, with very dark green, sub mm sized spots (chlorite and/or micas), which grade into wisps of several mm and grade further into a foliation (as described above). Picture taken. Lower contact: Very sharp, very distinct, somewhat irregular, @ approx 50 deg to CA.



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Interval (m) From To Description

Sample No. From

(m)

To Interval (m) (m)

Interval Au

Cu

Pb Zn % %

965.85 971.68 Rhyolite Flow Breccia:

Medium grey - mauve colored, feldspar phyric rhyolite flow breccia, with a dirty, mottled appearance. Very few clearly identifiable fragments of up to approx 3 cm size. The mottled appearance suggests the presence of fragments up to approx 5 cm size, more or less absorbed, with blurry, badly defined contacts. The interval is weakly magnetic, with very dark grey - black, strongly magnetic stringers (up to 2 mm wide and most conspicuously sub vertical and sub parallel to CA) and patches (up to several cm size), locally associated with accessory hematite. The interval is more or less feldspar phyric throughout, with abundance of up to > 5 mm sized, anhedral - rarely subhedral feldspars, varying from < 5 % - > 25 %. Quartz-, epidote-, chlorite-, garnet-, +/- magnetite-, +/- carbonate veins, from hairline up to approx 13 cm width, with variable orientation (from 25 deg - sub vertical to CA), most conspicuously @ approx 60 deg and steep to CA. Lower contact: Sharp, indistinct, irregular, approx @ 20 deg to CA.

971.68 976.43 Rhyolite Ash Tuff:

Interval is quite similar to "959.42 - 965.85 m". Dark grey - medium grey, non magnetic - locally weakly magnetic rhyolite ash tuff. Abundance of lapilli sized fragments (up to several mm size) varies: Generally the interval starts near upper contact with several mm sized lapilli being abundant, grading into a more or less entirely ash composed sub section near the center and further downwards (near the lower contact) grading into a subsection, that is predominantly composed of lapilli (up to several mm size). Also the interval displays subsections, where tuff grades into a lithology, that is reminiscent to a flow breccia (up to approx 1 m width). Whether these sections are the result of alteration or whether they represent magmatic (flowing) horizons within the tuff is not determined. The textures are very similar to "959.42 - 965.85 m". Picture taken. Near the upper contact the orientation of the foliation is approx 40 deg to CA, near the lower contact the foliation is sub parallel to CA. Lower contact: Very indistinct, possibly gradational, no plane.

976.43 982.44 Rhyolite Flow Breccia:

This interval is very similar to "965.85 - 971.68 m": Medium grey - mauve colored, feldspar phyric rhyolite flow breccia with a dirty, mottled appearance. Very few clearly identifiable, up to 8 cm sized, rhyolite fragments (partially displaying dark, approx mm sized spots, which are assumed to be chloritized feldspar phenocrysts) and indistinct, more or less absorbed rhyolite fragments with blurry contacts and a broken up appearance (possibly up to > 30 cm size?). Interval is non magnetic



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Interval (m)
From To

Description

Sample No. From (m) To Interval (m) (m)

Au g/t Cu % Pb Zn

- moderately magnetic, with magnetism increasing in darker colored sections and patches. The matrix is feldspar phyric throughout, with blurry, unhedral - subhedral, sub mm - approx 4 mm sized, feldspar phenocrysts, amounting to approx 15 %. At 981.15 m and 981.92 m fragments (possibly dikes? or veins?), consisting of a white matrix (albite?) enclosing up to approx 2 mm sized, dark green (chlorite), partially clustered spots and chlorite stringers. Picture taken. +/- quartz-, +/- chlorite-, +/- garnet-, +/- magnetite veins (often more or less entirely composed of 1 mineral), from hairline up to > 6 cm width, with variable orientation ranging from 40 deg to CA - steep angle to CA. Lower contact: Indistinct, presumably gradational, no plane.

982.44 986.50 Rhyolite Ash Tuff:

Dark grey - very dark grey rhyolite ash tuff. This interval is very similar to " 971.68 - 976.43 m", but the sections resembling flows or flow breccias are lacking. Description of clast size distribution appears to be difficult, because rock textures are masked by drill bit patterns. The interval has a somewhat waxy appearance and is soft. A secondary origin of the assumed clasts can not be excluded (sericite?). The interval is non magnetic throughout. The foliation is very faintly developed and believed to be @ approx 22 deg to CA. Overall the interval is dense, massive, homogeneous, monotonous and featureless. Picture taken. With only one, very irregular, wavy - patchy quartz-, chlorite-, magnetite-, garnet-, epidote vein of several mm width, associated with 2 hairline cracks (healed with chlorite or a dark colored mica, cutting CA @ approx 22 deg, parallel to assumed foliation) the interval is remarkably undisturbed, possibly a result of its softness. Lower contact: Very indistinct (possibly gradational), very irregular, @ shallow angle to CA.

986.50 991.07 Rhyolite Flow Breccia:

Interval is very similar to "976.43 - 982.44 m" and "965.85 - 971.68 m": Medium grey - mauve colored feldspar phyric rhyolite flow breccia with a dirty - mottled appearance. Very few clearly identifiable, up to approx 4 cm sized, rhyolite fragments and indistinct, more or less absorbed rhyolite fragments with blurry contacts and a broken up appearance, up to > 10 cm size (and possibly larger). Interval is non magnetic - moderately magnetic, with magnetism increasing in darker colored, predominantly matrix comprising sections and patches and increasing to strong magnetism within an approx 9 cm sized, dark red - black patch (hematite stained), which is associated with an approx cm sized, irregular shaped jasper clot at 988.5 m. The assumed matrix is feldspar phyric, with mostly blurry, unhedral - subhedral, rarely subhedral - euhedral feldspar



Hole-ID: TCU04122A

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Interval	(m)	Description			Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From	То				No.	(m)	(m)	(m)	g/t	g/t	%	%	%

phenocrysts, which are sub mm - approx 3 mm sized, and amount to approx 10 %. +/- quartz-, +/- chlorite, +/- epidote, +/- garnet, +/- magnetite veins (often more or less entirely composed of 1 mineral), from hairline up to > 5 cm width, @ approx 50 deg to CA. Lower contact: Sharp, highly irregular, @ shallow angle to CA.

991.07 992.56 Rhyolite Ash Tuff:

Interval is very similar to "982.44 - 986.50 m". Picture taken. Foliation appears to vary from approx 22 deg to CA - sub parallel to CA. 1 pyrrhotite granoblast, approx 5 mm sized. +/- quartz, +/- garnet, +/- chlorite +/- minor carbonate veins (approx 5 veins per 1 m core), from mm up to approx 1.5 cm width, cutting CA @ 40 - 55 deg. Lower contact: Very sharp, very irregular, very distinct, no pane.

992.56 994.74 Rhyolite Undifferentiated:

Rock of originally rhyolitic composition. The upper and the lower part, with their primary textures more or less completely masked by secondary alteration: The upper part displays irregular, partially wavy - swirly, zoned quartz-, chlorite-, magnetite-, epidote veins, up to several cm wide, which are associated with angular, irregular, dark brown, very fine grained, weakly magnetic patches, which appear to be younger than the veins and display jig saw fit. Picture taken. Also patchy relicts of dark brown, feldspar phyric rhyolite can be noted. The lower part of the interval displays a crude foliation @ 30 deg to CA and a fine meshed (several cm scale), stockwork resembling +/- quartz, chlorite, epidote vein network with very variable orientations to CA, most conspicuously @ 30 deg to CA. Picture taken. Lower contact: Distinct, gradational over a few cm, no plane.

993.00 994.04 Basalt Dyke: Magnetite; Dark green grey, very fine - fine grained, weakly magnetic, mafic intrusive, with sub mm - 2 mm sized dark spots (chloritized amphiboles).

Quartz-, chlorite-, epidote, magnetite veins @ 40 deg - 60 deg to CA, which are - particularly near the upper contact - associated with bleaching and brown, angular, very fine grained, weakly magnetic patches, that display jig saw fit. Upper contact: Sharp, @ 40 deg to CA. Lower contact: Sharp, @ 40 deg to CA.

994.74 996.18 Rhyolite Ash Tuff:

Very similar to "982.44 - 986.50 m". Foliation is difficult to detect, but believed to be @ 20 deg



Hole-ID: TCU04122A

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Interval (m)

To

From

Description

Sample No.

From (m)

Τo

(m)

Interval Au (m)

Pb Zn %

Cu

to 25 deg to CA. Lower contact: Sharp, somewhat irregular, @ steep angle to CA.

996.18 1003.50 Rhyolite Undifferentiated:

Light grey (particularly near the upper contact) - dark grey - dark brown grey, slighty maroon tinted rock of felsic composition. The uppermost 50 cm resemble a rhyolite flow breccia, with faintly developed fragmental textures, indicating fragments (partially irregular shaped) of rhyolitic composition, up to several cm size, Quartz-, chlorite-, epidote-, magnetite veins (width varying from hairline up to several cm) with variable orientation (most conspicuously @ approx 25 deg to CA) and associated with alteration halos, that result in and enhance the chaotic mottled appearance of this subsection. The lower contact consists of an entire sequence of planes, approx 1 - 5 cm apart, cutting CA @ approx 60 deg, with ashy sections, vein mineralization and breccia veins sandwiched between those planes. Downwards the sequence continues as a rhyolite ash tuff, very similar to the overlying interval, described at "994.74 - 996.18 m" and "982.44 - 986.50 m" respectively. It displays 1 pyrrhotite granoblasts of approx 1 cm size and it is approx 30 cm wide. Over a few cm the tuffaceous textures grade into textures, very similar to those described at "971.68 - 976.43 m" and "959.42 - 965.85 m", with dense, holocrystalline and/or hyalocrystalline appearance; feldspar phyric, with mostly blurry, anhedral feldspars (partially albite?) and a faintly mottled appearance, locally resulting in a crude foliation, that cuts the CA @ approx 40 deg. Remarkable are 2 razor sharp (tectonic) contacts (@ 60 deg and 70 deg to CA), without a change in lithology, 2 beige colored, sub rounded, irregular, very fine grained, up to several cm sized patches (fragments?), with approx cm sized, sub round - round, white quartz inclusions. Quartz-, epidote veins with variable width and variable orientation. Lower contact: Irregular fracture plane.

1003.50 1005.68 Crush Zone:

Fault. Fault gauge, very similar to the fault gauge described at "936.75 - 939.91 m". Fault gauge clayey - ductile near upper contact, grading into dark grey - dark green grey - olive green, silty, sandy, gravely, weakly magnetic fault gauge, without signs of alteration. The few cm - dm sized drill core can be crumbled to silt, sand and gravel, when picked up. Signs of alteration are very faint or entirely lacking. Lower contact: EOH.

1005.68 1005.68 End of Hole:



Redfern Resources Ltd. Diamond Drill Log

Hole-ID: TCU04123 Page: 1

Collar Coordinates

North (m): East (m) Elevation (m): 15525.00 10601.00 114.00 Azimuth (degrees):

Dip (degrees): Length (m): 189.59 -84.55 663.55 Started: Completed:

23/08/2004 03/09/2004 Date Logged: Logged By: 23/08/2004

Report Printed:

BDA. 17/12/2004

Down Hole Survey Tests

									5 Gui 10								
Depth (m)	Azimuth	n Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimut	h Dip
0.00	189.59	-84.55	77.08	189.03	-84.59	154.17	189.09	-84.49	231.25	183.47	-84.49	308.34	176.75	-84.56	385.43	178.15	-84.58
2.96	188.94	-84.54	80.05	188.96	-84.59	157.13	188.71	-84.49	234.22	183.74	-84.51	311.31	176.84	-84.57	388.39	178.08	-84.59
5.92	188.95	-84.54	83.01	188.82	-84.59	160.10	188.21	-84.47	237.18	183.44	-84.48	314.27	176.71	-84.59	391.36	178.08	-84.61
8.89	188.78	-84.53	85.98	189.01	-84.55	163.06	187.44	-84.42	240.15	182.81	-84.53	317.24	176.54	-84.59	394.32	177.68	-84.64
11.85	188.69	-84.50	88.94	189.19	-84.51	166.03	186.65	-84.45	243.11	182.35	-84.56	320.20	176.59	-84.56	397.29	177.32	-84.62
14.82	188.65	-84.50	91.91	189.19	-84.53	168.99	186.69	-84.42	246.08	181.42	-84.65	323.17	176.73	-84.61	400.25	177.01	-84.61
17.78	188.67	-84.50	94.87	188.92	-84.53	171.96	186.72	-84.37	249.04	180.75	-84.63	326.13	176.81	-84.60	403.22	176.95	-84.60
20.75	188.47	-84.52	97.84	189.07	-84.51	174.92	187.10	-84.36	252.01	180.94	-84.60	329.09	176.87	-84.58	406.18	177.16	-84.57
23.71	188.44	-84.57	100.80	189.12	-84.51	177.89	187.21	-84.38	254.97	180.27	-84.57	332.06	176.86	-84.61	409.15	177.22	-84.54
26.68	188.51	-84.58	103.77	189.37	-84.52	180.85	186.56	-84.40	257.94	179.81	-84.59	335.02	176.46	-84.59	412.11	176.93	-84.53
29.64	188.25	-84.57	106.73	189.43	-84.48	183.82	186.26	-84.50	260.90	179.54	-84.61	337.99	176.53	-84.59	415.08	176.97	-84.51
32.61	188.00	-84.60	109.69	189.34	-84.46	186.78	186.09	-84.51	263.87	179.64	-84.59	340.95	176.89	-84.57	418.04	176.62	-84.53
35.57	188.01	-84.63	112.66	189.43	-84.46	189.75	185.66	-84.52	266.83	179.83	-84.59	343.92	176.80	-84.55	421.01	176.26	-84.55
38.54	188.01	-84.63	115.62	189.74	-84.47	192.71	185.27	-84.52	269.80	179.86	-84.58	346.88	176.81	-84.59	423.97	176.17	-84.56
41.50	187.95	-84.65	118.59	189.80	-84.47	195.68	185.05	-84.51	272.76	179.71	-84.61	349.85	176.87	-84.61	426.94	175.78	-84.55
44.47	187.64	-84.63	121.55	190.02	-84.45	198.64	184.82	-84.48	275.73	179.02	-84.64	352.81	176.88	-84.59	429.90	175.55	-84.52
47.43	187.98	-84.62	124.52	189.68	-84.45	201.61	184.75	-84.45	278.69	177.97	-84.65	355.78	177.02	-84.60	432.87	175.35	-84.55
50.40	188.02	-84.64	127.48	189.72	-84.44	204.57	184.86	-84.45	281.66	177.18	-84.67	358.74	177.04	-84.58	435.83	175.15	-84.57
53.36	187.99	-84.63	130.45	189.90	-84.43	207.54	184.69	-84.47	284.62	176.92	-84.62	361.71	177.09	-84.60	438.79	175.19	-84.60
56.33	188.00	-84.60	133.41	190.11	-84.43	210.50	184.82	-84.47	287.59	176.99	-84.64	364.67	177.00	-84.61	441.76	174.80	-84.59
59.29	188.21	-84.58	136.38	189.66	-84.43	213.47	184.77	-84.49	290.55	176.89	-84.64	367.64	177.17	-84.58	444.72	174.73	-84.60
62.26	188.35	-84.62	139.34	189.83	-84.43	216.43	184.77	-84.48	293.52	176.76	-84.61	370.60	177.12	-84.59	447.69	174.36	-84.60
65.22	188.28	-84.60	142.31	189.55	-84.45	219.39	184.76	-84.47	296.48	177.01	-84.62	373.57	177.67	-84.58	450.65	174.10	-84.65
68.19	188.55	-84.61	145.27	189.18	-84.49	222.36	184.32	-84.46	299.45	176.85	-84.62	376.53	177.89	-84.57	453.62	173.70	-84.68
71.15	188.50	-84.60	148.24	188.88	-84.48	225.32	183.91	-84.47	302.41	176.71	-84.59	379.50	178.23	-84.57	456.58	173.13	-84.70
74.12	188.77	-84.60	151.20	189.11	-84.48	228.29	183.61	-84.49	305.38	176.93	-84.59	382.46	178.32	-84.58	459.55	171.31	-84.77



Redfern Resources Ltd. Diamond Drill Log

Hole-ID: TCU04123

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Collar Coordinates

North (m): East (m)

Elevation (m):

15525.00 10601.00

114.00

Azimuth (degrees):
Dip (degrees):

Length (m):

189.59 -84.55

663.55

Started: Completed: 23/08/2004 03/09/2004 Date Logged: Logged By: 23/08/2004 BDA.

Report Printed:

17/12/2004

Down Hole Survey Tests

							DUW	11 11016	Survey	16313							
Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	n Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip	Depth Aziı (m)	muth	Dip
462.51	168.55	-84.86	539.60	162.42	-84.52	616.69	148.02	-83.93									
465.48	166.96	-84.94	542.57	162.59	-84.52	619.65	146.95	-83.85									
468.44	166.15	-84.93	545.53	162.31	-84.53	622.62	145.62	-83.82									
471.41	165.42	-84.92	548.49	162.09	-84.55	625.58	144.33	-83.79									
474.37	165.45	-84.92	551.46	161.74	-84.55	628.55	143.77	-83.75				v					
477.34	165.41	-84.91	554.42	161.03	-84.57	631.51	142.85	-83.71									
480.30	164.99	-84.87	557.39	160.33	-84.59	634.48	141.73	-83.71									
483.27	164.59	-84.85	560.35	160.15	-84.60	637.44	140.90	-83.75									
486.23	163.83	-84.78	563.32	159.68	-84.61	640.41	140.18	-83.80									
489.20	163.58	-84.75	566.28	159.05	-84.61	643.37	139.53	-83.79									
492.16	163.43	-84.76	569.25	158.53	-84.60	646.34	138.86	-83.76									
495.13	163.02	-84.69	572.21	157.70	-84.50	649.30	138.33	-83.70									
498.09	162.74	-84.64	575.18	156.81	-84.42	652.26	137.51	-83.61									
501.06	162.55	-84.64	578.14	155.53	-84.35												
504.02	162.45	-84.62	581.11	153.79	-84.26												
506.99	162.29	-84.66	584.07	152.41	-84.20												
509.95	162.26	-84.65	587.04	151.45	-84.18												
512.92	162.35	-84.64	590.00	150.78	-84.14												
515.88	162.23	-84.65	592.97	150.35	-84.11												
518.85	161.93	-84.66	595.93	150.32	-84.08												
521.81	161.98	-84.62	598.90	150.42	-84.05												
524.78	162.42	-84.62	601.86	150.10	-84.02												
527.74	162,33	-84.60	604.83	149.52	-84.00												
530.71	162.18	-84.55	607.79	149.04	-83.98												
533.67	162.20	-84.53	610.76	148.68	-83.96												
536.64	162.19	-84.55	613.72	148.72	-83.96												



Hole-ID: TCU04123

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interval (m) From To	Description	Sample No.	From (m)	To (m)	interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %
0.00 1.52	Casing: No Recovery, Hole started 22nd August 2004.									

1.52 11.40 Basalt Flow:

Light green gray homogenous very fine feature less basalt flow (basalt undifferientated, but corelated from other sections). Several 1cm quartz veins with chlorite at 5deg. and one 10cm thick with pyrite and chlorite at 70deg. Sub parallel 5mm calcite veins with chlorite and mild flooding alteration. Non-magnetic except for fine 1mm magnetic veinlets and one 20cm area locally magnetic at 4.1m. Blocky broken core at 11m. Bottom contact is broken, changing very fine grain volcanic sediment.

11.40 18.10 Volcanic Sediment:

Very fine light brown Volcanic Sediments mottled with pale green chlorite and altered to faint mauve grey. Very subtle fineing up of sediments with only one coarser bed with sharp beds visible, see nested. Some 0.5mm chlorite veins with faint alteration flooding 3-5cm, very fine in top and 1-4mm in coarser bottom. Local alteration and some 1-2mm sub parallel calcite veins with related blocky fractured core. Non magnetic. Bottom contact with fault zone.

13.85 14.45 Volcanic Sediment: Slightly coarser than rest of unit, slightly fineing up with a 0.5cm thick coarse(0.5-1mm grains) layer parallel to and 1cm before top contact. Top contacts sharp at 30deg, against very fine sediments. Bottom contact sharp, a little wavy at 30deg.

18.10 28.60 Fault Zone:

Broken and fractured core with several 1m areas entirely 1-2cm angular shattered pieces with rest, 40% 5-10cm blocky pieces. Lithology is volcanic sedimentry with one coarse 2cm bed at 70deg. Locally very fine pyrite veinlets. Mostly non-magnetic, but elongated 0.5x1.5 cm magnetite clots at 26.0m.

28.60 31.90 Volcanic Sediment:

Similar to Volcanic Sedimentry unit above. Top of section is light gray quickly changing to faint mauve approcahing tectonic breccia, see nested. Some fine beds at 25deg. (28.7m). Some large 10cm chlorite rich alteration patches with minor disseminated pyrite and granular veinlets with 2-3cm of



Hole-ID: TCU04123

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Interval (m)

From

То

Description

Sample No.

From (m)

Interval (m) (m)

Au g/t

Cu g/t

%

Pb Zn %

light yellow-green albite/epidote flooding. Moderately magnetic. Bottom contact is irregular with 4cm chlorite vein and sharp with feldspar phyric basalt flow.

29.60 30.80 Fault Zone: Bleached; Chlorite; Calcite; Tectonic breccia with 0.5-4cm irregular 5-30deg, healed calcite fractures. Light green chlorite altered(bleached) with 2-3% 1-3mm granoblastic pyrite in calcite healed frature veinlets.

30.80 31.90 Volcanic Sediment: Hematite; Magnetite; Very fine faint purple with no textures, becoming slightly more chlorite rich faint green/dark gray(in bottom 0.5m). Moderately magentic. Bottom contact is irregular with 4cm chlorite vein and sharp contact with feldspar phyric basalt flow.

31.90 41.20 Feldspar-phyric Basalt Flow: Chlorite

Dark brown Feldspar Phyric Basalt Flow mottled by both, chlorite and light mauve hematite spots. Subhedral 5-20% 1-2mm feldspars, locally variable from white to light green chlorite altered. Chlorite 1mm veinlets. Moderately magnetic throughout. Bottom contact is broken in fault. 39.95 41.20 Fault Zone: Minor fault zone with slightly greasy blocky broken core, 3-5cm size pecies. Small slickenslides just visible on some fracture surfaces.

41.20 45.05 Volcanic Sediment: Chlorite

Fine grained faint mauve-grey Volcanic Sedimentry unit, probable bedding at 30deg. Mostly altered with thin 1mm calcite veinlets with associated lighter flooding alteration extending for 1-5cm. One 1cm hematite rich chlorite veinlet. Bottom contact is broken in fault but has clear alteration margin at 40deg, with basalt intrusive.

45.05 Amphibole-phyric Basalt Intrusive:

Green-light gray homogenous amphobile phyric basalt intrusive with large 1-3mm subhedral 5-15% amphobiles throughout, except locally near quartz veins. Becoming more light green down section. Numerous 3-10cm angular to subrounded volcanic sedimentry xenoliths between 67-97m < Photos 70.4m, 89.4m, and 96.9m>; faint green to faint mauve with 0.5mm chlorite dots and very sharp angular margins, some in clusters and some locally chlorite rich for 2-3cm ajacent. Rare local chlorite and albite broad flooding alteration with minor pyrite. Rare chlorite and magnetite and quartz veinlets. Mostly non to weakly magnetic. Bottom contact is gradational with change to fine grained dark brown basalt intrusive with no amphobiles; gets quickly darker, quite siliceous and



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Interval (m)

From

Description

То

Descrip

Sample No. From (m)

To Interval (m)

Au a/t Cu P

Pb Zn %

glassy at contact area.

131.80 132.20 Fault Zone: Calcite Vein; Minor fault zone with 1cm breccia filled calcite vein, and 3-5cm broken core. Calcite fracture veinlets at 90deg. and 3mm epidote veinlets. Few slip planes with dry granular calcite gouge 2-3mm at 30deg., 133.0m

134.80 380.70 Basalt Intrusive: Chlorite

Fine grained faint green-dark grey/brown massive basalt intrusive becoming lighter green - grey down section. Subtle changes in texture down section with fineing or just local chlorite alteration highlighting coarser areas; chlorite does increase down section. Generally non magnetic with some minor areas with magnetite associated with veins and chlorite alteration; 1m of irregular dark green granular chlorite alteration at 342.5 with some magnetite. Several irregular areas of convoluted magnetite-chlorite veins with adjacent albite. Several large quartz veins 3-5cm at 30-40deg, some with magnetite, pyrite and chlorite around edges(338-340m); one 30cm with epidote as well internal magnetite 1mm fracture veinlet. Two 10-20cm epidote alteration patches at 186m, with 5% 1mm magnetite, light yellow-green flooding alteration with diffuse 1cm contacts into unaltered basalt intrusive. Sub parallel 1-2mm calcite fracture veinlets with light brown/green chlorite bleaching and some broken core(306.6-310m). Possible 5cm xenolith at 196.26m, light mauve-light grey with sharp irregular contacts, similar to volcanic sedimentary (siliceous alteration?). Possible xenolith at 378.80m, white light brown siliceous with faint parallel beds; sharp top contact at 25deg., but bottom contact gradational with decreasing silica alteration and increasing chlorite and calcite alteration to give bottom edge at 30deg. Bottom contact is clear at 5mm 50deg weak chlorite alteration band enveloped with 2-3mm epidote into volcanic sediments. 137.95 140.25 Basalt Intrusive: Light green chlorite altered intrusive sectuon with 5-10% 1-3mm angular altered pyroxene phenocryst, very soft. Top contact is near 20cm irregular chlorite and albite convoluted alteration area at 75deg. Near bottom angular pyroxene crystals are elongated and alligned at 40deg. Bottom contact is sharp at 40deg with regular chlorite rich groundmass, just past bottom is weak chlorite alteration with veinlets at 40deg.

149.30 150.30 Fault Zone: Chlorite; Minor fault zone with 0.5cm recrystalised chlorite gouge and broken core, 4-8cm peices. Chlorite alteration extends 0.5m above and below the fault zone into the intrusive, stoping sharply in top at 1cm chlorite and albite veinlets and gradational in bottom.



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Interval (m) From То Description

Sample From То Interval Au Cu Pb Zn No. % (m) (m) (m)

- 153.80 157.25 Basalt Intrusive: Chlorite: Local light green chlorite atleration with dark green chlorite phenocrysts and 1-2mm altered pyroxene(black, soft), locally larger. Top and bottom contact sharp and irregular at 20deg, with 5cm 30deg, chlorite and albite and magnetite veinlet 20cm below bottom contact.
- 162.30 164.60 Fault Zone: Minor fault zone with broken core 2-5cm. Common fracture planes at 40deg, some irregular with granular chlorite suface.
- 164.60 168.40 Basalt Intrusive: Heavily altered faint mauve-green/gray ground mass with irregular 1-3mm altered pyroxene phenocrysts, whole unit very soft. Moderate-strongly magnetic. Towards bottom pyroxene angular and alligned at 25deg. Top contact within fault above. Bottom contact unclear with change to regular intrusive, several local chlorite irregular wavy veins with local blocky broken core.
- 235.80 240.50 Bleached: Chlorite; Epidote; Fuchite; Heavily altered area with 70% dominately 0.2-1m patches of light brown-green homogeouus flooding alteration(silica?) with sharp contacts, noted to be sometimes spatially related to quartz veins. Several 1-5mm opaque white quartz veinlets and clear crystals veinlets with adjacent light green - brown alteration, flooding out 1-5cm and ending sharply in unaltered intrusive. One metre of faint green-white alteration at 238.1-239.1 with calcite rich matrix, 2-3% bright green 0.2-3cm fuchite and weak 5-10cm patches and several quartz veins. 50cm section of light green irregular tectonic breccia with calcite and 1cm 10deg, quartz vein with breccia, and slickenslides at 50deg, on sub parallel fracture plane. 5% of section unaltered basalt intrusive. Top contact is sharp at 20deg, with 1mm calcite vein and 5-15cm light brown-green homogenous alteration extending into intrusive. Bottom contact is at end of major alteration with minor intermittent light green-light brown flooding alteration with quartz veins continuing for 2-3m.
- 242.05 245.65 Fault Zone: Bleached; Silica; Fuchite; Minor fault zone with mainly altered core with minor 50cm of 3-5cm broken core in middle of altered section. One metre of faint green-light brown healed angular tectonic breccia, one 20cm area of obvious breccia with 0.5-4cm angular fragments and several 1-3mm quartz veins at 20deg. Light brown alteration extending (silica flooding?) from quartz veins dominating section with minor fuchite filling 0.1-1cm fractures. Trace pyrite and minor epidote. 1cm pyrrhotite accululation in chlorite. Bottom is more regular chlorite



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Interval (m)

From

Description

To

,

and albite alteration at 10deg.

- 265.40 269.60 Quartz Vein: An area with eight large 5-10cm quartz veins with minor internal <1mm chlorite filled fractures and varing 0.1-1cm chlorite rich edges. Various angles, 45-70deg. Bottom 30cm has numerous 3-10mm eltoticial green/white vesciles.
- 271.50 276.50 Fault Zone: Broad minor fault zone with several 0.5-1m sections of broken core, shattered into 2-4cm angular pieces. Several sub-parallel fractures with pyrite crystal on fracture surfaces with chlorite, weak slickenslides at 30deg to core axis.
- 281.00 286.70 Fault Zone: Bleached; Chlorite; Fuchite; Irregular faint green-cream/white alteration with numerous thin quartz veins. Top almost gradational over 1m with light green-light brown siliceous flooding alteration increasing in concentration, to light green with green fuchite as angular 0.5x3cm concentrations, 1cm fracture infilling and 10cm broad weak fuchite areas. Faint mauve areas with 20cm pseudo breccia outlined by chlorite alteration. Several quartz breccia veins. Some regular chlorite alteration 30deg bands with some pyrite grains. At top is an area of concentrated pyrrhotite swirls and some adjacent fuchite<Photo 281m>. Bottom contact is sharp with heavy alteration but gradational with silicification and minor chlorite and pyrite continuing for several metres until glassy faint purple grey intrusive.
- 303.60 304.90 Fault Zone: Calcite Vein; Chlorite; Minor fault zone with sub-parallel calcite veinlets. 1cm adjacent chlorite alteration extending fron veinlets and fratured core.
- 356.50 365.50 Basalt Intrusive: Chlorite; Several 1-5mm chlorite vesicles generally light green, quite soft with some dark green crystaline chlorite, 7-10 per metre various rounded shapes, irregular, elyptical, round. Few 2-4mm dark green chlorite vesicles at 304.20m, slightly elliptical at 45 degrees.

380.70 383.50 Volcanic Sediment: Basalt Flow; Chlorite; Silica

Light brown-gray Volcainc Sedimentary/Basalt Flow unit with heavily silicified top contact. Top contact is silicified faint green-faint mauve for 30cm, fading over the last 2-3cm to very fine light brown. Several 50deg bands within section of 1-2mm light mauve/white siliceous spots, corderite? Numerous 1-2mmx1-4cm 50 deg pyrite bands, 20-30 over top 0.5m with 1mm siliceous envelopes. Magnetite, few dark gray-black 3-5mm spots moderate to strongly magnetic. Bottom contact 1cm past last magnetite veinlet(1cm) with 0.5cm extending irregular albite and chlorite



Sample

From

(m)

To Interval Au

(m)

Hole-ID: TCU04123

Pb Zn

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Interva From	al (m) To	Description
<u>:</u>		alteration, against regular banded basalt ash tuff.
383.50	384.40	Basalt Ash Tuff: Volcanic Sediment; Chlorite Top very fine faint brown Basalt ash tuff with 30deg beds. Thin 1-2mm hematite rich(strongly magnetic) purple brown beds with green brown chlorite rich beds. Bottom contact sharp at 30deg into Basalt Lapilli tuff.
384.40	389.60	Basalt Lapilli Tuff: Chlorite Granular faint green-blue/gray Basalt Lapilli Tuff with mostly siliceous gray fragments. Fragments are usually 2x5mm elongated sub-rounded increasing down section and alligned with matrix, occasionally sub-angular. Mafic fragments are 20-30% in top and 40-60% in bottom of section. Rare large fragments: 5cm light brown rounded sericite altered, 8cm angular light gray/green RFL with chlorite replacing feldspars, and 0.5mm trace jasper fragments. Bottom contact sharp at 30deg with flooding chlorite alteration of basalt ash tuff/ volcanic sediment.
389.60	392.95	Basalt Lapilli Tuff: Chlorite Green fine/medium grained clastic Basalt Unit. Pervasively chlorite atlered matrix. Rare 2cm quartz rounded fragments. Mostly homogenous with perhaps slight coasening down section with 10cm of 1-2mm siliceous fragments immediately above bottom contact. Moderately-strongly magnetic. Bottom contact sharp at 15deg with volcanic sediments.
392.95	394.80	Volcanic Sediment: Dark brown Volcanic Sediment with lighter 1mm siliceous light brown/light mauve beds at 15deg. Severat crosscutting 1cm quartz veins and 10cm patch of veined and convoluted epidote alteration, partially parallel with bedding. One coarse 5cm bed at 394.1m. Minor hematite and trace slickenslides raking 50deg on 30deg fractures. Strongly magnetic. Bottom contact sharp and irregular at 30deg with coarser basalt flow.
394.80	395.50	Basalt Flow: Chlorite Green-gray Basalt Flow/Dyke with alteration increasing down section. Top contact shows chilling over 2cm before large elongated 10-30% pyroxenes. 1-2mm angular altered soft black pyroxene?

pheno's alligned at 25deg, parallel with top contact. Chlorite alteration increases down section.



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interval (m)	Description			Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From To				No.	(m)	(m)	(m)	g/t	g/t	%	%	%

Non magnetic. Alligned pyroxene 90deg to bottom contact. Bottom contact is sharp and irregular at 10-25deg with altered basalt lapilli tuff.

395.50 395.70 Basalt Lapilli Tuff: Chlorite

Scoop of Basalt Lapilli Tuff with top contact at +10 to +25deg and bottom at -20deg. Unit only occupies half of core with elongated 0.5-3mm sub-rounded faint green mild chlorite atlered siliceous fragments in chlorite rich matrix. Non magentic. Bottom contact is lost at top of siliceous fuchite alteration.

395.70 396.20 Volcanic Sediment: Silica; Fault Zone; Fuchite

Heavily altered light green(faint purple) Volcanic sediment with fine bedding at 30deg. Top broken and brecciated into 2-5cm angular peices with 10-20% siliceous albite infilling with minor 1-3mm fuchite. 1mm fracture veinlets with 2-5% pyrite forming crude 1-2mm fracture filling, 2x50mm. Bottom contact gradational with end of alteration and breccia into dark brwon basalt dyke, very fine top.

396.20 397.45 Basalt Dyke: Chlorite

Brown basalt dyke with irregular chlorite alteration, granular in top 30cm decreasing down section.

1-2mm chlorite veinlets, mainly in bottom. Bottom contact sharp 45deg with basalt lapillli tuff.

397.45 398.37 Basalt Lapilli Tuff:

Faint green-dark brown basalt lapilli tuff with 10-15% 1mm faint green lapilli in 45-30deg bands(45deg top, 30deg bottom). Lapilli more common in bottom, with several 2-3mm compressed layers. Moderately magnetic with one 0.5cm magnetite veinlet at 20deg. Bottom contact is broken and lost at end of drilling run into basalt dyke.

398.37 399.45 Basalt Dyke:

Mostly light green/gray chlorite altered Basalt Dyke. Minor unaltered brown homogenous section. Bottom half has convoluted granular chlorite, quartz alteration, with minor epidote. Bottom contact is sharp at 45deg, 0.5mm magnetite veinlet with 2-5mm of white-mauve albite flooding extending into basalt lapilli tuff below.



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Interval (m)	Description		Sar	nple Fro	n To	Interval	Au	Ag	Cu	Pb	Zn
From To			No	. (m)	(m)	(m)	g/t	g/t	%	%	%

399.45 399.50 Basalt Lapilli Tuff:

Faint green/faint mauve - dark gray Basalt Lapilli Tuff with 5-10% 1mm siliceous lapilli, fabric at 35deg. Minor chlorite in matrix, with a few patches of chlorite alteration towards bottom. Mauve gray 1mm sub-rounded faint siliceous lapilli(10-15%) generally alligned with fabric and 1mm felsic lapilli. Several sub-rounded 1cm siliceous fragments. Towards bottom 20cm silicified lapilli textures are just recognisable, chlorite alteration. Rare Pyrrhotite. Bottom contact is broken and lost.

399.50 401.20 Basalt Dyke: Chlorite; Magnetite

Green-gray Basalt Dyke with both top and bottom getting gradually very soft and darker from the centre(light brown) with 1-2mm 10-15% black altered pyroxenes common and usually concentrated in 5cm bands. Unit is moderately magnetic. Bottom contact very sharp at 30deg.

401.20 407.80 Basalt Ash Tuff:

Light green Basalt Ash Tuff. Very fine with 35-40deg fabric. Rare 1-2cm sub-rounded light brown siliceous fragments, angular mafic fragments. Top 20cm is very similar to lapilli tuff with common 1mm lapilli, quickly decreasing into fine bands. Becoming more chlorite rich within bands and siliceous with leucoxene also increasing down section, trace alligned 0.2x1mm leucoxene. Locally 20cm chlorite-sericite rich areas with <1% 0.5mm elongated leucoxene alligned with fabric. Few 1cm bands with 2-5mm rounded dark green chlorite fragments. Light brown at bottom of section with numerous basalt dykes with chlorite alteration. Trace very fine pyrite, 0.1mm. Mostly non-magnetic. Siliceous alteration at bottom contact, at 45deg with 1mm chlorite vein into basalt dyke.

- 403.05 403.70 Basalt Dyke: Faint green-brown Basalt Dyke with sharp contacts, top at 60deg and bottom 60deg. Some 2cm 70deg quartz veins, irregular 0.5cm calcite veins subparallel. Moderately magnetic.
- 404.10 404.65 Basalt Dyke: Same as above Basalt Dyke. dark brown with very fine 0.1mm pyrrhotite, 5cm quartz vein. Top contact little wavy at 20deg, bottom at 25deg and siliceous/chlorite alteration 1cm adjacent.
- 405.15 405.20 Basalt Dyke: Brown basalt dyke with sharp top contact at 45deg 5mm quartz vein.

 Bottom contact sharp at siliceous/chlorite alteration at 30deg with adjacent 2cm irregular light brown/white albite-epidote alteration extending into basalt dyke and



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From To No. (m)	
110111 10	Fr

1mm rounded spots(light brown/white) persisting for 10cm.

405.20 405.75 Basalt Ash Tuff: Silica; Chlorite; Heavily silicified with light green chlorite altered sections. Bands/fabric at 35-45deg. Bottom contact shrap at 20deg with dyke.

405.75 407.55 Basalt Dyke: Green-gray(50cm) to mostly brown homogenous Basalt Dyke. 1% very fine pyrite increasing down section. 5cm quartz vein and 3mm 30deg calcite veins with 3cm epidote envelopes. Magnetite within veins. Bottom contact sharp at 45deg.

407.80 416.95 Basalt Dyke: Chlorite; Epidote

Massive green/dark gray basalt dyke/intrusive. Extensive(20%) light green chlorite flooding with minor epidote extending 1-5cm from veinlets, more common in top. Chlorite in groundmass and slighty increasing down section. Rare 1-5mm pyrite clots. Non-magnetic. Bottom contact is sharp with chlorite and albite alteration at 50deg.

416.95 417.85 Rhyolite Ash Tuff: Chlorite

Mostly dark brown chlorite rich fine Rhyolite Ash Tuff with few 1mm faint mauve siliceous bands at 20deg and some siliceous chlorite bands as well. Some 2mm quartz veinlets parallel with bands. Bottom contact sharp at 25deg with siliceous rhyolite flow breccia.

417.85 427.32 Feldspar-phyric Rhyolite Flow Breccia:

Faint green/gray Rhyolite Flow Breccia with 1-2mm 10-15% sub-rounded feldspars. Several 2-15cm sections faint green/faint mauve irregular flow fragments, with feldspars decreasing in size to 0.5mm. Numerous cross cutting irregular 1-5mm chlorite veinlets with extending white flooding alteration giving flow breccia appearance, more common in top. Mostly non magnetic.

- 418.80 419.00 Basalt Dyke: Chlorite; Faint green-dark brown basalt dyke with top contact sharp at 30deg. Variable chlorite alteration. Bottom contact is sharp at 35deg. The rhyolite is heavily silicified adjacent to both contacts for 10cm.
- 419.25 419.40 Basalt Dyke: Thin basalt dyke, dark brown/black, top 5cm green/gray(chlorite alteration). Bottom contact sharp and a little wavy at 35deg.
- 420.40 421.75 Silica: Faint green/faint gray-white Heavily Silicified section. Top contact slightly gradational over 5cm. Small 1mm irregular chlorite spots angular with several 1mm quartz eyes visible. Several 3-4mm magnetite veinlets with minor



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Interval (m) From To Description

Sample No.

From (m)

(m)

Interval Αü

Pb Zn

Cu

chlorite alteration. Bottom contact sharp at 20deg with basalt dyke.

- 421.75 422.85 Basalt Dyke: Green/gray to dark brown basat dyke, mottled with 2-3mm chlorite alteration. Several quartz veins with epidote. Bottom contact sharp at 20deg with 0.5cm siliceous alteration extending into the rhyolite below.
- 424.80 425.55 Feldspar-phyric Rhyolite Flow. Minor siliceous feldspar phyric rhyolite flow, but really just well banded at 25deg with 1x5mm to 3x10mm elongated faint green chlorite siliceous fragments/flow banding in green chlorite matrix
- 425.55 427.32 Basalt Dyke: Dark brown to green brown basalt dyke. Top contact sharp at 40deg. Few minor chlorite veins and chlorite alteration increasing down section. Almost mixed section at 426.3m with broken 10cm xeniolith of rhyolite with sharp contacts at 90deg. Bottom contact lost in fault.

427.32 429.90 Rhyolite Lapilli Tuff: Chlorite; Silica

Light mauve/green Gray Rhyolite Lapilli Tuff, lightly silicified throughout with 1mm irregular siliceous and chlorite rich bands at 25deg. Lapilli are elongated siliceous faint mauve in a green/gray chlorite groundmass. Rare fragments: 1-2cm felsic, 2-3cm angular mafic. Non magnetic. Bottom contact gradational over 2-3cm with sudden increase in silification intensity adjacent to fault.

429,90 435.70 Fault Zone:

Mostly roughly broken core with uneven brittle fracture surfaces. 40% > 10cm, 40% 3-5cm, and 20% 1-3cm. Small slickenslides rakeing 20deg on 5 deg fractures(top) and rakeing 35deg on 30deg fractures (bottom). Also several irregular sub-parallel fratures. Top is heavily silicified with 0.3mm chlorite spots on fracture surfaces(upto 2-3mm). Lithology change at 432m to basalt dyke. Convoluted wavy chlorite alteration in bottom dyke with fractures following alteration. Bottom basaly dyke is slightly magnetic. Bottom contact is at end of brittle fracturing. 429.90 429.99 Rhyolite Lapilli Tuff: Silica; Chlorite; Sericite; Faint green light brown silicified with no rhyolite lapilli textures. Small amount of sericite with siliceous alteration, not as intense as main interval.

435.70 437.25 Basalt Dyke:

Basalt Dyke almost entirely altered by sub parallel chlorite-sericite alteration with 1-2mm bands



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Interval (m) From To Description

Sample No.

From (m)

То Interval (m) (m)

Cu g/t

Pb Zn %

of green chlorite(80%) in 2-5mm brown /dark grey sericite/biotite(20%) matrix, with some convoluted albite. Moderate-strongly magentic with 2cm pinched white/mauve magnetic rich band. Bottom contact is gradational at 20deg over 5cm with decreasing chlorite against silicified rhyolite.

437.25 457.20 Rhyolite Lapilli Tuff:

Faint green/light to dark gray Rhyolite Lapilli Tuff with numerous felsic 1mm lapilli(30%) and rare fragments. Fine 25deg fabric with some crystal rich areas. Some grading of 20-50cm beds with, very fine beds with no/few lapilli fineing up(exellent at 455.5m). Rare 1cm fragments and trace jasper. Top and bottom quite siliceous, becoming darker down section. Chlorite veins 0.5cm with 0.5-2cm albite envelopes. Rare 0.3mm magnetite and pyrite fracture veinlets. Bottom contact is broken with change into more massive, less matrix rhyolite flow with difuse feldspars. 437.25 443.25 Rhyolite Lapilli Tuff: Silica; Chlorite; Heavily chlorite altered rhyolite lapilli

tuff, siliceous faint mauve-gray mottled with chlorite altered lapilli fabric dominant. 10-20% 1x2mm elongated chlorite altered lapilli, alligned at 25deg. Locally more siliceous lighter areas. Bottom contact gradational into less siliceous and non chlorite altered lapilli.

456.20 456.70 Rhyolite Crystal Lapilli Tuff: Crystal rich with, 50cm of 60% 1-2mm angular and elongated lapilli alligned at 25deg in dark grey faint green matrix. Some siliceous alteration. Top and bottom contacts gradational into more siliceous altered areas.

457.20 476.30 Rhyolite Lapilli Tuff: Silica

Light gray/ faint mauve Rhyolite Lapilli Tuff (possibly continuation from above, just slightly more homogenous and silicified). 3-5% partially reabsorbed 1mm feldspars, with medium siliceous alteration. Flow banding with more siliceous rich bands at 30deg, feldspars and thin chlorite matrix rich bands inbetween 3-10mm siliceous rich bands - intra flow margin at 465.2m with darkening of matrix. Locally magnetic near two hematite rich bands, one partial 15deg red brown hematite band and 3-4mm bulges in veins at 30deg strongly magnetic, also one 1x5cm faint red/brown subrounded fragment at 462.9m. Slightly more chlorite rich in bottom. Bottom contact sharp at 55deg with basalt intrusive, 2cm rich green chlorite alteration adjacent to contact.

467.30 538.65 Basalt Intrusive: Chlorite: Biotite

Mostly massive dark gray /faint green /faint mauve with several locally altered areas. Dark brown



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Interval (m) From То Description

Sample From То Interval Cu Pb Zn No. (m) (m) g/t g/t % % % (m)

biotite rich over 0.5-1m(particularly in top), towards bottomamphobile rich intrusive with biotite highlighting amphobiles from 492-501m. Granular 2-5mm calcite veins with minor magnetite and pyrite, and locally minor 1mm calcite veins at 30-45deg (over 20cm). Common chlorite 0.5mm fracture veinlets at 30deg, minor pyrite. Non magnetic. Possible intraflow margins at 522.6, with 30cm altered area sharp 25deg 2cm magnetite vein with 5cm concentrated chlorite-albite alteration and difuse for 15cm. Bottom 1m does start to show some textures with darkening and finning of core, ash tuff? but no contacts(obvious) -angular dark green chlorite altered areas 1x4cm with siliceous pheno's becoming more connected towards bottom. Bottom contact is gradational over 10cm with increasing 1mm siliceous feldspars and decreasing chlorite and dark brown biotite ground mass, perhaps sharp at siliceous irregular Rhyolite, 30deg.

- 485.10 490.85 Basalt Intrusive: Cordierite; Biotite; Dark brown corderite rich section, 5-15% 2-3mm an-subhedral light brown corderite in dark brown biotite rich basalt intrusive. Minor 50cm chlorite rich light green/gray section. Top and bottom contacts gradational over 2-5cm with increasing corderite.
- 500.80 519.65 Amphibole-phyric Basalt Intrusive: Amphibole phyric Basalt intrusive with 2-15% 1-2mm ahedral to subhedral amphibole phenochysts. Homogenous light green with locally finer 50cm section with few speckled light green/gray amphobiles, becoming darker down section and amphobiles slowly decreasing in size until bottom contact. Moderately magnetic with few quartz and chlorite veins; non magnetic. Bottom contact possible intraflow margin contact, semi sharp with 40deg. 1mm chlorite surface becoming quickly non-magnetic.
- 532.80 533.15 Fault Zone: Chlorite; Pyrite; Epidote; Healed breccia zone with 1-5cm angular unaltered basalt with few 0.5cm quartz veins with epidote(faint green). 8cm alteration patch of granular chlorite and 60% magnetite with minor 2-5mm pyrite clumps in middle, no other local fracture veinlets. No consistent fracture angles, average ~30deg.

538.65 548.03 Rhyolite Flow Breccia: Silica: Chlorite

> Very gradational top contact. Several 10-50cm RFL fragments faint mauve-light green with 1mm chlorite green dots(some alligned) comprising 20% of unit. Rest is 1-20cm irregular breccia fragments with irregular boundries in dark brown-faint green matrix with numerous 1-2mm sub-angular silicified splinters. Silicification increasing down section. Matrix becomes more chlorite



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Interval (m) To

From

Description

Sample No.

To (m)

From

(m)

Interval (m)

g/t

g/t

Cu Pb Zn % %

dominant in bottom with alligned 1mm faint mauve light green siliceous lapilli at edges of fragments. Several 1-2cm chlorite and quartz veins and 1mm chlorite fracture veinlets. Non magnetic. Bottom contact is not clear at end of drilling run into massive dark brown-black Basalt. 547.00 547.80 Fault Zone: Missing 2 feet of core?, recoved core is broken with 50% < 1cm gravel. Minor trace pyrite.

548.03 581.75 Basalt Intrusive: Chlorite

> Dark brown/black to faint green/dark gray Basalt Intrusive. Massive, chlorite altered with few chlorite veinlets and locally altered areas. Top 20cm is very soft, biotite/sericite?, and very fine becoming coarser 3m in. Several 1-2cm chlorite rich veinlets with 1-5cm albite envelopes and convoluted alteration(522.6m). 1-2mm variable orientation(common at 70deg) chlorite veins with limited 1mm alteration envelopes and, rare pyrite in some chlorite veinlets. Rare green chlorite alteration patches 5cm and irregular 5cm mottled albite patches. Few calcite veinlets at 20deg. (10 veins in 1m, near top). Few 3-5mm quartz veins minor with epidote at 40deg, rare 10cm 90deg. quartz veinlets with minor chlorite at 561.1m. Few areas with very fine 0.3mm pyrite fracture veinlets, irregular(scattered, web like) over 10cm. Moderately magnetic and strong over last few metres. Bottom is only faintly chlorite altered with several chlorite veinlets and 1-2cm alteration envelopes and clot, also few possible 3x5mm chlorite filled vesicles, some rimmed with 0.5mm albite and circular faintly siliceous, 5mm spots. Bottom contact is sharp at 20deg. into Rhyolite Lapilli Tuff with several 1-2mm chlorite veins and 2-3cm siliceous alteration immediately

581.10 581.75 Rhyolite Flow: Silica; Epidote; Dark green/gray Rhyolite Flow. 5-10cm alteration patches with minor epidote veinlets and faint green flooding in dark brown/faint green matrix with 5% fragmental feldspars, bottom contact sharp at 10deg.

585.55 Rhyolite Lapilli Tuff: Chlorite; Epidote 581.75

> Faint green dark blue/gray Rhyolite Lapilli Tuff with chlorite alteration. Fabric is dominant throughout at 45deg, with 1mm merged siliceous lapilli and minor dark matrix in top, with bottom more fragment rich with common 0.5-1cm fragments in faint mauve-dark brown matrix. Numerous 1-5cm faint green felsic fragments, elongated sub-rounded, alligned with fabric and internal 0.5mm chlorite spots. Small 1mm epidote fracture veinlets with magnetite and rarely garnet centres and locally flooding light yellow-green epidote alteration. Non to weakly magnetic. Bottom contact



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Pb

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Zn

%

interval (m)

То

From

Description

Sample No.

From (m) То

(m)

Interval (m) Au g/t

g/t

Cu %

is at 45deg. and locally obsquired by adjacent epidote alteration into flow breccia.

583.15 583.85 Feldspar-phyric Rhyolite Flow: Epidote; Chlorite; Faint green mauve Feldspar phyric Rhyolite Flow, either a large fragment or flow finger. Flow banding is visible in about 30% of secton with 1-2cm of 20deg. bands. 2-5% 1mm partially reabsorbed feldspars. Several crosscutting 1-3mm yellow-green epidote veinlets with adjacent albite flooding(faint green) alteration dominating section. Top contact at 55deg and

very sharp, bottom at 45deg, and more irregular.

585.55 590.00

Feldspar-phyric Rhyolite Flow Breccia: Chlorite; Epidote; Magnetite
Irregular siliceous white/faint green Rhyolite Flow Breccia fragments in fine light green chlorite
groundmass with numerous 1mm sub angular feldspars(20% in top 1.5m). Rough fabric at 45deg.
occasionally visible. Matrix becoming mauve green towards bottom. Mostly 5-10cm flow breccia
fragments with fine granular 1mm fragments and several 30cm larger more massive flow fragments
towards bottom. Fine 1mm epidote fracture veinlets throughout with magnetite and several epidote
dominant alteration areas near top and minor throughout, one with 1x5cm garnet. Matrix moderately
magnetic, siliceous fragments non magnetic. Bottom contact clear at 30deg.

590.00 591.0

591.00 Rhyolite Lapilli Tuff: Chlorite

Light green to faint mauve Rhyolite lapilli tuff, with 1-2mm sub-rounded lapilli in variable, mostly chlorite rich slightly granular matrix, alligned in beds at 40deg. Some minor darker 3-5cm layers with very fine dark green/brown sericite. Several 0.5-2cm sub-rounded siliceous fragments, alligned with fabric at 40deg. Rare 2cm white faint yellow/green felsic sub-angular fragments with quartz eyes and minor epidote alteration. Bottom contact at large rhyolite flow fragment and gradational at 45deg into ash tuff.

591.00 591

591.80 Rhyolite Lapilli Ash Tuff: Chlorite; Sericite; Jasper

Dark green to black Rhyolite lapilli ash tuff, probably a finer continuation from above with less lapilli and some mottled lighter mauve areas. Fine dark green/black sericite matrix with 5% 1-2mm faint mauve/green siliceous lapilli. Several 1-2cm faint green siliceous fragments, few 2cm felsic fragments and 1mm sub-rounded red jasper fragments increasing down section to 1%. Mostly non-magnetic. Bottom contact sharp at 45deg.



Hole-ID: TCU04123

Interva From	ıl (m) To	Description	Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %
591.80	592.85	Rhyolite Debris Flow: Chlorite									
		Faint green light mauve/gray Rhyolie Debris Flow (or possible flow breccia). Well rounded 1-5cm									
. *		pale green rhyolite fragments, some with 1mm chlorite dots in well banded green gray chlorite									
		matrix at 40deg. 1-3mm alligned siliceous lapilli. Some fragments more angular and chlorite									
		altered, blending in and difficult to differentiate from matrix. Moderate to weakly magnetic.									
		Bottom contact irregular at first feldspar phyric rhyolite flow section.									
92.85	596.70	Feldspar-phyric Rhyolite Flow Breccia: Chlorite									
		Light to dark green feldspar phyric Rhyolite flow breccia. Faint mauve white/light green 2-20cm									
		massive flow fragments with changes from light green granular to 5% feldspars within fragments and									
		matrix. Fragments rounded to irregular. Some mild light green chlorite alteration of siliceous									
		fragments, more massive flow towards bottom. Non magnetic. Rare epidote-magnetite veins at 30deg.									
		Bottom contact irregular at 60deg. into debris flow.									
96.70	625.12	Rhyolite Debris Flow: Chlorite									
		Blue/green-dark gray Rhyolite Debris Flow with 20-30% siliceous and rhyolite fragments. Matrix	10220	623.62	625.	12 1.50	0.04	0.00	0.00	0.00	0.0
		gets darker and more siliceous towards bottom with increasing chlorite and some sericite									
		alteration, also increasing in some fragments as well. Fabric throughout at 40deg. Most common									
		fragment is sub angular 5cm (upto 20cm)light green chlorite altered rhyolite, with chlorite									
		increasing down section. Few banded faint mauve rhyolite fragments, some upto 40cm with minor									
		epidote alteration and veinlets. Common sub-angular 2mm siliceous fragments and rounded 1-3cm									
		faint green. Few rare 1-3cm sub rounded light green/light brown siliceous chlorite altered matrix									
		like fragments. Rare 1mm jasper rich through out, common in one 20cm section with one large 2x8cm									
		rich red angular fragment. Rare chlorite and epidote veins, one 2mm sub parallel with 1cm albite									
		envelope. Mostly non magnetic, locally weak with jasper fragments strongly magnetic. Bottom									
		contact is alteration contact at 45deg. with increasing pyrite and sericite into semi massive									
		sulfides, few 1mm pyrite granoblasts in bottom 10cm.									
325.12	627.90	Ore Clast Breccia: Sericite; Pyrite; Sphalerite									
		Faint green gray Semi Massive Sulfides with mostly pyrite and sphalerite debris fragments and	10221	625.12	626.	18 1.06	1.14	58.00	0.27	0.55	2.3
		disseminated pyrite, with most fragments alligned with beds at 45deg. Matrix is faint green/light	10222	626.18	627.	25 1.07	0.91	44.20	0.31	0.47	2.4
		brown sericite rich with 1mm disseminated pyrite and 5mm sphalerite clumps(2-3%), partially	10223	627.25	627.	90 0.65	0.20	0.00	0.00	0.00	0.0



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Interval (m)

То

From

Description

Sample From Τо Interval Αu Cu Pb Zn % No. (m) (m)

elongated. 1cm rounded granoblastic pyrite clumps and one 5cm concentrated granoblastic band. Trace rare 3mm chalcopyrite in matrix. Very fragmental with approximately 20% siliceous, 5% sphalerite, 2% pyrite and 1% barite fragments. Mostly 1-10cm rounded faint green/light gray unaltered siliceous fragments, few rounded 1-3mm sericite altered light green/light brown. 1-2cm sub-angular fine pyrite fragments. 1-5cm beige sub-angular sphalerite fragments, some with minor barite and two with rich brown sphalerite centres. Some 1-5cm sub round barite fragments with minor internal sphalerite clumps(one 50%). Bottom 15cm has few fragments, small amount of disseminated pyrite-mainly within fragments and no sphalerite in matrix. Alteration contact at 30deg with end of pyrite and sericite.

627.25 627.75 Quartz-Sericite-Pyrite Alteration: Silica; Sericite; Heavily silicified faint green/light gray Quartz Sericite Pyrite. Several 0.5-10cm rounded siliceous fragments in light green faint brown matrix with 1% fine disseminated pyrite. Few sericite rich fragments. Top contact is clear at 30deg, with gradational decrease in pyrite over 10cm and increasing silicification. Bottom contact is with 2mm chorite vein at 50deg and sericite and pryite increasing.

627.90 629.45 Rhyolite Lapilli Tuff: Chlorite; Sericite

More like Rhyolite lapilli tuff than debris flow. Matrix is green/brown-gray chlorite and sericite alteration fabric at 45deg. Numerous 3-6mm siliceous fragments and few 10-15cm sub rounded and elongated fragments, alligned with fabric. Rare 1cm angular mafic fragments. Rare trace disseminated pyrite and one 1x3mm angular clump. Bottom contact is gradational over 5cm with change into more altered siliceous debris flow with minor pyrite.

629.45 630.41 Ore Clast Breccia: Silica; Sericite; Pyrite

Faint green/gray fragmental Quartz Sericite Pyrite alteration. Faint green 1-5cm rounded siliceous fragments in light green/gray silica/sericite matrix. Sericite light green bands at 30deg. becoming more sericite rich towards bottom. Pyrite gradually increases down section 1-2mm fine granules alligned with bands and several rare 1cm sub-angular fragments throughout. 1-2% 0.3mm scattered beige leucoxene in matrix. One 5cm siliceous fragments with10%. light baige sphalerite internally. Rare 2x5cm beige sphalerite clots 20cm above bottom. Bottom contact is alteration at 5cm light green/yellow sericite alteration band with clear change; increasing pyrite and presence of sphalerite gradational over 2cm with fabric at 30deg.

10225 627.90 629.45 1.55 1.74 0.00 0.00 0.00 0.00

10226 629.45 630.41 0.96 0.25 0.00 0.00 0.00 0.00



Hole-ID: TCU04123

Interva	al (m)	Description	Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From	То		No.	(m)	(m)	(m)	g/t	g/t	%	%	%
630.41	639.90	Zinc Facies Massive Sulphide: Sphalerite									
		Light brown/faint green Zinc Facies with 10-30% sphalerite. Predominately banded light beige	10227	630.41				122.00			7.12
		sphalerite within bands at 35deg. Top sericite rich matrix and middle/bottom barite rich and	10228	631.50				214.00			17.40
		locally dominate with 20-30cm 30-50% sphalerite. Several 5-10cm rich tan/red brown 90% sphalerite	10229	632.55				166.00			10.90
		layers(fragments?) with minor barite. Several 2-5cm rounded siliceous and barite fragments with	10230	633.60		65 1.05		106.00		2.15	7.57
		sphalerite in some barite fragments. Few pyrite clots/fragments and 1-2cm bands. Three 20-30cm	10231	634.65		70 1.05		114.00		2.19	8.48
		dark green sericite rich areas(633.0m, 633.75m and 634.65m) with 2% speckled leucoxene and minor 1%	10232	635.70	636.	75 1.05	2.97	108.00	1.24	1.83	11.20
		disseminated pyrite; top and bottom contacts sharp at 35deg. and usually adjacent to barite, and	10233	636.75	637.	80 1.05	3.13	70.30	0.91	2.02	12.10
		several 2-3cm pale green sericite patches. Rare trace chalcopyrite stringers 1mm and some	10234	637.80	638.	85 1.05	3.31	156.00	1.84	2.11	7.88
		disseminated chalcopyrite in bands 1-3mm. Rare trace very fine galena. Bottom contact is clear at	10235	638.85	639.	90 1.05	3.27	132.00	3.73	0.97	5.16
		end of sphalerite mineralization at 35deg. with dominant sericite and pyrite increasing. <rgc></rgc>									
		Fragmental textures dominate this interval, although it is crudely bedded, with several narrow									
		(<20cm) massive sphalerite layers.									
639.90	640.75	Pyrite Facies Massive Sulphide: Sericite; Pyrite; Barite									
		Bronze green QSP? with very fine pyrite in sericite matrix. Mostly very fine pyrite (approx 50%)	10236	639.90	640.	75 0.85	7.77	304.00	4.97	0.24	1.47
		with 0.5mm granoblastic pyrite towards bottom. Minor almost stockwork 1mm barite cross cutting									
		veins and few 0.5-2cm clots towards bottom. Rare 2mm chalcopyrite stringers and two 5mm									
		sphalerite bands at 30deg. 5cm above bottom contact, cut by bottom contact with massive pyrite at									
		45deg. <rgc> Well-developed breccia textures, particularly towards lower contact which is sharp</rgc>									
		and conformable.									
640.75	642.25	Copper Facies: Pyrite; Chalcopyrite									
		Copper facies with chalcopyrite bands in massive pyrite. Top 20cm is 70% disseminated pyrite and	10237	640.75	641	65 0.90	2 61	180.00	13.60	0.29	2.68
		10% disseminated chalcopyrite. The main chalcopyrite is in a 70cm section of 35deg. 2-10cm	10239			25 0.60					
		chalcopyrite bands with barite with minor pyrite and a few 1-2mm fine red brown sphalerite bands.	10250	041.00	042.	20 0.00	4.00	100.00	0.50	0.25	1.00
		Below 641.65 is massive pyrite except for bottom 10cm with rich chalcopyrite bands. The massive									
		pyrite does have three 2-3mm dark grey metallic tetrahedrite/tennite stringers. Bottom contact is									
		clear at 40deg, with massive sericite band and end of chalcopyrite.									
642.25	642.70	Quartz-Sericite-Pyrite Alteration: Silica; Sericite; Chalcopyrite									



Hole-ID: TCU04123

Interva	ıl (m)	Description	Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From	То		No.	(m)	(m)	(m)	g/t	g/t	%	%	%
		Top of QSP is quite siliceous with minor sericite, very fine pyrite and trace chalcopyrite in bands	10240	642.25	642.7	0 0.45	1.05	20.00	3.17	0.08	0.0
		at 45deg. Several faint grey 2-5cm siliceous subrounded fragments alligned with beds/alteration.									
		Bottom is more sericite/pyrite rich with no siliceous fragments and bands at 20deg. Chalcopyrite									
		in 1-2mm bands parallel with beds towards bottom and a little whispy 5cm above bottom. Bottom									
		contact sharp at end of disseminated pyrite at 35deg. with siliceous debris flow.									
642.70	657.65	Rhyolite Lapilli Tuff: Chlorite; Magnetite									
		Greenish-black to charcoal grey Rhyolite lapilli tuff. Granular mauve light gray chlorite	10241	642.70	643.5	0.80	0.13	0.00	0.00	0.00	0.0
		alteration/silicification. Matrix is very fine with few large 1-10cm faint mauve sub-angular	10243	643.50	645.0	0 1.50	0.10	0.00	0,00	0.00	0.0
		siliceous fragments with internal fractures and mauve/green alteration. Rare 0.5cm jasper	10244	656.45	657.9	5 1.50	0.03	0.00	0.00	0.00	0.0
		fragments. Moderatelly magnetic throughout, with rare 0.5cm faint mauve magnetic fragments. Few									
		5mm chlorite and magnetite veinlets at 20deg. Bottom contact is sharp at 30deg, with basalt dyke									
		with adjacent 0.5cm mauve magnetic band.									
		642.70 643.50 Sericite; Stockwork; Chalcopyrite; Sericite rich dark brown/black matrix									
		transitional alteration. Faint mauve/grey 2-5cm siliceous fragments. Minor									
		disseminated pyrite and several 1mm chalcopyrite veinlets/bands at 25deg. Bottom									
		contact parallel with alteration at 25deg. and end of disseminated pyrite.									
57.65	657.95	Basalt Dyke: Chlorite									
		Light green granular homogenous basalt dyke. Top contact has light green chlorite alteration and									
		faint mauve moderately magentic for 10cm. Weakly magnetic through out. Top contact is at + 30deg,									
		and bottom -30deg.									
57.95	660.80	Semi-Massive Sulphide: Sphalerite; Pyrite									
		Light brown grey Semi Massive Sulfide. 5-10% disseminated sphaletite in 30deg bands with light	10245	657.95	658.9	0.95	0.75	42.20	0.40	0.38	2.0
		gray barite matrix, 1% disseminated pyrite and rare chalcopyrite. Rare subangular barite fragments	10246	658.90				100.00		0.83	2.9
		2-10cm and one 10cm sub-angular 90% tan sphalerite fragment with minor barite at 660.1m. Bottom	10247	659.85		30 0.95					2.1
		50cm only has minor sphalerite, with chlorite present and several 2-3mm angular dark green chlorite			000.0		0.0.		0.00	0.00	
		fragments. Bottom contact is sharp at 30deg, with siliceous breccia with no sulfides, only trace									
		for 10cm above.									
60.80	663.55	Fault Zone: Chlorite; Silica									



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Interval (m)	Description			Sample	From	То	Interval	Au -	Ag	Cu	Pb	Zn
From To				No.	(m)	(m)	(m)	g/t	g/t	%	%	%
	Dominant chlorite	e alterated section with siliceous healed tec	tonic brecciation and fractured fault	10248	660.80	661.	75 0.95	0.18	0.00	0.00	0.00	0.00

Dominant chlorite alterated section with siliceous healed tectonic brecciation and fractured fault zones. Healed tectonic breccia with 2cm thick 0.5cm angular fragments in chlorite white siliceous matrix against sharp 20deg hanging wall surface. Two 50cm fractured sections one with < 5cm fragments and other with < 3cm fragments at end of hole. Few calcite 1mm veinlets and minor gouge on 20deg surface, rich carbanate alteration with minor 1-2mm pyrite. <RGC> Protolith uncertain - medium green to brown chloritic rock, brecciated and broken. Moderate foliation, fine-grained. Looks mafic.

663.55 663.55 End of Hole:

Day shift 3rd September 2004. Hole ended due to fault debris blocking tube, unable to latch.



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Assays

Sample No.	From (m)	To (m)	interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %	SG	Cu ppm	Pb ppm	Zn ppm	Au ppb	Ag ppm	As ppm	AI %	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm
10220	623.62	625,12	1.50	0.04	0.00	0.00	0.00	0.00	0.00	34	64	300	0	1.0	10	1.77	895	5	0.19	1	6
10221	625.12	626.18	1.06	1.14	58.00	0.27	0.55	2.32	2.65	2797	5496	10000	0	30.0	55	1.14	20	5	0.22	113	9
10222	626.18	627.25	1.07	0.91	44.20	0.31	0.47	2.41	2.69	3231	5010	10000	0	30.0	65	1.08	20	5	0.26	112	8
10223	627.25	627.90	0.65	0.20	0.00	0.00	0.00	0.00	0.00	732	1536	6362	0	10.9	35	0.84	25	5	0.28	35	6
10225	627.90	629.45	1.55	1.74	0.00	0.00	0.00	0.00	0.00	273	884	408	0	16.9	10	2.38	700	5	0.15	1	6
10226	629.45	630.41	0.96	0.25	0.00	0.00	0.00	0.00	0.00	502	764	3985	0	7.3	35	1.01	30	5	0.22	18	6
10227	630.41	631.50	1.09	5.95	122.00	0.70	2.03	7.12	3.01	7069	10000	10000	0	30.0	415	0.49	15	5	0.21	360	7
10228	631.50			5.82	214.00	0.89	2.64	17.40	3.46	8623	10000	10000	0	30.0	1100	0.56	15	5	0.41	849	5
10229	632.55				166.00	0.86	2.18	10.90	3.00	8461	10000	10000	. 0	30.0	860	0.74	10	5	0.49	506	7
10230	633.60				106.00	0.73	2.15	7.57	3.21	7443	10000	10000	0	30.0	625	0.38	20	5	0.20	399	7
10231	634.65				114.00	1.32	2.19	8.48	3.19	10000	10000	10000	0	30.0	550	0.69	20	5	0.13	455	9
10232	635.70				108.00	1.24	1.83	11.20	3.20	10000	10000	10000	0	30.0	195	0.44	20	5	0.19	504	10
10233	636.75			3.13	70.30	0.91	2.02	12.10	3.21	9015	10000	10000	0	30.0	175	0.46	15	5	0.24	555	10
10234	637.80				156.00	1.84	2.11	7.88	3.41	10000	10000	10000	0	30.0	1765	0.38	25	5	0.33	454	11
10235	638.85				132.00	3.73	0.97	5.16	3.24	10000	9578	10000	0	30.0	2545	0.35	15	5	0.13	256	10
10236	639.90					4.97	0.24	1.47	3.19	10000	2626	10000	. 0	30.0	6330	0.27	80	5	0.08	60	11
10237	640.75				180.00	13.60	0.29	2.68	3.83	10000	2794	10000	. 0	30.0	1950	0.03	825	5	0.02	113	11
10239	641.65		-:	4.39	168.00	6.98	0.25	1.53	4.15	10000	2256	10000	0	30.0	5995	0.04	20	5	0.12	65	11
10240 10241	642.25 642.70			1.05	20.00	3.17	0.08	0.07	2.80	10000	908	737	0	20.1	360	0.74	20	5	0.38	3	34
10241	643.50			0.13	0.00	0.00 0.00	0.00	0.00	0.00	1597 70	50	240	0	1.7	80	2.35	60 75	,5 5	0.31	1	31
10243	656.45			0.10	0.00	0.00	0.00	0.00	0.00	42	40 36	159 153	. 0	0.5 0.4	20 5	1.46 2.19	75 1245	5 5	0.41 0.69		17
10244	657.95			0.03	42.20	0.40	0.00	2.06	2.72	4084	4058	10000	0		_	0.87		 5		102	11
10245	658.90			1.87	100.00	0.40	0.83	2.06	2.72	5925	8746	10000	0	30.0 30.0	35 70	0.67	15 20	5	0.42 0.25	102 121	11 7
10246	659.85			0.97	42.10	0.62	0.88	2.97	2.69	5925 5441	3618	10000	0	30.0	70 45	0.49	20 15	5 5	0.25 0.94		
10247	660.80			0.97	0.00	0.00	0.00	0.00	0.00	826	1136	2689	0	6.8	45 10	1.54	100	5 5	2.24	132 12	11 10
10270	500.00	551.75	J.33	0.10	0.00	0.00	0.00	0.00	0.00	020	1130	2000	J	0.0	10	1.54	100	J .	2.24	12	10



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Assays ...continued

Sample No.	From (m)	To (m)	Interval (m)	Cr ppm	Fe %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Sb ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W ppm	Y ppm
10220	623.62	625.12	2 1.50	44	1.68	10	1.37	302	1	0.07	5	200	10	20	47	0.08	10	1	10	5
10221	625.12	626.18	1.06	39	3.58	10	0.89	149	. 1	0.05	1	250	45	20	19	0.04	10	1	10	2
0222	626.18	627.25	1.07	47	4.61	10	0.84	99	. 1	0.05	1	270	35	20	24	0.03	10	1	10	1
10223	627.25	627.90	0.65	55	1.86	10	0.59	106	1	0.05	2	310	10	20	33	0.03	10	1	10	3
0225	627.90	629.45	1.55	49	2.19	10	1.97	437	1	0.06	7	210	115	20	37	0.08	10	1	10	4
0226	629.45	630.41	0.96	35	1.93	10	0.90	157	1	0.04	4	250	25	20	16	0.03	10	1	10	4
0227	630.41	631.50	1.09	17	4.88	10	0.41	4	1	0.01	1	350	320	20	31	0.01	10	1	10	1
0228	631.50	632.55	1.05	33	4.28	10	0.21	21	1	0.02	1	260	620	20	19	0.01	10	1	10	1
0229	632.55	633.60	1.05	42	5.57	10	0.34	9	1	0.02	1	420	305	20	18	0.01	10	1 -	10	1
0230	633.60	634.65	1.05	48	6.28	10	0.37	1	1	0.01	1	310	210	20	22	0.01	10	1	10	1
0231	634.65	635.70	1.05	51	8.28	10	0.82	9	1	0.01	1	470	205	20	18	0.01	10	2	10	1
0232	635.70	636.75	1.05	60	9.15	20	0.49	1	1	0.01	1	540	130	20	20	0.01	10	2	10	1
0233	636.75	637.80	1.05	54	8.27	10	0.47	1	1	0.02	1	450	60	20	17	0.01	10	2	10	1
0234	637.80	638.85	1.05	61	10.00	20	0.37	1	1	0.01	1	700	865	20	20	0.01	10	2	10	1
0235	638.85	639.90	1.05	60	9.69	20	0.35	,1	1	0.01	1	860	485	20	27	0.01	10	2	10	1
0236	639.90	640.75	0.85	43	9.67	20	0.22	1	1	0.01	1	940	1650	20	44	0.01	10	1	10	1
0237	640.75	641.65	0.90	70	10.00	30	0.22	1	1	0.01	1	10000	290	20	74	0.01	10	1	10	1
0239	641.65	642.25	0.60	97	10.00	30	0.24	. 1	1	0.01	1	10000	1915	20	17	0.01	10	2	10	1
0240	642.25	642.70	0.45	63	5.84	10	0.56	54	3	0.03	14	1360	135	20	24	0.03	10	26	10	2
0241	642.70	643.50	0.80	82	5.44	10	1.79	299	1	0.04	24	670	15	20	22	0.15	10	76	10	6
0243	643.50	645.00	1.50	97	3.55	10	1.16	325	2	0.05	17	710	10	20	33	0.07	10	27	10	8
0244	656.45	657.95	1.50	117	2.93	20	1.52	307	1	0.11	53	510	10	20	102	0.10	10	1	10	9
0245	657.95	658.90	0.95	70	4.27	10	0.78	83	1	0.03	5	340	45	20	62	0.03	10	4	10	1
0246	658.90	659.85	0.95	77	3.95	10	0.48	46	1	0.02	1	340	190	20	109	0.02	10	3	10	1
0247	659.85	660.80	0.95	69	5.16	10	0.58	122	1	0.02	1	340	80	20	89	0.01	10	6	10	1
0248	660.80	661.75	0.95	73	3.82	10	1.41	496	1	0.05	13	320	10	20	149	0.03	10	12	10	7



Hole-ID: TCU04124

Page: 1

Collar Coordinates

North (m): East (m)

Elevation (m):

15545.00 10596.00

114.00

Azimuth (degrees):

Dip (degrees): Length (m): 213.79 -83.63 681.49 Started: Completed:

24/08/2004 06/09/2004 Date Logged: Logged By:

24/09/2004 MA./ MTV.

Report Printed:

17/12/2004

Depth Azimuth Dip

(m)

Down Hole Survey Tests

Depth (m)	Azimut	h Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip
	213.79													
	213.93													
	213.00													
	214.09													
	214.17													
	214.25											×		
	214.33													
	214.49													
	214.57 209.61													
	218.77													
	213.80													
	210.86													
	209.93													
	206.40													
	209.70													
462.99	202.70	-84.30												
520.90	203.80	-84.70												
551.38	207.80	-85.10												
584.91	202.90	-85.20												
	201.40													
	193.80	-85.20												
681.45	202.10	-85.40												



Sample

No.

From To Interval Au

(m)

(m)

Hole-ID: TCU04124

Pb Zn % %

Zn

Interva	ıl (m)	Description
From	То	
0.00	0.70	Casing: No Recovery
		Cased to approx 2 feet. No core recovered.
0.70	45.22	Basalt Undifferentiated: Chlorite; Epidote
		Various basalts generally flows, but possibly rare intrusive. CHL alt'd throughout, with patch ep alt'n. Minor white qtz-chl veins, carb on fractures +/- hem. Rubbley throughout. Moderately
		magnetic, local flow banding 20 degrees TCA. Cut another hole at 3m. Lower contact marked by 80 cm wk bleaching, contact pulverized, abundant calcite, flt or intrusion related.
		27.18 30.18 Fault Zone: Bleached; Chlorite; Bleached FLT zone, minor gouge to 2 cm, 70 degrees TCA.
45.22	67.29	Feldspar-phyric Basalt Intrusive: Chlorite; Magnetite
		Feldspar phyric basalt intrusive. Pale feldspars to 3 mm in a chl alt'd matrix. Pervassively
		magnetic, moderate intensity. Rare qtz-chl vein and chl seams. Chl alt'n locally obscures
		feldspars. Lower contact sharp, wavy, intrusive, non-conformable, 25 degrees TCA. 52.16 56.62 Fault Zone: Bleached; Quartz Vein; Calcite; Bleached FLT zone, wallrock frags
		floating in a qtz-carb veins, open space filling noted. Main vein/fit plane 15
		degrees TCA. Interval is rubbley but not gougey.
67.29	78.66	Volcanic Sediment: Chlorite; Epidote; Magnetite
		Dark blue green volcaninc seds (possibly flows) Subtle bedding 30 degrees TCA, varies from VFG
		siliceous material to somewhat sandy seds with depth, coarsening downwards. Moderately magneti
		throughout, almost unfractured. Lower 70 cm intensely EP alt'd with qtz-chl veining, (0.5 cm) contact related??? Lower contact sharp and broken, 40 degrees TCA.
78.66	90.00	Feldspar-phyric Basalt Intrusive: Magnetite; Chlorite
		Dark green coarsely feldspar phyric basalt intrusive. Feldspars to 7 mm in a chl martix. Chill
		margin at HW contact with xenoliths to 10 cm. V rare qtz-ep chl veins, minor mag seams, rare patch of ep alt'n
90.00	100.54	Volcanic Sediment: Chlorite; Magnetite
		Blue green sediments, very fine grained. Minor bedding 10-30 degrees TCA. pervassively magnetic



Hole-ID: TCU04124 Page: 3

Interval	(m)	Description				Sample	From	То	Interval	Au	Ag		Pb	Zn
From	То					No.	(m)	(m)	(m)	g/t	g/t	%	%	%

tr py on fractures. Chi alt'n increases along late crackle fractures, locally with carb and minor ep alt'd zones. Lower contact brecciated, intrusive, defined by grey qtz vein 70 degrees TCA.

100.54 152.08 Feldspar-phyric Basalt Intrusive: Chlorite

Moderately to coarsely feldspar phyric basalt intrusive, abundant feathery plag loaths in a chl matrix, wkly magnetic, massive, v rare calcite coated fracture. Lower contact marked by late U/M dyke.

- 129.90 134.00 Fault Zone: Calcite; Epidote; Wkly bleached FLT zone. ep+/-chl +carb on fractures. Hard calcite to 5 mm. Rare ep gouge (?) to 2 cm. Interval is mostly solid with rare slips. Abundant rough, angular fractures.
- 147.36 152.08 Basalt Intrusive: Talc; Talcose alt'd basalt intrusive. Blue grey, strongly magnetic, v soft, u/m??? UC subtle, 60 degrees TCA. Lower contact sharp, wavy, 50-60 degrees TCA. possibly a late intrusive. This unit marks lower contact of BIN, possible cummulate??

152.08 183.71 Basalt Flow: Chlorite; Magnetite

Basalt flows, dark green medium to fine grained basalts. Different than above BIN's due to increased chl and mag veining, (flow tops or pillow margins) Minor qtz-chl-mag veins to 5 cm @ various angles. Lower contact bleached and shattered.

183.71 189.71 Volcanic Sediment: Pyrite; Magnetite

Purplish black vfg volcanic seds, very well formed py cubes noted to 3mm, deep water sed? Anoxic environment? Rubbley throughout, with minor py, (marchasite) on fracture surfaces. Ghostly crackly qtz-chl veins. Moderately magnetic througout. Subtle bedding 5-10 degrees TCA. wk bleaching towards LC, rubbley 20 degrees TCA, possibly conformable.

189.71 234.37 Feldspar-phyric Basalt Flow: Chlorite

CHL alt'd locally feldspar phyric basalt flows. Rare chl-qtz-py interflow seams locally with py and mag, pillow margins? Feldspars (?) intensely CHL alt'd, too rounded to be feldspars for sure, too angular to be amygdules. * However, definate amydgules are locally noted. Quite small, 2-8 mm with wk calcite rims around a chl core. Lower contact subtle, txt change grain size increases and amygdules decrease, possibly conformable moving towards the centre of a large flow.



Hole-ID: TCU04124

Magnetite	No.	(m)	(m)	(m)	g/t	g/t	%	% 	%
•			*						
•									
e alteration - feathery feldspars/intrusive									
te-magnetite veins often with associated									
es TCA. Very rare hard calcite coated fractures.									
ble 40degrees TCA, wavy. Lower contact odd, some									
o's?) between BIN intervals grain size and									
nt shattered core.(dropped reaming shell and bit).									
s? Small open space filled calcite vein									
nerally massive with rare chlorite and calcite	9786	455.07	456.3	7 1.30	0.03	0.00	0.00	0.00	0.00
ation. Rare qtz-chl or chl veins, 10 to 20cm.	9754	456.00	457.0	0 1.00	0.03	0.00	0.00	0.00	0.00
rare small qtz-chl vein. Minor chl seaming.									
no real contact - thick flow.									
ault- carbonate breccia and mud; fault 25degrees									
reloped bedding, 45degrees TCA. Local Py+/-Cpy.	9755	457.00	458.0	0 1.00	0.03	0.00	0.00	0.00	0.00
	9756	458.00	458.7	5 0.75	0.03	0.00	0.00	0.00	0.00
ion - non conformable but highlights bedding.									
rsening of sediments and bleaching, 30 degrees TCA.									
rix. Looks like a basal conglomerate or	9757	458.75	459.5	1 0.76	0.03	0.00	0.00	0.00	0.00
•									
riee an aich neise yut fa	ite alteration - feathery feldspars/intrusive rite-magnetite veins often with associated ses TCA. Very rare hard calcite coated fractures. able 40degrees TCA, wavy. Lower contact odd, some no's?) between BIN intervals grain size and ant shattered core. (dropped reaming shell and bit). hlorite; Calcite; Fault Zone; V wk fit? his? Small open space filled calcite vein senerally massive with rare chlorite and calcite ration. Rare qtz-chl or chl veins, 10 to 20cm. A grare small qtz-chl vein. Minor chl seaming. The seneral contact - thick flow. It fault - carbonate breccia and mud; fault 25degrees are veloped bedding, 45degrees TCA. Local Py+/-Cpy. In the seneral contact - thick flow. It fault - carbonate breccia and bleaching late veins and the seneral contact and bleaching, 30 degrees TCA. Local Py+/-Cpy. It for a bedding. It is a basal conglomerate or ration. Looks like a basal conglomerate or ration.	rite-magnetite veins often with associated ses TCA. Very rare hard calcite coated fractures. sable 40degrees TCA, wavy. Lower contact odd, some no's?) between BIN intervals grain size and ant shattered core.(dropped reaming shell and bit). shlorite; Calcite; Fault Zone; V wk flt? se? Small open space filled calcite vein enerally massive with rare chlorite and calcite station. Rare qtz-chl or chl veins, 10 to 20cm. sy rare small qtz-chl vein. Minor chl seaming. st no real contact - thick flow. fault- carbonate breccia and mud; fault 25degrees veloped bedding, 45degrees TCA. Local Py+/-Cpy. stely magnetic minor epidote along late veins and stion - non conformable but highlights bedding. sarsening of sediments and bleaching, 30 degrees TCA. strix. Looks like a basal conglomerate or	rite-magnetite veins often with associated ses TCA. Very rare hard calcite coated fractures. able 40degrees TCA, wavy. Lower contact odd, some no's?) between BIN intervals grain size and ant shattered core.(dropped reaming shell and bit). hlorite; Calcite; Fault Zone; V wk fit? ns? Small open space filled calcite vein enerally massive with rare chlorite and calcite enerally massive with rare chlorite and bit). enerally massive with rare	rite-magnetite veins often with associated res TCA. Very rare hard calcite coated fractures. rable 40degrees TCA, wavy. Lower contact odd, some ro's?) between BIN intervals grain size and rant shattered core.(dropped reaming shell and bit). ration: Calcite; Fault Zone; V wk fit? ras? Small open space filled calcite vein renerally massive with rare chlorite and calcite ration. Rare qtz-chl or chl veins, 10 to 20cm. ration. Rare qtz-chl vein. Minor chl seaming. ration ro real contact - thick flow. rault- carbonate breccia and mud; fault 25degrees releved bedding, 45degrees TCA. Local Py+/-Cpy. releved bedding beddi	rite-magnetite veins often with associated ses TCA. Very rare hard calcite coated fractures. able 40degrees TCA, wavy. Lower contact odd, some no's?) between BIN intervals grain size and ant shattered core.(dropped reaming shell and bit). hlorite; Calcite; Fault Zone; V wk fit? se? Small open space filled calcite vein enerally massive with rare chlorite and calcite 9786 455.07 456.37 1.30 artion. Rare qtz-chl or chl veins, 10 to 20cm. 9754 456.00 457.00 1.00 artion real contact - thick flow. If a carbonate breccia and mud; fault 25degrees veloped bedding, 45degrees TCA. Local Py+/-Cpy. 9755 457.00 458.00 1.00 articly magnetic minor epidote along late veins and tion - non conformable but highlights bedding. The properties of the properties	rite-magnetite veins often with associated ses TCA. Very rare hard calcite coated fractures. able 40degrees TCA, wavy. Lower contact odd, some no's?) between BIN intervals grain size and ant shattered core.(dropped rearning shell and bit). hibrite; Calcite; Fault Zone; V wk fit? his? Small open space filled calcite vein senerally massive with rare chlorite and calcite senerally massive with rare chlorite and senerally sen	rite-magnetite veins often with associated ses TCA. Very rare hard calcite coated fractures, able 40degrees TCA, wavy. Lower contact odd, some no's?) between BIN intervals grain size and ant shattered core.(dropped reaming shell and bit). hibrite; Calcite; Fault Zone; V wk fit? his? Small open space filled calcite vein senerally massive with rare chlorite and calcite senerally senerally massive with rare chlorite and calcite senerally massive with rare chlorite and calcite senerally senerally massive with rare chlorite and calcite senerally massive with rare chlorite and calcite senerally senerally massive with rare chlorite and calcite senerally senerally senerally massive with rare chlorite and calcite senerally sen	rite-magnetite veins often with associated set TCA. Very rare hard calcite coated fractures. able 40degrees TCA, wavy. Lower contact odd, some nots?) between BlN intervals grain size and and shattered core. (dropped reaming shell and bit). hibrite; Calcite; Fault Zone; V wk fit? se? Small open space filled calcite vein enerally massive with rare chlorite and calcite 9786	rite-magnetite veins often with associated ses TCA. Very rare hard calcite coated fractures. able 40degrees TCA, wavy. Lower contact odd, some no's?) between BIN intervals grain size and and shattered core.(dropped reaming shell and bit). hlorite; Calcitie; Fault Zone; V wk fit? his? Small open space filled calcite vein senerally massive with rare chlorite and calcite and calcite senerally massive with rare chlorite and calcite senerally senerally massive with rare chlorite senerally sene



Hole-ID: TCU04124 Page: 5

Interva	l (m)	Description	Sample	From	To	Interval	Au	Ag	Cu	Pb	Zn
From	То		No.	(m)	(m)	(m)	g/t	g/t	%	%	%
459.51	462.49	Basalt Lapilli Ash Tuff: Chlorite									
		Very dark green basalt lapilli ash tuff. An ashy mafic matrix supporting lapilli in the 1-3cm	9758	459.51	460.	51 1.00	0.03	0.00	0.00	0.00	0.00
		range, rounded to angular possible amygdaloidal mafics throughout. Possible very rare chloritized									
		rhyolite. Trace leucoxene alteration. No jasper. Trace pyrite. Possible altered feldspars.									
		Lower contact marked by sharp decrease in grain size - non conformable 60degrees TCA.									
400.40	EOE 00	Paralli Flaur Chiartas Faidata									
462.49	505.80	Basalt Flow: Chlorite; Epidote									
		Chlorite altered basalt flow relatively massive cut by late epidote alteration - possibly margin or									
		fracture related. Seams rarely contains pyrrhotite and magnetite - pillow margins? Some sections									
		massive dark brown/black and very fine, others brown/gray mottled by chlorite alteration and faint mauve in places, highlighting flow fabric at 35deg.; particually quite visible for 1m above minor									
		fault(see nested). Several 1cm light green chlorite alteration veinlets and variable 5-10cm									
		convoluted patches, some with minor epidote; band like in places. Moderately magnetic throughout,									
		several(~10) rare 5mm angular pyrrhotite accumulations at 489.9m. Bottom contact is still chlorite									
		rich and sharp at 30deg, with 4cm siliceous vein/band with adjacent lapilli tuff textures									
		462.99 464.50 Basalt Flow: Feldspar; Mechanical rubble, poker chips with span??? surfaces, however									
		intense chlorite and carbanate alteration for last 30cm of rubble. Possible fault									
		35degrees TCA.									
		498,60 500,20 Fault Zone: Minor fault zone with broken blocky core, mostly 2-5cm, with some									
		sub-parallel fractures. Minor hematite/chlorite slickenslides at 50deg. accross a									
		30deg, fracture plane.									
		501.30 505.80 Bleached: Calcite; Chlorite; Fault Zone; Extensively bleached and chlorite altered									
		area with minor tectonic breccia. Top is bleached faint green-faint yellow, with									
		chlorite dominant in middle and bottom. Tectonic breccia between 502.1-502.6m with									
		minor 20deg, fracture plane with 3mm clay gouge at (502.1m); rest of 50cm section has									
		light green silica chlorite filled healed fractures with 1-2cm faint mauve angular									

bleached siliceous fragments. Pervasive green chlorite atleration in bottom and 2-5mm caotic chlorite veinlets with albite envelopes and 1-3cm angular alteration patches. Pyrite is present(1%) in 3-5mm fine granular patches and rare 1mm cubic

porophyblasts, more common towards bottom. Non magnetic section.



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Interval (m)

Description

Sample No. From (m)

To Interva

Au

Ag

Cu

b Zn

From To

Basalt lapilli tuff with 50% 1-2mm elongated siliceous lapilli merging together in places alligned at 35deg. in light green chlorite rich matrix, lapilli decreasing to 30% towards bottom. Few 3-5mm round opaque white siliceous fragments, rare 1cm sub-rounded white siliceous felsic fragments and irregular 2-5mm clumps of fine pyrite, <0.5%. Few 0.2-1cm quartz veinlets, very irregular. Mostly non-weakly magnetic. At bottom contact are several 2-3cm sub-angular light pink/faint orange siliceous fragments. Bottom contact is sharp at irregular 20deg, surface into chlorite rich flow.

506.73 507.80

507.80 Basalt Flow: Chlorite: Biotite

Green Basalt Flow mottled with brown biotite spots alligned at 30deg., biotite increases down section. Bottom contact clear at 40deg with 5cm of parallel chlorite and minor albite alteration into very fine volcanic sedimet with trace epidote.

507.80 510.7

510.70 Volcanic Sediment: Chlorite; Fault Zone

Very fine faint maroon-dark brown Volcanic Sediments, becoming light green-faint mauve/brown down section. Vauge thin laminations at 30deg. Several tectonic 30-50cm brecciated sections with 2-5mm angular fragments in healed chlorite and minor siliceous/carbonate matrix. Some fragments are internally bleached light brown with darker rims (508.25-508.65). Several 1-2cm granular chlorite veins. Some 1-2mm pyrite cubes above bottom contact. Bottom contact at end of minor breccia with calcite infilling into Basalt flow.

510.00 510.50 Basalt Lapilli Tuff: Basalt lapilli textures visible in top 30cm with 0.5x1mm elongated lapilli at 25deg. Light green lapilli in a dark brown/ faint green matrix becoming more granular massive brown, and chlorite alteration increasing down section. several irregular granular 1mm calcite veins. Top contact is sharp at 2mm 10deg. siliceous vein with basalt lapilli tuff textures visible and sudden decrease in chlorite alteration from Volcanic sediments. Bottom contact is vauge with increasing chlorite alteration.

510.70 5

513.05 Basalt Flow:

Dark brown Basalt Flow with granular chlorite alteration. Green 5mm chlorite veinlets with albite envelopes and 0.5-5cm alteration patches. Common calcite veinlets and rare 1mm quartz veinlets. Darker brown sections sections are cut by more veinlets and pseudo brecciated. Bottom contact is at 30deg, into lighter volcanic sediment.



Hole-ID: TCU04124

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Interval	(m)	Description			Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From	То				No.	(m)	(m)	(m)	g/t	g/t	%	%	%

513.00 513.90 Calcite: Chlorite; Calcite rich alteration area with irregular 0.5-1mm calcite veinlets at 25deg.(dominating top 30cm) and several 1x3cm white calcite patches in mostly granular fine chlorite matrix, calcite alteration decreasing throughout.
Trace pyrite in chlorite green rich areas. Top contact sharp at 25deg. with calcite dominance, bottom gradational over 5cm with decreasing chlorite alteration.

513.05 517.25 Volcanic Sediment:

Faint mauve dark brown Volcanic Sediment, getting gradually lighter down section to light mauve-faint green with increasing chlorite alteration. Beds vaugely visible at 25deg. Some patchy 20cm lighter areas mottled with 1mm faint mauve/white alteration spots. Some light green pervasive chlorite alteration spots, more towards bottom. Locally weakly to moderately magentic in more mauve areas. Bottom contact clear and sharp at 25deg, with chlorite rich basalt ash tuff.

517.00 518.30 Basalt Ash Tuff: Chlorite

Basalt ash tuff, well banded at 25deg. with green chlorite and light brown(sericite?) mixed bands in a fine/medium grain chlorite matrix. Mainly just alligned fabric. Several 1-2mm rounded siliceous fragments, faint mauve pale gray merging togeather, and few rare 0.5cm angular volcanic sediment fragements. Non magnetic. Bottom contact sharp at 30deg.

518.30 523.45 Volcanic Sediment: Chlorite

Faint mauve gray heavily silicified Volcanic Sedimentary unit with few 0.5cm brown/green lightly biotite/sericite altered 30deg beds changing to chlorite down section. Top is transitional, gradually fineing down section becoming siliceous green-gray chlorite rich. Several 1x3mm elliptical siliceous fragments concentrated in beds, several 6cm sub-angular and one 5x20cm angular VSD fragment. Few 0.3mm 60deg. chlorite fracture veinlets and several 2mm quartz veinlets. 20cm sericite rich area before basalt dyke with several light brown/green sericite whisps in 4cm bands. Rare trace 2mm bright red hematite, weakly magnetic. Minor 1x3mm pyrite, parallel with bands towards bottom. Becoming less altered 1m above bottom contact with beds getting a little chlorite rich and trace very fine pyrite. Bottom contact is at 60deg. (90deg. to beds) against chlorite and calcite rich Rhyolite lapilli tuff

519.15 519.85 Volcanic Sediment: Pyrite; Silica; Faint gray green/brown VSD with 10-15% very fine disseminated pyrite within 30deg. 0.5-1cm siliceous beds. Becoming more sericite



Sample

No.

From

(m)

To

(m)

Interval

(m)

g/t

Hole-ID: TCU04124

Pb

Page: 8

Zn

%

Interval (m)

From

Description

То

Doodiipa

rich towards bottom (brown). One semi-conformable 3cm white/brown siliceous bed with no pyrite, but mottled with 0.5-1mm irregular brown biotite/sericite?. Top and

522.70 523.10 Basalt Dyke: Equigranular faint mauve grey Basalt Dyke. Minor internal chlorite alteration in some grains, 0.3mm. Moderately magnetic with minor quartz and chlorite veinlets. Slightly finer and darker 2cm chill margins, dark grey-brown. Both contacts sharp at 50deg.

bottom contacts sharp at 30deg, with increases in pyrite.

523.45 530.30 Rhyolite Lapilli Tuff: Calcite; Silica; Chlorite

Dominant calcite and chlorite alteration with lapilli tuff textures just visible. 10% sub rounded 1x3mm elongated siliceous lapilli bedded at 40deg with mild chlorite alteration in green to light green chlorite altered matrix. Some sections pervasivly calcite-chlorite altered with only 1mm chlorite angular phenocysts in light green very soft groundmass. Several 2mm calcite veinlet with some lightening alteration. Alteration increases down section with 2cm crystaline calcite vein sub-parallel for 1.5m (526.1m), rare fuchite in 10cm section within fracture filling. Becoming more siliceous near bottom with 20cm broad weak epidote. Bottom contact at 30deg, with basalt dyke.

526.10 528.55 Rhyolite Lapilli Tuff: Chlorite; Silica; light brown/green matrix Rhyolite lapilli tuff with 10% 1-2mm weakly chlorite altered siliceous lapilli in green chlorite matrix, with chlorite decreasing down section. 1cm elongated sub-rounded siliceous fragments. Minor local 0.5x3cm pyrite. Gradational bottom contact into heavy silicification.

528.55 530.30 Rhyolite Debris Flow: Silica; Chlorite; Quartz Vein; Small light green silicified debris flow. Several 2x5cm elongated rhyolite fragments, sub-rounded faint mauve light green/gray with clear boundry, just visible in heavy silicified chlorite alteration; becoming slightly less altered down section. Few 1cm vuggy quartz veins with crystaline prismatic quartz crystals 1x5mm.

530.30 533.85 Basalt Intrusive: Basalt Dyke

Green gray massive homogenous basalt intrusive dyke. Few 1mm chlorite veins. 5cm of chlorite altered adjacent to top contact. Bottom contact sharp at 40deg. 533.80 535.20 Rhyolite Undifferentiated: Silica; Chlorite; Calcite Vein; Heavily silicified

535.20 Rhyolite Undifferentiated: Silica; Chlorite; Calcite Vein; Heavily silicified section with 10cm sections with 1-2mm chlorite in faint green-white siliceous



Hole-ID: TCU04124

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Interval (m) Description Sample From Τo Cu Pb Zn Interval Αu % % No. (m) (m) g/t To From

alteration. One 1cm 50deg, calcite vein in middle is less altered and has some rhyolite lapilli tuff faint mauve dark green/gray textures with chlorite veins and 1mm feldspars. Minor 1mm wet gouge on 40deg, fracture.

533.80 536.60 Rhyolite Lapilli Tuff: Chlorite; Silica

Rhyolite lapilli Tuff with significant light green siliceous alteration in top of unit.

Gradational change into less siliceous below 535.85m with regular rhyolite lapilli tuff textures with 1-2mm light green faint mauve siliceous lapilli in dark green chlorite matrix in 40deg fabric.

Rare large siliceous fragments elongated 1x3cm and subrounded light green 2x3cm rhyolite flow fragments. Faint trace 1mm jasper fragments and in 1mm beds towards bottom over 20cm. Non to weakly magnetic, with several 1-4mm granoblastic pyrrhotite cubes towards end of siliceous alteration. Bottom contact sharp at 60deg.

533.80 535.20 Rhyolite Undifferentiated: Silica; Chlorite; Calcite Vein; Heavily silicified section with 10cm sections with 1-2mm chlorite in faint green-white siliceous alteration. One 1cm 50deg, calcite vein in middle is less altered and has some rhyolite lapilli tuff faint mauve dark green/gray textures with chlorite veins and 1mm feldspars. Minor 1mm wet gouge on 40deg, fracture.

536.65 608.08 Basalt Intrusive: Chlorite; Calcite Vein; Quartz Vein

Green/dark gray massive basalt intrusive, medium/fine grain. Top 20cm is fine dark brown black. Few chlorite veins with tace epidote. Local 5cm albite and chlorite alteration patches, 10% mottled albite. Rare 1mm circular dark green / black chlorite? vesciles, over one 10cm area. Moderately magnetic with some minor chlorite alterated areas non magnetic areas; one mauve magnetite vein at 70deg. with minor chlorite and 1cm adjacent light brown epidote.

- 560.00 585.62 Amphibole-phyric Basalt Intrusive: Few small amphobiles in top, below 560m dominantely amphibole phyric, with large 2-3mm 5-20% anhedral amphobiles. Minor pyrite and sphalerite in 2 mm quartz vein at 582.85 m
- 585.62 603.20 Basalt Intrusive: Chlorite; Sericite; Quartz Vein; Fine grained gabbro, dark grey-green with whispy sericitic bands. Few quartz veins <1 cm with fine disseminated and interstitial pyrite and trace of chalcopyrite.
- 603.20 608.08 Basalt Intrusive: Sericite; Quartz-Calcite Vein; Pale to medium green, sericitic basalt (?). Locally mottled, aphanitic, beige, and locally weak magnetism.



Hole-ID: TCU04124

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Interval (m)	Description		Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From To			No.	(m)	(m)	(m)	g/t	g/t	%	%	%

Quartz-calcite veins < 1 cm, increasing downwards. Abundant interstitial pyrite (20 cm) at 605.65 m

608.08 609.40 Fault Zone:

Densely fractured BIN, with some green gouge at 609.10 m (includes 4 cm quartz-calcite vein)

609.40 646.26 Basalt Intrusive: Chlorite

Layered medium grained and fine grained, medium darg grey-green gabbro, variably veined (quartz-calcite +/- hematite +/- magnetite. Chlorite and minor serpentinite in fractures. Trace of chalcopyrite, interstitial and as blebs in quartz and/ or calcite veins. Numerous pale green (sericite?) altteration envelopes along micro quartz (+/- ser +/- ep) veins < 2 mm. Weak to moderately magnetic from 625 to 630 m and from 632 to 643 m. Lower contact abrupt, but diffuse, 45 degrees TCA.

614.80 616.05 Fault Zone: Fracture zone.

620.56 624.50 Basalt Intrusive: Chlorite; Quartz-Calcite Vein; Disseminated Pyrite; Moderately fractured with few shatter zones, with abundant chlorite. Disseminated pyrite < 2%, also as elongate 'blebs' in calcite veins.

637.33 639.17 Basalt Intrusive: Intense fracturing, with abundant chlorite. 639.17 640.13 Basalt Intrusive: Quartz-sericte alteration with minor epidote.

646.26 656.69 Rhyolite Undifferentiated:

Siliceous, with quartz nodules < 5mm. Mottled grey and pale grey-green. Locally with subangular feldspar phenocrysts < 1mm, approximately 5%. Weak to moderately magnetic. Quartz stringers < 5 mm and few micro breccia zones.

651.66 652.05 Basalt Intrusive: Narrow fine grained basaltic intrusion with rare tan, cherty subangular fragments < 1cm. Sharp footwall contact 60 degrees to CA.

656.69 658.63 Basalt Intrusive:

Fine grained dark green basaltic intrusive, with tan, cherty, subangular fragments < 1 cm. Footwall contact sharp, but irregular, approximately 10-15 degrees TCA. Hangingwall contact sharp and planar, 40 degrees TCA.



Sample

(m)

From To Interval Au

(m)

(m)

Hole-ID: TCU04124

Pb Zn % %

Cu %

Interv	al (m)	Description
From	То	
658.63	661.63	Rhyolite Undifferentiated:
		Undifferentiated rhyolite as above, but more feldspar phenocrysts <2mm and subangular, grey,
		siliceous fragments <3 cm, somewhat flattened. Epidote and grossular garnet in quartz vein @ 659.95. Locally weak magnetic.
661.63	662.16	Fault Zone: Quartz-Calcite Vein; Chlorite
		Fault zone, recemented gouge, with calcite, chlorite and quartz, 50 degrees to core axis.
662.16	664.83	Andesite Dyke:
		Basalt dyke. Dark grey to blue-grey, with stretched, pale grey subangular amygdules (?) < 5mm.
		Moderately magnetic. Footwall contact ragged, somewhat diffuse, 60 degrees to core angle.
		Quartz-chlorite vein, 3 mm.
664.83	677.17	Rhyolite Undifferentiated: Chlorite
		Undifferentiated rhyolite, as above described. Crackle breccia zones with chlorite infill.
677.17	679.50	Crush Zone: Chlorite
		Fault zone. Dark grey-green, chloritic gouge and fine sandy material (basalt/ gabbro?). Weak to moderate magnetism.
679.50	681.49	Basalt Undifferentiated:
		Core reduced to BQ at this point. Dark grey, very fine grained basalt, moderately magnetic
		(magnetite crystals < 2 mm), with minor disseminated pyrite. Includes rhyolitic debris flow
		xenolith (?) from 680.60 to 681.00 m. Also includes 2 cm quartz-epidote-garnet-chlorite-pyrite vein 65 degrees to CA at 680.28 m.
681.49	681.49	End of Hole:



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Assays

Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %	SG	Cu ppm	Pb ppm	Zn ppm	Au ppb	Ag ppm	As ppm	AI %	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm
9754	456.00	457.00	1.00	0.03	0.00	0.00	0.00	0.00	0.00	71	12	31	0	0.2	- 5	1.99	240	5	0.78	1	18
9755	457.00	458.00	1.00	0.03	0.00	0.00	0.00	0.00	0.00	80	30	70	0	0.2	10	4.50	255	5	1.89	1	14
9756	458.00	458.75	0.75	0.03	0.00	0.00	0.00	0.00	0.00	69	30	72	0	0.2	15	5.19	305	5	2.71	1	12
9757	458.75	459.51	0.76	0.03	0.00	0.00	0.00	0.00	0.00	1	5	. 0	0	0.6	35	5.00	5	0	1.00	5	60
9758	459.51	460.51	1.00	0.03	0.00	0.00	0.00	0.00	0.00	2	0	0	0	3.2	670	10.00	5	0	1.00	11	140
9786	455.07	456.37	1.30	0.03	0.00	0.00	0.00	0.00	0.00	41	14	55	0	0.6	5	1.21	50	5	0.27	1	8



Hole-ID: TCU04124

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Assays ...continued

Sample No.	From (m)	To (m)	interval (m)	Cr ppm	Fe %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Sb ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W	Y ppm
9754	456.00	457.00	1.00	223	3.11	10	1.49	199	1	0.25	66	620	5	20	83	0.08	10.	131	10	1
9755	457.00	458.00	1.00	60	4.12	10	1.47	355	2	0.34	28	920	5	20	345	0.19	10	71	10	1
9756	458.00	458.75	0.75	71	4.39	10	1.65	403	2	0.32	28	3070	5	20	522	0.15	10	67	10	5
9757	458.75	459.51	0.76	17	10.00	. 0	79.00	5	0	6.00	150	6	20	110	0	10.00	1	10	1	17
9758	459.51	460.51	1.00	21	10.00	2	0.00	0	0	0.00	0	0	0	0	0	0.00	0	0	0	0
9786	455.07	456.37	1.30	118	1.88	10	0.78	171	4	0.08	24	300	5	20	44	0.05	10	6	10	1



Hole-ID: TCU04124A

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Collar Coordinates

North (m): East (m) 15545.00 10596.00 Azimuth (degrees):
Dip (degrees):

213.79 -83.63

Depth Azimuth Dip

Started: Completed:

Depth Azimuth Dip

23/09/2004

Depth Azimuth Dip

Date Logged:

23/09/2004

Elevation (m):

114.00

Depth Azimuth Dip

Length (m): 473

473.66

27/09/2004

(m)

Logged By: Report Printed: MTV. 17/12/2004

Depth Azimuth Dip

Down Hole Survey Tests

Depth (m)	Azimut	h Dip
0.00	213.79	-83.63
30.00	213.93	-81.50
60.00	213.00	-81.50
90.00	214.09	-81.50
120.00	214.17	- 81.70
150.00	214.25	-81.70
180.00	214.33	-82.00
210.00	214.49	-82.00
240.00	214.57	-82.00
270.00	209.61	-82.00
300.00	218.77	-82.00
330.00	213.80	-83.40
360.00	210.86	-84.00
390.00	209.93	-84.00
402.03	206.40	-84.20
423.37	189.90	-84.90
446.23	222.20	-80.70
466.04	217.20	-81.10



Hole-ID: TCU04124A

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Interval (m)	Description			Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From To				No.	(m)	(m)	(m)	g/t	g/t	%	%	%

409.95 453.40 Basalt Intrusive: Chlorite

Dark green, chloritic, very fine grained diabase, massive. Quartz-chlorite +/- epidote +/- magnetite veins < 15 cm, 30-80 degrees to CA. Change from BQ to NQ at 411.18 m. Dark green tourmaline in quartz-chlorite veins. Increase in chlorite and magnetite towards basal contact, with few round chlorite-pyrite-albite (?) clots < 1 cm. Basal contact sharp 31 degrees to CA.

453.40 455.10 Volcanic Sediment: Magnetite

Fine to medium grained, well bedded, mixed ash and silt/mudstone. Bedding 36 degrees to CA. Medium to dark grey to beige, locally epidote altered. Moderate magnetism. Quartz-garnet-epidote-chlorite veins < 2 cm, parallel to bedding. 15% disseminated pyrite in contact zone with diabase intrusion (first 5 cm). Very gradual basal contact 38 degrees to CA, where sedimentary rocks grade into ash tuff and then into a lapilli (pumaceous?) unti below.

455.10 456.35 Rhyolite Lapilli Tuff: Pyrite

Three successive graded sequences of intermdiate lapilli ash (pumaceous?) tuff, with augen schist textures. Subrounded to subangular felsic rhyolite or quartz fragments < 10 cm in an ash matrix of possibly compressed pumice. This matrix is highly pyritic (5-20% fine disseminated) and weak sericite altered. Fragments are subangular to rounded, white to cream coloured, have no phenocrysts, and grade upwards in each sequence, decreasing in size and abundance. These fragments may be chert or quartz. It is not clear whether this unit is a turbidite, or a felsic lapilli tuff, or a compressed pumice unit. Photo taken. Basal contact abrupt, but diffuse, 25 degrees to CA.

456.35 459.23 Basalt Lapilli Tuff:

Medium to dark grey, intermediate lapilli tuff. Polymict, but mostly grey-brown to dark grey angular fragments < 2 cm in a lighter grey fine ash matrix. Locally developed bedding 22 degrees to CA. Many white (feldspar?) fragments or crystals < 0.2 mm. One 2 cm subrounded white, amphibole phyric fragment. Few chlorite swirls and veins near basal contact, which is sharp, but highly irregular.

459.23 461.46 Basalt Flow: Chlorite

Dark grey-green, very fine grained, chloritic, massive basalt flow. Moderate magnetism.

Quartz-chlorite vein 1.5 cm 47 degrees to CA. Minor (<1%) fine disseminated pyrite, increasing to



Hole-ID: TCU04124A

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Interval (m)	Description	Sa	ample	From	То	Interval	Αü	Ag	Cu	Pb	Zn
From To		No	o. [']	(m)	(m)	(m)	g/t	g/t	%	%	%

15-20% towards fault below. Basal contact tectonic; broken core.

461.46 462.23 Fault: Chlorite; Magnetite

Broken and shaterred core, with pieces of chloritic, dark green, very fine grained, variably magnetic basalt flow. Locally brecciated texture: dark grey to black, subangular fragments < 3 cm in a slightly lighter grey fine grained pyritic (15% disseminated) matrix. Few slickensides. Micro fractures, filled with calcite and white clay.

462.23 473.66 Basalt Flow: Chlorite

Dark, green-grey, fine grained, homogeneous, massive basalt flow, with increasing bleaching, chlorite and sericite (?) alteration downsection. Alteration starts as halos around stringers and veins, but then becomes more pervasive, as patches up to 20 cm or more, and as what appears to be breccia matrix. These matrix infills are mostly chlorite-pyrrhotite-calcite and minor quartz (?). Up to 15% open space filling and massive pyrrhotite. Few chloritized anhedral amphibole phenos visible in bleached zones. Dense fracturing (5 to 20 per m), decreasing downsection from fault.

473.66 473.66 End of Hole:



Hole-ID: TCU04124B

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Collar Coordinates

North (m): East (m) Elevation (m): 15545.00 10596.00

114.00

Azimuth (degrees):

213.79 Dip (degrees): -83.63 Length (m): 864.72 Started:

Completed:

29/09/2004 09/10/2004 Date Logged: Logged By:

01/10/2004 RGC.

Report Printed:

17/12/2004

							Down	Hole	Survey	/ Tests	; · · ·						
Depth (m)	Azimuth	n Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip
0.00	213.79	-83.63	780.00	247.49	-81.00												
30.00	213.93	-81.50	810.00	247.54	-81.50												
60.00	213.00	-81.50	820.00	249.74	-81.10												
90.00	214:09	-81.50	830.00	249.83	-81.00												
120.00	214.17	-81.70	840.00	249.91	-81.00												
150.00	214.25	-81.70	845.00	251.03	-81.00												
180.00	214.33	-82.00															
	214.49																
	214.57																
	209.61																
	218.77																
	213.80																
	210.86																
	209.93																
	209.01																
		-80.00															
		-80.00															
	239.71																
		-80.00															
		-80.00															
	244.99 245.07	-80.10															
		-80.20															
	246.15 246.27																
	245.35																
	246.42																
/50.00	∠40.4 ∠	-00.90															



Hole-ID: TCU04124B

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Interval (m)		Description			Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From T	То				No.	(m)	(m)						%

452.85 458.35 Basalt Lapilli Tuff: Chlorite

Dark, greenish-black mafic lapilli tuff. Fragments are abundant (80%), angular to cuspate, unsorted, polylithic and range in size from 1 to 20 mm, occasionally to 40 mm. They are all mafic in composition and include primarily fine-grained massive basalt with a few feldspar-phyric ones. Feldspars are epidotized. Section is non- to weakly magnetic. Lower contact is sharp, but irregular.

458.35 495.83 Basalt Intrusive: Magnetite; Chlorite

Medium to dark green, fine-grained, massive, homogeneous (except for pyrrhotite-rich breccia noted in nested interval) uniformly strongly magnetic mafic section interpreted as a diabase intrusive. Lower contact is sharp, almost pepperitic and dips about 40 degrees to core axis.

472.50 482.75 Basalt Intrusive: Pyrrhotite; Epidote; Unusual and distincitive pseudo breccia caused by patchwork of pale green epidote altered sections which are rich in pyrrhotite. Total pyrrhotite content of this interval is 1-2%, concentrated in patches up to 10 cm and 70%. Contacts are gradational.

493.47 496.00 Basalt Intrusive: Feldspar; Scattered sausseritized feldspar phenocrysts fade in and out over this interval. They are subhedral, up to 3 mm and up to 5%.

495.83 505.65 Rhyolite Ash Tuff: Magnetite

Charcoal-grey section of rhyolite. Fine-grained, fairly massive. A few 1-3 mm fragments scattered throughout and an overall granular texture suggest this is an ash tuff, but not certain. Strongly magnetic throughout, quite massive and homogeneous. Lower contact is sharp, but broken. 499.64 500.85 Feldspar-phyric Rhyolite Flow: Feldspar; Quartz Eyes; Section of QFP rhyolite.

Contacts are diffuse, upper is obscured by quartz veining. Mottled, dark slightly greenish-grey - would classify as a flow breccia - possibly a large fragment?

505.65 508.65 Feldspar-phyric Rhyolite Flow Breccia: Feldspar; Chlorite

Mottled, faintly purplish-grey section of rhyolite flow-breccia. Anhedral feldspar crystals are scattered thoughout, typically ghosted rather than clear. Tiny (<1mm) quartz eyes are also noted. Section is brecciated, with mottled sections of massive QFP rhyolite and dark green chloritic patches. Weakly to moderately magnetic. Lower contact is very interesting.



Hole-ID: TCU04124B

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Interval (m)	Description					Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From	То						No.	(m)	(m)	(m)	g/t	g/t	%	%	%

508.65 522.13 Rhyolite Lapilli Ash Tuff: Jasper; Chlorite; Sericite

Dark greenish-grey rhyolite tuff with distinctive red jasper fragments and disrupted layers. Fragments greater than 1 cm are rare, only a couple per meter, and are QFP rhyolite or jasper. Matrix is granular (1-5mm), mix of medium grey siliceous rhyolite fragments in a greenish-black chlorite-sericite rich matrix. Tiny leucoxene specks are scattered throughout. Below 511.7 m, for about 60 cm, are chunks of QFP rhyolite in a tuffaceous matrix, suggesting flow onto unlithified tuff, incorporating it into flow breccia. These chunks are angular and range from 1 cm to greater than 10 cm. Lower contact is similar to the upper contact in that large fragments of QFP rhyolite increse in volume to a flow breccia section.

510.00 510.87 Basalt Dyke: Green, fine-grained mafic dyke. Both contacts sharp at 60 degrees. 515.66 516.55 Fault Zone: Bleached; Quartz Vein; Bleached section with three 1 cm vuggy quartz-calcite veins indicates a minor fault zone. Veins dip 25 degrees to core axis.

522.13 525.70 Rhyolite Flow Breccia: Feldspar; Quartz Eyes

Pale greenish-grey rhyolite flow breccia, mottled appearance, dark green chloritic "matrix".

Feldspar phenocrysts are quite rare, <<1%, tiny quartz eyes are more common, but still <1%. Lower contact is sharp, intrusive and irregular, dips 45 degrees on average.

525.70 556.32 Basalt Intrusive:

Dark to medium green, fine to medium grained mafic intrusive. Section from about 539.5 meters to about 554 meters contains a few coarse-grained, white quartz veins, up to 5 cm, but usually <1cm and about 1 per 3 meters. These dip 0 to 20 degrees. Associated with them is a bleaching of the groundmass to medium green, which highlights dark green amphibole phenocrysts giving the rock a porphyritic texture.

556.32 557.50 Fault:

Fault zone dips 20 degrees to core axis. Weak bleaching of wallrocks, quartz veins (1-2cm) parallel to fault and a 10 cm section of healed fault breccia with 60% rounded fragments of vein quartz. Discreet, gougy fault planes dip 20%. Coarse granoblastic pyrite is about 1% throughout.

557.50 627.95 Basalt Intrusive:

Continuation of 528.75 to 556.32 meters



Hole-ID: TCU04124B

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Interval (m)	Description			Sample	From	To	Interval	Au	Ag	Cu	Pb	Zn
From To				No.	(m)	(m)	(m)	g/t	g/t	%	%	%

627.95 630.75 Fault Zone:

Minor fault zone marked by QZ-MAG-CHL vein-filled slip planes about 1 cm wide (2 seen here) dipping 10-15 degrees TCA. 20 cm bleached olive-green section near lower contact.

630.75 650.40 Basalt Intrusive:

Continuation of 557.5 to 627.95 meters.

648.00 650.40 Basalt Intrusive: Magnetite; Quartz Vein; Chlorite; Medium breen, strongly magnetic, mottled section. Pale green epidote? mottling of dark green chloritic BIN. Some patchy vein quartz also noted.

650.40 651.20 Rhyolite Undifferentiated: Silica; Disseminated Pyrite

Medium brownish-grey section of silicified rhyolite with 1-2% disseminated pyrite and possibly disseminated resinous red-brown sphalerite. Likely a xenolith in the BIN. Lower contact sharp, intrusive, dips 70 degrees TCA.

651.20 653.80 Basalt Intrusive: Magnetite; Chlorite

Fine-grained, greenish-black mafic intrusive. Moderately magnetic. Lower contact sharp and intrusive at 60 degrees TCA.

653.80 661.20 Rhyolite Flow Breccia: Hematite; Feldspar; Magnetite

Mottled maroon, dark grey and pale grey section of QFP rhyolite flow breccia. Characterized by sections of typical QFP rhyolite showing coarse autobrecciation with a dark grey, non-porphyritic matrix, possibly tuffaceous. Some excellent contacts are preserved eg. at 660.80 meters. Generally becomes less brecciated and more massive down the interval. Poorly developed flow-banding is noted. Feldspar phenocrysts are anhedral, 1-3 mm and average about 5%. Quartz phenocrysts are tiny (<=1mm) and relatively common, although still only about 1%. Section is weakly magnetic. Lower contact (at 672.3 meters) is sharp and intrusive at 70 degrees.

661.20 661.40 Quartz-Feldspar Porphyry Dyke: Magnetite

Black quartz-feldspar porphyry dyke, well developed chill margins, sharp intrusive contacts dip 40 degrees.



Sample

No.

From

(m)

To Interval Au

(m)

(m)

Hole-ID: TCU04124B

Pb Zn % %

Cu %

Interva	al (m)	Description
From	То	
661.40	672.30	Rhyolite Flow Breccia: Hematite; Feldspar; Magnetite Continuation of 653.8 to 661.2 meters.
672.30	672.90	Quartz-Feldspar Porphyry Dyke: Magnetite Quartz-feldspar porphyry dyke. Includes a 20 cm section of badly broken core. Contacts sharp with well developed chill margins, upper dips 70 degrees, lower dips 65 degrees.
672.90	679.90	Basalt Intrusive: Chlorite; Magnetite Fine grained, dark greenish-black magnetic mafic intrusive. Same as above. Lower contact sharp, but broken.
679.90	681.05	Rhyolite Flow Breccia: Feldspar Dark green, feldspar-phyric rhyolite flow breccia. Lower contact sharp and intrusive, very irregular. Same as rhyolite flow breccia above BIN.
681.05	681.60	Basalt Intrusive: Magnetite; Chlorite Dark greenish-black fine grained basalt intrusive. Lower contact sharp at 40 degrees.
681.60	683.35	Rhyolite Flow Breccia: Feldspar; Chlorite Dark greenish-grey rhyolite flow breccia as above. Lower contact mixed over about 30 cm.
683.35	688.70	Basalt Intrusive: Magnetite Fine-grained, greenish-black basalt intrusive. Lower contact sharp, irregular.
688.70	716.20	Rhyolite Flow Breccia: Feldspar; Quartz Eyes; Chlorite Rhyolite flow breccia. Mottled dark and medium grey - not so much purple here. Subhedral feldspars (1-3mm) are speckled throughout, generally <5%. Tiny quartz phenocrysts seen in more massive QFP rhyolite sections, but <1%. Mixture of textures - possible debris flow sections mixed in. A few possible fragmental sections, but no classic RDF seen. Breccia fragments are pale green, matrix is greenish-black and chloritic. Fragment boundaries are diffuse for the most part - indistinct. Section is cut by several basalt dykes as noted in nested intervals. Lower contact is



Hole-ID: TCU04124B

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Interval (m)	Description	on	•				Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From T	0						No.	(m)	(m)	(m)	g/t	g/t	%	%	%

gradational over about 20 cm as QFP rhyolite "fragments" disappear and rock becomes more clearly tuffaceous. One section from 727.0 to 728.2 meters is banded and one large fragment suggests this is bedding in an ash tuff layer. Bedding here dips 35 degrees TCA. Interval is generally non-magnetic with the exception of the basalt dykes.

708.80 709.50 Basalt Dyke: Magnetite; Chlorite; Fine-grained, almost black basalt dyke. Upper contact very sharp and very irregular, LC sharp at 40 degrees.

714.27 717.00 Basalt Dyke: Chlorite; Magnetite; Fine-grained, greenish-black magnetic basalt dyke.

716.20 716.80 Crush Zone:

Fine-grained, greenish-black magnetic basalt dyke. Sandy, khaki-coloured crush zone from 716.2 to 716.80 meters. This crush zone is strongly magnetic and gradational into solid rock either side. This does not really appear to be a fault - lacking clay gouge, slip planes and slickensides. Rock below 30 cm sandy zone is whole core, but crushed and swelling.

716.80 734.66 Rhyolite Flow Breccia: Feldspar; Quartz Eyes; Chlorite

Continuation of interval above crush zone and basalt dyke.

721.12 724.14 Basalt Dyke: Chlorite; Magnetite; Dark green, fine-grained magnetic basalt dyke.

Upper contact sharp, irregular, lower contact sharp and planar at 40 degrees - broken along contact plane.

- 724.60 726.55 Basalt Dyke: Quartz Vein; Chlorite; Magnetite; Basalt dyke with patchy quartz-chlorite veins to 10 cm.
- 726.55 728.34 Rhyolite Ash Tuff: Banded section thought to be a rhyolite ash tuff. Banding is on a 1-10 mm scale. Medium, almost bluish-grey, bands are a bit wavy. One clear rhyolite fragment at 728 meters supports interpretation of this as a tuff.
- 728.34 729.40 Basalt Dyke: Quartz Vein; Chlorite; Magnetite; Similar quartz-veined basalt dyke to that noted above. Cut by a slip plane dipping 10 degrees TCA, which is parallel to dyke contacts.

734.66 744.26 Rhyolite Debris Flow:

Bluish-grey section of rhyolite debris flow. This section is somewhat unusual in that the QFP rhyolite fragments are not bleached, white and silicified. They are medium to slightly purplish grey - essentially the same colour as the groundmass, which looks granular and ashy. Quartz-eyes



Hole-ID: TCU04124B

Interva From	l (m) To	Description	Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %
		and flow banding are noted in fragments, which occur up to 20 cm in diameter. One khaki amygdaloidal (frothy) fragment is noted at 739.1 meters. Is this an unaltered version of the RDF? Why are fragments not bleached? Lower contact is gradational as large QFP rhyolite fragments disappear, matrix does not change.									
744.26	747.10	Rhyolite Lapilli Tuff:									
		Relative to the overlying interval, fragments are smaller, but more abundant here. They are 50-60%, <2 cm and various types of rhyolite. Rock is slightly darker than overlying interval - still bluish-grey. Distinct fabric represents bedding at 50 degrees TCA. Lower contact is gradational as disseminated sphalerite, chalcopyrite and pyrite start to appear and colour lightens	9787	746.10	747.	10 1.00	0.03	0.00	0.00	0.00	0.00
		due to an increase in sericite alteration.									
747.10	748.30	Ore Clast Breccia: Sphalerite; Pyrite; Chalcopyrite Weakly mineralized interval which, unfortunately, represents the ore horizon in this hole. Essentially similar to the overlying interval with a sericitic matrix and clear massive sulphide	9788	747.10	748.	30 1.20	1.15	60.30	0.26	0.87	2.05
		fragments up to 5 cm. These include massive baritic ZNF and mixed pyrite and chalcopyrite fragments. Section from 747.6 to 747.9 meters is particularly sulphide-rich and consists of 40%									
		disseminated and fragmental buff sphalerite, pyrite, chalcopyrite and tetrahedrite in a baritic matrix. Below this section, becomes more polylithic with one frothy, amygdaloidal basalt fragment noted, as well as smaller ZNF fragments. Lower contact is conformable, taken at last ZNF fragment,									
		corresponds with sharp decrease in sericite to essentially the same lithology as overlying RLT. An irregular shaped, 10 cm basalt dyklet occurs at the conact, but looks incidental. Bedding in this interval dips 40 degrees.									
748.30	748.88	Rhyolite Lapilli Tuff: Bluish-grey rhyolite tuff, similar to section overlying the OCB, except fragments are smaller and scarcer. Lower contact is sharp - interpreted as intrusive.	9789	748.30	748.	88 0.58	0.52	8.20	0.01	0.02	0.05
748.88	752.65	Rhyolite Flow: Quartz Eyes; Chlorite									
140,00	792.00	Medium-grey, massive quartz porphyry rhyolite interpreted as a sill. Quartz phenocrysts are abundant (5-10%), from 0.5 to 2 mm, and are often chloritic - or at least mixed with chlorite. These sit in an aphanitic, grey siliceous matrix. Section is cut by one 10 cm basalt dyke along a	9790	751.65	752.	65 1.00	0.04	1.00	0.01	0.02	0.04



Hole-ID: TCU04124B

nterval (m)	Description	Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
rom To		No.	(m)	(m)	(m)	g/t	g/t	%	%	%
	slip plane dipping 15 degrees. Surrounding core is weakly bleached and cut by hairline chloritic			·						
	fractures. Slickensides are dip slip. Lower contact is sharp at 55 degrees.									
2.65 757.92	Semi-Massive Sulphide: Sphalerite; Pyrite; Chalcopyrite									
	An enigmatic section characterized by sulphide (+TT + barite) veins and stringers cutting a medium	9792	752.65	753.6	55 1.00	1.40	52.60	0.28	0.85	4.
	to light grey, siliceous and sericitic rock which is locally moderately well-banded (folitated),	9793	753.65	754.6	55 1.00	0.73	31.90	0.26	0.31	2
	but also fragmental in places. Total sulphide content is about 10 - 25% in a stockwork of veins,	9795	754.65	755.6	55 1.00	0.88	38.30	0.22	0.32	1
	ranging from hairline cracks to 10 cm thick veins. Gangue in veins is typically sugary grey to	9796	755.65	756.6	5 1.00	1.36	62.40	0.20	0.43	0
	white barite and quartz. Sulphides also occur as patches and clots (fragments?) and disseminated.	9797	756.65	757.9	2 1.27	0.76	29.10	0.22	0.31	1
	Foliation is defined by siliceous and sulphide layers and trends sub-parallel to core axis, and is									
	wavy or folded. Coarse galena, chalcopyrite and sphalerite occur in some of the veins, but									
	sulphides are typically fine-grained. Lower contact is gradational over 20 cm, taken where base									
	metal sulphides fade out, although pyrite is still 10-20% and textures don't change much.									
.92 780.75	Stockwork: Silica; Stringer Pyrite									
	This is a homogeneous, pale grey, massive silicified and stockworked section. Protolith is thought	9798	757.92	759.5	50 1.58	0.13	0.00	0.00	0.00	(
	to be rhyolite - probable flow suggested by massive appearance and possible remnant quartz	9799	759.50	761.0	0 1.50	0.12	0.00	0.00	0.00	
	phenocrysts. Stockwork is comprised of a network of quartz + pyrite +/- sphalerite stringers from	9800	761.00	762.5	50 1.50	80.0	0.00	0.00	0.00	
	hairline to 2 cm which make up about 1-5% of the section. These cut a strongly silicified, massive	10551	762.50	764.0	0 1.50	0.09	0.00	0.00	0.00	
	pale grey rock with a faguely spotted appearance (1-2mm, 1-2%) suggesting a possibly porphyritic	10553	764.00	765.5	50 1.50	0.13	0.00	0.00	0.00	
	protolith. Difficult to say for sure against siliceous background, but spots appear to be quartz	10554	765.50	767.0	0 1.50	0.56	0.00	0.00	0.00	
	eyes. Lower contact is taken at a basalt dyke, but is a gradational alteration contact, into the	10555	767.00	768.5	50 1.50	0.17	0.00	0.00	0.00	
	section below the dyke, marked by a darkening of colour to medium grey, a decrease in pervasive	10556	768.50		0 1.50	0.11	0.00	0.00	0.00	
	silicification and quartz stringers and the appearance of magnetite. Note that although alteration	10557	770.00	771.5	0 1.50	0.06	0.00	0.00	0.00	
	is the same as STWK noted in other holes, the protolith here appears to be rhyolite, rather than	10558	771.50	773.0	0 1.50	0.10	0.00	0.00	0.00	
	andesite.	10559	773.00	774.5	50 1.50	0.07	0.00	0.00	0.00	- 1
	775.80 776.85 Basalt Dyke: Chlorite; Magnetite; Fine-grained, dark green basalt dyke. Upper	10560	774.50	775.8	30 1.30	0.06	0.00	0.00	0.00	
	contact sharp at 70 degrees joint, lower contact sharp irregular.	10561	775.80	776.8	35 1.05	0.03	0.00	0.00	0.00	(
	776.85 778.20 Rhyolite Flow: Magnetite; Quartz Eyes; Medium grey to dark grey magnetic massive	10562	776.85	778.2	20 1.35	0.03	0.00	0.00	0.00	(
	rhyolite flow. Faint quartz phenocrysts are noted. This is the same protolith as	10563	778.20	779.7	70 1.50	0.05	0.00	0.00	0.00	
	main interval, defined by less alteration. Lower contact is sharp alteration contact	10564	779.70		75 1.05	0.06	0.00	0.00	0.00	(
	defined by colour shift to light grey, increase in vein density, increase in pyrite,									



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Interval (m)	Description	Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From To		No.	(m)	(m)	(m)	g/t	g/t	%	%	%

decrease in magnetite and an increase in pervasive silicification.

780.75 782.82 Basalt Dyke: Chlorite; Magnetite

Fine-grained, dark green basalt dyke. Contacts sharp, upper at 50 degrees, lower at 40 degrees.

782.82 815.75 Rhyolite Flow: Magnetite; Stringer Pyrite

A remarkably homogeneous section of dark grey, massive rhyolite interpreted as a flow due to its massive, homogeneous nature plus the presence of suspected quartz phenocrysts and rare feldspar phenocrysts. Section is moderately to strongly magnetic due to very finely disseminated magnetite throughout. Disseminated and stringer pyrite is also present, at about 1-5% and trace chalcopyrite occurs in the pyrite stringers (eg. at 802 meters). Groundmass has a fine-grained, grainy appearance including 1mm spots which are believed to be quartz phenocrysts. Rarely, these are hexagonal.

815.75 822.30 Basalt Intrusive: Chlorite

Massive, homogeneous, medium grained mafic intrusive. Black, anhedral amphobole (?) phenocrysts are about 5%, 1-3mm. Only very slightly and sporadically magnetic. Cut by a few quartz-garnet-chlorite veins with epidote envelopes. Lower contact sharp and planar at a joint dipping 50 degrees.

822.30 831.00 Rhyolite Flow: Magnetite; Disseminated Pyrite

Continuation of interval above the BIN. colour here is a bit paler grey and pyrite is less abundant (<1%) and disseminated, rather than in stringers. Lower 2 meters takes on a poorly-defined fragmental or brecciated appearance - probable flow breccia as it is an auto breccia. Weak foliation throughout at about 40 degrees. Lower contact is quite sharp, but very irregular.

828.75 828.85 Fault: Quartz; Calcite; Chlorite; Single slip plane dips 20 degrees TCA.

831.00 836.75 Basalt Intrusive: Chlorite

Dark green, massive, homogeneous medium-grained mafic intrusive - same as last BIN interval, although slightly more magnetic here. Lower contact at a slip plane dipping about 30 degrees, with strike-slip slickensides and a 1 cm quartz - chlorite vein parallel to it.



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Interval (m) Description Sample From То Interval Cu Pb Zn From То No. (m) (m) (m) g/t %

831.20 831.40 Fault: Single slip plane dips 10 degrees TCA.

831.90 832.30 Breccia: Sphalerite; Galena; Barite; Very unusual quartz-chlorite rich brecciated section with an irregularly shaped 1-10cm massive baritic sulphide vein in the middle. Wallrock either side of vein is swirled vein quartz in a silicified, dark green chloritic matrix. Vein has distinctive beige sphalerite colouring, and is more of a breccia vein with tiny (<2mm) chunks of clear grey quartz and dark green chlorite in a very fine-grained sphalerite- galena-barite matrix. Vein has sharp contacts and a very irregular shape, dipping roughly 50 degrees.

836.75 848.63 Rhyolite Undifferentiated: Magnetite; Jasper

Charcoal grey to almost black rhyolite - probably tuffaceous as note spradic dark red jasper fragments up to 1 cm. Also has a granular texture, although it is quite massive and homogeneous. Section is quite strongly magnetic. Lower contact is very sharp and very irregular - probably intrusive.

848.63 864.72 Basalt Intrusive: Magnetite; Chlorite

Dark green to black, fine-grained, massive basalt. Uncertain if flow or intrusive, upper contact suggests the latter, but it could be just a dyke. This is an almost featureless section. Quite strongly magnetic.

851.20 851.75 Rhyolite Undifferentiated: Cordierite; Magnetite; Same lithology as rhyolite above.

A few cordierite spots, weakly magnetic. Sharp, extremely irregular contacts suggest this is a xenolith.

854.96 855.90 Broken Core: Badly broken core, no gouge or slips noted.

864.72 864.72 End of Hole:



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Assays

Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %	SG	Cu ppm	Pb ppm	Zn ppm	Au ppb	Ag ppm	As ppm	AI %	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm
10551	762.50	764.00	1.50	0.09	0.00	0.00	0.00	0.00	0.00	15	128	352	0	3.7	110	0.48	50	5	0.22	1	1
10553	764.00	765.50	1.50	0.13	0.00	0.00	0.00	0.00	0.00	26	188	321	0	3.3	140	0.42	30	5	0.19	1	2
10554	765.50	767.00	1.50	0.56	0.00	0.00	0.00	0.00	0.00	256	1604	2957	0	9.7	125	0.31	20	5	0.26	9	2
10555	767.00	768.50	1.50	0.17	0.00	0.00	0.00	0.00	0.00	317	306	8555	0	5.7	90	0.28	25	5	0.34	36	2
10556	768.50	770.00	1.50	0.11	0.00	0.00	0.00	0.00	0.00	129	88	4680	0	2.7	165	0.87	30	5	0.71	19	14
10557	770.00	771.50	1.50	0.06	0.00	0.00	0.00	0.00	0.00	67	46	1900	0	1.3	115	0.31	20	5	0.17	6	3
10558	771.50	773.00	1.50	0.10	0.00	0.00	0.00	0.00	0.00	447	52	5376	0	2.6	105	0.26	20	5	0.26	23	4
10559	773.00	774.50	1.50	0.07	0.00	0.00	0.00	0.00	0.00	433	60	6310	0	3.2	100	0.27	20	5	0.29	28	4
10560	774.50	775.80	1.30	0.06	0.00	0.00	0.00	0.00	0.00	333	78	5028	0	3.1	50	0.38	40	5	0.22	22	3
10561	775.80	776.85	1.05	0.03	0.00	0.00	0.00	0.00	0.00	98	34	96	0	0.5	25	3.83	120	5	2.57	1	20
10562	776.85	778.20	1.35	0.03	0.00	0.00	0.00	0.00	0.00	15	36	265	0	0.4	15	1.03	65	5	0.36	1	5
10563	778.20	779.70	1.50	0.05	0.00	0.00	0.00	0.00	0.00	781	106	488	0	3.6	475	0.51	20	5	0.21	1	3
10564	779.70	780.75	1.05	0.06	0.00	0.00	0.00	0.00	0.00	696	76	146	0	3.8	30	0.56	50	5	0.35	1	4
9787	746.10	747.10	1.00	0.03	0.00	0.00	0.00	0.00	0.00	150	550	561	0	1.8	15	2.91	180	5	1.14	1	6
9788	747.10	748.30	1.20	1.15	60.30	0.26	0.87	2.05	2.73	2559	8774	10000	0	30.0	35	0.95	30	5	0.38	91	10
9789	748.30	748.88	0.58	0.52	8.20	0.01	0.02	0.05	2.60	57	194	511	0	8.2	15	2.47	510	5	1.05	1	6
9790	751.65	752.65	1.00	0.04	1.00	0.01	0.02	0.04	2.60	126	150	364	0	1.0	5	0.42	365	5	0.30	1	1
9792	752.65	753.65	1.00	1.40	52.60	0.28	0.85	4.67	2.96	2767	8574	10000	0	30.0	65	0.57	45	5	0.45	210	5
9793	753.65	754.65	1.00	0.73	31.90	0.26	0.31	2.08	2.84	2438	2888	10000	0	30.0	255	0.36	10	5	0.19	84	5
9795	754.65	755.65	1.00	0.88	38.30	0.22	0.32	1.64	2.76	2056	3414	10000	0	30.0	520	0.44	15	5	0.25	81	5
9796	755.65	756.65	1.00	1.36	62.40	0.20	0.43	0.86	2.67	1828	4286	8536	0	30.0	745	0.33	15	5	0.19	32	6
9797	756.65	757.92	1.27	0.76	29.10	0.22	0.31	1.51	2.83	2005	3368	10000	0	28.8	690	0.38	25	5	0.29	61	7
9798	757.92	759.50	1.58	0.13	0.00	0.00	0.00	0.00	0.00	106	126	156	0	2.8	210	0.35	15	5	0.32	1	6
9799	759.50	761.00	1.50	0.12	0.00	0.00	0.00	0.00	0.00	39	96	250	0	5.2	150	0.41	20	5	0.54	1	3
9800	761.00	762.50	1.50	80.0	0.00	0.00	0.00	0.00	0.00	124	72	419	0	7.9	75	0.49	40	5	0.17	1	2



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Assays ...continued

Sample No.	From (m)	To (m)	Interval (m)	Cr ppm	Fe %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Sb ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W ppm	Y ppm
10551	762.50	764.0	0 1.50	82	2.25	10	0.14	81	9	0.03	3	220	5	20	14	0.01	10	1	10	1
10553	764.00	765.5	0 1.50	85	3.07	10	0.13	93	11	0.01	3	240	5	20	15	0.01	10	1	10	1
10554	765.50	767.0	0 1.50	58	3.43	10	0.04	55	5	0.01	1	260	125	20	43	0.01	10	1	10	1
10555	767.00	768.5	0 1.50	68	2.85	10	0.01	68	1	0.01	1	240	50	20	42	0.01	10	1	10	1
10556	768.50	770.0	0 1.50	272	3.72	10	0.79	124	2	0.01	132	570	25	20	37	0.03	10	16	10	1
10557	770.00	771.5	0 1.50	77	3.47	10	0.03	44	2	0.01	2	270	5	20	18	0.01	10	, 1	10	1
10558	771.50	773.0	0 1.50	58	3.80	10	0.01	46	2	0.01	1	260	15	20	17	0.01	10	1	10	1
10559	773.00	774.5	0 1.50	76	4.59	10	0.01	70	3	0.01	1	260	15	20	21	0.01	10	1	10	1
10560	774.50	775.8	0 1.30	66	2.66	10	0.06	107	3	0.01	1	320	35	20	11	0.01	10	1	10	1
10561	775.80	776.8	5 1.05	143	3.71	10	1.30	487	1	0.33	36	2680	5	20	271	0.18	10	117	10	3
10562	776.85	778.2	0 1.35	53	2.95	10	0.39	466	3	0.03	3	260	5	20	19	0.07	10	1	10	2
10563	778.20	779.7	0 1.50	84	2.70	10	0.12	121	78	0.02	3	180	50	20	27	0.01	10	1	10	1
10564	779.70	780.7	5 1.05	81	2.31	10	0.19	149	37	0.03	5	340	35	20	20	0.01	10	1	10	1
9787	746.10	747.1	0 1.00	35	2.62	10	1.25	373	1	0.09	1	230	15	20	129	0.12	10	1	10	1
9788	747.10	748.3	0 1.20	33	3.16	10	0.61	131	1	0.04	. 3	190	85	20	59	0.05	10	1	10	1
9789	748.30	748.8	8 0.58	146	2.28	10	1.19	290	2	0.18	40	470	15	20	206	0.08	10	2	10	1
9790	751.65	752.6	5 1.00	66	1.12	10	0.16	115	1	0.04	2	190	5	20	42	0.03	10	1	10	4
9792	752.65	753.6	5 1.00	71	6.29	10	0.31	126	1	0.01	1	40	50	20	78	0.02	10	1	10	1
9793	753.65	754.6	5 1.00	56	4.36	10	0.20	76	1	0.01	1	130	60	20	40	0.01	10	1	10	1
9795	754.65	755.6	5 1.00	84	3.48	10	0.23	99	1 .	0.01	1	210	125	20	62	0.01	10	1	10	1
9796	755.65	756.6	5 1.00	63	4.43	10	0.11	62	7	0.01	-1	180	235	20	32	0.01	10	1	10	1
9797	756.65	757.9	2 1.27	63	6.59	10	0.13	92	17	0.01	1	120	255	20	41	0.01	10	1	10	1
9798	757.92	759.5	0 1.58	30	4.92	10	0.14	70	16	0.01	4	210	5	20	14	0.01	10	2	10	1
9799	759.50	761.0	0 1.50	51	3.83	10	0.18	130	15	0.01	4	160	5	20	30	0.01	10	1	10	1
9800	761.00	762.5	0 1.50	82	2.35	10	0.15	90	9	0.03	1	200	20	20	11	0.01	10	.1 .	10	1



Hole-ID: TCU04124C

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Collar Coordinates

North (m): East (m)

15545.00 10596.00 Azimuth (degrees): Dip (degrees):

218.50 -81.00 Started: Completed:

13/10/2004 03/11/2004

Date Logged: Logged By:

21/10/2004

TS.

Elevation (m):

114.00

Length (m):

658.06

Report Printed:

17/12/2004

Down Hole Survey Tests

							DOWN	LITOIG	Juive	y i Colo							
Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip
0.00	218.50	-81.00															
60.00	215.54	-82.00															
120.00	215.96	-81.75															
180.00	216.23	-82.00															
240.00	216.79	-82.00															
300.00	216.19	-83.25															
360.00	208.56	-83.75															
390.00	194.74	-83.25															
393.00	178.81	-83.25															
395.00	178.95	-83.25															
411.00	152.40	-81.10															
440.00	158.90	-81.10															
490.43	108.20	-84.40															
520.91	97.60	-84.20															
557.48	95.40	-83.90															
583.39	101.80	-84.70															
606.25	108.30	-81.70															
636.73	109.70	-81.00															



Hole-ID: TCU04124C

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Interval (m)	Description			Sample	From	То	Interval	Au	Ag		Pb	Zn
From To				No.	(m)	(m)	(m)	g/t	g/t	%	%	%

382.18 442.89 Basalt Intrusive:

Dark green, fine grained, homogeneous basalt intrusive. Lower contact: Very indistinct, associated with a several mm wide magnetite-, epidote-, chlorite-?, quartz-?, barite-?, vein @ 30 deg to CA, that possibly represents the contact plane.

442.89 454.04 Volcanic Sediment:

Dark green grey - dark grey - dark brown grey sequence of volcaniclastic sediments. Lapilli bearing ash tuffs alternate with presumably reworked sediments, sandstones and mudstones. Foliation is variably well developed and cuts CA @ 25 - 30 deg. Foliated sections alternate with dense massive sections and sections with swirly - wavy, light green - green cream colored (chlorite, quartz, +/epidote) alteration textures (vein controlled, grading into pervasive alteration), that overprint primary textures. At 444.23 - 444.43 an approx 20 cm wide bed with variably shaped, up to several cm sized, pale cream colored, highly siliceous and mostly sub round - variably shaped fragments of presumably felsic (primary) composition enclosed by dark brown grey matrix. Matrix contains disseminated pyrite. The clasts/ and or fragments are aligned and slightly elongated to foliation, which is parallel to the bedding contact @ 35 deg to CA. Picture taken. Interval locally with up to 5 mm sized, sub - euhedral pyrite granoblasts. Interval is variably magnetic, from very weakly to strongly magnetic, patchy, sections. The composition of this interval can not be determined, but it appears, that there are at least few felsic clasts (mostly mm sized, rarely up to cm sized) enclosed by a dark colored, presumably mafic matrix. Picture taken. Lower contact: Indistinct. Location not exactly to determine (lower section is intensively veined and altered). Contact is possibly at 454.04 m, chosen with a color change from dark brown grey - green grey, possibly somewhat irregular and @ 40 deg to CA.

454.04 461.55 Basalt Flow:

Green grey, dense, massive, monotonous, fine grained, aphanitic, mafic rock, possibly a flow or an intrusive. Non - weakly magnetic, patchy, sections. Pyrite bearing chlorite-, +/- quartz veins @ variable angle to CA, from hairline up to approx cm width, with distinct, pale green alteration envelopes. Lower contact: Sharp, @ 45 deg to CA.

461.55 464.79 Volcanic Sediment:

Dark green grey - dark brown grey, fine - medium grained, non - moderately magnetic (patchy,



Hole-ID: TCU04124C

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Interval (m)

From

То

Description

Sample No.

From (m)

То Interval Au (m) (m)

g/t

Cu

Pb Zn %

sections) rock of unknown origin, possibly a (reworked) volcaniclastic. Within sections it appears to display a clastic texture, with light colored, mostly sub mm - 3 mm sized (rarely up to > 1 cm sized), sub round - sub angular clasts, which are enclosed by a fine grained, dark green grey dark brown grey matrix. Bedding is crude, indistinct (and mostly not detectable) @ approx 50 deg to CA. Interval appears to display weak grading over several dm. Interval may be identified as a lapilli bearing ash tuff. Lower contact: Marked by increasingly broken core, no plane.

464.79 474.21 Fault Zone:

Fracture zone: Approx 60 % of core pieces are smaller 10 cm, 40 % < 5 cm. Highly chloritic sections. No signs of fault gauge and slickensides. Frequently with only partially healed hairline cracks. Abundant fracture planes @ sub vertical angle to CA (coin pattern). Lithology: Presumably the majority of the interval comprises dark green grey - dark grey, fine grained mafic rock, with locally detectable amphibole phenocrysts (mostly subhedral - anhedral, up to 5 mm sized). Interval is predominatly weakly magnetic. Sedimentary textures can be detected within approx 0.5 m downwards from upper contact, indicating that the lithological contact between the overlying VSD and the underlying basalt is near the upper contact of this interval. Lower contact: Marked by decreasingly broken core, no plane.

474.21 Basalt Intrusive: 490.64

Dark green grey - dark grey, very fine grained - fine grained, locally feldspar phyric (subhedral feldspar phenocrysts are sub mm - mm sized), moderately - strongly magnetic (with an approx 3 m wide, non - weakly magnetic section near the lower contact), mafic rock, possibly a basalt flow or a basaltic intrusive. Locally very few, up to several mm sized pyrite specks. Near lower contact an approx 3 m wide zone with sections displaying a contact (presumably between BIN and VSD), orientated sub parallel to CA, indicating a bifurcating, fingering contact. Few, hairline up to several mm wide (rarely up to several cm wide) veins comprising propylitic mineral assembly and sometimes grading into sections with pervasive (epidotic) alteration. Lower contact: Sharp, distinct, irregular, @ steep angle to CA.

490.21 490.65 Basalt Dyke: Dark brown grey, fine grained, moderately magnetic, mafic intrusive, displaying euhedral pyrite granoblasts up to approx 5 mm size. Upper contact: Sharp, @ steep angle to CA. Lower contact: Sharp, +/- irregular, @ steep angle to CA.



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Interval (m)

From

Description

Sample No.

То From (m)

(m)

Interval (m)

g/t g/t Pb Zn %

Cu

490.64 494.15 Volcanic Sediment:

То

Olive green grey - dark brown grey - dark grey, locally pale green grey - cream colored, fine grained - (locally) coarse grained volcaniclastic, presumably of mafic - intermediate composition. The majority of this interval is comprised of mudstones (reminiscent to argillite: very fine grained, glassy luster on wet core surface, foliation based on color change, conchoidal fracturing) with sandy interbeds and cream mottled - foliated sections, which resemble lapilli bearing ash tuffs. At 490.77 - 491 m a freaky section with up to several mm sized (rarely approx cm sized), sub round - sub angular clasts with very variable appearance and both felsic and mafic composition (picture taken). Near lower contact 1 approx cm sized, irregular shaped, sub round jasper fragment and sub mm - several mm sized, elongated jasper specks, which are aligned to a crude foliation (bedding) @ approx 30 deg to CA. Also within this section up to several cm sized, pale cream colored, ghostly, highly siliceous, subangular - subround, +/- elongated (and aligned to foliation) fragments, similar to "444.23 - 444.43 m". The foliation appears to be variable and frequently irregular from 30 deg to CA (near lower contact) - 45 deg - steep angle to CA. The interval is variably magnetic (patchy, sections), magnetism partially alternating conformable with bedding. Mudstones locally displaying clouds of up to approx mm sized cordierite granoblasts. Lower contact: Sharp, @ 45 deg to CA, non conformable with foliation in lower section (possibly indicating, that the foliation is of secondary origin).

494.15 506.71 Rhyolite Lapilli Ash Tuff:

Cream light grey - maroon dark grey - brown grey - maroon grey rhyolite lapilli ash tuff, with minor but distinct, sub mm - several mm sized (partially elongated and aligned to foliation) jasper specks, which are scattered throughout and locally accumulate and/ or grade into a more or less faint hematite stain. Variably abundant lapilli (mostly up to several mm sized, in sections frequently up to cm size and rarely up to several cm sized) of felsic and mafic composition. The abundance of felsic fragments appears to be increasing downwards, with up to several cm sized, pink - cream - green grey, feldspar phyric (feldspar is chloritized and now appears as dark spots), sub round rhyolite lapilli. Overall non magnetic, with very few weakly - moderately magnetic patches and sections. Foliation varies from crude - distinct, @ 35 - 50 deg to CA. Lower contact: Sharp, conformable, @ 40 deg to CA.

495.80 496.25 Basalt Dyke: Dark grey, fine grained, dense, massive, weakly - moderately magnetic, mafic intrusive. Upper contact: Sharp, @ steep angle to CA. Lower contact: Sharp, @



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interval (m)

From

Description

То

Description

Sample From To Interval Au Ag Cu Pb Zn No. (m) (m) (m) g/t g/t % % %

40 dea to CA.

- 498.75 499.33 Basalt Dyke: Dark grey grey, fine grained, dense, massive, moderately magnetic mafic intrusive. Upper contact: Sharp, @ 70 deg to CA. Lower contact: Sharp, @ 65 deg to CA.
- 499.34 500.82 Rhyolite Crystal Lapilli Tuff: Dark brown grey dark green grey cream mottled, crystal bearing rhyolite ash tuff. Anhedral subhedral, sub mm approx 3 mm sized feldspar phenocrysts amount to approx 15 %. Few felsic, variably brecciated, pale cream colored, felsic fragments, which are aligned to foliation. Few jasper specks, partially elongated and approx mm sized. Interval is non magnetic. Crude foliation @ approx 45 deg to CA. Lower contact: Gradational decrease of feldspar crystals?/ fragments?/ clasts?, no plane.
- 499.92 500.08 Basalt Dyke: Dark grey, fine grained, dense, massive, weakly magnetic, mafic intrusive with an approx cm wide quartz vein, which is sub parallel to CA (not crosscutting contacts of dike). Upper contact: Sharp, @ approx 45 deg to CA. Lower contact: Sharp, @ approx 50 deg to CA.

506.71 526.74 Rhyolite Flow Breccia:

Interval is heterogeneous and displays a variety of textures, which are not commonly seen in other holes. It comprises a sequence of volcaniclastics, presumably debris flows, flow breccias and interbedded tuffs. Several sections up to > 1.5 m wide with a prominent foliation @ approx 25 - 40 deg to CA throughout (resembling a flow foliation) and with parallel adjusted, up to > 10 cm wide, cream colored sections (resembling massive beds), which are assumed to be flow foliated and brecclated rhyolite fragments in a dark brown grey - maroon grey matrix. Smaller, smeared and aligned fragments can be noted nearby. Interbedded within these sections are dark green grey - cream mottled (small scale) rocks, resembling ash tuffs, with sub mm - mm sized jasper specks and up to approx 2 mm sized feldspar phenocrysts?, crystal fragments? and very few, usually < 1 cm, rarely up to several cm sized, subround - subangular, felsic fragments?, lapilli?. Few fragments up to > 20 cm can be recognized within these sections and suggest matrix rich sections of flow breccias or debris flows rather than tuffs. At 522.5 m an approx 6 cm sized, dark red (K-feldspar?, hematite?) fragment with approx 3 - 4 mm sized dark spots can be noted, which is different from rhyolite seen in other holes (picture taken). From 423 - 423.5 a pale green, altered, bleached (alteration controlled by a quartz-, epidote vein @ 25 deg to CA) section, which displays similar,



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Interval (m)
From To

Description

Sample From To Interval Au Ag Cu Pb Zn No. (m) (m) (m) g/t g/t % % %

red colored, up to several cm sized, irregular shaped fragments, which are partially elongated and aligned to foliation @ 25 deg to CA. From 510.6 - 511 a beige - maroon, massive mud bed, possibly indicating the top of a debris flow or other volcaniclastic event (not accurately to determine, because of dike swarming). Interval also comprises typical debris flow sections with few, well defined and mostly not well defined (blurry contacts), brecciated, cream colored rhyolite fragments. Interval is (mostly) non - weakly magnetic. From 517.8 - 518.3 m a chlorite and epidote bearing breccia vein, up to several cm wide @ shallow angle to CA, with up to several cm sized, sub round, white quartz fragments, which float in the light green vein mineralization. Lower contact: Sharp, conformable, @ 40 deg to CA.

- 510.15 510.40 Basalt Dyke: Dark brown grey dark grey, fine grained, dense, massive, weakly magnetic, mafic intrusive. Upper contact: Sharp, @ 20 deg to CA, associated with a 2 mm wide, white, carbonate bearing vein. Lower contact: From 510.29 510.35 sub parallel to CA, then lost in broken core.
- 511.01 511.26 Basalt Dyke: Dark brown grey dark green grey, fine grained, dense, massive, non-weakly magnetic, mafic intrusive. Upper contact: Sharp, @ 40 deg to CA. Lower contact: Sharp, @ 40 deg to CA, underlain by an approx 10 cm wide tectonic breccia vein, with up to 2 cm sized, sub rounded, beige light green white, highly siliceous fragments in highly chloritic, dark green, fine grained vein mineralization.
- 515.30 516.38 Basalt Dyke: Dark brown grey dark grey, fine grained, dense, massive, moderately strongly magnetic, mafic intrusive, with 2 > 10 cm sized inclusions of host rock, indicating bifurcating, irregular and/ or fingering contact or xenoliths. Interval displays up to > 1 cm wide veins with propylitic mineral assembly, @ variable angle to CA. Upper contact: Sharp, @ 30 deg to CA. Lower contact: Sharp, @ 40 deg to CA.
- 516.59 517.27 Basalt Dyke: Dark green grey green grey, fine grained, dense, massive, non-weakly magnetic, mafic intrusive. Upper contact: Sharp, @ steep angle to CA. Lower contact: Sharp, @ 25 deg to CA, underlain by an approx 40 cm wide, intensively chloritic altered and tectonically brecciated section, grading into a chlorite epidote veined section, which is described above.
- 519.70 521.48 Basalt Dyke: Dark green grey green grey, fine grained, dense, massive, non very weakly magnetic mafic intrusive. Upper contact: Sharp, @ 25 deg to CA. Lower contact: Sharp, from 521.09 521.48 sub parallel to CA.



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Interval (m)	Description				Sample	From	To	Interval	Au	Ag	Cu	Pb	Zn
From To				•	No.	(m)	(m)	(m)	g/t	g/t	%	%	%

526.74 529.46 Rhyolite Lapilli Ash Tuff:

Dark brown grey - dark grey rhyolite lapilli ash tuff. An approx 40 cm wide crystal bearing section, which overlies the lower contact displays up to 3 mm sized, sub - anhedral feldspar crystal fragments and/ or felsic lapilli, which are aligned to a crude foliation @ approx 40 deg to CA. The central part is relatively dense and massive with very few, up to several mm sized felsic lapilli and very few jasper specks. The section from the upper contact to approx 527.70 displays irregular, swirly, wispy - patchy, sub mm up to several cm sized, flamed appearing jasper specks, which are more or less aligned to and establishing a foliation @ 35 - 40 deg to CA, embedded in a dark green grey - dark brown grey matrix. This section is very weakly magnetic, the rest of this interval is non magnetic. Picture taken. Lower contact: Sharp, @ 40 deg to CA.

529.46 541.72 Basalt Intrusive:

Dark green grey - dark brown grey - dark grey, fine grained, dense, massive, non - weakly magnetic, in sections amphibole phyric mafic intrusive. Few veins with propylitic mineral assembly. Lower contact: Sharp, no plane.

The magnetic fault. Sections as described at "529.46 - 541.72 m" alternate with sections of very intensively shattered basaltic rock: 541.72 - 541.90 m (material is still in place), 542.03 - 542.28 (silty, sandy, gravely, slightly magnetic fault gauge, material is not in place) and 542.40 - 542.55 m (material is still in place). Much of the material is still in place and gains volume, when exposed to air and water and no longer exposed to the extra load of the overlying units. When picked up it crumbles to sand and fine gravel sized fragments. The sand (fault gauge) is dark grey and moderately magnetic. No visible signs of alteration associated with faulting. Lower contact: Abrupt change to non faulted rock, no plane.

542.57 574.65 Basalt Intrusive:

Same as described at "529.46 - 541.72 m". Lower contact: Sharp, @ 15 deg to CA.

574.65 581.96 Basalt Flow:

Basalt flows, dark green grey - dark grey, fine grained, non-moderately magnetic (patchy,



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Pb

% %

Cu

Page: 8

Ζn

Interval (m) To

From

Description

Sample From То Interval No. (m) (m) (m) g/t g/t

sections) with typical swirly wayy, chloritic, magnetite bearing alteration zones, which are assumed to be flow tops and interbedded sediments: Highly chloritic section, partially with a contact (to BIN?) sub parallel to CA and locally a foliation (bedding?) @ 15 deg to CA from upper contact to approx 576.32, where it ends with sharp contact @ 15 deg to CA. At 580.19 - 580.29 a 10 cm wide sedimentary interbed (green grey - cream - mauve grey) with sharp, steep contact and a foliation @ steep angle to CA (picture taken). Lower contact: Sharp, somewhat irregular, @ steep angle to CA.

581.96 601.67 Rhyolite Flow Breccia:

Olive green grey - beige grey - cream - grey - dark grey rhyolite flow breccia with a dirty mottled appearance. Variably distinct (usually with irregular contacts and irregular shaped) - ghostly appearing (blurry contacts, sometimes only a gradual color change) more or less intensively flow brecciated (very rarely sub rounded, well defined and not brecciated), usually up to 8 cm sized, possibly sometimes > 10 cm sized, pale green grey - cream grey, partially chloritic altered, felsic fragments. Near the upper contact a section with abundant (approx 8 %) 0.5 - 1 cm sized fragments. Interval is weakly magnetic within 3 m of upper contact; the underlying part of the interval is non magnetic. The matrix is generally darker colored than the fragments, variably ashy, dense - glassy or feldspar phyric (sections). Feldspar phyric sections with anhedral - subhedral, sub mm - 3 mm sized, locally to 15 % amounting feldspar phenocrysts. Particularly near upper contact olive green grey - beige grey, sericite and leucoxene bearing patches. +/- Quartz-, chlorite-, epidote veining, mostly hairline width, rarely up to approx cm width @ variable angle to CA, conspicuously @ steep angle to CA. Lower contact: Sharp, distinct, @ 45 deg to CA.

585.74 589.75 Rhyolite Lapilli Ash Tuff: Green grey - grey, cream mottled rhyolite lapilli ash tuff. Upper half of the interval with dark brown grey - dark green grey, feldspar phyric (anhedral - subhedral, sub mm - 2 mm sized feldspar phenocrysts amount to approx 12 %) matrix, enclosing up to 3 cm sized, cream colored, frequently irregular shaped, generally well defined, felsic fragments, which frequently have frayed margins (possibly indicating weak flow brecciation?). The lower section of the interval displays up to cm sized, rarely up to 2 cm sized, well defined, cream colored lapilli (amounting to approx 10 %), which are embedded in a green grey beige grey, sericitic, leucoxene bearing matrix. Locally a crude foliation @ 40 - 50 deg to CA can be noted. Upper and lower section are separated by a sharp contact @ 50



Hole-ID: TCU04124C

Pb

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Zn

%

Interval (m)

To

From

Description

Sample No. From (m)

To Interval (m) (m)

Au a/t Cu %

(m) (m) (m) g/t g/t

deg? to CA, which is associated with a sericitic, leucoxene bearing zone of several cm width on either side of the contact. Lower contact: (Intrusive contact), sharp, @ 15 deg to CA.

589.75 589.98 Basalt Dyke: Dark green grey - dark grey, fine grained, dense, massive, non magnetic, mafic intrusive with a 7 cm sized inclusion of host rock (xenolith). Lower contact: Sharp, @ approx 30 deg to CA.

594.25 598.00 Basalt Dyke: Dark green grey - dark grey, fine grained, dense, massive, aphanitic, non - weakly magnetic (patchy, sections) mafic intrusive. Upper contact: Sharp, @ 30 deg to CA. Lower contact: Sharp, @ 55 deg to CA.

601.67 614.87 Basalt Intrusive:

Dark green grey - dark grey, fine grained, dense, massive, aphanitic, non magnetic, mafic intrusive. At 606.05 m possibly an approx 6 cm sized, felsic (rhyolite?) xenolith or possibly quartz-, chlorite veining?. +/- Quartz-, chlorite, +/- magnetite veins, frequently highly irregular, patchy, partially arcuated, @ variable angle to CA. 1 carbonate bearing stringer, sub parallel to CA, presumably associated with a later tectonic event (crosscutting a.m. veins). From 612 m - lower contact a zone with approx up to cm wide chlorite-, carbonate-, +/- magnetite veins @ approx 10 deg to CA, associated with swirly - wavy textured, olive green grey - beige grey - green grey alteration/ bleaching halos. Lower contact: Very sharp, distinct, @ 20 deg to CA.

614.87 624.68 Rhyolite Ash Tuff:

Cream grey (mottled on a very small scale) - green grey, non magnetic rhyolite ash tuff. Locally very few cream grey lapilli can be detected. Very rarely lapilli up to several cm size and bombs (approx 7 cm sized) can be noted. The lapilli are pale cream colored, partially with approx mm sized, green spots, which are assumed to be chloritized feldspars. Generally the interval is dense, with a more or less faintly developed - locally distinct, very variable foliation @ approx 15 - 45 deg to CA, conspicuously @ 40 deg to CA. Few, up to dm wide, feldspar phyric sections (up to 3 mm sized anhedral, feldspar phenocrysts). Estimated abundance of ashsized clasts is approx > 85 %. Picture taken. Lower contact: Sharp, @ 20 deg to CA.

617.80 618.88 Basalt Dyke: Chlorite; Dark green grey, fine grained, dense, massive, aphanitic, non

- very weakly magnetic, mafic intrusive. Interval is chloritized, with swirly wavy
- patchy laminated, green brown white veins, partially grading into pervasive



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Interval (m) Description			Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From	То			No.	(m)	(m)	(m)	g/t	g/t	%	%	%

alteration textures. Vein mineralization: +/- quartz, chlorite, +/- magnetite. Upper contact: Sharp, @ 20 deg to CA. Lower contact: Sharp, irregular, @ approx 40 deg to CA.

624.68 630.90 Rhyolite Debris Flow:

Pale green grey, felsic (rhyolite) fragments, partially with approx 1 - 2 mm sized, green spots (chloritized feldspar phenocrysts) vary in size from < 1 cm to > 20 cm (1 fragment of approx 1 m size) and are embedded in a dark grey - grey, variably feldspar phyric and/ or ashy matrix. Locally with some indication of flow brecciation (frayed and/ or blurry margins and broken up fragments with rudimentary jig saw fit. The matrix is variably non - moderately magnetic. Estimated abundance of fragments approx 70 %. Lower contact: Sharp, @ 60 deg to CA.

630.90 632.95 Rhyolite Flow:

Light green grey - green cream, dirty appearing, dense, massive, glassy, locally weakly feldspar phyric rhyolite flow. Near lower contact a very faintly developed foliation @ 45 deg to CA. Dark green, chloritic specks (presumably chloritized feldspar) are scattered throughout. Few small quartz eyes can be noted. Lower contact: Sharp, somewhat irregular, @ approx 20 deg to CA.

632.95 634.25 Rhyolite Flow Breccia:

Pale green grey - cream green grey, felsic fragments, generally with not well defined, blurry contacts and/ or frayed margins, broken up and adjusted to a foliation @ 35 - 60 deg to CA. Size of fragments varying from mostly up to several cm to rarely > 10 cm or 20 cm. Fragments embedded in a dark brown grey, ashy - feldspar phyric, locally weakly magnetic matrix. Picture taken. Lower contact: Irregular, @ 60 deg to CA.

634.23 634.75 Rhyolite Flow Breccia: Mixing zone of mafic intrusive and overlying rhyolite, grading into rhyolite flow breccia, very similar to overlying interval. Upper contact: Sharp, @ steep angle to CA. Lower contact: Increasingly broken core, no plane. (The core pieces in the underlying fault zone display a sharp contact @ approx 50 deg to CA).

634.25 644.67 Basalt Dyke:

Dark green grey - dark brown grey, very fine grained, dense, massive, aphanitic, homogeneous,



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Interval (m)

То

From

Description

Sample No.

From (m)

То

Interval (m)

Pb Zn %

Cu

featureless, moderately magnetic (with weakly and strongly magnetic patches and sections) mafic intrusive. Partially zoned quartz-, chlorite-, +/- magnetite-, +/- pyrite- veins @ variable angle to CA (variable from 25 deg - sub vertical to CA), conspicuously @ approx 40 deg to CA. Width of veins varies from hairline up to approx 3 cm. Lower contact: Sharp, somewhat irregular, @ approx 20 deg to CA.

634.75 635.00 Fault Zone: Fracture zone, 100 % of core pieces < 10 cm and 100 % of core pieces < 5 cm. Chloritic, gravely sized core pieces. No fault gauge, no slickensides.

640.08 640.15 Fault Zone: Fracture zone, gravel sized core pieces.

644.67 651.91 Rhyolite Flow Breccia: Chlorite

Pale green grey - grey - cream grey - dark grey - brown grey, dirty mottled rhyolite flow breccia. Pale green grey - cream grey, felsic fragments of up to several cm size can be identified; possibly fragments of up to several dm size, mostly not well defined, partially ghostly, with blurry contacts and irregular, frayed margins. Fragments frequently display dark green, up to several mm sized spots (presumably chloritized feldspar). Fragments are enclosed in a variably dense, glassy feldspar phyric, maroon grey - grey - dark grey, non - weakly magnetic matrix. Interval is chloritic throughout and in sections nerved with a fine meshed (several cm scale) network of chlorite stringers and +/- quartz, +/- chlorite, +/- epidote, +/- magnetite, +/- pyrite veins, which are rarely > 3 mm wide and have variable orientation to CA (conspicuously @ 40 deg to CA). Picture taken. From 646.20 - 646.60 a contact, orientated sub parallel to CA, between rhyolite and mafic intrusive is displayed. Lower contact: Sharp, @ 30 deg to CA.

651.91

653.60 Fault Zone:

The magnetic fault: Light green grey - dark grey, silty, sandy, gravely, weakly magnetic fault gauge. Larger core pieces crumble to silt, sand and fine gravel sized fragments, when picked up. No visible signs of movement associated with the fault. I suspect that this crush zone is an actual alteration product. At the hanging wall contact you can note a partially alt'd piece of the core. Alt'n penatrates about 5 cm into the HW.

653.60

655.02 Basalt Flow: Epidote

Glassy basalt flow? 1 possible chl filled amygdule noted 5mm. V dark to pistachio green. Minor qtz veining. Contacts are pulverized.



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Interval (m)	Description			Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From To				No.	(m)	(m)	(m)	g/t	g/t	%	%	%

655.02 655.55 Crush Zone:

Sandy Crush Zone, increasing gravel with depth. Protolith appeats to be an ep alt'd mafic similar to above. Again, sand appears to be an alteration product, no sense of motion through the zone. Gravel is mechanically modified, minor qtz veining and ep alt'n in gravel.

655.55 655.80 Rhyolite Undifferentiated: Hematite; Chlorite

Solid core of rhyolite. Hem stained and chl veined. Possibly RDF or RLAT, too small to be certain. Interval is feldspar phyric with 1 small 2 cm "clast". Late x-cutting chl veining. Lower contact pulverized.

655.80 658.06 Crush Zone:

Sand zone as above. Hole lost at this point. 120 NQ rods left down the hole, part of an N bit and reaming shell in the above faults.

658.06 658.06 End of Hole:



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Collar Coordinates

North (m): East (m) 15374.00 10663.00 Azimuth (degrees): Dip (degrees): 112.00 -48.00

Depth Azimuth Dip

Started: Completed:

(m)

Depth Azimuth Dip

06/09/2004

Depth Azimuth Dip

Date Logged:

06/09/2004

Elevation (m):

114.00

(m)

Depth Azimuth Dip

Length (m): 325.83

10/09/2004

(m)

Logged By: Report Printed: BDA/ TS. 17/12/2004

Depth Azimuth Dip

(m)

Down Hole Survey Tests

Depth (m)	Azimutl	h Dip
0.00	112.00	-48.00
8.84	116.50	-48.40
31.70	120.20	-48.40
60.66	122.50	-48.20
91.41	118.10	-48.50
121.62	122.80	-48.80
152.10	121.80	-49.10
182.58	123.70	-49.30
216.11	124.80	-49.70
243.54	124.10	-49.70
276.76	121.80	-49.80
304.50	121.80	-49.70



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Interval ((m)	Description				Sample	From	To	Interval	Au	Ag	Cu	Pb	Zn
From	То					No.	(m)	(m)	(m)	g/t	g/t	%	%	%

0.00 1.52 Casing:

No Recovery, Hole started 6th September 2004.

1.52 7.40 Rhyolite Flow: Hematite; Chlorite; Silica

Light Mauve Rhyolite Flow with localised alteration increasing down section and dominating bottom 2m. Top consistent, few epidote magnetite veinlets, 1mm chlorite veinlets with 1mm dark green-black chlorite spots. Occasional 10-20cm areas 2-5% 1mm feldspars. Rare 1mm pyrite cubes with chlorite on fracture planes. 1cm 10deg quartz vein. Few light green mottled areas. Bottom is pervasively altered with 20cm dark green almost black chlorite alteration gradually increasing over 20cm with 5cm unaltered areas (pseudo fragments) in bottom 20cm till bleaching. Possible parallel 0.5mm faint tan leucoxene in moderate altered areas. Bottom contact at 35deg and a little blured with minor mixing of flow and lapilli tuff.

7.20 Bleached: Calcite Vein; Chlorite; Faint green/ faint mauve bleached area with 30deg
 1cm granular calcite vein with minor chlorite fracture infilling and minor tectonic
 breccia. Both contacts gradational over 5cm with increasing alteration.

7.40 23.47 Rhyolite Lapilli Tuff: Chlorite; Hematite

Dark green Rhyolite Lapilli Tuff with locally lighter areas and hematite alteration. Top is quite glassy siliceous with texture becoming more obvious down section. Mostly 1-2mm rounded siliceous lapilli in a green-mauve matrix, fabric at 40deg. 1-2cm sub-angular siliceous fragments and rare 5-10cm sub-rounded RFL fragments, some green chlorite altered and 1cm mauve sub-rounded. Locally variable alteration, top more hematite dominant with faint mauve alteration and few 1mm 40deg red-brown non-magnetic bands. Several 10-20cm siliceous dominant areas with local bleaching. Bottom more chlorite rich. 1mm sub-parallel calcite vein with adjacent fracturing of core. Non to weakly magnetic. Bottom contact is at end of bleaching with and frist obvious massive flow textures.

18.60 23.47 Bleached: Silica; Chlorite; Epidote; Heavily Silicified section obsquiring most lapilli tuff textures. Light green mottled with some 10cm lighter patches. Minor diffuse alteration of some 5cm fragments.

23.47 34.45 Feldspar-phyric Rhyolite Flow:

Light mauve gray feldspar phyric rhyolite flow, getting darker down section. Locally up to 5% 1mm



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Interval (m)
From To

Description

Sample No. From (m)

To (m)

Interval Au (m) g/t Ag

Cu

Pb Zn %

clear angular feldspars. Minor local 50cm bleaching with 0.5mm magnetite laths visible. Numerous 1mm epidote veinlets at 30-45deg with minor albite envelopes, generally in more dark mauve areas. Moderately magentic. Rare quartz veins. Bottom contact is sharp at 30deg into lapilli tuff.

24.50 30.46 Fault Zone: Minor fault zone with large blocky broken core, mostly 5-10cm. Few sub-parallel calcite fractures with minor hematite(pink) on fracture surfaces.

34.45 47.25 Rhyolite Lapilli Tuff: Chlorite

Green, dominately chlorite altered Rhyolite Lapilli Tuff with few well bedded sections at 40deg. 1-2mm mauve sub-angular felsic lapilli, variable at 1-5% in rich green chlorite altered matrix. Sub-rounded 0.5-2cm siliceous fragments, light green. Top is finer with large 10cm irregular siliceous fragments, and red brown hematite mottling chlorite matrix. Lapilli well developed in middle. Bottom is fine more faint mauve/green with large 5-15cm faint green sub-angular RFL fragments. Few 0.5-1cm chlorite veins with minor albite envelopes. Few 1-5mm pyrite cubes. Bottom contact sharp at 30deg into blocky basalt intrusive.

- 36.10 36.90 Basalt Dyke: Green homogenous fine/medium basalt dyke. Chlorite veins with magnetite. Large quartz veins. Slightly finer and faint mauve near top contact, sharp at 40deg. Bottom contact 50deg.
- 38.05 40.90 Basalt Dyke: Green homogenous basalt dyke. Irregular brecciated quartz veins with internal chlorite and pyrite in fracture veinlets, minor adjacent epidote. Top contact broken, bottom contact at ~45deg.
- 41.75 43.30 Basalt Dyke: Green basalt dyke with 20cm curving chlorite vein/bands like alteration. Few 2-3mm irregular biotite spots towards bottom. Top contact at 45deg, bottom 60deg - slightly irregular.

47.25 126.84 Basalt Intrusive: Chlorite

Green-grey massive Basalt Intrusive with several locally altered areas. Locally 2 mm anhedral amphiboles, increasing to 5 mm down section. These amphiboles are locally partially chloritized with white (albite?) margins. Mostly moderately magnetic. Down section becoming lighter green, slightly granular, faint brown. Few calcite veins 20 degrees to core axis. Chlorite +/- magnetite +/- epidote +/- carbonate +/- gypsum +/- albite (hairline to >2cm wide) veins, various angles to CA. More altered and siliceous down section, with several 50 cm to 2 m areas with chlorite alteration and 5 to 30 cm irregular white albite patches, with 3 m zone of angular, siliceous, dark



Hole-ID: TCU04125

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Interval (m)

To

From

Description

Sample No.

From (m)

То (m)

Interval Au (m) g/t

g/t

Pb Zn %

Cu

%

green to black chloritic fragments, surrounded by rich green convoluted, irregular, slight chlorite alteration. Lower contact marked by increasingly broken core, no preferred direction.

- 47.25 51.00 Fault Zone: Broken blocky core 3-5cm with few 5-10deg. fracture surfaces with fine rich green chlorite slickenslides at 30deg.
- 63.55 64.55 Fault Zone: Silica; Chlorite; Calcite; Recemented calcite/chlorite gouge zone, with 10deg. 1mm calcite vein with adjacent parallel alteration of granular gouge, 1cm rich green chlorite, 0.5cm weak epidote in pale green siliceous mild chlorite alteration to edge of gouge. Granular sub parallel chlorite with minor albite and calcite veinlets extend 50cm past recemented gouge to bottom of alteration section. Light green 2-3mm chlorite mottling alteration extending 2m past bottom into dark green matrix.
- 70.60 71.10 Fault Zone: Bleached; 0.5cm calcite vein at 10deg, with adjacent bleaching and recemented gouge white/faint brown mottled green. Bottom contact at 20deg. Chlorite, calcite (+/- gypsum) slicks 25 degrees to core axis.
- 77.83 78.65 Basalt Intrusive: Bleached; Chlorite; Bleached zone with quartz, chlorite albite (?). Magnetic depletion, but strong magnetic at either end of alteration zone.
- 81.30 81.99 Basalt Intrusive: Chlorite; Abundant chlorite veins (crackle breccia). Ends in 2 cm wide chlorite 'vein', 50 degrees to core angle.
- 92.17 98.37 Basalt Intrusive: Sericite; Bleached; Zone of pervasive and differential chlorite. +/- sericite, +/- albite, +/- quartz alteration, resulting in swirly, wavy, irregular textures and locally a pseudo fragmental texture. Whether these textures highlight primary textures (auto brecciation) or secondary textures (tectonic brecciation) is not set apart definitely (but the latter is assumed). Magnetism is decreasing to non-magnetic - very weakly magnetic (versus weakly - moderately magnetic throughout the rest of the interval). Magnetism is weakest within alteration zone. Zoned quartz chlorite veins (locally sandwiching pseudo fragments), from hairline up to > 1 cm width (true width of veins often difficult to detect, because of alteration, bleaching halos), cutting CA @ various angles, predominantly @ 20 - 50 deg to CA. It is assumed, that the alteration and bleaching has spread out from these veins and veinlets.
- 104.15 109.17 Basalt Intrusive: Sericite; Bleached; Same as described at " 92.17 98.37 m"



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interval (m)	Description			Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From To				No.	(m)	(m)	(m)	g/t	g/t	%	%	%

126.84 140.38 Fault Zone:

Fault zone. Broken core: Approx 95 % of core broken into pieces < 10 cm, approx 85 % of material < than 5 cm. Locally clayey, ductile, predominantly silty, sandy, gravely, chlorite bearing and carbonate bearing fault gauge. The few larger core pieces with slickensides and a chaotic appearing network of of carbonate bearing veinlets. Fracture planes with quartz, carbonate and hematite coating, displaying slickensides. Slip planes @ 45 deg to CA. Within 80 cm of lower contact sub section displaying tectonic brecciation: < 1 mm - approx 2 cm sized, azuritic?, bleached, matrix supported, rounded fragments, enclosed by a very fine grained chlorite-, sericite- and fuchsite bearing matrix. Lithology: BIN as described at 47.25 - 126.84 m. Lower contact: Marked by decreasingly broken core: No plane.

140.38 163.73 Basalt Intrusive:

BIN as described at "47.25 - 126.84" m. Lower contact: Broken core. Core pieces display contact to be sharp and orientated sub parallel to CA.

157.06 163.73 Fault Zone: Dense fracturing @ 53 deg to CA. Broken core: Approx 60 % of core broken into pieces < 10 cm, approx 10 % of material < than 2 cm. Fracture planes typically coated with chlorite and hematite. Very faint signs of displacement. Calcite stringer < 1 mm, spacing locally < 5 mm, orientated sub parallel to fractures, resulting in a shattered appearance.

163.73 177.14 Quartz-Feldspar Porphyry Dyke:

Medium grey, fine - medium grained quartz feldspar porphyry dike with subhedral - anhedral, < 1 mm - approx 8 mm sized feldspar phenocrysts. Phenocrysts are slightly chloritized, partially with light colored albite? seams. Interval displays chilled margins, approx 20 cm wide displaying decreasing size of phenocrysts. Interval is moderately magnetic throughout. Very minor interstitial chalcopyrite and minor interstitial pyrite. Very few, approx 2 mm sized quartz eyes, displaying signs of devitrification?. Calcite, +/- chlorite stringers, approx 2 mm wide, most conspicuously @ 35 deg to CA. Fracture planes @ 25 - 40 deg to CA with minor euhedral pyrite- and chlorite mineralization. One calcite-, chlorite-, pyrite-, epidote vein @ 33 deg to CA, approx 1.5 cm wide and @ 33 deg to CA. Lower contact: Sharp, somewhat irregular @ 10 deg to CA.

177.14 263.11 Basalt Intrusive:



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Interval (m)

Τo

From

Description

Sample No. (m)

From Τo (m) Interval (m)

Aμ g/t g/t Pb Zn % %

Cu

Same unit as described at "47.25 - 126.84 m" and "140.38 - 163.73 m". Fine - medium grained, dark green grey - dark grey basaltic intrusive. Amphibole phyric sections alternating with dense, massive, featureless sections. Variably magnetic: Predominantly weakly magnetic with non magnetic and moderately magnetic patches and sections. Generally very featureless and monotonous, with few rare pyrrhotite granoblasts, up to 5 mm size. Few zoned veins (less than 1 vein per 1 m core), width of veins from hairline up to several cm, mostly < 1 cm and very rarely up to 7 cm. Vein mineralization with propylitic mineral assembly: quartz, chlorite, +/- epidote, +/- magnetite, +/carbonate, +/- pyrrhotite. Veins with various orientations to CA, ranging from sub vertical to sub parallel to CA, predominantly @ 20 deg and @ 40 - 60 deg to CA. Lower contact: Sharp, irregular, @ approx 55 deg to CA.

263.11

267.65 Rhyolite Debris Flow: Chlorite

Rhyolite debris flow, unsorted, with polylithic fragments, which are generally matrix supported. Green grey - grey, with pale beige - pale green, variably feldspar phyric (feldspar replaced with chlorite) fragments of rhyolitic composition, amounting to approx 40 % and dark green grey - dark grey, basaltic? fragments amounting to approx 3 %. Variably magnetic, from non magnetic moderately magnetic, with magnetism increasing within the darker colored matrix rich sections. Chloritic throughout. Fragments of rhyolitic composition generally rounded and frequently with blurry, non distinct contacts, ranging in size from < 2 mm - > 10 cm, partially with flow foliation. Fragments display locally (particularly near the upper contact) signs of flow? brecciation. Fragments of basaltic composition are overall smaller (up to 1.5 cm) and with clearly defined contacts, sub rounded, amounting to < 3 %. Few and small accessory jasper specks and/ or fragments, sub mm up to 3 mm sized; locally a cloudy, faintly developed hematite stain. Green grey - grey matrix, is predominantly fine grained, variably feldspar phyric, with few feldspars up to several mm size, amounting to < 5 % (difficult to estimate, because anhedral feldspars are difficult to set apart from small rhyolite fragments). Fracture planes are variably chlorite-, epidote- and pyrite coated. Very minor leucoxene indicating the presence of minor sericite? Lower contact: Sharp, @ 70 deg to CA.

265.52 265.64 Quartz-Feldspar Porphyry Dyke: Magnetite: Fine grained, grey - light grey. moderately - strongly magnetic quartz feldspar porphyry dike or basaltic intrusive? Few small (< 1 mm) anhedral feldspar phenocrysts. Chill margins. Upper contact: Sharp, @ 30 deg to CA. Lower contact: Sharp, @ 25 deg to CA.

10251 266.15 267.65 1.50 0.04 0.00 0.00 0.00 0.00



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Interval (m From	m) To	Description	Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %
267.65 26		Debris Flow: Pyrite; Sericite Pale green grey - pale beige grey - brown grey, very slightly mauve tinted QSP altered rhyolite debris flow. Section with a very crude, wavy, irregular foliation @ approx 45 deg to CA. Olive green, waxy, wavy and elongated sericite patches and sericite bands (up to several mm width) are aligned +/- parallel to the foliation, and amount to +/- 25 %. Sericite is associated with leucoxene. Generally primary fragments are very blurry and more or less entirely absorbed and/ or	10253	267.65	268.	70 1.05	0.70	35.00	0.40	0.45	1.98
		altered (lack of primary textures), with the exemption of a few, well defined, sub angular, up to 4 cm sized, massive sulfide fragments. Disseminated pyrite, locally dusty or accumulating to more or less not well defined clouds, lenses and specks. Non- to moderately magnetic, patchy: Magnetism is strongest in within the irregular shaped, and up to approx 2 cm sized magnetite-, chlorite-? specks, that are believed to be part of the rhyolitic matrix. This interval overall with a chaotic, mottled, blotchy appearance. Lower contact: Sharp, non conformable to a.m. foliation, @ 30 deg to CA.									
268.70 27		Rhyolite Debris Flow: Pale beige grey - green grey - grey - olive green rhyolite debris flow, with variably very faint - obvious fragmental textures. The dirty, mottled sub sections without clearly developed fragmental texture are interpreted to be flow brecciated sections. Locally olive green, up to approx 1 cm wide, waxy sericite bands or patches, associated with leucoxene and amounting to approx 10 %. Variably magnetic, from non- to moderately magnetic, patchy, and in sections. Magnetism is the strongest within grey, feldspar phyric, matrix rich sections, which display the least altered appearance. Minor disseminated pyrite, locally accumulating to specks within the matrix. Locally rhyolitic fragments (feldspar phyric, with feldspar chloritised and appearing as dark spots) can be recognized: Rounded, at least up to several cm size (possibly up to several dm size), with blurry, not well defined contacts. Overall this interval with a dirty, mottled appearance. Minor epidote along the contact between fragments and matrix. +/- epidote, +/- chlorite, +/- quartz veins and veinlets with diffuse margins, variable width and variable orientation to CA. 269.92 270.12 Basalt Dyke: Dark green grey - dark grey, fine - medium? grained basaltic intrusive? or a matrix rich section of the rhyolitic debris flow? Very dark colored, irregular shaped specks, up to several mm size (possibly magnetite?). Pyrite disseminated, dusty, cloudy and in specks. Moderately - strongly magnetic throughout. Upper	10254 10255	268.70 272.50		20 1.50 00 1.50		0.00			0.00



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0256 2	(m) 	(m) 275.1	(m)	g/t	g/t	%	%	%
		275.0						
		275.0						
		275.0						
0257 2	275.00		00 1.00	2.50	152.00	0.55	2.73	8.77
		276.	16 1.16	0.93	34.00	0.69	0.37	5.13
0258 2	276.16	277.0	66 1.50	0.16	6.00	0.05	0.03	0.29
0259 2	277.66	279.2	29 1.63	0.15	29.00	0.12	0.50	1.16
0260 2	279.29	280.	79 1.5U	0.67	50.00	0.23	0.27	1.13
0	259	259 277.66	259 277.66 279.	259 277.66 279.29 1.63	259 277.66 279.29 1.63 0.15	259 277.66 279.29 1.63 0.15 29.00	259 277.66 279.29 1.63 0.15 29.00 0.12	259 277.66 279.29 1.63 0.15 29.00 0.12 0.50



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Interva	ıl (m)	Description	Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From	То		No.	(m)	(m)	(m)	g/t	g/t	%	%	%
		quartz.									
80.79	285.70	Semi-Massive Sulphide: Bleached; Chlorite									
		Interval with primary textures more or less lacking in sections. Most of the interval is bleached,	10261	280.79	281.	79 1.00	0.23	20.00	0.48	0.86	2.
		chloritised and sericitized to pale white green, pale grey green, beige grey. Laminated and/ or	10262	281.79	282.	79 1.00	0.10	24.00	0.35	1.22	5.
		foliated and/ or banded sections alternating with mottled, blotchy, +/- fragmental sections, which	10263	282.79	283.	79 1.00	0.05	7.10	0.24	0.30	1.
		partially contain massive sulfide fragments. Within the foliated/ banded/ laminated sections dark	10264	283.79	284.	79 1.00	0.30	22.00	0.37	0.82	14.
		green, chlorite rich bands alternate with grey, sphalerite- and tetrahedrite rich bands and eyes	10265	284.79	285.	70 0.91	0.89	95.00	0.41	0.61	3.
		or elongated patches of primarily feldspar phyric rhyolitic fragments or rhyolitic matrix?									
		(phenocrysts of feldspar are chloritised and appear as dark spots). Width of individual layers up									
		to several mm. Foliation/ banding (in sections crude or lacking) @ 30 - 60 deg to CA. With the									
		exception of beds and layers with high sulfide content, the majority of this interval is very soft									
		as a result of the high chlorite- and sericite? content. Faults with highly chloritic, soapy,									
		partially ductile, clayey - sandy fault gauge and slickensides on fracture planes @ 30 - 60 deg to									
		CA at 283.60 m, 283.83 m, 284.40 m and 284.60 m, associated with particularly intense, chloritic									
		and sericitic? alteration and bleaching. The core within the proximity of the faults, i.e. within									
		the fault zone is locally very brittle, resembling a shistosity. The 1.15 m between the lowest of									
		the faults and the lower contact are less bleached and less brittle and can be identified as a QSP,									
		possibly derived from a RDF, with fragments of massive, sulfides sulfide specks and disseminated									
		dusty, cloudy sulfide mineralization: Pyrite, minor chalcopyrite and tetrahedrite (or galena?)									
		amount to approx 7 %. Lower cotact: Chosen with the incipient lack of sulfides, no plane. Picture									
		taken.									
		283.96 284.15 Zinc Facies Massive Sulphide: Massive sulfide, zinc facies, dense, massive,									
		homogenous, with a few barite clots < 1 cm. Tetrahedrite disseminated and associated									
		with sphalerite mineralization, locally developing grey, dirty clouds, stringers,									
		specks. Upper contact: Sharp, irregular, no plane. Lower contact: Sharp, irregular,									
		no plane.									
285.70	299.12	Rhyolite Undifferentiated:									
		Sequence of variably altered and bleached rhyolitic rocks, with sections devoid of primary textures	10266	285.70	287.	20 1.50	0.15	0.00	0.00	0.00	0.0
		and sections displaying various primary textures: Sedimentary textures and flow textures (more or	10268	287.20		70 1.50		0.00		0.00	0.0
		less fragmental and/ or brecciated). Lower contact: Very indistinct, possibly @ 40 deg to CA?.	10269	288.70		20 1.50				0.00	0.0



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Interval	(m)	Description	Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From	То		No.	(m)	(m)	(m)	g/t	g/t	%	%	%
		285.70 287.50 Rhyolite Lapilli Ash Tuff: Interval is primarily composed of dark grey - dark green	10271	290.20	291.7	0 1.50	0.03	0.00	0.00	0.00	0.00
		grey - dark brown grey rhyolite lapilli ash tuff. Lapilli are indistinct, usually	10272	291.70	293.2	0 1.50	0.03	0.00	0.00	0.00	0.00
		with blurry contacts, dark green grey - dark grey, predominantly 2 - 5 mm, rarely up	10273	293.20	294.7	0 1.50	0.03	0.00	0.00	0.00	0.00
		to approx 2 cm. Lapilli (and also some ash sized clasts) are slightly lighter colored	10274	294.70	296.2	0 1.50	0.03	0.00	0.00	0.00	0.00
		than the very dark grey - black matrix. Lapilli (fragment) supported. Moderately -	10275	296.20	297.7	0 1.50	0.03	0.00	0.00	0.00	0.00
		strongly magnetic, with magnetism fading out to very weak towards the lower contact.	10276	297.70	299.1	2 1.42	0.03	0.00	0.00	0.00	0.00

287.50 289.52 Rhyolite Debris Flow: Pale green grey - white rhyolite flow? rhyolite debris flow? (few lapilli sized fragments are noticeable). Non magnetic. Feldspar phyric sections (with subhedral feldspars usually < 2 mm). 2 -3 mm sized quartz eyes are scattered throughout. From 288.02 - 288.60 color change from pale green grey to white. Upper contact gradational over a few cm, lower contact sharp @ 40 deg to CA. Subsection with very few quartz eyes and dark grey fractures with an irregular to saw blade like interlocking penetration of the two sides, resembling a stylolite. Picture taken. The stylolites do not crosscut the contacts of this white subsection, possibly indicating, that this is a large fragment? Lower contact: Associated with a > 4 cm fragment. Based on color change to dark green grey, gradational, no plane.

change to pale green - white, @ 50 deg to CA.

Lower contact: Sharp?, very indistinct, but associated with a very prominent color

- 289.52 290.79 Rhyolite Flow Breccia: Dark green grey olive green grey dirty mottled rhyolite flow breccia? Few more or less absorbed fragments, up to several cm size, with blurry contacts, presumably with rhyolitic composition and olive green dark green grey color, can be recognized. Leucoxene specks within the rhyolitic fragments indicate the presence of sericite. No sorting. Weakly moderately magnetic throughout. The presumed matrix is dark green grey very dark grey, locally feldspar phyric?. Near lower contact a few sub mm sized jasper specks. Lower contact: Gradational over several cm, based on color change to pale green grey beige grey. No plane.
- 290.79 293.51 Rhyolite Flow Breccia: Bleached; Chlorite; Pale green grey white grey dark green rhyolite flow breccia? The unit appears to be heavily bleached and at least in sections chloritic altered. It appears, that the primary textures are more or less completely overprinted by alteration and bleaching. The interval is similar to the interval described at "287.50 289.52m". Few quartz eyes. Finely beige white and chlorite green mottled section with fractures resembling stylolites. Very few



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Pb

Cu

%

g/t

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Zn

%

Interval (m)

Description

From To

Sample From То Interval No. (m) (m) (m) g/t

fragments, up to several cm size can be noted, however the presence of fragments up to several dm can not be excluded (section with stylolites possibly a several dm sized fragment?). Overall this interval with a bleached, mottled, chaotic, dirty appearance. Lower contact associated with an approx 20 cm wide, zoned, laminated (lamination +/- parallel to contacts and aligned to the direction of shear), quartz-?, chlorite-, carbonate-, gypsum-?, albite-? vein, which bears pervasive fuchsite and sericite?. The vein is cut by a fracture plane, (+/- parallel to its contacts), with slickensides and minor chloritic fault gauge. Near its lower contact an approx cm wide breccia zone: Several mm sized fragments enclosed vein mineralization, Picture taken.

- 291.11 291.28 Basalt Dyke: Dark green grey dark grey, fine grained, basaltic intrusive? or a matrix rich section of the rhyolitic debris flow? Weakly- to moderately magnetic throughout. Upper contact: Sharp, @ 60 deg to CA. Lower contact: Sharp, somewhat irregular @ 70 deg to CA.
- 293.51 299.12 Rhyolite Flow Breccia: Chlorite; Dark grey green grey light green grey, variable feldspar phyric rhyolite flow breccia? Fragments of variable size are very faintly outlined and not definitely notable. The contacts between the assumed, dark grey, feldspar phyric matrix (feldspars subhedral and up to 2 mm sized) and the assumed fragments are blurry, resulting in a green grey - dark grey, mottled appearance. Variably magnetic: Non magnetic within olive green - dark green grey, assumed fragments and moderately magnetic within the (assumed) matrix rich patches and sections. Lower contact (which is the lower contact of the entire unit): Chosen with the incipient presence of sulfides and a crude foliation. Very indistinct, possibly @ 40 deg to CA?.

299.12 300.20 Semi-Massive Sulphide: Sericite; Pyrite

Semi massive sulfides, QSP altered. Olive green grey waxy - brown grey - beige grey, with dirty, banded, mottled appearance. Bands and/ or elongated patches, which are variably rich in pyrite, sphalerite, quartz and/ or silica, sericite (associated with leucoxene) and thin laminae of tetrahedrite, establish a crude, wavy foliation @ 50 deg to CA, with the width of individual layers varying from hairline to several cm. Estimates: Sphalerite: 18 %, tetrahedrite: 4 %, pyrite: 8 %, sericite: 25 %. Lower contact: Associated with an approx 20 cm wide massive sulfide layer, mostly

10277 299.12 300.20 1.08 1.38 40.00 0.51 0.98 3.42



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Interval (m) From To	Description	Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %
	comprising sphalerite, minor sericite and pyrite and accessory tetrahedrite, sharp and sub vertical to CA.				-	1				
00.20 305.37	Rhyolite Flow: Dark grey - brown grey, slightly mauve tinted, variably feldspar phyric, glassy appearing rhyolite flow. Moderately - strongly magnetic throughout. Feldspar phyric sections, with subhedral - anhedral feldspars, rarely up to 2 mm size. Moderately - strongly magnetic, with up to several mm sized black appearing magnetite clots and variable outlines. At 304.28 and 304.45 approx 1 - 2 cm wide, carbonate bearing quartz-, chlorite- veins, associated with slickensides @ various steep angles to CA. Epidote, quartz, chlorite veins, from hairline up to > 5 mm wide @ various angles to CA. Lower contact: Broken core, but believed to be sharp and +/- vertical to CA. Picture taken.	10278	300.20	301.7	0 1.50	0.03	0.00	0.00	0.00	0.0

305.37 325.83 Basalt Intrusive:

Dark green - dark brown grey, variably amphibole phyric (amphibole chloritized and appear as dark spots) and/ or feldspar phyric (feldspar somewhat larger than amphiboles with < 1mm up to 4 mm), dense, homogenous, mafic rock, possibly a basaltic intrusive. Overall the entire interval is moderately - strongly magnetic, with few, small, non- or weakly magnetic patches. Exception: The first m downwards from upper contact is non magnetic. This section differs also from the rest of the unit: It has a stronger green tint, with a slightly coarser grained matrix and lacks feldspars (chloritized amphibole phenocrysts are present). The contact to the lower part of the interval is camouflaged by drill bit scratches. However, it still may suggest, that this is a separate interval or the result of multiphase intrusions. Few light colored, beige, sub rounded - irregular shaped, up to several cm sized inclusions of rhyolitic? composition (xenoliths?). Few (less than 1 per 1 m core), zoned chlorite-, +/- albite-, +/- magnetite, +/- epidote veins, up to > 4 cm width, partially associated with swirly, wavy, irregular textures @ various directions to CA. Very few, approx up to 5 mm sized textures, that could be interpreted as amygdules (with chlorite and albite? mineralization), and possibly indicate a basalt flow?



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Assays

Sample No.	From (m)	To (m)	interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %	SG	Cu ppm	Pb ppm	Zn ppm	Au ppb	Ag ppm	As ppm	Al %	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm
10251	266.15	267.65	1.50	0.04	0.00	0.00	0.00	0.00	0.00	96	74	501	0	0.2	10	1.57	175	5	0.90	1	5
10253	267.65	268.70	1.05	0.70	35.00	0.40	0.45	1.98	2.67	4073	4970	10000	0	30.0	255	0.97	30	5	0.84	90	8
10254	268.70	270.20	1.50	0.09	0.00	0.00	0.00	0.00	0.00	695	170	188	0	3.4	25	1.55	325	5	0.94	1	6
10255	272.50	274.00	1.50	0.30	0.00	0.00	0.00	0.00	0.00	619	1338	3451	0	9.2	. 10	0.97	60	5	0.89	16	5
10256	274.00	275.00	1.00	2.50	152.00	0.55	2.73	8.77	2.99	5761	10000	10000	0	30.0	20	0.22	5	5	0.66	415	5
10257	275.00	276.16	1.16	0.93	34.00	0.69	0.37	5.13	2.66	7005	4018	10000	0	30.0	10	0.38	10	5	0.86	264	6
10258	276.16	277.66	1.50	0.16	6.00	0.05	0.03	0.29	2.60	467	286	2897	. 0	6.0	5	0.81	315	5	1.03	13	· 3
10259	277.66	279.29	1.63	0.15	29.00	0.12	0.50	1.16	2.56	1196	5067	10000	0	28.6	5	0.71	40	5	1.09	54	5
10260	279.29	280.79	1.50	0.67	50.00	0.23	0.27	1.13	2.54	2281	2894	10000	0	30.0	35	0.66	20	5	1.60	46	4
10261	280.79	281.79	1.00	0.23	20.00	0.48	0.86	2.88	2.51	4728	8558	10000	0	19.2	5	1.36	25	5	3.98	133	6
10262	281.79	282.79	1.00	0.10	24.00	0.35	1.22	5.37	2.58	3578	10000	10000	0	18.9	5	1.30	25	5	3.21	233	7
10263	282.79	283.79	1.00	0.05	7.10	0.24	0.30	1.32	2.63	2245	3114	10000	0	7.2	5	0.95	20	5	3.20	52	4
10264	283.79	284.79	1.00	0.30	22.00	0.37	0.82	14.50	2.79	3485	8474	10000	0	21.5	15	0.39	5	5	2.36	895	6
10265	284.79	285.70	0.91	0.89	95.00	0.41	0.61	3.26	2.74	4130	6212	10000	0	30.0	125	0.78	5	5	1.32	146	5
10266	285.70	287.20	1.50	0.15	0.00	0.00	0.00	0.00	0.00	267	230	1374	0	4.7	30	2.21	460	5	1.33	3	3
10268	287.20	288.70	1.50	0.03	0.00	0.00	0.00	0.00	0.00	69	30	411	0	0.2	. 5	0.59	870	5	2.22	1	1
10269	288.70	290.20	1.50	0.03	0.00	0.00	0.00	0.00	0.00	48	96	429	0	0.4	5	0.70	915	5	1.36	.1	1
10271	290.20	291.70	1.50	0.03	0.00	0.00	0.00	0.00	0.00	40	46	512	0	0.2	5	0.85	1050	5	1.76	1	1
10272	291.70	293.20	1.50	0.03	0.00	0.00	0.00	0.00	0.00	54	58	627	0	0.4	5	0.84	910	5	2.79	1	1
10273	293.20	294.70	1.50	0.03	0.00	0.00	0.00	0.00	0.00	24	84	300	0	0.2	5	1.25	1510	10	3.48	1	3
10274	294.70	296.20	1.50	0.03	0.00	0.00	0.00	0.00	0.00	39	78	268	0	0.4	5	0.83	1565	5	1.44	1	1
10275	296.20	297.70	1.50	0.03	0.00	0.00	0.00	0.00	0.00	49	100	364	0	0.5	10	1.26	1260	5	1.25	1	1
10276	297.70	299.12	1.42	0.03	0.00	0.00	0.00	0.00	0.00	252	194	671	0	1.4	5	1.35	145	5	1.02	2	4
10277	299.12	300.20	1.08	1.38	40.00	0.51	0.98	3.42	2.83	5180	10000	10000	0	30.0	25	0.76	15	5	1.07	159	10
10278	300.20	301.70	1.50	0.03	0.00	0.00	0.00	0.00	0.00	21	36	140	0	0.3	5	0.70	175	5	0.42	1	5



Hole-ID: TCU04125 Page: 13B

Assays ...continued

1																				
Sample No.	From (m)	To (m)	Interval (m)	Cr ppm	Fe %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Sb ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W ppm	Y ppm
0251	266.15	267.65	5 1.50	83	1.80	10	0.68	293	3	0.16	4	240	10	20	35	0.04	10	1	10	23
10253	267.65	268.70	1.05	76	2.75	10	0.31	174	1	0.06	1	150	1065	20	90	0.01	10	4	10	1
10254	268.70	270.20	1.50	116	1.59	10	0.48	174	1	0.18	28	450	60	20	132	0.03	10	10	10	21
10255	272.50	274.00	1.50	81	1.76	10	0.52	311	1	0.07	1	250	5	20	115	0.01	10	12	10	13
0256	274.00	275.00	1.00	65	3.25	10	0.07	98	1	0.01	1	10	145	20	51	0.01	10	2	10	1
0257	275.00	276.16	3 1.16	57	3.13	10	0.13	167	1	0.01	1	10	5	20	56	0.01	10	3	10	1
0258	276.16	277.66	3 1.50	112	1.28	10	0.29	352	1	0.08	2	200	5	20	46	0.02	10	1	10	20
0259	277.66	279.29	1.63	92	1.74	10	0.31	352	1	0.06	1	180	5	20	72	0.02	10	2	10	18
0260	279.29	280.79	1.50	86	1.69	10	0.22	314	1	0.03	1	160	170	20	147	0.01	10	4	10	12
0261	280.79	281.79	1.00	34	2.98	10	0.54	451	1	0.01	1	80	5	20	183	0.01	10	7	10	10
0262	281.79	282.79	1.00	29	2.90	10	0.45	343	1	0.01	1	60	5	20	125	0.01	10	9	10	1
0263	282.79	283.79	1.00	22	2.10	10	0.35	341	1	0.03	1	210	5	20	144	0.01	10	8	10	17
0264	283.79	284.79	1.00	41	2.75	10	0.22	352	1	0.01	1	10	5	20	121	0.01	10	6	10	1
0265	284.79	285.70	0.91	58	2.51	10	0.36	224	1	0.04	1	90	160	20	234	0.01	10	7	10	1
0266	285.70	287.20	1.50	77	2.46	10	0.67	391	1	0.21	. 2	230	10	20	176	0.03	10	5	10	9
0268	287.20	288.70	1.50	69	1.60	10	0.50	375	2	0.05	1	230	5	20	146	0.01	10	. 7	10	27
0269	288.70	290.20	1.50	71	1.35	10	0.31	240	3	0.04	2	240	5	20	99	0.01	10	5	10	19
0271	290.20	291.70	1.50	62	1.74	10	0.54	309	3	0.04	1	260	5	20	123	0.01	10	5	10	24
0272	291.70	293.20	1.50	39	1.87	10	0.76	372	1	0.03	1	240	5	20	162	0.01	10	. 7	10	26
0273	293.20	294.70	1.50	169	2.20	10	1.37	684	2	0.06	72	490	5	20	352	0.01	10	21	10	24
0274	294.70	296.20	1.50	78	1.32	10	0.39	288	3	0.03	3	250	5	20	184	0.01	10	10	10	23
0275	296.20	297.70	1.50	.72	1.75	10	0.64	414	1	0.09	1	330	10	20	214	0.02	10	17	10	31
0276	297.70	299.12	2 1.42	71	1.87	10	0.68	396	3	0.10	3	260	5	20	57	0.03	10	2	10	23
0277	299.12	300.20	1.08	53	5.92	10	0.60	236	12	0.01	1	10	65	20	103	0.01	10	8	10	1
0278	300.20	301.70	1.50	80	2.35	10	0.33	162	4	0.08	1	710	5	20	20	0.06	10	1	10	29



Hole-ID: TCU04126

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Collar Coordinates

North (m): East (m)

660.00 187.13 -66.00

15545.00 10596.00 Azimuth (degrees):
Dip (degrees):

179.60 -66.20 Started:

09/09/2004

(m)

Date Logged: Logged By: 09/09/2004

Elevation (m):

114.00

Dip (degrees): Length (m):

672.69

Completed:

Depth Azimuth Dip (m)

21/09/2004 Logged By: Report Printed:

Depth Azimuth Dip

MTV 17/12/2004

Depth Azimuth Dip

(m)

Down Hole Survey Tests

Depth Azim (m)	outh Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip
0.00 179.6	60 -66.20						
30.00 179.0	1 -66.00						
60.00 176.9	4 -66.00						
90.00 178.1	5 -67.00						
120.00 178.4	10 -66.50						
150.00 178.5	7 -67.00						
180.00 178.7	78 -67.00						
210.00 178.1	0 -67.25						
240.00 179.4	10 -67.00				÷		
270.00 179.6	66.75						
300.00 178.7	76 -66.75						
330.00 178.6	8 -67.00						
360.00 178.6	67.00						
390.00 178.6	66.50						
420.00 178.5	58 -66.00						
450.00 177.3	37 -66.00		,				
480.00 183.6	5 -67.50						
510.00 190.2	20 -66.00						
540.00 190.2	20 -66.50						
570,00 188.3	31 -66.25						
600.00 189.6	66.00 -66						
630.00 187.6	66.00° -6 6						



Hole-ID: TCU04126

Pb

Cu %

From

(m)

(m)

No.

Interval Au

(m)

Page: 2

Zn

%

Interval (m)		Description												
From	То													
0.00	1.52	Casing: No recovery												
1.52	6.63	Amygdaloidal Basalt: Chlorite; Epidote Dark grey-green fine grained basalt flow. Small, elongate, pale grey amygdules <2mm. Epidote rich swirls in fine grained, aphanitic flow bottom, which is a sharp contact at 53 degrees to the core axis. Few pale quartz-chlorite-epidote alteration zones, with quartz-chlorite-epidote-pyrite veins <2 cm at 22 degrees to core axis. Few magnetic zones.												
6.63	20.80	Basalt Ash Tuff: Basalt ash lapilli tuff. Layering at 40 degrees to core axis. Quartz-chlorite veins <3cm at 35 degrees to core axis. Very fine grained, grey to grey-green, laminated volcanic sedimentary beds (top 1.5 metres, grading into a fine ash to lapilli tuff, with angular fragments up to 4 mm down section. Quartz tension gashes <2mm, crosscutting bedding, 15 degrees to core axis (at 8.84 m depth). Moderate magnetic. 10.45 12.74 Fault Zone: Fracture zone. Chloritic, basalt ash-lapilli tuff, with very fine grained volcaniclastic beds, pale grey to tan, 35 degrees to core axis. Chloritic fractures various directions. Includes a 2 cm quartz-chlorite-pyrite vein 5 degrees to core axis.												
20.80	22.23	Fault Zone: Chlorite Fault zone. Shattered core, with abundant chlorite in fractures. Top 15 cm is a quartz-calcite-chlorite-pyrite vein (sheared) 15 degrees to core axis.												
22.23	24.50	Feldspar-phyric Basalt Flow: Chlorite Basalt flow (?) Very fine grained, dark green basalt, locally with pale green very small (<0.5 mm), euhedral to anhedral feldspar phenocrysts. Abundant chlorite in fractures, some with slickensides. At 24.47 m, becomes increasingly more bleached and siliceous down section.												
24.50	34.72	Volcanic Sediment: Very fine grained volcaniclastic (?) siltstone, interbedded with fine ash tuffs. Basal contact as 3 cm chlorite 'layer' at 60 degrees to core axis. Moderately siliceous, with chlorite-calcite												



Hole-ID: TCU04126

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Interval (m)

To

From

Description

Sample No.

From То (m)

Interval (m) (m)

g/t

Рb Zn %

Cu

%

microveins. Banded 15 cm wide (true) quartz-chlorite-calcite vein at 25.90 m (20 degrees to CA). 26.33 27.81 Volcanic Sediment: Bleached; Bleached, siliceous zone, with 3% very fine disseminated pyrite. Crackle breccia, with chlorite matrix. Abundant medium grey subhedral broken crystals <0.5 mm (crystal tuff?) in places. Faults, with shattered core and few slickensides from 28.90 - 29.25, and from 30.10 - 30.30 m, with chlorite and calcite +/- hematite in fractures. Top of zone is very sharp, 42 degrees to core axis, with sericitic and chloritic alteration.

28.47 29.10 Volcanic Sediment: Bleached; Bleached zone as above, 40 degrees to core axis. More brecciated, with quartz-chlorite-hematite matrix. Abundant magnetite at top of zone, little to none elsewhere.

34.72 42.06 Basalt Undifferentiated:

Undifferentiated basalt, mostly brecciated (crackle), with chlorite-calcite +/- quartz +/- hematite matrix (and veins). Few laminated (bedded) sections. Bleached, weak to moderate siliceous from 35.87 - 36.48 m, 37.68 - 39.93 and 41.00 - 42.06 m. Chlorite magnetite veins < 3 cm at 34 degrees to core axis, with minor albitization halos.

42.06 43.25 Fault Zone:

Angular, to subangular, bleached, weak siliceous basalt fragments <5cm in a quartz-calcite +/chlorite matrix, vuggy with quartz crystals and < 1% euhedral pyrite in vugs. Tectonic breccia, with fragments displaced.

42.75 43.10 Fault: Shattered zone (fragments <5cm), with chlorite and calcite on fracture surfaces. 1 cm gouge at footwall of this interval, 30 degrees to core axis.

56.46 Feldspar-phyric Basalt Flow: Chlorite 43.25

Very fine grained, almost aphanitic, dark grey basalt flow. Feldspar phenocrysts < 1mm (euhedral to subhedral) in top 45 cm, with wispy quartz-chlorite-calcite-hematite stringers. Texture varies from porphyritic (feldspar pheno <2 mm) to relict breccia zones, to banded and wispy. Quartz-chlorite stringers < 3 mm throughout, various directions, with euhedral pyrite. Core breaks preferentially along these veins. Irregular albite alteration envelopes <2mm along some of these veins. Interstitial, and blebs of pyrite and pyrrhotite from 51.00 to 53.76 metres. No magnetite. Weak silicification from 53.76 m through the breccia zone.



Hole-ID: TCU04126 Page: 4

Interval (m)
From To

Description

escription

Sample From To Interval Au Ag Cu Pb Zn No. (m) (m) (m) g/t g/t % % %

53.76 55.34 Basalt Undifferentiated: Brecciated (crackle breccia) undifferentiated basalt, mostly tuffaceous, healed with quartz-chlorite. Angular basalt fragments <10 cm, very fine grained, with <1% disseminated pyrite. Margins of fragments albitizised, up to 1 cm inwards. Quartz-chlorite matrix, with blebs < 2 mm of pyrite. Weak to moderate silicification. Gradual contact with tuffs below. Zone includes 5 cm quartz-chlorite vein, 30 degrees to core axis at 54.60 m.

56,46 64.60 Basalt Tuff:

Dark grey, fine grained, massive ash-crystal tuff, with subangular fragments < 1mm. Fragments mostly dark grey, mixed with feldspar phenocrysts and phenocryst fragments <0.5 mm. Bedding very faint to not visible. Footwall contact obliterated (broken core). Pyritic band from 56.92 to 57.27 m, with 3-5% disseminated pyrite (quartz-chlorite vein at top. Weak bedding at 40 degrees to core axis.

64.60 68.87 Basalt Flow: Chlorite

Banded (differential chloritic alteration), dark grey and grey-green porphyritic basalt flows (?) with phenocrysts < 1mm of euhedral feldspar and few amphiboles < 0.5 mm. Hairline to 1 cm quartz-chlorite +/- epidote +/- pyrite stringers.

68.87 72.92 Basalt Undifferentiated:

Mixed, dark grey-green basalt, mostly porphyritic (flows?), with thin beds <20 cm, at 45 degrees to core axis, of ash tuff, or fine volcaniclastic sediments. Texture also ranges from swirls to small breccia zones, with chloritic matrix. Few epidote-chlorite patches. Poorly defined, gradual footwall contact.

72.92 126.14 Basalt Flow:

Massive, dark green feldspar phyric (phenocrysts < 2 mm) basalt (gabbro?), which becomes pale green at 92.30 m depth. Moderate chlorite-epidote alteration from 87.40 to 87.55 m. Flat, angular xenoliths (?) <10 cm of pale, grey to tan ash-lapilli tuff, increasing down section (gabbroic sill?). These xenoliths may be narrow zones of brecciation and later healing, with alteration halos, but this is not clear. Most 'xenoliths' are narrow and flat, cross cutting the core at a consistent angle (25 degrees to core axis), but this could be imbrication of flat fragments within



Hole-ID: TCU04126

Page: 5

Zn

%

Interval (m) To

From

Description

Sample No.

From (m)

То (m)

Interval (m)

Αu g/t g/t

Pb Cu % %

the flow of the sill. Few quartz-chlorite-pyrite veins < 3 cm @ 25 degrees to core axis, and some narrow albite alteration zones < 5 cm, + chlorite-epidote. Vuggy quartz-epidote vein 102.14 -102.33.

125.42 126.14 Basalt Flow; Chlorite: Very fractured (parallel to core axis) chloritic basalt, with few quartz veins. Disseminated pyrite throughout, mostly in banded quartz-chlorite veins. No to very weak magnetism. Bottom 15 cm, weak siliceous, bleached, chloritic zone with less pyrite (<0.5%).

136.46 Basalt Tuff: 126.14

Ash tuff, most fragments dark grey, angular < 1mm, in pale to medium grey, very fine grained matrix. Massive, but some faint bedding (?) 50 degrees to core axis. Some parts differentially altered (chlorite, bleached) appearing as swirls and pseudo breccia, with magnetite rich vein < 3mm. Few scattered lapilli fragments. Bottom contact sharp, 85 degrees to core axis.

136.46 146.91 Basalt Flow: Chlorite

Basalt flow, dark grey-green to dark grey, ranging from very fine grained to feldspar phyric (feldspar phenocrysts < 1 mm, pale grey, euhedral) and few chloritized amphibole (?) phenocrysts < 0.5 mm. 3 cm banded guartz-chlorite-pyrrhotite-epidote vein, subparallel to core axis, at 139.90m. 140.41 141.71 Basalt Flow: Chlorite; Pseudo breccia (chlorite alteration zone with bleaching), chlorite yeins <2mm. Quartz-chlorite-magnetite-epidote veins < 5mm, 40-60 degrees to core axis. Magnetite increases towards fault zone at bottom (43 degrees to core axis).

146.91 149.05 Fault Zone: Chlorite

Breccia zone, 43 degrees to core axis. Angular fragments < 10 cm in calcite-chlorite-epidote matrix, with 1 % disseminated pyrite, mostly in basalt fragments, which are pale to medium green, chlorite rich. Fault zone includes 40 cm section of broken core, with abundant chlorite in fractures. Bottom: chloritic and bleached, sheared basalt at 38 degrees to core axis. Strong chloritized and bleached basalt, with bands and swirls of various shades of green and conspicuous, very hard material (garnet?) from 148.33 to 148.89 m.

148.33 148.89 Basalt Flow: Strong chloritized and bleached basalt flow (?) with bands and swirls of various shades of green, and a conspicuous brown patch of very hard material (garnet?). Calcite veins < 2 mm.



Hole-ID: TCU04126 Page: 6

Description Interval (m) Pb Zn Sample From Τo Interval Cu No. % (m) (m) (m) То From

149.05 234.19 Basalt Intrusive: Chlorite; Magnetite

Medium to dark, grey to grey-green chloritic, fine grained gabbro or diabase intrusive. Euhedral feldspar phenocrysts < 2 mm and some zones with chloritized amphibole (?) phenocrysts < 1 mm in dark green-grey, fine grained matrix. Some massive very fine grained zones without phenocrysts. Locally weak magnetic and bleached zones. Numerous magnetite +/- chlorite veins < 5 mm throughout, but increasing downsection. Top 20 cm with some shearing and brecciation, and calcite-chlorite veins 50 degrees to core axis. Fracture zone from 154.91 to 155.14 m (fault?). Quartz-magnetite-epidote veins < 10 cm wide (true), with chloritic margins, 20-25 degrees to core axis, mostly below 182 m. Very fine grained and massive below 213 m, with local blebs < 5 mm of pyrite.

- 180.86 181.30 Fault Zone: Chlorite; Magnetite; Fault zone, with brecciation, healed with chlorite-magnetite. Includes 1.5 cm and 1 cm magnetite-chalcopyrite-chlorite veins (5% chalcopyrite) at 15 degrees to core axis.
- 219.79 221.50 Basalt Intrusive: Chlorite; Locally fractured, brecciated and veined diabase (?), chloritic and weak siliceous. Veins < 6 cm and breccia matrix of quartz-chlorite with feathery blebs (< 5 mm) of and interstitial pyrite.

234.19 235.53 Fault Zone:

Broken core (transition from very fine grained basaltic intrusive to undifferentiated basalt). Chlorite and calcite in fractures, with few faint slickensides. Angle not measurable.

235.53 247.53 Basalt Undifferentiated: Chlorite

Undifferentiated basalt, (BIN?). Generally very fine grained, with local zones of dark green to dark grey-brown, banded (10-20 degrees to core axis), with abundant chlorite, containing angular lapilli fragments < 3 cm. Becomes more pale, with banding parallel to core axis, locally siliceous. Increasing lapilli fragments towards basal contact, which is sharp, but undulating, at 45 degrees to core axis. Also increasing pyrite (1-3% fine disseminated) and patchy magnetite.

247.53 250.93 Volcanic Sediment: Magnetite

Very fine grained to aphanitic, dark maroon, moderate to strong magnetic sediment, possible the semi-massive magnetite horizon. Weak bedding at 53 degrees to core axis. Hematite-magnetite rich



Hole-ID: TCU04126

Page: 7

Interval (m)	Description			Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From	То				No.	(m)	(m)	(m)	g/t	g/t	%	%	%

ash tuff? Irregular quartz-chlorite veins < 1 cm. Basal contact sharp, at 10 degrees to core axis, but intermittent, with underlying tuffs (may be same unit).

250.93 260.19 Rhyolite Lapilli Tuff: Chlorite

Rhyolite lapilli tuff, with lapilli fragments < 3 mm in ash matrix, imbricated sub parallel to core axis. Fragments angular, with significant component (30-40%) jasper fragments. Chlorite-quartz veins < 2 cm at 15 degrees to core axis, with bleached halos.

260.19 271.96 Basalt Undifferentiated:

Very fine grained dark green chloritic basalt (ash tuff or volcaniclastic sediments?). Swirls of highly contorted, medium grey quartz-pyrite laminae, which appear as wet sediment deformation, although stratigraphic location suggests BIN. Minor calcite laminae generally sub parallel to core axis to 10 degrees to core axis. Magnetite bands and pods < 2 cm.

266.70 271.96 Fault Zone: Chlorite; Highly fractured core at 27 degrees to core axis, with abundant chlorite. Weak slickensides. Angular quartz fragments < 1 cm. Patchy magnetite and pyrite blebs < 1 cm (up to 3%) and 2 to 3% fine disseminated pyrite. Ends with 2 cm breccia zone parallel to fractures, with calcite matrix.

271.96 276.79 Basalt Intrusive: Chlorite; Magnetite

Dark green chloritic, very fine grained basalt (diabase?). Small, black to dark green angular phenocrysts (?) <0.5 mm. One angular jasper fragment may suggest fine ash tuff. Quartz-chlorite veins and breccia < 7 cm wide (true) with diffuse margins, crosscut by calcite veins < 1 cm (80-90 degrees to core axis) with chloritic margins. Few weak magnetic zones. Fracture zone from 275.04-276.31 m, with broken core, some slickensides and calcite veins < 3 mm, parallel to core axis. Magnetite blebs < 5 mm at 276.45 m. Basal contact well defined, but irregular and somewhat diffuse, 30 degrees to core axis (tectonic contact).

276.79 283.27 Fault Zone:

Brecciated BIN. Angular fragments < 10 cm of dark to pale green aphanitic BIN (?), (increasingly siliceous towards footwall), in matrix (and veins) of mostly quartz and quartz-chlorite, with minor calcite. Chlorite slickensides in broken sections of core. Pyrite varies from 0% to bands < 5 cm of up to 10% (disseminated and clots < 3 mm), mostly in matrix but also in fragments. Magnetite clots



297.26 305.55 Fault Zone:

Redfern Resources Ltd. Diamond Drill Log Lithology Description

Sample

No.

From

(m)

To Interval Au

(m)

(m)

Hole-ID: TCU04126 Page: 8

Pb

Zn

%

Cu

Interv	al (m)	Description
From	То	
		and stringers throughout, but not pervasive. Footwall contact not clear, due to fracturing.
283.27	292.91	Basalt Intrusive: Chlorite
		Fine grained medium grey-green diabase (?) with feldspar phenocrysts < 1 mm and subhedral, chlorite
		altered amphibole phenocrysts < 0.5 mm. Bottom 30 cm banded, 18 degrees to core axis. Basal contact
		sharp at 45 degrees to core axis. 1 cm quartz vein at 291.09 m (28 degrees to core axis) with chlorite and minor fuchsite margin with 10 to 15 cm halo of bleaching and chlorite alteration.
		Chlorite and million fuchsite margin with 10 to 13 cm halo of bleaching and chlorite alteration.
292.91	293.49	Rhyolite Debris Flow:
		Rhyolite debris flow. Pale, cream coloured fragments < 15 cm in quartz-chlorite rich matrix, with
		some epidote. Minor albitization near top, in 5 cm zone of tectonic brecciation (chlorite matrix).
		1% fine disseminated pyrite.
293.49	294.54	Fault:
200.10		Broken core, with slickensides in fractures. Mostly pale debris flow fragments, containing few
		angular grains < 2 mm of jasper. Chlorite-calcite slickensides, fractures predominantly 40-45
		degrees to core axis. Minor quartz-pyrite-calcite vein, < 1 cm, with chlorite margin (halo).
294.54	296.85	Rhyolite Flow. Hematite
		Medium green -grey to maroon porphyritic rhyolite flow. Angular feldspar phenocrysts and pheno
		fragments < 2 mm, with diffuse margins in maroon to green-grey aphanitic matrix. Chloritic veins <
		2 mm, 75-85 degrees to core axis, with some quartz-chlorite clots < 1 cm, with up to 20% pyrite.
		Basal contact sharp, 35 degrees to core axis.
296.85	297.26	Rhyolite Ash Tuff:
		Medium grey-brown to maroon ash-crystal tuff, with broken feldspar phenocrysts < 2 mm and white to
		grey subangular fragments, including a few jasper grains < 1 mm. Sharp, but irregular basal contact.
		296.85 298.53 Rhyolite Debris Flow: Chlorite; Sheared rhyolite debris flow, healed with quartz and
		chlorite. Pyrite cubes up to 2 mm and abundant pink quartz-barite(?) veins. Includes
		dark green quartz-chlorite zone, with 60% chlorite from 297.96 to 298.22 m.



Hole-ID: TCU04126

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Interval (m)

From

To

Description

Sample No.

From (m) To in

Interval A

Ag

Pb Zn

Cu

Fault zone, within mostly rhyolitic flows and tuff. Textures vary widely, but breccia zones and veins throughout, as well as shearing and foliation of rocks, aligning the chlorite and sericite rich groundmass at shallow angles with core axis.

- 298.53 299.74 Rhyolite Ash Tuff: Ash tuff. Pale grey-green, aphanitic to very fine grained matrix with angular chlorite grains < 1 mm, and 3-5% fine jasper grains < 0.5 mm + leucocene. Quartz-chlorite stringers < 0.5 mm, 35-45 degrees to core axis, and two such veins, 2 cm wide at 20 and 35 degrees to core axis.
- 299.74 303.49 Rhyolite Lapilli Tuff: Chlorite; Hematite; Sericite; Lapilli tuff. White elongate quartz rich fragments < 1.5 cm in a wispy chlorite-hematite rich matrix, with fabric parallel to fragment alignment (sub parallel to 20 degrees to core axis). Sericite rich (+leucocene) patches < 20 cm. Quartz-chlorite veins < 5 cm and quartz-carbonate veins < 3 mm, 40 to 45 degrees to core axis. Texture coarsens towards possibly debris flow in last 20 cm.
- 303.49 304.20 Basalt Dyke: Chlorite; Basalt dyke. Fine grained grey-green dyke with subhedral chloritized fragments (phenocrysts?) < 1 mm. Irregular diffuse contact approximately 75 degrees to core axis.
- 304.20 305.55 Rhyolite Debris Flow: Rhyolite debris flow. Pale grey-green mottled rhyolite with chlorite rich veins and stringers < 1 cm throughout. Minor hematite. Abundant calcite +/- quartz stringers < 3 mm. Some chlorite rich bands, with pale green elongate fragments parallel to chlorite fabric, approximately 30 degrees to core axis. Two narrow (< 5 cm) basalt dykelets, sub parallel to core axis, with hematite grains just outside the contacts. Last 15 cm broken core with chlorite-calcite slicks on fracture surfaces, 30 degrees to core axis.

305.55 308.98 Rhyolite Lapilli Tuff: Chlorite; Sericite

Lapilli tuff, with white siliceous subangular fragments < 2 cm and lesser polylithic fragments < 1 cm in a chlorite-sericite rich matrix, with strong fabric varying from 0 to 35 degrees to core axis. This unit may be part of the fault zone above, as indicated by shearing, and minor slickensides. Leucoxene rich zones, mostly in sericitic parts of this interval. Last 20 cm at bottom may be debris flow, with chlorite-calcite in fractures. Basal contact not clear, but approximately 42 degrees to core axis.



Interval (m)

То

From

Redfern Resources Ltd. Diamond Drill Log Lithology Description

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Sample From To Interval Au Ag Cu Pb Zn No. (m) (m) g/t g/t % % %

308.98 320.98 Basalt Intrusive: Chlorite

Description

Chloritic, very dark green to black, fine grained basalt (diabase?). Local zones with grey amygdules (?), slightly flattened, up to 1 mm in size. Small chloritic phenocrysts up to 0.5 mm also noted. Variably magnetic. Zones of up to 1% interstitial and euhedral pyrite. Swirls and bands of chlorite-quartz-calcite with 1% interstitial pyrite from 308.98 to 309.58 m. Highly fractured core, with minor calcite and chlorite slickensides from 312.05 to 315.11 m. Bleached zone, with banding and flattened pale grey amygdules 35 degrees to core axis from 315.11 to 318.58 m. Quartz-chlorite -pyrite veins up to 3 mm throughout, in various directions, crosscut by quartz-calcite stringers. This section is bleached and includes 15 cm of shear, with pale green sericitic quartz veins, clay, coarse pyrite, calcite and minor chlorite, 22 degrees to core axis (316.96 to 317.11 m). Below this shear, bleaching fades towards 322.45 m, with 3-5% very coarse pyrite cubes < 2 mm. Broken core, with hematite and calcite in fractures (some as slicks).

320.98 322.45 Rhyolite Ash Tuff: Magnetite

Dark grey, highly magnetic, weakly banded (30 degrees to core axis), very fine ash tuff, with hematite specks and grains, mostly near quartz-epidote-chlorite stringers (up to 2 mm) and bleached alteration halos. Last 55 cm broken core with hematite and calcite in fractures (some as slickensides).

322.45 325.67 Rhyolite Lapilli Tuff:

Mottled grey to grey-green, to somewhat maroon, fine tuff, mostly ash, but some lapilli fragments, subrounded to subangular up to 1 cm, polylithic, with some jasper grains up to 0.5 mm. Magnetism increases towards bottom (basal contact 48 degrees to core axis), sharp contact. Few quartz-chlorite stringers up to 2 mm.

325.67 328.87 Rhyolite Ash Tuff: Magnetite

Dark grey, very fine grained, highly magnetic ash tuff, well developed bedding 35-40 degrees to core axis. Pale grey alteration adjacent to stringers and fractures. Bleached zone from 326.71 to 327.12 m, controlled by quartz stringers up to 2 mm at 43 degrees to core axis (crackle breccia zone, with hairline black quartz (+chlorite?) stringers). Hematitic towards bottom (last 30 cm). Basal contact 40 degrees to core axis.



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interval	(m)	Description					Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From	То						No.	(m)	(m)	(m)	g/t	g/t	%	%	%

328.87 332.64 Rhyolite Lapilli Tuff: Hematite

Well bedded (30 degrees to core axis), polylithic, jasper rich lapilli tuff (angular fragments < 1 cm), maroon to grey-green. Few quartz stringers < 5 mm, parallel to bedding. Some weak bleaching and weak magnetism. Basal contact gradual, approximately 50 degrees to core axis.

332.64 335.48 Rhyolite Debris Flow: Chlorite

Banded (foliated) pale green, somewhat sheared matrix, with swirls of light and dark green (chlorite rich) ash, around more siliceous clots up to 3 cm. Chloritized phenocrysts < 1 mm. Shearing increases into fault zone. Gradual contact.

335.48 341.09 Fault Zone: Chlorite; Sericite; Bleached

Sheared, locally brecciated debris flow, with chlorite and sericite rich swirls in various directions, containing siliceous, rounded fragments (rhyolite?) up to 3 cm. Breccia zones up to 25 cm, with quartz-chlorite-pyrite matrix (matrix supported fragments) and crackle breccias. Generally with quartz-chlorite-pyrite matrix (matrix supported) and crackle breccias. Generally bleached, but becoming darker, more chloritic towards basalt dyke (sharp contact, 70 degrees to core axis).

341.09 347.57 Basalt Intrusive: Chlorite; Epidote

Fine grained, dark grey to green-grey homogeneous basalt. No phenocrysts or primary texture visible. Magnetism increases towards footwall. 346.39 - 346.87: fault with breccia (angular basalt fragments < 5 cm in a calcite-chlorite matrix) and chlorite-hematite coated fractures. Very few slickensides. Quartz-chlorite veins from 346.39 - 347.39 m, increasing down section, with abundant epidote near footwall. Veining and chlorite-epidote alteration obscures footwall contact.

347.57 348.19 Rhyolite Flow:

Starts as debris flow at footwall of dyke, but immediately grades into feldspar phyric flow. Dark grey-green aphanitic matrix with feldspar phenocrysts < 2 mm. Chlorite and quartz-chlorite stringers < 3 mm, 50 - 70 degrees to core axis, with bleached alteration halos. Basal contact 65 degrees to core axis.

348.19 350.18 Basalt Dyke: Chlorite; Magnetite

Dark green, highly chloritic, very fine grained magnetic basalt dyke. Very irregular hangingwall



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Interval (ı	n)	Description			Sample	From		Interval					Zn
From	То				No.	(m)	(m)	(m)	g/t	g/t	%	%	%

contact, obscured by high chlorite content in hangingwall. Amphibole phenocrysts up to 1 mm, altered to chlorite. Footwall contact sharp, 50 degrees to core axis.

350.18 351.13 Rhyolite Flow:

As above. Basal contact sharp, 65 degrees to core axis.

351.13 353.34 Basalt Dyke:

Dark grey, fine grained basalt, with flattened amphibole phenocrysts. Basal contact at 60 degrees to core axis. Weak magnetism at footwall.

353.34 368.96 Rhyolite Lapilli Tuff:

Lapilli tuff, well bedded (and local well developed imbrication of larger fragments) at 33 degrees to core axis. Angular, polylithic fragments < 4 cm, including jasper fragments in a dark grey, locally chloritic matrix. Quartz-chlorite-epidote stringers < 5 mm, 40-50 degrees to core axis, with halos of bleaching +/- epidote +/- albite (?). Minor, patchy jasper replacement of matrix and hematite stringers < 1 mm. Includes sections of rhyolite debris flow, with feldspar phyric matrix, and subrounded fragments < 8 cm, with diffuse margins from 354.60 to 355.18 and from 363.81-364.36 m (gradual contacts).

368.96 369.76 Rhyolite Debris Flow:

Rhyolitic debris flow. Banded, pale green. Rounded rhyolite fragments in a chloritic matrix. Sharp basal (intrusive) contact 56 degrees to core axis.

369.76 377.45 Basalt Intrusive:

Fine grained, dark grey, locally magnetic diabase. Massive. Includes one xenolith of debris flow unit above at 376.35 m depth.

377.45 378.01 Fault:

Fractured (cleaved) core at 38 degrees to core axis. Includes (hangingwall segment) 15 cm of calcite-chlorite cemented ground up basalt, with minor gouge, and calcite veins < 5 mm parallel to fault. Some slickensides.



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Interval (m	1)	Description			Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From	То				No.	(m)	(m)	(m)	g/t		%		%

378.01 496.68 Basalt Intrusive: Magnetite; Chlorite

Fine grained, dark grey, homogeneous diabase, pervasively weak to moderately magnetic. Locally porphyritic, with pale grey feldspar phenocrysts < 1 mm. Abrupt increase in feldspar phenocryst abundance and size (< 1.5 mm) from 382.99 to 392.49 m, with sharp contacts (50 degrees to core axis at hangingwall and 45 degrees to core axis at footwall). This may be a seperate, later intrusive phase. Minor fault 452.92 to 453.17 m. Increasingly chloritic towards bottom contact, with wide spaced (several metres) quartz-chlorite veins < 5 cm. Basal contact obliterated (broken core). Change to BQ core at 481.28 m.

496.68 513.51 Rhyolite Debris Flow:

Debris flow, with subrounded fragments < 15 cm or more of pale grey to pale green rhyolite, mixed with angular polymictic fragments < 5 cm, in a medium to dark green matrix, varying from feldspar phyric to ash; bedding 27 degrees to core axis. Although unit is labeled as RDF, it appears to have layers or blocks of ash (lapilli) tuff, with fabric (bedding) 40 degrees to core axis (from 497.51 to 498.33 m). Basal contact very sharp, 48 degrees to CA. BQ changed back to NQ core at 497.28 m. 501.47 501.81 Quartz-Feldspar Porphyry Dyke: Basalt dyke at 53 degrees to core axis. Medium grey-green diabase. Pale, olive green blotches < 1mm are presumed to be chloritized amphiboles. Finer grained, darker, and less green towards margins (chill margins).

513.51 516.73 Rhyolite Lapilli Tuff; Chlorite

Medium to dark grey to grey-green ash tuff, with fabric (bedding?) swirling in various directions. Fairly abundant jasper (hematite?) as very fine specks and streaks < 0.2 mm wide. Angular, polymictic lapilli fragments < 5 cm, but generally < 1 cm throughout. Chlorite-magnetite swirls (veins?) < 0.5 cm, parallel to bedding. Basal contact gradational over 2-3 cm.

516.73 517.30 Rhyolite Crystal Lapilli Tuff:

Polymictic crystal lapilli tuff. Medium grey, very fine grained matrix, with feldspar phenocrysts and phenocryst fragments < 1 mm, and rhyolitic fragments < 1 mm, and rhyolitic fragments < 1.5 cm. Diffuse quartz veins < 0.5 cm, approximately 60 degrees to CA. Basal contact gradual, approximately 60 degrees to CA.

517.30 519.45 Rhyolite Lapilli Tuff:



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Interval	(m)	Description				Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From	То	**************************************				No.	(m)	(m)	(m)	g/t	g/t	%	%	%

Fine grained, medium grey-green ash tuff. Bedding faint, but distinct, 60 degrees to core axis. Subhedral, dark green, chloritized fragments < 2 mm, concentrated up to 20% in patches throughout. Magnetism increases from none to weak towards basal contact. This contact is well defined, but diffuse, 50 degrees to CA. Few chlorite-magnetite stringers < 3 mm, with white quartz-albite alteration halos < 2 mm.

519.45 525.39 Rhyolite Flow:

Rhyolite, feldspar-phyric flow, with a very fine grained to aphanitic matrix ranging from mauve to grey to grey-green in colour. Euhedral to subhedral feldspar phenocrysts < 1 mm, ranging from < 5% to 20% in abundance. Increasingly greener, with few chloritized phenocrysts near basal contact. Very abundant hairline quartz (?) - epidote-chlorite stringers < 0.2 mm, 30-55 degrees to CA, with narrow quartz-albite halos. One such vein is a 3 mm garnet vein with chlorite clots in centre, with an epidote alteration halo, followed by quartz-albite halo further out. Weak to moderate magnetite. This contact is very vague, and may be gradational, rather than the narrow chloritic band picked as contact (approximately 57 degrees to CA).

525.39 532.63 Rhyolite Crystal Lapilli Tuff:

Crystal-lapilli tuff. Pale green to grey to mauve, very fine grained matrix, mottled and banded with medium to dark grey. Fragments: subhedral to anhedral, polymictic, but generally aphanitic rhyolite) < 2 cm and abundant subhedral feldspar phenocrysts < 1 mm. Few sections with chloritic phenocrysts (?). Bedding and distinct imbrication of fragments 40 to 50 degrees to CA. Three pale 'pseudofragments' at 530.35 m appear as fragments < 5 cm, but are believed to be bleached zones associated with chlorite (+quartz?) stringers. Quartz (and minor chlorite) veins < 10 cm, 55 degrees to CA. Bleached from 532.63 - 533.50 m, and from 536.14 - 537.15 m. Basal contact distinct, but diffuse, 55 degrees to CA. Few chlorite-magnetite lenses < 2 mm.

532.63 537.15 Feldspar-phyric Rhyolite Flow:

Pale grey, distinctly quartz and feldspar phyric and weakly flow-banded rhyolite flow or sill. Puzzling feature is a clear, apparent lithic fragment (also QFP rhyolite) at 534.6 meters. Xenolith?

537.15 539.19 Rhyolite Debris Flow: Pyrite



548.28 548.76 Zinc Facies Massive Sulphide: Massive Sulphide

Redfern Resources Ltd. Diamond Drill Log Lithology Description

Hole-ID: TCU04126

Interval (m) From To	Description	Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %
	Very fine grained, pale to medium grey ash matrix, with pale, cream coloured sections and patches	9759	537.69	539.1	9 1.50	0.05	0.00	0.00	0.00	0.00
	of core (<20cm), thought to be large fragments. Rhyolite fragments, subhedral < 6 cm. Quartz-chlorite +/- magnetite veins < 3 cm, with quartz-albite alteration halos. Several quartz									
÷ . ÷	(+chlorite) veins are brecciated, with abundant pyrite +/- chalcopyrite seams and disseminations,									
	with total abundance of 5% pyrite and trace of chalcopyrite. Pyrite is disseminated throughout,									
	chalcopyrite interstitially in and near quartz veins. Very few tuff fragments from 534.70 to 539.19									
	m. This may be feldspar phyric flow. Basal contact sharp, but undulates, approximately 60 degrees									
	to CA. Minor sericite.									
539.19 546.	3 Zinc Facies Massive Sulphide: Chlorite									
	Banded sulphides, in ashy, pale white to grey, barite (?) rich gangue, with few chlorite rich	9760	539.19	540.2	24 1.05	2.68	82.30	0.81	1.52	5.27
	laminae. Wisps and laminae of mostly disseminated sphalerite (10%), disseminated pyrite (15%),	9761	540.24	541.2	24 1.00	1.96	142.00	0.74	4.36	10.80
	interstitial chalcopyrite (3%), galena (3%) and interstitial tetrahedrite (2%). The pyrite is	9762	541.24	542.2	24 1.00	7.59	226.00	0.67	5.87	13.90
	evenly dispersed, with bands of sphalerite and galena, chalcopyrite and tetrahedrite. The latter	9763	542.24	543.	24 1.00	19.60	314.00	1.33	3.99	9.78
	two appear to be closely associated. Veins and nodules < 5 mm of soft, grey, non-reactive mineral,	9764	543.24	544.3	1.06	14.50	150.00	0.52	1.58	1.96
	thought to be barite. Band of massive (60%) disseminated pyrite from 539.87 to 540.03 m. Sulphide	9765	544.30	545.	16 0.86	11.20	184.00	0.54	9.99	16.20
	mineralization appears to be mostly within the finer matrix of a lapilli textured framework. Basal	9766	545.16	546.	13 0.97	1.90	156.00	0.55	2.53	6.89
	contact sharp, 50 degrees to CA. Increase in chlorite towards basal contact.									
	543.25 544.30 Quartz-Sericite-Pyrite Alteration: Chlorite; Chlorite rich, very fine grained zone									
	(ash?), with abundant sericite (+ leucoxene?). Bands of disseminated sphalerite									
	(3-10%) and galena (2-5%). Includes 10 cm quartz vein, with parallel barite veins < 5									
	mm at 58 dgrees to CA (parallel to weak foliation). Quartz vein contains massive									
	chalcopyrite stringers < 3 mm in barite, with blebs and stringers < 3 mm of galena									
	and tetrahedrite. Two very fine flecks of visible gold.									
546.13 548.	8 Pyrite Facies Massive Sulphide: Massive Sulphide									
	Massive sulphides (pyrite facies). Approximately 85 to 95% pyrite, with 1-2% chalcopyrite. Very	9768	546.13	547.	21 1.08	1.36	70.70	1.01	0.04	1.21
	soft, fine grained, pale grey matrix (barite?). Bedding 53 degrees to CA. Dark grey barite nodules	9769	547.21	548.	28 1.07	3.151	1040.00	1.57	0.10	0.86
	< 1 cm by 3 mm, aligned with bedding. Dark grey, tetrahedrite rich bands (< 1.5 cm wide, with <3%									
	tetrahedrite). Sharp basal contact 55 degrees to CA.									



Hole-ID: TCU04126

interval (From	(m) To	Description	Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %
		Banded sulphides. Medium to pale grey barite gangue, with laminae of fine disseminated sphalerite (15-40 %) and pyrite (5-30%), with 1-3% very fine grained tetrahedrite and 1-3% chalcopyrite throughout. Well developed bedding, parallel to sharp basal contact, 48 degrees to CA. Some barite appears as augens < 3 cm long and 5 mm wide, flattened parallel to bedding.	9771	548.28	548.7	6 0.48	1.12	222.00	0.52	2.09	14.10
18.76 £	550.88	Semi-Massive Sulphide:									
		Very fine grained, well bedded, medium to dark grey ash tuff, with medium grey, elongate fragments	9772	548.76	549.3	33 0.57	3.86	324.00	5.21	3.20	6.9
		< 5mm in places. Margins of fragments, and those of barite +/- quartz +/- chlorite veins, contain	9773	549.33	549.9	96 0.63	0.17	30.60	0.84	0.46	3.0
		selvages (pressure shadows?), with halos of fine pyrite +/- chalcopyrite. Overall mineral content:	9774	549.96	550.8	8 0.92	2.55	122.00	3.62	2.68	3.
		5-15% pyrite, 1-3% chalcopyrite, 0-2% tetrahedrite. Bedding 68 degrees to CA. Basal contact 40									
		degrees to CA. This interval includes 3 high grade sulphide zones, as described in the nested									
		entries. This section appears as intermittent cycles of volcanic (ash tuff) events, and									
		hydrothermal vent (sulphides) events. <rgc> Not convinced this is rhyolite. Looks more mafic.</rgc>									
		Fine-grained, dark green and chloritic - mafic dyke with sulphide xenoliths? Also cut by stockwork									
		of chalcopyrite stringers - could be a chloritic stockwork zone?									
		549.08 549.33 Massive Sulphide: Banded sulphides. Barite gangue, with approximately 60% banded									
		chalcopyrite and 10% pyrite. Sphalerite decreases from 70% at top of the zone to 1%									
		at bottom. 1% magnetite grains. Top and bottom contacts at 78 degrees to CA (appears									
		to be a cross bed). Moderate to strong magnetite. Basal contact grades into barite.									
		549.82 549.96 Massive Sulphide: Banded sulphides. Barite gangue, with banded chalcopyrite (30 to									
		50%) and sphalerite (5-20%) and 1-2% pyrite. Moderate to strong magnetism (2-3%									
		magnetite grains < 0.2 mm). Bedding 65 degrees to CA, parallel to sharp basal contact.									
		550.39 550.88 Semi-Massive Sulphide: Breccia zone. Angular fragments < 10 cm of chloritic ash									
		tuff, in a matrix of quartz, barite and sulphides, with angular fragments < 5 mm of									
		highly chloritic material. Clots and bands < 1 cm of massive chalcopyrite +/- (<1%)									
		tetrahedrite +/- (<1%) galena, and disseminations of <10% sphalerite and 1-2% pyrite.									
0.88 .	553.52	Basalt Dyke: Pyrite; Chlorite									
		Breccia zone. Ash tuff is completely brecciated (crackle breccia), and infilled with a matrix and	9775	550.88	552.3	38 1.50	0.03	1.00	0.01	0.03	0
		veins of quartz. Angular fragments < 5 cm of ash tuff, locally (weak) chloritically altered.	9776	552.38	553.	52 1.14	0.31	20.30	0.14	0.52	8
		Patches with 2-3% disseminated pyrite and 1-5% disseminated sphalerite (from 552.71 - 553.21 m).									
		Basal contact sharp, 35 degrees to CA. <rgc> This certainly looks like a basalt dyke. Sulphide</rgc>									



Hole-ID: TCU04126

Interval (m)	* .	Description	Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %
From	То					(111)	9/1	y/t		<i>7</i> 0	
		sections are blotchy and irregular - veins or xenoliths.									
		Charles Facility Manager College Design									
553.52 555	5.53	Copper Facies: Massive Sulphide; Pyrite	0777	550 50		FO 4 64	4.00	00.40	4.04	4 4 7	
		Banded sulphides (40-95% py, 2-25% chalcopyrite and 0-5% sphalerite, with minor tetrahedrite) at 37	9777	553.52		53 1.01		86.40		1.17	• • • •
		degrees to CA in a barite rich matrix. Quartz veins and nodules < 3 cm, parallel to bedding, and	9778	554.53	555.	53 1.00	1.73	62.30	1.89	0.88	7.3
		barite clots < 5 mm, flattened along bedding. Top 13 cm of section appears to be one large rounded									
		fragment, completely replaced with pyrite, within a barite matrix, containing 20 % sphalerite, 3%									
		pyrite and 1-2% chalcopyrite. The next 21 cm of massive pyrite displays a faint lapilli tuff									
		texture, believed to be complete replacement with pyrite. Basal contact sharp 40 degrees to CA.									
		General distribution of high chalcopyrite concentrations appears to be large pods < 7 cm, rather									
		than layers.									
55.53 568	8.62	Quartz-Sericite-Pyrite Alteration: Sericite; Pyrite; Leucoxene									
		Rhyolite debris flow. Anhedral, white to grey fragments and blocks < 30 cm of rhyolite in a bedded	9779	555.53	557.	03 1.50	0.30	0.00	0.00	0.00	0.
		pale green to beige to tan ash matrix. Flatter blocks are aligned with bedding (36 degrees to CA).									
		Blocks are predominantly sericite altered, with moderate amounts of leucoxene. The matrix appears									
		to be partly to mostly replaced by quartz, 2-3 % disseminated pyrite throughout. Basal contact very									
		gradually changes to ash-lapilli tuff. Sericite alteration diminishes from 567.66 to 568.62, as									
		this unit grades into the tuff unit, with some increase in chlorite. Patches < 20 cm or up to 15%									
		disseminated sphalerite and 5-10% pyrite.									
		560.02 560.58 Basalt Dyke: Chlorite; Dark grey, very fine grained basalt dyke, weak to moderately									
		magnetic. Hangingwall contact sharp, 60 degrees to CA. Quartz-chlorite-calcite-pyrite									
		veins (and matrix of micro breccia zones) < 2 cm. Pyrite almost massive in few veins									
		and 'blebs'. Faint, but sharp footwall contact, 65 degrees to CA. Some footwall									
		chloritization, approximately 15 cm.									
68.62 569	9.74	Rhyolite Lapilli Tuff: Chlorite; Pyrite									
		Dark grey, very fine grained ash matrix, with angular rhyolite (cream to tan) fragments < 2 cm.									
		Matrix altered to locally pale grey, speckled appearance. Minor hematite in rhyolite fragments.									
		Disseminated pyrite throughout, up to 15-20% in quartz rich zones. Weak magnetism. Increasing									
		chloritization towards fault. Basal contact is a fault contact, 39 degrees to CA.									



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Interval (m	1) [Description				Sample								
From	То					No.	(m)	(m)	(m)	g/t	g/t	%	%	%

569.74 570.01 Fault: Chlorite

Highly chloritic fault. Broken core, consisting of ash-lapilli tuff. Chlorite and pale green clay in fractures, with few slickensides. 1-2% disseminated pyrite. Fractures (fault) 39 degrees to CA

570.01 572.08 Rhyolite Undifferentiated: Chlorite

Dark grey to grey-green, fine grained ash matrix with pale grey angular lapilli fragments < 2 cm. Massive, no bedding. Quartz-chlorite veins < 2 cm. Many very narrow black stringers < 1 mm, 20-30 degrees to CA (chlorite?). Basal contact very gradational to ash tuff, as lapilli fragments disappear.

572.08 584.02 Rhyolite Undifferentiated: Chlorite; Bleached

Dark grey to grey-green, fine grained ash tuff. Massive, with no visible bedding. Weak to moderate magnetism. Quartz nodules < 3 mm near overlying lapilli section. Increase in quartz +/- chlorite veins (< 2 cm) in various directions, as well as increase in pyrite (patchy disseminations, < 10%). Minor garnet in quartz veins. Fractured from 578.82 to 580.21 m. Highly chloritic in fracture zone. Basal contact sharp, 30 degrees to CA. Strong bleaching, with quartz stringer network (crackle breccia) from 582.16 to 584.02 m. <RGC> Not much different from overlying interval. Scattered dark red jasper patches - look like part of quartz-pyrite stringers. Same unit seen in TCU04104 from 597.1 to 635.8 meters. Trace disseminated reddish-brown sphalerite. Sericite alteration increases ofer the last 2 meters. Colour becomes pale grey. Lower contact at slip, possible fault, more likely intrusive contact.

Fine grained diabase dyke. Chloritized, subhedral amphibole phenocrysts < 1 mm.

Quartz-magnetite-calcite +/- chlorite veins < 2 cm throughout, mostly 45 - 70 degrees to CA. Dense fracture zone (fault?) from 586.82 - 587.88 m, with abundant chlorite in fractures (40 degrees to CA) and some slickensides. 15 cm (true) quartz-epidote vein (breccia), with quartz fragments < 10 cm in matrix of chlorite, magnetite, sulphides and quartz (?). Epidote patches in quartz fragments.

Up to 10% pyrite, 2% sphalerite and < 1% chalcopyrite in matrix. Vein 48 degrees to CA, located at 585.40 m. Similar breccia zone (13 cm) at 586.85 m. Basal contact sharp, 36 degrees to CA.

588.58 596.44 Rhyolite Flow: Sericite; Silica; Leucoxene



Hole-ID: TCU04126

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Interval (r	m)	Description	Sample	From	To I	nterval	Au	Ag	Cu		Zn
From	То		No.	(m)	(m)	(m)	g/t	g/t	%	%	%
		Pale to medium grey rhyolite flow. Silicified, with minor sericite and 1% very fine disseminated	9780	588.58	589.90	1.32	0.32	0.00	0.00	0.00	0.00
		pyrite. Fairly abundant leucoxene. Quartz-sericite-pyrite alteration decreases from 595.07 m to	9781	589.90	590.9	5 1.05	1.05	136.00	4.33	0.33	1.84
		tuff below. Very irregular quartz vein stockwork, very non-planar, with up to 60% sphalerite, 5%	9782	590.95	592.23	3 1.28	0.06	8.60	0.07	0.20	1.30
		chalcopyrite, 2% tetrahedrite, 10% pyrite in vein (veins make up up to 7-10% of the core volume.	9783	592.23	593.6	4 1.41	0.03	0.00	0.00	0.00	0.00
		Microbreccia zones of same composition as veins, where sulphides infilled between very granular	9784	593.64	595.0	7 1.43	0.06	0.00	0.00	0.00	0.00
		quartz grains. Also massive pyrite in quartz veins. Some of the flow breccia matrix is hard to	9785	595.07	596.3	9 1.32	0.00	0.00	0.03	0.00	0.00

596.44 613.71 Rhyolite Lapilli Tuff:

from RDF to RFL.

Pale to medium grey, massive lapilli tuff, with some ash layers. Polymictic lapilli fragments, angular < 2 cm, including massive pyrite +/- jasper+/- quartz. Very faint bedding, accentuated by imbrication of fragments (approximately 45 degrees to CA). Quartz veins< 2 cm +/- chlorite margins throughout. Pervasive, moderate magnetism. Also widely spaced quartz-epidote-garnet veins and lenses. Epidote mostly as alteration halos. 1-2% disseminated and small clots < 3 mm of pyrite throughout. Basal contact sharp, 50 degrees to CA.

distinguish from the blocks within it, but appears as a uniform, pale, white to cream coloured sericitic background. Also diffuse quartz veins and siliceous patches. Few pale green to blue-green lapilli fragments. Basal contact with tuff very faint, but sharp: 50 degrees to CA. <RGC> edit

613.71 672.69 Amygdaloidal Basalt: Chlorite; Epidote; Magnetite

Amygdaloidal basalt, with amygdules <1.2 cm, locally flattened (40-50 degrees to CA), filled with quartz-calcite-chlorite-epidote-garnet and pyrite. Very fine grained, medium to dark grey matrix. Quartz veins < 1 cm, with various amounts of up to 25% pyrite and 30% jasper, 40 degrees to CA. Pervasive, weak to moderate magnetism. Amygdules more flattened, and decreasing towards tuff layer. 629.93-631.34 m; may be seperate flow, with pale grey, very angular alteration (?) patches < 1 cm, although may be primary texture. These patches occur as jig-saw fit 'fragments' within larger patches < 5 cm, in an otherwise dark grey background. Very distinct basal contact with underlying flows, 35 degrees to CA. 634.93-645.66; Very abundant quartz-epidote-garnet +/- calcite veins < 5 cm, and breccia zones < 25 cm (with epidote alteration halos). Very little (<1%) fine disseminated pyrite. Subhedral to anhedral phenocrysts < 1 mm and white amygdules (?) < 3 mm. Magnetism very patchy, none to moderate. One gypsum vein, 2-3 mm, 5 degrees to CA, crosscutting the quartz-garnet-epidote veins. Flow becomes more feldspar-phyric, and more magnetic downsection.



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Interval (m) Description From То

Sample No.

From (m)

То Interval (m) (m)

Cu

Pb Zn %

Broken core (fault?) from 654.43 to 655.02 m, and from 656.02 to 656.50 m, with abundant chlorite +/- pyrite in fractures, but no slickensides. Hyaloclastite from 644.16 to 672.69 m. <RGC> Clear amydgales only seen down to about 623 meters. Rest is fine-grained, massive, homogeneous, feldspar-phyric below about 648 meters, with fairly sharp transition between fine-grained and feldspar-phyric sections. Jigsaw fit autobreccia noted in a few places (630.5m, 665.6m) possible flow top breccia.

620.17 621.49 Basalt Lapilli Tuff: Lapilli ash tuff. Dark grey, ashy matrix, with angular lapilli fragments < 5 cm, mostly dark grey, but also pale and white, as well as quartz fragments. Few pyrite blebs < 1 mm in open space filling quartz. Moderate, persistent magnetism. Pyrite clots < 3 mm in the tuff matrix. Footwall contact 33 degrees to CA.

672.69 672.69 End of Hole:

End of hole.



Hole-ID: TCU04126 Page: 21A

Assays

Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %	SG	Cu ppm	Pb ppm	Zn ppm	Au ppb	Ag ppm	As ppm	AI %	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm
9759	537.69	539.19	1.50	0.05	0.00	0.00	0.00	0.00	0.00	101	72	291	0	0.7	30	0.97	40	5	0,51	1	6
9760	539.19	540.24	1.05	2.68	82.30	0.81	1.52	5.27	3.07	7844	10000	10000	0	30.0	335	0.32	50	5	0.27	205	8
9761	540.24	541.24	1.00	1.96	142.00	0.74	4.36	10.80	3.39	7114	10000	10000	0	30.0	260	0.20	40	. 5	0.16	436	6
9762	541.24	542.24	1.00	7.59	226.00	0.67	5.87	13.90	3.51	6494	10000	10000	0	30.0	660	0.13	10	5	0.14	442	2
9763	542.24	543.24	1.00	19.60	314.00	1.33	3.99	9.78	3.46	10000	10000	10000	0	30.0	2195	0.21	35	5	0.26	337	5
9764	543.24	544.30	1.06	14.50	150.00	0.52	1.58	1.96	2.81	5246	10000	10000	0	30.0	1035	0.29	25	5	0.47	67	3
9765	544.30	545.16	0.86	11.20	184.00	0.54	9.99	16.20	3.59	5132	10000	10000	0	30.0	270	0.11	5	5	0.10	611	2
9766	545.16	546.13	0.97	1.90	156.00	0.55	2.53	6.89	3.13	5454	10000	10000	0	30.0	860	0.35	25	5	0.28	261	6
9768	546.13	547.21	1.08	1.36	70.70	1.01	0.04	1.21	4.04	9995	250	10000	0	30.0	1245	0.11	75	5	0.12	34	9
9769	547.21	548.28	1.07	3.15	1040.00	1.57	0.10	0.86	4.13	10000	934	8664	0	30.0	945	0.10	60	5	0.05	21	8
9771	548.28	548.76	0.48	1.12	222.00	0.52	2.09	14.10	3.62	5104	10000	10000	0	30.0	625	0.11	50	5	0.11	572	4
9772	548.76	549.33	0.57	3.86	324.00	5.21	3.20	6.93	3.08	10000	10000	10000	0	30.0	45	0.78	50	5	0.27	277	11
9773	549.33	549.96	0.63	0.17	30.60	0.84	0.46	3.01	2.90	8301	4780	10000	0	30.0	130	0.61	25	5	0.34	130	10
9774	549.96	550.88	0.92	2.55	122.00	3.62	2.68	3.01	2.81	10000	10000	10000	0	30.0	55	2.95	55	5	0.97	136	28
9775	550.88	552.38	1.50	0.03	1.00	0.01	0.03	0.05	2.80	112	276	500	0	1.0	35	4.11	1385	5	1.00	1	23
9776	552.38	553.52	1.14	0.31	20.30	0.14	0.52	8.96	2.85	1277	5422	10000	0	18.1	85	3.99	45	5	1.31	338	26
9777	553.52	554.53	1.01	1.90	86.40	1.61	1.17	6.35	3.74	10000	10000	10000	0	30.0	1215	0.22	65	5	0.12	243	9
9778	554.53	555.53	1.00	1.73	62.30	1.89	0.88	7.86	3.66	10000	8756	10000	0	30.0	1035	0.36	65	5	0.18	317	10
9779	555.53	557.03	1.50	0.30	0.00	0.00	0.00	0.00	0.00	569	678	2420	0	14.9	145	0.30	20	5	0.18	4	12
9780	588.58	589.90	1.32	0.32	0.00	0.00	0.00	0.00	0.00	229	3586	6863	0	5.1	80	0.52	35	5	0.42	23	6
9781	589.90	590.95	1.05	1.05	136.00	4.33	0.33	1.84	2.56	10000	3178	10000	0	30.0	20	3.03	60	5	0.55	90	24
9782	590.95	592.23	1.28	0.06	8.60	0.07	0.20	1.30	2.55	665	2032	10000	0	8.1	85	0.23	35	5	0.37	51	3
9783	592.23	593.64	1.41	0.03	0.00	0.00	0.00	0.00	0.00	496	1198	8463	0	3.7	130	0.42	35	5	0.40	33	4
9784	593.64	595.07	1.43	0.06	0.00	0.00	0.00	0.00	0.00	60	1146	1514	0	1.8	20	0.30	50	5	0.49	4	3
9785	595.07	596.39	1.32	0.00	0.00	0.03	0.00	0.00	0.00	1	0	1	0	0.0	0	0.00	0	0	10.00	105	5



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Assays ...continued

Sample No.	From (m)	To (m)	Interval (m)	Cr ppm	Fe %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Sb ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W ppm	Y ppm
9759	537.69	539.19	1.50	26	1.77	10	0.39	156	12	0.08	2	190	5	20	59	0.02	10	1	10	1
9760	539.19	540.24	1.05	38	9.12	10	0.09	63	1	0.01	1	10	85	20	30	0.01	10	1	10	1
9761	540.24	541.24	1.00	34	6.19	10	0.04	67	. 1	0.01	1	10	220	20	31	0.01	10	1	10	1
9762	541.24	542.24	1.00	12	2.50	10	0.01	50	1	0.01	1	10	610	20	26	0.01	10	1	10	1
9763	542.24	543.24	1.00	21	3.96	10	0.01	49	. 1	0.01	- 1	10	1945	20	29	0.01	10	1	10	1
9764	543.24	544.30	1.06	17	0.86	10	0.04	29	1	0.01	1	180	535	20	44	0.01	10	1	10	1
9765	544.30	545.16	0.86	12	2.06	10	0.02	49	1	0.01	. 1	10	170	20	25	0.01	10	1	10	1
9766	545.16	546.13	0.97	22	3.96	10	0.19	69	1	0.01	1	10	715	20	29	0.01	10	1	. 10	1
9768	546.13	547.21	1.08	63	10.00	10	0.01	15	6	0.01	1	10	60	20	14	0.01	10	1	10	1
9769	547.21	548.28	1.07	60	10.00	10	0.01	12	6	0.01	1	10	30	20	10	0.01	10	1	10	1
9771	548.28	548.76	0.48	30	4.75	10	0.01	51	1	0.01	1	10	1025	20	33	0.01	10	1	10	1
772	548.76	549.33	0.57	53	7.21	10	0.51	239	1	0.02	6	10000	455	20	37	0.01	10	24	10	1
773	549.33	549.96	0.63	69	2.40	10	0.51	261	1	0.03	2	10	5	20	28	0.01	10	21	10	1
774	549.96	550.88	0.92	246	5.68	10	3.15	1151	1	0.09	47	10	30	20	80	0.07	10	152	10	1
9775	550.88	552.38	1.50	247	4.24	10	3.91	1348	1	0.19	74	540	10	20	116	0.10	10	163	10	6
9776	552.38	553.52	1.14	243	4.01	10	2.76	1212	1	0.17	44	240	- 5	20	71	0.10	10	119	10	1
9777	553.52	554.53	1.01	35	10.00	10	0.03	76	1	0.01	1	10	300	20	15	0.01	10	2	10	1
9778	554.53	555.53	1.00	46	10.00	10	0.14	133	- 1	0.01	1	10	75	20	22	0.01	10	6	10	1
9779	555.53	557.03	1.50	60	2.31	10	0.06	73	7	0.01	6	70	50	20	43	0.01	10	2	10	1
9780	588.5 8	589.90	1.32	101	1.90	10	0.24	189	5	0.04	6	310	5	20	24	0.03	10	2	10	6
9781	589.90	590.95	1.05	308	7.50	10	3.71	1068	1	0.06	61	10	20	20	67	0.04	10	165	10	1
9782	590.95	592.23	1.28	76	1.39	10	0.01	110	1	0.01	1	270	20	20	13	0.01	10	1	10	3
9783	592.23	593.64	1.41	71	1.53	10	0.04	199	4	0.02	1	270	110	20	19	0.01	10	1	10	4
9784	593.64	595.07	1.43	85	1.30	10	0.04	282	9	0.05	. 3	250	5	20	21	0.03	10	1	10	11
9785	595.07	596.39	1.32	0	3.00	84	17.00	1	10	0.04	307	2	3	250	48	5.00	20	11	0	10



Hole-ID: TCU04127

Page: 1

Collar Coordinates

North (m): East (m) Elevation (m): 15374.00 10663.00

114.00

Azimuth (degrees):
Dip (degrees):

Length (m):

117.50 -33.48 279.50 Started:

11/09/2004

Date Logged:

11/09/2004

Completed:

14/09/2004 Logged By:

Report Printed: 1

TS. 17/12/2004

Down Hole Survey Tests

							DOW	ii iioic	Juive	, 1636	9						
Depth (m)	Azimuth	n Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip
0.00	117.50	-33.48	76.63	119.35	-33.80	153.27	120.86	-34.60	229.90	122.66	-34.89				-		
2.94	117.61	-33.50	79.58	119.40	-33.86	156.22	120.91	-34.63	232.85	122.77	-34.80						
5.89	117.64	-33.49	82.53	119.46	-33.91	159.16	120.96	-34.65	235.80	122.88	-34.71						
8.84	117.65	-33.46	85.47	119.51	-33.96	162.11	121.01	-34.64	238.75	122.99	-34.66						
11.79	117.67	-33.44	88.42	119.60	-33.99	165.06	121.08	-34.67	241.69	123.07	-34.62						
14.73	117.72	-33.44	91.37	119.63	-34.00	168.01	121.16	-34.70	244.64	123.09	-34.64						
17.68	117.80	-33.46	94.32	119.67	-34.03	170.95	121.22	-34.74	247.59	123.10	-34.67						
20.63	117.87	-33.47	97.26	119.66	-34.05	173.90	121.31	-34.79	250.54	123.12	-34.66						
23.58	117.94	-33.52	100.21	119.65	-34.09	176.85	121.37	-34.82	253.48	123.14	-34.63						
26.52	118.01	-33.57	103.16	119.71	-34.08	179.80	121.45	-34.85	256.43	123.23	-34.60						
29.47	118.14	-33.58	106,11	119.80	-34.09	182.74	121.52	-34.89	259.38	123.27	-34.55						
32.42	118.21	-33.60	109.05	119.88	-34.14	185.69	121.55	-34.90	262.33	123.29	-34.54						
35.37	118.26	-33.60	112.00	119.92	-34.20	188.64	121.62	-34.90	265.27	123.39	-34.52						
38.31	118.36	-33.48	114.95	120.01	-34.23	191.59	121.68	-34.91									
41.26	118.40	-33.43	117.90	120.12	-34.27	194.53	121.73	-34.94									
44.21	118.45	-33.44	120.84	120.17	-34.28	197.48	121.75	-34.95									
47.16	118.53	-33.45	123.79	120.26	-34.30	200.43	121.82	-34.98									
50.10	118.66	-33.47	126.74	120.34	-34.33	203.38	121.87	-34.98									
53.05	118.73	-33.50	129.69	120.37	-34.35	206.32	121.90	-35.00									
56.00	118.86	-33.50	132.63	120.42	-34.38	209.27	121.94	-35.02									
58.95	118.93	-33.51	135.58	120.50	-34.43	212.22	121.99	-35.03									
61.89	118.97	-33.56	138.53	120.52	-34.47	215.17	122.05	-35.04									
64.84	119.03	-33.61	141.48	120.62	-34.51	218.11	122.12	-35.05									
67.79	119.15	-33.66	144.43	120.71	-34.54	221.06	122.24	-35.07									
	119.18		147.37	120.75	-34.56	224.01	122.36	-35.03									
	119.29			120.78		226.96	122.54	-34.97									
										:							



Hole-ID: TCU04127

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Interval	(m)	Description	Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From	To		No.	(m)	(m)	(m)	g/t	g/t	%	%	%
0.00	1.52	Casing:									

1.52 12.63 Rhyolite Debris Flow:

No recovery

Pale grey to grey-green rhyolite debris flow. Polylithic subrounded fragments up to 10 cm with diffuse margins in a feldspar phyric matrix. Locally chloritic. Many chlorite-epidote-magnetite stringers < 2 mm at high angles (60 to 90 degrees) to core angle, some with quartz-albite alteration envelopes. Weak to moderate magnetism. Some bleaching. Minor hematite from 9.0 m depth to fault. Calcite stringers up to 1 mm.

8.96 12.73 Rhyolite Lapilli Tuff: Hematite; Lapilli tuff, well bedded, 45 degrees to core axis, polylithic. Fragments include jasper (angular < 2 cm). Quartz-chlorite veins 58 degrees to core axis from 10.29 to 10.57 m. Maroon colour (hematite content) increases down section.

12.63 13.27 Fault Zone:

Sheared, chlorite-carbonate-clay rich rhyolite with minor hematite. Calcite veins < 2 mm, sub parallel to shear, 50 degrees to core axis. Some slickensides on fractures. Top 11 cm just fractured blocky core, with chlorite, calcite and hematite in fractures.

13.27 27.75 Rhyolite Debris Flow:

Rhyolitic debris flow. Pale grey to grey-green, with fragments<20 cm with very diffuse margins, in matrix of slightly darker, greener feldspar phyric rhyolite matrix, with euhedral to subhedral, somewhat diffuse feldspar phenocrysts < 2mm. Weak fabric (banding) at 32 degrees to core axis. Moderately chloritic, with chlorite 'veins' up to 2 cm. Alteration envelopes of bleaching, epidote and magnetite on veins. Colour becomes increasingly more maroon (due to increasing hematite content) from 22.00 to 27.75 m), with less fragments (possibly a rhyolite flow). Quartz-epidote +/-chlorite +/- calcite stringers, up to 1 mm throughout, at 30-60 dergrees to core axis.

26.10 26.51 Fault Zone: Shattered core (pieces up to 5 cm), highly chloritic, with minor calcite for top 26 cm. Below that to footwall, rhyolite-chlorite crackle breccia. Angular rhyolite fragments up to 3 cm in a chloritic matrix (veins < 2 mm) with minor hematite. Zone at 75 degrees to core axis.



Hole-ID: TCU04127 Page: 3

Pb Zn

Cu

Sample From

(m)

To Interval Au

Interva	l (m)	Description
From	То	
27.75	27.96	Fault: Chlorite Shattered core, with abundant chlorite, hematite and calcite. Fault at 55 degrees to core axis. Well developed slickensides.
27.96	33.79	Rhyolite Debris Flow: Chlorite Debris flow as above, but less and smaller (<5 cm) fragments. Less feldspar phenocrysts. Maroon colour from 27.96 to 29.26 m, possibly a flow. Chloritized, subangular mafic phenocrysts < 2 mm downsection. Sharp but irregular basal contact. 29.26 30.73 Fault: Fracture zone. Broken core with chlorite and hematite, with calcite stringers < 1 mm.
33.79	34.20	Rhyolite Lapilli Tuff: Dark green to maroon lapilli tuff. Angular fragments up to 5 cm, polylithic, in fine granular ash matrix (matrix supported). Quartz-chlorite-epidote-hematite veins up to 3 mm, some with siliceous envelopes. Faintly banded at 65 degrees to core axis (bedding). 2.5 cm chlorite-calcite shear with slickensides at 33.28m, 80 degrees to core axis.
34.20	37.85	Fault Zone: Fault zone. Shattered core, mostly ash and lapilli tuff fragments. Partially recemented with calcite, chlorite and hematite. Siliceous, less broken section from 34.25 - 34.93 m and from 37.52 to 37.66 m, where hematite is more abundant. Weak slickensides (rare). Abundant calcite stringers < 3 mm.
37.85	54.38	Green grey - dark brown grey - maroon - locally slightly mauve tinted rhyolite debris flow. The interval is variably magnetic: Non- to weakly magnetic near the upper contact, increasing to weakly- to moderately magnetic towards the lower part of the interval. The debris flow with
		fragments of felsic (rhyolitic) composition (beige pink green grey, with feldspar phenocrysts up to approx 2 mm size, which are chloritized and appear as dark spots), up to > 10 cm size, generally sub rounded - rounded, generally well defined, locally with blurry contacts (which may indicate flow brecciation) and with variable abundance: Sections fragment supported, sections matrix supported and sections almost exclusively consisting of dark mauve grey - dark maroon grey,



Hole-ID: TCU04127 Page: 4

Interval (m)

To

From

Description

Sample No.

From (m)

Τо (m)

Interval (m)

Pb Zn % %

Cu

feldspar phyric (an- to subhedral feldspar phenocrysts, up to 4 mm, usually < 2 mm) matrix, resembling a rhyolite flow, i.e. grading into a flow. Lower contact: Sharp, @ 70 deg to CA.

- 42.33 43.39 Basalt Dyke: Dark green grey green grey mafic, non magnetic, fine- to medium grained intrusive. 2 cm wide chlorite bearing quartz veins, sub parallel to CA. Upper contact: Sharp @ 45 deg to CA. Lower contact: Sharp @ 45 deg to CA.
- 44.36 45.13 Basalt Dyke: Dark green grey green grey, non- to weakly magnetic, fine grained, mafic intrusive. At 44.70 a fracture plane with slickensides and minor chloritic fault gauge. Upper contact: Sharp, @ 40 deg to CA. Lower contact: Sharp, @ 65 deg to CA.
- 46.22 46.57 Fault Zone: Bleached: Broken core: Approx 95 % of core broken into pieces < 10 cm, approx 80 % of material < than 5 cm. Core pieces with shattered appearance: Fine meshed (2 cm scale) stockwork of carbonate bearing hairline stringers. Rock is chloritized and bleached. Fracture planes with slickensides, associated with minor chloritic fault gauge and a chlorite-, carbonate-, hematite-? (bright red - rusty brown, powdered mineral) coating, are orientated +/- vertical to CA. Upper contact: Sharp, @ steep angle to CA. Lower contact: Sharp, @ steep angle to CA.
- 50.26 53.17 Basalt Dyke: Dark green grey dark grey, fine grained, dense, massive mafic intrusive. Non- to moderately magnetic, patchy. Broken core: Approx 90 % of core broken into pieces < 10 cm, approx 50 % of material < than 5 cm. First m downwards from upper contact is somewhat bleached, with carbonate-, chlorite veins and veinlets from hairline- up to 3 mm width, with variable orientation, most conspicuously @ 50 deg to CA. Upper contact: Sharp, somewhat irregular, @ 40 deg to CA. Lower contact: Sharp, irregular, sub parallel to CA over approx 20 cm.

54.38 59.66 Basalt Intrusive:

Dark green grey - dark grey, fine grained, dense, massive, homogeneous, mafic intrusive. Weakly magnetic. Near upper contact an approx 10 cm sized rhyolite xenolith. Few (approx 1 vein/ 1 m core) +/- quartz, +/- chlorite, +/- epidote, +/- magnetite veins, up to approx 2 cm width, @ variable angles to CA. Lower contact: Alteration/ bleaching contact: Sharp, @ 35 deg to CA.

59.66 64.50 Fault Zone:

Fault zone, broken core: Approx 90 % of core broken into pieces < 10 cm, approx 50 % of material <



Hole-ID: TCU04127

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Interval (m)

From

То

Description

Sample No. From (m)

To Int

Interval Au (m) g/t

Ag a/t Pb Zn **%** %

Cu

%

than 5 cm, approx 30 % of material < 3 cm. Core pieces from upper contact down to 63.30 m are bleached to pale green and display carbonate bearing quartz-, chlorite veins with accessory hematite?. Width varies from hairline (most commonly) to > 1 cm; the 3 dimensional network resembles a small scale stockwork (down to cm scale) and creates a shattered appearance of the rock pieces. Orientation of veins is variable, most conspicuously @ 50 deg and 75 deg to CA, frequently associated with slickensides on fracture (contact) planes (locally with minor chloritic fault gauge, especially associated with veins > 1 cm width). Wider veins locally grading into breccia veins. At 63.12 - 63.24 tectonic breccia: Angular fragments of host rock, from sub mm - several cm, enclosed in quartz-, chlorite-, carbonate- vein mineralization, larger fragments displaying jig saw fit, sandwiched between up to approx 1 cm wide quartz-, chlorite- carbonate veins @ 80 deg to CA. Slickensides and fault gauge on fracture planes @ 80 deg between breccia, veins and host rock. Lithology: As a result of bleaching and chloritic alteration lithology is not to determine in sections. However, most of the upper part of this interval (from upper contact to 63.35 (sharp, intrusive contact, sub vertical to CA) comprises rhyolite, possibly and rhyolite debris flow, suggesting xenoliths within the BIN or a bifurcating contact. From 63.35 - lower contact: BIN (dark green grey - dark grey, fine grained, moderately magnetic) as described at "54.38 - 59.66 m". Lower contact: Marked by decreasingly broken core.

64.50 85.10 Basalt Intrusive: Magnetite; Chlorite

Dark green grey - dark grey - green grey, fine - medium grained, variably amphibole phyric and/ or feldspar phyric mafic intrusive. Variably magnetic: Non-moderately magnetic, predominantly non- to weakly magnetic. Dense, massive, featureless sections alternating with amphibole phyric sections (feldspar phenocrysts usually sub mm - < 2 mm, rarely approx 3 mm), with feldspar in isolated sections amounting to 40 %. The interval is more or less (with the exception of few sections) pervasively fractured. Lower contact: Lost in broken core, associated with bleaching and alteration, suggesting a fault contact.

- 66.75 67.10 Fault: Fault, broken core, associated with an approx 5 cm wide, zoned breccia vein, orientated @ 55 deg to CA. Sub mm several cm sized, angular sub angular fragments in predominantly carbonate comprising vein mineralization.
- 69.00 71.10 Fault Zone: Broken core: Approx 95 % of core broken into pieces < 10 cm, approx 60 % of material < than 5 cm. Core pieces partially with a carbonate bearing, white stringers, locally resembling a stockwork and resulting in a shattered appearance.



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Interval (m) To

From

Description

Sample No.

From (m)

То (m)

interval (m)

Cu

Zn %

Bleached to green grey - grey. Slickensides on fracture planes, orientated @ 50 deg to CA. Slickensides and fault gauge (chloritic, slightly hematitic) on fracture planes, orientated @ approx 80 deg to CA.

75.20 79.35 Fault Zone: Broken core: Approx 80 % of core broken into pieces < 10 cm, approx 40 % of material < than 5 cm. Some bleaching and minor carbonate bearing stringers, similar to interval "69.00 - 71.10 m". Approx 1 - 8 mm wide quartz-, chlorite-, carbonate veins, orientated @ steep angle to CA (up to approx 4 veins per 1 m core), which are associated with some +/- parallel stringers (as described above). Hematite coated fracture planes, displaying slickensides are orientated @ 20 deg, 30 deg and sub parallel to CA.

85.10 93.56 Quartz-Feldspar Porphyry Dyke:

Light green grey - slightly mauve tinted, fine coarse grained feldspar porphyry dike. Sub- euhedral feldspar phenocrysts (sub mm up to 8 mm) and sections with subhedral amphibole phenocrysts (sub mm up to 3 mm), which are more or less entirely chloritized and appear as dark green spots. Weakly moderately magnetic throughout. Pervasively broken and fractured into pieces < 10 cm, approx 50 % of material < than 5 cm. Lower contact: Sharp, @ 40 deg to CA, associated with an approx 9 cm wide layer of fault gauge (with few, > 1 cm, angular fragments of host rock in it). The highly chloritic fault gauge is very similar to the gauge described at "92.80 - 93.40 m" (nested interval described below), but it contains a considerably smaller amount of quartz and carbonate.

92.80 93.40 Fault: Broken core. Pieces of host rock enclosed in chloritic fault gauge, mixed with approx 30 % quartz-, carbonate mineralization, forming 5 evenly distributed, scattered veins, orientated @ 50 deg and sub vertical to CA, and width varying from 0.5 - 3 cm. In between the semi crystallized veins the host rock is shattered and healed with carbonate bearing stringers.

93.56 96.40 Basalt Intrusive:

Dark green grey - dark grey, fine grained - medium grained, massive, homogeneous, amphibole phyric, non- moderately magnetic, mafic intrusive. Pervasively fractured and broken core, locally chloritic, clayey, ductile fault gauge, associated with fracture planes @ steep angle to CA. Lower contact: Marked by increasingly abundant brecciation, broken core and fault gauge, no plane.



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Description Cu Pb Zn Interval (m) Sample From То Interval % No. (m) (m) (m) To From 99.63 Fault: 96.40 Fault: Pervasively fractured core. Sections with core pieces displaying shattered appearance as a result of a stockwork resembling, fine meshed, stringer network of white, carbonate bearing mineralization, similar to "59.66 - 64.50 m", which locally grades into a tectonic breccia with angular, mm up to several cm sized fragments of host rock (jig saw fit texture), separated by sub mm to approx 3 mm wide, carbonate bearing, white mineralization. At 96.40 - 96.60: A zoned fault gauge vein, 2.5 cm wide, sub parallel to CA with 3 mm wide chalcedony bands in contact with host rock on each side, sandwiching clavey, ductile, chloritic light green - light blue green fault gauge. On one side the contact between the chalzedony band and the host rock is associated with a carbonate-, hematite seam. Picture taken. The lower part of the interval comprises an approx 50 cm wide, gravely, loose fault gauge zone, that grades into a tectonic breccia with sub angular - sub rounded fragments (mm up to several cm sized), which are embedded in a strongly chloritic, ductile - somewhat solidified (cemented with carbonate and chlorite) fault gauge. Lower contact: Quite sharp transition from gauged material to solid felsic igneous rock, orientated @ steep angle to CA. 99.63 102.69 Rhyolite Debris Flow: Bleached Pale green grey - pinkish grey - dark brown grey RDF, with sub rounded - rounded rhyolite fragments (variably feldspar phyric, with feldspar phenocrysts chloritized and appearing as up to 2 mm sized, dark spots) in a dark brown grey (locally bleached to green grey) predominantly fine grained matrix. The interval is non magnetic throughout. Lower contact: Sharp, @ 40 deg to CA. 102.69 202.04 Basalt Intrusive: As described at 64.50 - 85.10 m". Very dense and homogenous, featureless, no remarkable fracturing. Lower contact: Sharp, @ 50 deg to CA. 202.04 211.15 Rhyolite Debris Flow: 209.65 211.15 1.50 0.05 Dark green grey - green grey - pale green grey, rhyolite debris flow with dirty mottled appearance. 10279 0.00 0.00 0.00 0.00 The interval displays clearly identifiable rhyolite fragments in sections, with fragment size varying from several mm up to at least approx 8 cm; however the presence of fragments up to approx 25 cm can not be excluded. Overall rather matrix supported. Over approx 50 % of the entire interval

the fragments are very irregular shaped and appear to be shattered, with chlorite stringers and locally up to cm wide, rose colored quartz veins. Veins and stringers appear to not crosscut the



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From To	Description	Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn	
From	То		No.	(m)	(m)	(m)	g/t	g/t	%	%	%
		contact of the fragments into the matrix. These textures are interpreted to be flow breccia	,								
		textures, but possibly they represent alteration patterns, and they result in an overall dirty									
		mottled appearance of the interval. From 210.34 - 210.80 the interval displays a foliation +/-		-							
		vertical to the CA, which is interpreted to be a flow banding. Picture taken. The matrix is dark									
		grey - slightly maroon and/ or mauve tinted grey. The matrix is feldspar phyric (subhedral - very									
		rarely euhedral sub mm - 3 mm sized feldspar phenocrysts) and variably non- to moderately magnetic.									
		Lower contact: Sharp, slightly irregular, @ 65 deg to CA.									
211.15	213.35	Semi-Massive Sulphide: Pyrite									
		Beige grey - light grey - (olive) green grey - pale green grey, with dirty appearance. Sulfide rich	10280	211.15	212.	25 1.10	0.75	30.10	0.43	0.24	1.76
		bands (pyrite, possibly associated with minor sphalerite and tetrahedrite) alternating with	10281	212.25	213.	35 1.10	0.86	40.60	0.44	0.27	1.93
		sericite rich bands and silica rich bands. Foliation approx @ 50 deg - 80 deg to CA (Partly the									
		bands grade into elongated patches, partly into laminae). Width of bands is rarely up to 1 cm. Few									
		sub angular - sub rounded rhyolite fragments are scattered throughout, with size ranging from mm up									
		to 6 cm size. At 212.05 - 212.15 a 10 cm sized feldspar phyric rhyolite fragment? Estimate:									
		Sulfide: 18 %, sericite 25 %. Lower contact: Sharp, conformable @ 70 deg to CA.									
		211.92 212.05 Basalt Dyke: Dark brown grey, very fine grained, non magnetic mafic intrusive, with									
		a swirly - wavy inclusion of the host rock. Upper contact: Sharp, somewhat									
		irregular, @ steep angle to CA. Lower contact: Sharp, @ 65 deg to CA.									
213.35	216.10	Rhyolite Debris Flow:									
		Very similar to the interval "202.04 - 211.15" but displaying less flow foliation and flow	10282	213.35	214.	25 0.90	0.03	0.00	0.00	0.00	0.00
		brecciation.	10283	214.25	215.	14 0.89	0.03	0.00	0.00	0.00	0.00
		215.14 215.78 Semi-Massive Sulphide: Pyrite; Rhyolite fragments (mm up to 6 cm sized, sub rounded	10284	215.14	215.	78 0.64	0.75	20.20	0.30	0.25	1.62
		- rounded, pale light green - white, partially almost entirely composed of quartz)	10285	215.78	216.	10 0.32	0.46	14.30	0.14	0.23	1.12
		are embedded in a sulfide bearing, sericitic, dirty green brown grey matrix. Sulfide									
		content is estimated to be approx 12 %. Locally, particularly near the upper and the									
		lower contact with a foliation (bedding) @ steep angles to CA. Upper contact: Sharp,									
		@ 75 deg to CA. Lower contact: Sharp, at steep angle to CA, somewhat irregular.									
		E 70 dog to 571. Lower contact. Sharp, at steep angle to 571, contemplatinegular.									
216.10	217.29	Semi-Massive Sulphide: Pyrite									
		Generally the unit begins with 26 cm of QSP altered rock; presumably the protolith was a rhyolite.	10286	216.10	217.	29 1.19	1.32	186.00	0.14	2.77	5.53



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Interval (m)

To

From

Description

Sample No.

From То (m)

(m)

Interval (m)

g/t

Pb Zn %

Cu

This upper section of the interval could be identified as a QSP: Olive grey - pale green grey, with presumably secondary pyrite clots (up to > 1 cm), irregular shaped pyrite patches (up to several cm size), some dusty disseminated pyrite and a very high sericite content (associated with leucoxene). With a sharp contact @ steep angle to CA the interval continues downwards into an approx 10 cm wide, massive sulfide bed (ZNF), with approx 20 % tetrahedrite. The contact to the underlying QSP (similar to the section near the upper contact) is sharp and cuts the core axis @ steep angle. The QSP grades downwards into a RDF with rhyolite fragments (rounded, up to 5 cm sized, with chloritized feldspar phenocrysts, which appear as dark spots), which are embedded in a sulfidic matrix (pyrite and minor tetrahedrite). Lower contact: Sharp, conformable, @ steep angles to CA.

217.29

235.96 Rhyolite Debris Flow:

Very similar to "202.04 - 211.15 m". Displaying clearly identifiable fragments, of at least up to 6 cm size, possibly up to > 20 cm size. The fragments are partially feldspar phyric (feldspar phenocrysts are chloritized and appear as dark spots) and display quartz eyes. Locally, for example at 222.43 m, rhyolite fragments enclosed in a pyritic matrix. Locally, for example at 219.74 m, fragments of massive sulfides? (up to 1.5 cm size), embedded within the rhyolite. Locally, for example at 243.80 - 244.40, rhyolite fragments of up to several cm size, embedded in an ash tuff? matrix (dark grey, with high content of approx 2 mm sized lapilli). Lower contact: Sharp, somewhat irregular, @ 25 deg to CA.

228.78 230.78 Rhyolite Flow: The primary interval grades here into an autobrecciated?, dark grey slightly maroon grey, non- to weakly magnetic, feldspar phyric rhyolite flow, with mostly subhedral feldspar phenocrysts of up to approx 3 mm size. Interval displays irregular shaped, pale green colored epidote alteration patches, which are assumed to +/- outline the fragments and textures, that were produced by auto brecciation. Upper and lower contact: Gradational, no plane.

234.89 235.00 Basalt Dyke: Dark green grey - dark brown grey, fine grained, dense, weakly magnetic, mafic intrusive. Upper contact: Sharp, conformable, @ 60 deg to CA. Lower contact: Sharp, conformable, @ 45 deg to CA.

235.96 237.31 Sloko Rhyolite Dyke:

Pale white - beige white - very pale green grey, dense, homogenous, massive, aphanitic felsic intrusive (sloko rhyolite dike). It shows dark grey - black usually sub mm sized, very rarely up to

10287	217.29	218.79 1.50	0.06	0.00	0.00	0.00	0.00
10288	218.79	220.29 1.50	0.07	0.00	0.00	0.00	0.00
10289	220.29	221.79 1.50	0.25	0.00	0.00	0.00	0.00
10290	221.79	223.29 1.50	0.09	0.00	0.00	0.00	0.00
10292	223 29	224 79 1 50	0.14	0.00	0.00	0.00	0.00



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Interval From	(m) To	Description	Sample No.	From (m)	To (m)	interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %
		mm sized, unidentified mineral aggregates?, phenocrysts?, possibly tourmaline?. The flow foliation is +/- parallel to the contacts and cuts CA @ 40 deg. Lower contact: Sharp, @ 60 deg to CA.		. "							
237.31	242.09	Rhyolite Debris Flow:									
		Dark green grey - green grey - pale green grey rhyolite flow? possibly a rhyolite debris flow? with a mottled, blotchy appearance. The interval is reminiscent to "228.78 - 230.78 m" with pale green -	10293	240.59	242.	09 1.50	0.03	0.00	0.00	0.00	0.00
		whitish - light green (epidote) colored, irregular shaped, up to > 20 cm sized, bleached appearing patches and blotches. These may be interpreted as fragments as a result of autobrecciation in a rhyolite flow, or - at least partially - as polylith? fragments within a rhyolite debris flow (At									
		240.3 m a 17 cm sized dark brown grey lapilli ash tuff fragment? a tuffaceous interbed?). Non- to weakly magnetic, patchy. Feldspar phyric with mostly subhedral - anhedral feldspar phenocrysts, rarely up to 4 mm sized, usually < 2 mm. Lower contact: Sharp, @ 70 deg to CA.								a.	
		239.85 240.09 Basalt Dyke: Dark green grey - dark grey, fine grained, dense, homogeneous, massive, no- to weakly magnetic mafic intrusive. Upper contact: Sharp, sub vertical to CA. Lower contact: Sharp, @ 70 deg to CA.									
		241.23 241.59 Basalt Dyke: Very similar to "239.85 - 240.09 m" Upper contact: Sharp, @ 85 deg to CA. Lower contact: Sharp, +/- vertical to CA.									
242.09	243.25	Semi-Massive Sulphide: Pyrite; Sericite									
		Beige grey - light grey - (olive) green grey - pale green grey, with a dirty appearance. The interval is banded and/ or foliated and/ or laminated throughout and very reminiscent to a QSP. Foliation cuts CA @ 65 deg. Olive green or dark brown green sericite rich bands (predominantly or almost entirely composed of sericite) are alternating with silica rich bands and few pyrite rich	10295	242.09	243.	25 1.16	0.55	18.70	0.16	0.10	1.79
		bands (the bands partly grade into laminae or elongated patches). Width of the bands is variable, up to > 2.5 cm, locally grading into massive sericite sections, > 12 cm. Very high sericite content (associated with leucoxene), at least 50 %. Pyrite (locally also dusty, disseminated) amounts to approx 15 % and is associated with tetrahedrite, minor chalcopyrite and possibly very minor									
		sphalerite. Lower contact: Sharp, irregular, approx @ 60 deg to CA.									
243.25	246.28	Massive Sulphide: Pyrite; Sericite									
		Massive sulfide, zinc facies. Banded @ 55 deg - 70 deg to CA. Olive green, pale beige, rarely dark brown - green sericite (associated with leucoxene) rich bands (width alternating from several mm up	10296 10297	243.25 244.25		25 1.00 25 1.00					



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Interval (m)	Description	Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From To		No.	(m)	(m)	(m)	g/t	g/t	%	%	·%
	to several cm) alternating with pyrite rich layers and few, thin tetrahedrite rich layers. The	10298	245.25	245.9	7 0.72	6.18	362.00	2.55	3.86	10.6
	facies changes are gradual and usually indistinct as a result of mixing (dissemination) and crudely developed lamination. The pyrite rich sections appear to be associated with some chalcopyrite and particularly sphalerite rich layers are associated with (partially disseminated) tetrahedrite, resulting in a dirty grey appearance. Sericite and barite as gangue mineral are scattered throughout and amount to approx 25 %. Occasionally approx 5 - 10 mm sized quartz nodules can be noted. At 245.97 - 246.60: Broken core, dropped core, redrilled core. Lower contact: Broken core, no plane.	10299	245.97	246.2	8 0.31	5.86	374.00	4.12	2.27	12.9
246.28 279.50	Feldspar-phyric Basalt Flow:									
	Dark green grey - dark grey, locally bleached to green grey, very fine grained - medium grained,	10300	246.28	247.7	78 1.50	0.40	0.00	0.00	0.00	0.0
	glassy, mafic rock, possibly a basalt flow. Locally small (up to 10 cm wide) amygdaloid zones	10301	247.78	249.2	8 1.50	0.03	0.00	0.00	0.00	0.0
	(amygdules usually up to 2 mm, rarely up to 5 mm, filled with quartz-, chlorite mineralization); sometimes associated with small zones of feldspar phenocrysts, up to 2 mm, subhedral. Predominantly moderately - strongly magnetic, non- to weakly magnetic from 268.41 - 275.80. Veins and veinlets (width varying from hairline up to several cm) with propylitic mineral assembly (quartz, chlorite, magnetite, carbonate, pyrite) and pyrite stringers, (up to several mm width) @ various angles to CA, most conspicuously @ 40 deg - 50 deg to CA and steep angles to CA. From upper contact downwards to approx 248.60 m, subsection is bleached to pale beige grey - pale green grey, mottled, dirty grey (possibly a rhyolite?) with up to several cm wide, partly very irregular quartz-, chlorite-, magnetite-, pyrite veins, with variable orientation to CA, most conspicuously @ 30 deg to CA.	10302	249.28	249.9	0.66	0.05	0.00	0.00	0.00	0.0

249.80 252.00 Fault Zone: Bleached; Interval bleached to green grey with a 3 dimensional network of white, carbonate bearing stringers and veinlets, associated with a 4 cm wide

quartz-, chlorite-, carbonate vein with chloritic, ductile fault gauge and

slickensides on the lower contact plane @ 40 deg to CA.

279.50 279.50 End of Hole:



Hole-ID: TCU04127 Page: 12A

Assays

Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %	SG	Cu ppm	Pb ppm	Zn ppm	Au ppb	Ag ppm	As ppm	AI %	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm
10279	209.65	211.15	1.50	0.05	0.00	0.00	0.00	0.00	0.00	121	74	324	0	0.6	5	0.74	135	5	0.52	1	3
10280	211.15	212.25	1.10	0.75	30.10	0.43	0.24	1.76	2.78	4218	2454	10000	0	30.0	10	1.37	25	5	0.57	77	12
10281	212.25	213.35	1.10	0.86	40.60	0.44	0.27	1.93	2.74	4303	2600	10000	0	30.0	15	1.14	35	5	0.74	88	15
10282	213.35	214.25	0.90	0.03	0.00	0.00	0.00	0.00	0.00	238	76	412	0	4.4	40	2.38	170	5	1.48	1	3
10283	214.25	215.14	0.89	0.03	0.00	0.00	0.00	0.00	0.00	89	28	232	0	0.6	25	1.54	155	5	0.87	1	4
10284	215.14	215.78	0.64	0.75	20.20	0.30	0.25	1.62	2.67	2879	2450	10000	0	19.1	. 15	0.70	20	5	0.65	79	6
10285	215.78	216.10	0.32	0.46	14.30	0.14	0.23	1.12	2.62	1331	2468	10000	0	13.5	20	0.67	30	5	0.51	49	5
10286	216.10	217.29	1.19	1.32	186.00	0.14	2.77	5.53	2.76	1165	10000	10000	0	30.0	35	0.46	15	5	0.48	260	6
10287	217.29	218.79	1.50	0.06	0.00	0.00	0.00	0.00	0.00	361	280	1141	0	4.1	10	0.73	145	5	0.75	5	4
10288	218.79	220.29	1.50	0.07	0.00	0.00	0.00	0.00	0.00	229	908	963	0	5.3	10	0.77	290	5	0.56	4	2
10289	220.29	221.79	1.50	0.25	0.00	0.00	0.00	0.00	0.00	1296	1060	1183	0	10.5	35	0.88	40	5	0.50	5	6
10290	221.79	223.29	1.50	0.09	0.00	0.00	0.00	0.00	0.00	357	1160	2146	0	4.2	15	0.70	95	5	0.73	14	5
10292	223.29	224.79	1.50	0.14	0.00	0.00	0.00	0.00	0.00	597	154	485	0	2.3	10	1.72	225	5	0.98	1	3
10293	240.59	242.09	1.50	0.03	0.00	0.00	0.00	0.00	0.00	44	40	82	0	0.3	10	1.49	675	5	1.09	1	3
10295	242.09	243.25	1.16	0.55	18.70	0.16	0.10	1.79	2.78	1394	958	10000	0	15.8	55	0.67	20	5	0.31	77	6
10296	243.25	244.25	1.00	15.20	322.00	2.15	6.49	1.71	3.88	10000	10000	10000	0	30.0	1925	0.27	70	5	0.11	748	4
10297	244.25	245.25	1.00	3.46	128.00	1.21	2.97	14.50	3.39	9253	10000	10000	0	30.0	290	0.26	10	5	0.41	700	3
10298	245.25	245.97	0.72	6.18	362.00	2.55	3.86	10.60	3.37	10000	10000	10000	0	30.0	765	0.31	50	5	1.53	603	8
10299	245.97	246.28	0.31	5.86	374.00	4.12	2.27	12.90	3.17	10000	10000	10000	0	30.0	285	0.80	45	5	1.31	613	15
10300	246.28	247.78	1.50	0.40	0.00	0.00	0.00	0.00	0.00	3418	436	2009	0	7.8	5	0.92	55	5	1.21	12	7
10301	247.78	249.28	1.50	0.03	0.00	0.00	0.00	0.00	0.00	45	48	119	0	0.4	5	1.02	240	5	0.82	1	4
10302	249.28	249.94	0.66	0.05	0.00	0.00	0.00	0.00	0.00	58	172	148	0	1.0	5	2.43	555	5	3.86	1	10



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Assays ...continued

Sample No.	From (m)	To Ir (m)	nterval (m)	Cr ppm	Fe %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Sb ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W ppm	Y ppm
10279	209.65	211.15	1.50	77	1.26	10	0.39	218	1	0.09	2	190	5	20	32	0.04	10	1	10	16
10280	211.15	212.25	1.10	27	4.70	10	0.76	221	3	0.08	2	110	5	20	50	0.05	10	18	10	1
10281	212.25	213.35	1.10	41	5.37	10	0.40	131	2	0.08	2	130	5	20	56	0.03	10	6	10	1
10282	213.35	214.25	0.90	65	1.54	10	0.43	212	3	0.32	1	240	30	20	170	0.04	10	3	10	6
10283	214.25	215.14	0.89	65	1.39	10	0.50	269	1	0.19	2	250	20	20	117	0.05	10	1	10	12
10284	215.14	215.78	0.64	48	2.56	10	0.28	135	1	0.06	,1	120	- 5	20	55	0.03	10	1	10	1
10285	215.78	216.10	0.32	52	1.81	10	0.38	168	1	0.03	. 1	200	5	20	47	0.04	10	1	10	7
10286	216.10	217.29	1.19	36	1.75	10	0.23	121	1	0.02	1	140	135	20	28	0.02	10	1	10	1
10287	217.29	218.79	1.50	104	1.09	10	0.27	191	2	0.09	7	210	5	20	60	0.03	10	1	10	8
10288	218.79	220.29	1.50	86	0.96	10	0.26	145	3	0.08	4	190	5	20	50	0.03	10	3	10	8
10289	220.29	221.79	1.50	70	1.70	10	0.28	137	3	0.09	4	150	55	20	41	0.03	10	5	10	7
10290	221.79	223.29	1.50	78	1.04	10	0.25	161	2	0.06	3	210	5	20	31	0.03	10	2	10	8
10292	223.29	224.79	1.50	61	1.56	10	0.42	202	1	0.18	2	210	10	20	62	0.05	10	1	10	10
10293	240.59	242.09	1.50	206	1.06	10	0.62	152	3	0.09	53	630	5	20	123	0.04	10	14	10	, 6
10295	242.09	243.25	1.16	16	3.76	10	0.67	126	2	0.01	1	10	20	20	16	0.01	10	3	10	. 1
10296	243.25	244.25	1.00	22	7.77	10	0.27	170	1	0.01	1	50	165	20	51	0.01	20	4	10	1
10297	244.25	245.25	1.00	19	4.83	10	0.19	100	1	0.01	1	10	125	20	29	0.01	10	2	10	1
10298	245.25	245.97	0.72	28	7.11	10	0.18	150	1 -	0.01	1	210	1135	20	59	0.01	10	1	10	1,
10299	245.97	246.28	0.31	43	7.06	10	0.75	296	1	0.01	. 1	10	415	20	63	0.01	10	20	10	1
10300	246.28	247.78	1.50	83	2.94	10	0.65	295	6	0.04	2	320	5	20	49	0.01	10	6	10	17
10301	247.78	249.28	1.50	62	2.34	10	0.54	239	2	0.08	2	690	5	20	34	0.05	10	1	10	15
10302	249.28	249.94	0.66	15	4.28	10	1.29	602	2	0.07	21	840	5	20	181	0.07	10	1	10	8



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Collar Coordinates

North (m): East (m)

Elevation (m):

15374.00 10663.00

114.00

Azimuth (degrees): Dip (degrees):

Length (m): -44.26

127.87 -44.26 Started: Completed: 14/09/2004 18/09/2004 Date Logged:

14/09/2004

Logged By: Report Printed: MTV. 17/12/2004

Down Hole Survey Tests

							DOW		Gourve	y i Cot	3						
Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	n Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip
0.00	127.87	-44.26	81.64	128.40	-44.60	163.28	129.87	-45.41	244.92	131.05	-45.46	329.52	133.35	-44.60			
3.14	127.86	-44.25	84.78	128.44	-44.60	166.42	129.89	-45.44	248.06	131.08	-45.47						
6.28	127.83	-44.24	87.92	128.52	-44.62	169.56	129.92	-45.47	251.20	131.10	-45.48						
9.42	127.82	-44.26	91.06	128.59	-44.67	172.70	129.96	-45.52	254.34	131.16	-45.43						
12.56	127.85	-44.30	94.20	128.65	-44.70	175.84	130.03	-45.55	257.48	131.25	-45.37						
15.70	127.87	-44.32	97.34	128.72	-44.73	178.98	130.07	-45.57	260.62	131.37	-45.32						
18.84	127.90	-44.31	100.48	128.76	-44.82	182.12	130.12	-45.55	263.76	131.54	-45.25						
21.98	127.93	-44.33	103.62	128.85	-44.83	185.26	130.16	-45.54	266.90	131.70	-45.12						
25.12	127.96	-44.32	106.76	128.88	-44.84	188.40	130.19	-45.51	270.04	131.81	-45.00						
28.26	127.92	-44.32	109.90	128.94	-44.84	191.54	130.21	-45.51	273.18	131.87	-44.99						
31.40	127.89	-44.34	113.04	128.99	-44.85	194.68	130.22	-45.53	276.32	132.00	-44.92						
34.54	127.85	-44.35	116.18	128.99	-44.87	197.82	130.31	-45.57	279.46	132.15	-44.84						
37.68	127.84	-44.37	119.32	129.06	-44.87	200.96	130.34	-45.59	282.60	132.29	-44.81						
40.82	127.86	-44.36	122.46	129.16	-44.90	204.10	130.41	-45.55	285.74	132.48	-44.83						
43.96	127.90	-44.37	125.60	129.26	-44.95	207.24	130.46	-45.56	288.88	132.59	-44.84						
47.10	127.97	-44.39	128.74	129.30	-45.00	210.38	130.51	-45.58	292.02	132.67	-44.79						
50.24	128.03	-44.44	131.88	129.38	-45.04	213.52	130.56	-45.57	295.16	132.75	-44.80						
53.38	128.11	-44.46	135.02	129.43	-45.11	216.66	130.62	-45.53	298.30	132.79	-44.83						
56.52	128.14	-44.43	138.16	129.51	-45.19	219.80	130.65	-45.49	301.44	132.86	-44.82						
59.66	128.15	-44.44	141.30	129.55	-45.22	222.94	130.69	-45.49	304.58	132.87	-44.84						
62.80	128.19	-44.47	144.44	129.58	-45.25	226.08	130.77	-45.47	307.72	132.92	-44.85						
65.94	128.20	-44.48	147.58	129.64	-45.27	229.22	130.79	-45.49	310.86	133.03	-44.82						
69.08	128.26	-44.48	150.72	129.68	-45.32	232.36	130.84	-45.50	314.00	133.11	-44.79						
72.22	128.31	-44.53		129.72			130.90		317.14	133.20	-44.74						
75.36	128.36	-44.58	157.00	129.77	-45.39	238.64	130.94	-45.52	320.28	133.35	-44.74						
78.50	128.37	-44.57	160.14	129.79	-45.41		131.00		323.42	133.34	-44.68						



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Pb Zn

%

Cu %

To Interval Au

(m)

g/t

g/t

(m)

Sample

No.

From

(m)

Interva	ıl (m)	Description
From	То	
0.00	1.80	Casing:
		Casing. No recovery. No depth marker.
1.80	11.08	Rhyolite Debris Flow:
		Rhyolite debris flow. Few polylthic fragments < 45 cm, with sharp to somewhat diffuse margins,
		subrounded to rounded. Top half may be rhyolite flow, all maroon to bourgundy aphanitic matrix, with euhedral feldspar phenocrysts < 2 mm. Various zones of bleaching. Quartz-chlorite +/- epidote
		veins < 2 cm throughout, mostly 45-80 degrees to core axis. These veins control zones of bleaching.
		Jasperoid blotches, more so in the upper 'flow' segment. Veins typically quartz with chlorite +/-
		epidote margins. Basal contact gradual, approximately 30 degrees to core axis.
11.08	16.67	Rhyolite Lapilli Tuff:
		Well bedded (35 degrees to core axis), banded grey-green to purple lapilli tuffs, with a few
		crystal tuff sections (subangular feldspar crystals < 2 mm). Larger fragments < 4 cm imbricated
		with bedding. Quartz-chlorite veins < 2 cm, with bleached halos, mostly parallel to bedding.
		Abundant jasper chips Basal contact at quartz-calcite-chlorite vein in narrow fault, 42 degrees to core axis.
		COTE AXIS.
16.67	17.22	Fault:
		Rhyolite debris flow, bound by (vuggy) quartz-chlorite-calcite 'shears', with minor gouge on both
		sides, but very few slickensides.
17.22	19.97	Rhyolite Debris Flow:
		Pale grey-green rhyolite debris flow, with fragments up to 15 cm. Generally mottled appearance.
		Unit grades into a flow breccia (?) below.
19.97	24.72	Rhyolite Flow Breccia:
		Pale grey-green flow breccia, with same appearance and mottled texture as overlying debris flow,
		but no fragments noted. Unit grades into a rhyolite flow below, with no distinct contact.
24.72	33.58	Rhyolite Flow: Hematite
		Maroon-bourgundy, aphanitic matrix, with euhedral feldspar phenocrysts < 2 mm. Very siliceous,



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Interval (m)	Description			Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From	То				No.	(m)	(m)	(m)	g/t	g/t	%	%	%

medium grey-green colour towards both flow top and bottom. Abundant hematite in maroon coloured sections. Many quartz-epidote stringers < 1 mm, some with minor chlorite filling open space (vugs), crosscut by quartz veins < 1cm. Pervasive weak magnetism. Broken core (fracture zones) from 26.23 - 28.92 m and from 29.80 - 30.52 m. Epidote and calcite in fractures with very few slickensides. Basal contact sharp, 71 degrees to core axis.

33.58 40.60 Rhyolite Debris Flow:

Rhyolite debris flow as above. Pale grey to grey-green rhyolite fragments, rounded up to 10 cm, in a slightly darker, green to pale purple feldspar phyric matrix. Weak fabric parallel to main fractures, 34 degrees to core axis. Basal contact sharp, 50 degrees to core axis. Highly fractured core (fault?) from 40.30 - 40.45 m, with chlorite and epidote in fractures. Approximately 20 cm of bleaching into hangingwall of fault.

- 34.03 34.43 Basalt Dyke: Fine grained, medium to dark grey, basalt dyke. Sharp hangingwall contact (58 degrees to core axis, but footwall contact obscured by dense quartz veins (minor chlorite at vein margins) and chlorite-epidote alteration adjacent to quartz vein within dyke.
- 35.24 36.21 Basalt Dyke: Amphobile; Basalt dyke. Medium to dark grey. Granular appearance, but this granularity decreases towards margins are chill margins. Few amphibole phenocrysts < 1 mm. Hangingwall contact sharp, 55 degrees to core axis. Footwall contact sharp, chilled, 48 degrees to core axis. Weak to moderately magnetic towards dyke margins only.

40.60 42.69 Rhyolite Lapilli Tuff:

Purple to bourgundy, well bedded lapilli tuff, with angular fragments < 5 cm, mostly pale rhyolite, but also beds of finer, more sorted, polymictic fragments < 2 cm. Bedding 50 degrees to core axis. Some hematite rich laminae < 1 mm. Few quartz-chlorite stringers < 2mm. Basal contact sharp, 48 degrees to core axis.

42.69 44.61 Rhyolite Debris Flow: Chlorite

Medium grey feldspar phyric matrix with subrounded pale rhyolite fragments up to 7 cm. Very fractured core, with chloritic slickensides in fractures (fault zone). Quartz-chlorite and quartz stringers < 2 mm. Basal contact with BIN obscured by fragmentation of core, but approximately 48



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Interval (m)	Description			Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From To				No.	(m)	(m)	(m)	g/t	g/t	%	%	%

degrees to core axis.

44.61 101.82 Basalt Intrusive:

Massive, dark grey to grey-green basitic intrusive, ranging from very fine grained to feldspar phyric to amphibole +/- feldspar phyric. Variably magnetic. Increasing fracturing and quartz-chlorite-calcite veins, with zones of bleaching from 89.58 m to fault. Quartz (-albite?) halos around amphibole phenocrysts in some zones. 4 cm fault at 67.25 m, 45 degrees to core axis, with calcite, chlorite, magnetite and hematite.

- 62.90 63.36 Fault: Angular fragments of chloritic basalt in a calcite matrix (crackle breccia).

 Hematite in fractures and vein margins. Predominant fracture direction 70 degrees to core axis (fault orientation?)
- 69.50 71.67 Fault: Majority of fault is fault breccia. Angular fragments < 5 cm of basalt, supported in a matrix of both calcite +/- quartz +/- chlorite and pink gouge. Some quartz. Fragments variably bleached, chloritic and hematitic. Few slicks.

101.82 139.02 Fault Zone:

Broken and shattered core, with chlorite, quartz, calcite, hematite and minor gouge in fractures, with abundant slickensides. Approximately 35 degrees to core axis. Two feldspar-amphibole dykes are included within this fault zone, which are significantly less fractured and disjointed than the basalt/ diabase. The latter seems to have absorbed all or most of the strain of faulting.

- 101.82 106.54 Basalt Intrusive: Broken and shattered core, with chlorite, quartz,calcite, hematite and minor gouge in fractures, with significant slickensides. Predominant fracture direction approximately 35 degrees to core axis. Local zones of bleaching, to pale green, with amphibole phenocrysts < 2 mm, variably chloritized. Core increasingly more competent towards contact with porphyry below.
- 106.54 109.90 Quartz-Feldspar Porphyry Dyke: Intermediate feldspar-amphibole phyric dyke. Anhedral to subhedral feldspar phenocrysts < 3 mm (10%) and anhedral amphibole phenocrysts < 1mm (2-3%) in a fine grained, medium grey matrix. Some feldspar phenocrysts have pale white to pink alteration (albite?) halos < 2 mm. No visible quartz phenocrysts; this dyke should technically not be referred to as QFP, although it is likely related to the QFP dykes. Some fractures with chlorite-calcite-hematite slickensides. Moderately magnetic. Hangingwall contact sharp, 35 degrees to core axis. Phenocrysts decrease in



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Interval (m) From To Description

Sample No. From (m)

To Inf

Interval Au (m) g/t

Ag Cu g/t % Pb Zn % %

size and abundance towards contacts (chill zones). Footwall contact irregular, approximately 20 degrees to core axis.

- 109.90 115.60 Basalt Intrusive: Chlorite; Shattered core. Highly chloritic, amphibole phyric (phenocrysts < 2 mm, 60%) diabase. Chlorite and calcite in fractures, some with slickensides and hematite. More competent core from 113.43 114.60 m, with cleavage 70 degrees to core axis.
- 115.60 119.53 Quartz-Feldspar Porphyry Dyke: Feldspar-amphibole porphyry. As above, with more (10-15%) amphibole phenocrysts in a pale, grey-green matrix. Hangingwall contact defined by 2 mm chlorite stringer, 43 degrees to core axis. Footwall contact obliterated due to core breakage. Cleavage and parallel calcite stringers < 3 mm 38 degrees to core axis.
- 119.53 139.02 Basalt Intrusive: Densely fractured and shattered, highly chloritic diabase, with chlorite and hematite in most fractures. Numerous grey to green-grey gouge zones < 2 cm. 122.05-122.28m: breccia. Subangular calcite-quartz(?) fragments <2cm in chlorite-clay matrix. 120.85-122.05 and 124.00-124.67: completely shattered core, including narrow, pale green gouge zones < 2 cm. 129.52-133.32: competent, unbroken, unaltered section. One small bleached patch. 133.90-134.36: recemented with calcite (breccia zone).

139.02 256.37 Basalt Intrusive: Magnetite

Porphyritic (amphibole) diabase, with 40% subhedral phenocrysts. Abundant quartz-chlorite-calcite-magnetite veining, subparallel-25 degrees to core axis, with chlorite +/-hematite alteration halos, giving a swirly appearance, from 194.50 down. Variably magnetic, from none to moderate. Very coarse amphibole phyric (50-60% phenocrysts < 3 mm) from 164.4 - 169.20 m. Quartz-chlorite-magnetite-calcite veins +/- pyrite +/- chalcopyrite from 214 to 257 m. Sharp basal contact 44 degrees to core axis.

256.37 274.62 Rhyolite Debris Flow:

Debris flow. Fragments up to 40 cm or more, pale grey to pale green with diffuse margins, in a massive fine grained matrix, with diffuse feldspar phenocrysts and phenocryst fragments < 2 mm. Block up to 30 cm of ash tuff included also. Dispersion of ash material into the flow material suggests partial absorbtion of soft ash into the flow at time of deposition. These tuff fragments

10320 272.66 274.19 1.53 0.03 0.00 0.00 0.00 0.00 10321 274.19 274.62 0.43 0.21 42.30 0.51 0.18 3.36



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276.02 277.42 1.40 0.03

277.42 278.92 1.50 0.03

10304

0.00 0.00 0.00 0.00

0.00 0.00 0.00 0.00

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Interval (m) From To	Description	Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %
	occur from the BIN contact to 261.50 metres depth. Quartz veins up to 1 cm and calcite stringers <									
	1 mm, 65 degrees to core axis. Also quartz-epidote stringers < 2 mm, all directions, as well as									
	epidote rich alteration patches throughout. Grey-maroon feldspar phyric rhyolite flow (?) from									
	266.20 to 268.32 m. Distinct fabric of chlorite-sericite (bedding?) at 43 degrees to core axis. Few									
	hematite fragments < 2mm. Patchy magnetism.									
	257.34 257.56 Basalt Dyke: Diabase dyke. Footwall contact broken and epidote altered,									
	approximately 90 degrees to core axis. Hangingwall contact is a 1 cm quartz vein, 85									
	degrees to core axis.									
	273.41 274.07 Basalt Dyke: Diabase dyke., with stretched or flattened amphibole phenocrysts < 2mm.									
	Includes 5 cm calcite breccia/ vein (both fragments and matrix are calcite), with									
	chlorite and calcite (and minor fuchsite) margins. This may be a fault, 21 cm wide,									
	50 degrees to core axis. Footwall sharp, 62 degrees to core axis. Hangingwall:									
	missing fragments of broken core, but approximately75 degrees to core axis.									
	274.19 274.62 Quartz-Sericite-Pyrite Alteration: Sericite; Pyrite; Banded, foliated zone of									
	quartz-sericite, with approximately 7-10% disseminated py. Banding at 53 degrees to									
	core axis. 1-2% interstitial chalcopyrite within disseminated pyrite bands. Also									
	clots and pods < 1 cm of massive pyrite-chalcopyrite (trace of tetrahedrite). Upper									
	contact is a zone of quartz rich brecciation on the hangingwall side of a very small									
	(2 cm diabase dykelet), 57 degrees to core axis. Footwall contact is sharp, intrusive									
	contact with sloko rhyolite, 20 degrees to core axis. One quartz band (vein) has thin									
	selvage (1 mm) of brown mineral, possibly sphalerite.									
274.62 276.02	Sloko Rhyolite Dyke:									
	Sloko rhyolite, quartz porphyry. Banded, white to white green to pale green, very fine grained to	10322	274.62	276.	02 1.40	0.03	0.00	0.00	0.00	0.00
	aphanitic rhyolite, with 2 % quartz eyes < 1 mm. Also few quartz nodules < 5 mm. Less than 1									
	percent disseminated pyrite. (Flow) banding parallel to sharp contacts, 38 degrees to core axis.									
	Fractures black, with dark green-grey chlorite and pyrite inside, with slickensides, 40 to 50									
	degrees to core axis, oblique to bedding.									
276.02 282.76	Rhyolite Debris Flow: Bleached									

Bleached, white to pale green, generally fine grained rhyolite, with 2-5% glassy feldspar and

quartz phenocrysts. Faint fragmental texture, with blocks (?) < 10 cm. Few clots < 1 cm of massive



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Interv From	al (m) To	Description	Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %
		pyrite-chalcopyrite (278.80 m) and few coarse pyrite cubes < 2 mm. Stylolite like, chlorite rich	10305	278.92	280.	35 1.43	0.03	0.00	0.00	0.00	0.00
		fractures < 0.5 mm throughout. Patchy, pale green, weak epidote (+ser?) alteration. Intermittent	10306	280.35	281.	76 1,41	0.03	0.00	0.00	0.00	0.00
		zones of micro brecciation, with soft, translucent matrix (gypsum?). These veins (breccia matrix)	10307	281.76	282.	76 1.00	0.03	0.00	0.00	0.00	0.00
		zones become more pyritic and sericitic down section, with up to 3% pyrite. Gradational contact to quartz-sericite-pyrite alteration zone below.									
282.76	284.66	Quartz-Sericite-Pyrite Alteration: Sericite; Pyrite; Leucoxene									
		Rhyolite debris flow, with subrounded rhyolite fragments < 15 cm or more, but matrix with high	10308	282.76	283.	75 0.99	0.13	0.00	0.00	0.00	0.00
		sericite-pyrite content form a swirled and banded texture. Also 'blebs' of pyrite < 5 mm. Total	10309	283.75	284.	66 0.91	0.75	0.00	0.00	0.00	0.00
		pyrite content varies, from 1% to 5%, with as much as 10% in quartz veins. Fine grained leucoxene									
		in sericite rich swirls. Basal contact not well defined, approximately 70 degrees to core axis.									
284.66	285.40	Semi-Massive Sulphide: Sericite; Pyrite									
		Highly sericitic quartz-sericite-pyrite zone, with well developed banding (50 degrees to core	10310	284.66	285.	40 0.74	2.29	52.30	0.62	1.35	6.05
		axis), and as swirls towards basal contact. The matrix is a combination of fine laminated sericite									
		and grey, barite rich ash, and disseminated pyrite up to 25% differentially distributed. Overall									
		sulphide content approximately 15% disseminated pyrite and <1% combined chalcopyrite and									
		tetrahedrite, the latter two usually occurring together in less than 3 mm lenses.									
285.40	286.50	Rhyolite Ash Tuff:									
		Banded, locally laminated, very fine grained rhyolite, too fine and altered to tell texture,	10311	285.40	286.	50 1.10	0.22	15.70	0.25	0.33	1.97
		possibly ash tuff. Few small quartz eyes < 0.5 mm, noted in white, unaltered bands. Colour ranges									
		from pale green bands (sericite rich) to white (unaltered or bleached) to medium grey and									
		grey-green in chloritic bands. Quartz-chlorite-pyrite-albite (?) veins < 1 cm, 50-90 degrees to									
		core axis, with selvages and associated microbreccia zones with pyrite blebs < 5 mm and traces of									
		chalcopyrite and tetrahedrite. Basal contact irregular, but sharp, 75 degrees to core axis.									
286.50	297 32	Semi-Massive Sulphide: Pyrite									
200.50	201.32	Debris flow, with fragments < 5 cm. Sulfides, disseminated in matrix, as near-massive bands at top	10313	286 50	287	32 0.82	0.48	60.20	0.82	1.62	7 70
		(7-10% chalcopyrite, 5-10% pyrite, 1-3 % tetrahedrite, 1-2% sphalerite, <1% Gn(?) in overall core).	10010	200.00	207.	JZ 0.02	0.40	50.20	0.02	1.02	1.19
		1-2 cm bands contain as much as 10% tetrahedrite. Sulphides are banded, in a medium grey, very fine									
		grained ash/barite matrix. Quartz-albite-chlorite veins <1.5 cm at 60 degrees to core axis, but									
		granies deliberation matter district district verification at the designed to dolle axis, but									



Hole-ID: TCU04128

oblique to veins. Basal contact somewhay brecciated, approximately 62 degrees to core axis. 287.32 309.73 Basalt Ash Tuff: Magnetite Dark grey-black, very fine grained to aphanitic ash tuff, with angular pale grey fragments < 2 mm, although few larger fragments noted. This unit may be a black, rhyolitic ash, but sections without fragments, and only feldspar phenocrysts appear as a basaltic flow or ash. The top of this zone is bleached to a pale grey to grey-green, with chloritic (+7) pyrite) fractures and stringers < 2 mm. Bleached zone from 287.32 - 288.22 m. Downsection, the chlorite stringers become wider, < 3 cm, with increasing magnetite, and epidote alteration halos. Cordiente (7) at 297.40. From 303.25 to bottom of unit, colour becomes increasingly pale grey. Moderate to storing magnetism. Pabric (bedding?) 45-50 degrees to core axis. The uniform nature of the seh-lapilli fragments' and jig-saw fit in places, suggest this tuffaceous texture may be small scale pseudo breccia, in an otherwise aphantite to porphyritic flow. Basal contact in broken core, with abundant chlorite and pyrite (fault?). 286.67 289.02 Basalt Dyke: Basalt dyke. Hangingwall contact sharp, 40 degrees to core axis. Footwall contact irregular, but sharp. Weak magnetism. 290.10 290.50 Basalt Dyke: Basalt dyke. Hangingwall contact sharp, irregular, 38 degrees to core axis. Footwall contact obscured in albite alteration zone. 309.73 312.05 Quartz-sericite-pyrite Alteration: Sericite; Pyrite Quartz-sericite-pyrite Zone. Pale grey to grey-green, banded 30 - 35 degrees to, but locally subparallel to core axis. Approximately 10-15 % disseminated pyrite along fabric (weak foliation). Fractures sub parallel to foliation. 10 cm breccia zone, with chloritic fragments in coarse crystalline calcite matrix at top of interval. Basal contact as undulating chloritic swirfs, approximately 80 degrees to core axis. Minor leucoxene.	Interv	al (m)	Description	Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
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Dark grey to black ash tuff (2) as above Tectonic contact (basal contact) Few lanilli sized 10319 312 05 313 05 1 00 0.03 0.00 0.00 0.00	312.05	312.35	Basalt Ash Tuff:									
Daily gray to black abit tall (1) ab abote, restaine some type of the ball tall (1) ab abote to the ball tall (1) about to the ball (1) about tall (1) about to the ball (1) about to the ball (1) about to the ball (1) about tall (1) about to the ball (1) about tall (1) about tall (1) about to the ball (1) about tall (Dark grey to black ash tuff (?) as above. Tectonic contact (basal contact). Few lapilli sized,	10319	312.05	313.	05 1.00	0.03	0.00	0.00	0.00	0.00
pale, subangular fragments < 1 cm. No magnetism.			pale, subangular fragments < 1 cm. No magnetism.									
312.35 314.34 Fault Zone: Chlorite	312.35	314.34	Fault Zone: Chlorite									
Highly chloritic, broken core. Lithology obscured by strong chlorite-albite alteration, criss			Highly chloritic, broken core. Lithology obscured by strong chlorite-albite alteration, criss									



Hole-ID: TCU04128

Page: 9

Interval (m)	Description	Sample			Interval					
From	То		No.	(m)	(m)	(m)	g/t	g/t	%	%	%

crossed with a network of chlorite stringers and veins < 1 cm. Very few slickensides and minor gouge in slickensides. Core fragmentation varies from average 1 cm to average 8 cm pieces.

314.34 338.02 Basalt Flow:

Basalt flow, dark grey to dark grey-green, with fine grained matrix. Grades from swirly ash (?) directly below fault to feldspar phyric (euhedral < 2 mm) and local anhedral amphibole < 0.5 mm. Few white amygdules (?) < 0.5 mm, elongate. Feldspar phenocrysts mostly broken, possibly a crystal tuff in places. Chlorite bands and veins < 2 cm., usually associated with albite alteration. Magnetism varies from weak to strong. Rare subangular chloritic clots < 1 cm (lapilli fragments?). Weak fabric, 45-50 degrees to core axis. Pyrrhotite clots and pyrrhotite-chlorite veins < 1 cm from 336.95 to 337.35 m.

END OF HOLE



Hole-ID: TCU04128 Page: 10A

Assays

Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %	SG	Cu ppm	Pb ppm	Zn ppm	Au ppb	Ag ppm	As ppm	AI %	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm
10303	276.02	277.42	1.40	0.03	0.00	0.00	0.00	0.00	0.00	906	698	1990	0	1.9	5	0.24	60	.5	2.62	9	3
10304	277.42	278.92	1.50	0.03	0.00	0.00	0.00	0.00	0.00	511	190	746	0	1.9	5	0.30	40	5	1.98	3	4
10305	278.92	280.35	1.43	0.03	0.00	0.00	0.00	0.00	0.00	2567	216	1911	0	1.8	5	0.22	55	5	2.09	8	3
10306	280.35	281.76	1.41	0.03	0.00	0.00	0.00	0.00	0.00	1431	924	6441	0	2.1	5	0.54	30	5	2.65	28	5
10307	281.76	282.76	1.00	0.03	0.00	0.00	0.00	0.00	0.00	1139	654	5436	0	2.3	10	0.61	40	5	3.36	18	4
10308	282.76	283.75	0.99	0.13	0.00	0.00	0.00	0.00	0.00	302	856	2877	0	5.5	, , 5	0.29	45	5	1.07	9	4
10309	283.75	284.66	0.91	0.75	0.00	0.00	0.00	0.00	0.00	685	666	2571	0	9.0	5	0.73	35	5	1.27	8	5
10310	284.66	285.40	0.74	2.29	52.30	0.62	1.35	6.05	2.82	5994	10000	10000	0	30.0	5	0.30	15	5	1.41	241	5
10311	285.40	286.50	1.10	0.22	15.70	0.25	0.33	1.97	2.58	2470	3380	10000	0	15.6	10	1.36	35	5	5.18	88	15
10313	286.50	287.32	0.82	0.48	60.20	0.82	1.62	7.79	2.94	8189	10000	10000	. 0	30.0	5	0.90	40	5	3.84	329	11
10314	287.32	288.71	1.39	0.03	0.00	0.00	0.00	0.00	0.00	508	110	392	0	1.5	5	0.98	335	5	1.77	1	4
10315	308.28	309.73	1.45	0.03	0.00	0.00	0.00	0.00	0.00	17	44	204	0	0.2	5	0.79	185	10	0.79	1	6
10316	309.73	310.89	1.16	0.16	0.00	0.00	0.00	0.00	0.00	375	160	368	0	1.9	175	0.37	40	5	3.53	1	12
10317	310.89	312.05	1.16	0.31	0.00	0.00	0.00	0.00	0.00	76	210	366	0	4.1	60	0.39	35	5	2.59	1	11
10319	312.05	313.05	1.00	0.03	0.00	0.00	0.00	0.00	0.00	46	54	210	0	0.5	5	3.28	570	5	1.28	1	13
10320	272.66	274.19	1.53	0.03	0.00	0.00	0.00	0.00	0.00	154	82	155	0	1.0	5	1.94	1175	5	3.31	1	11
10321	274.19	274.62	0.43	0.21	42.30	0.51	0.18	3.36	2.68	4990	1912	10000	0	30.0	5	0.72	20	5	4.05	154	10
10322	274.62	276.02	1.40	0.03	0.00	0.00	0.00	0.00	0.00	87	124	119	0	0.7	5	0.30	250	5	0.99	1	1



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Assays ...continued

Sample No.	From (m)	To (m)	Interval (m)	Cr ppm	Fe %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Sb ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W	Y
10303	276.02	277.42	1.40	33	1.91	10	0.59	437	1	0.05	2	140	20	20	165	0.01	10	6	10	15
10304	277.42	278.92	1.50	26	1.71	10	0.52	372	1	0.05	1	180	50	20	118	0.01	10	2	10	7
10305	278.92	280.35	1.43	21	1.56	10	0.52	372	1	0.03	1	90	30	20	126	0.01	10	3	10	10
10306	280.35	281.76	3 1.41	18	2.29	10	0.67	425	. 1	0.03	1	130	30	20	138	0.01	10	4	10	12
10307	281.76	282.76	1.00	49	2.15	10	0.37	429	1	0.03	2	120	40	20	77	0.01	10	4	10	17
10308	282.76	283.75	0,99	75	1.51	10	0.15	177	2	0.02	2	140	5	- 20	40	0.01	10	1	10	4
10309	283.75	284.66	0.91	64	1.82	10	0.35	224	, 1	0.07	2	170	5	20	114	0.01	10	2	10	1
10310	284.66	285.40	0.74	45	3.68	10	0.34	271	1	0.01	1	10	20	20	86	0.01	10	1	10	1
10311	285.40	286.50	1.10	24	6.13	10	1.82	1154	1	0.01	3	720	5	20	505	0.01	10	27	10	3
10313	286.50	287.32	0.82	25	7.11	10	1.15	969	1	0.01	1	10	5	20	130	0.01	10	19	10	1
10314	287.32	288.71	1.39	90	2.99	10	0.68	466	2	0.09	3	530	5	20	117	0.02	10	1	10	12
10315	308.28	309.73	1.45	67	3.11	10	0.58	373	1	0.05	2	470	5	20	22	0.05	10	1	10	19
10316	309.73	310.89	1.16	57	5.54	10	0.09	382	6	0.01	2	850	5	20	40	0.01	10	4	10	1
10317	310.89	312.05	1.16	47	4.25	10	0.16	154	6	0.02	. 8	1160	5	20	74	0.01	10	4	10	. 1
10319	312.05	313.05	1.00	105	3.63	10	1.64	688	7	0.25	27	350	5	20	114	0.11	10	86	10	6
10320	272.66	274.19	1.53	414	2.45	10	2.13	516	2	0.07	162	750	10	20	196	0.02	10	50	10	10
10321	274,19	274.62	2 0.43	133	3.95	10	0.83	479	1	0.01	21	30	40	20	122	0.01	10	16	10	1
10322	274.62	276.02	2 1.40	31	0.97	10	0.28	277	1	0.05	1	90	5	20	64	0.01	10	1	10	11



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Collar Coordinates

North (m): East (m) Elevation (m): 15374.00 10663.00

114.00

Azimuth (degrees):
Dip (degrees):
Length (m):

128.68 -26.12 289.26

Started: Completed:

18/09/2004 22/09/2004 Date Logged: Logged By: 18/09/2004 MA./ MTV.

Report Printed:

17/12/2004

Down Hole Survey Tests

									Our vo	,	_						
Depth (m)	Azimuth	n Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	n Dip	Depth (m)	Azimuth	n Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip
0.00	128.68	-26.12	89.02	130.22	-26.53	178.05	131.68	-27.65	267.07	133.23	-27.64						
3.42	128.81	-26.25	92.45	130.26	-26.57	181.47	131.72	-27.64	270.50	133.26	-27.67						
6.85	128.84	-26.16	95.87	130.31	-26.60	184.90	131.82	-27.64	273.92	133.33	-27.63						
10.27	128.93	-26.17	99.30	130.40	-26.66	188,32	131.91	-27.64	280.02	133.51	-27.56						
13.70	128.98	-26.22	102.72	130.49	-26.70	191.74	132.03	-27.60									
17.12	129.05	-26.21	106.14	130.57	-26.75	195.17	132.11	-27.59									
20.54	129.11	-26.20	109.57	130.61	-26.80	198.59	132.19	-27.62									
23.97	129.13	-26.21	112.99	130.64	-26.87	202.02	132.29	-27.65									
27.39	129.18	-26.21	116.42	130.69	-26.93	205.44	132.38	-27.62									
30.82	129.27	-26.19	119.84	130.75	-26.96	208.86	132.45	-27.62									
34.24	129.27	-26.18	123.26	130.83	-26.98	212.29	132.50	-27.60									
37.66	129.35	-26.18	126.69	130.93	-27.05	215.71	132.52	-27.58									
41.09	129.43	-26.19	130.11	131.04	-27.08	219.14	132.62	-27.56									
44.51	129.45	-26.21	133.54	131.09	-27.08	222.56	132.60	-27.56									
47.94	129.50	-26.20	136.96	131.15	-27.08	225.98	132.63	-27.55									
51.36	129.54	-26.25	140.38	131.23	-27.11	229.41	132.65	-27.54									
54.78	129.60	-26.26	143.81	131.28	-27.17	232.83	132.75	-27.55									
58.21	129.60	-26.29	147.23	131.31	-27.21	236.26	132.77	-27.53									
61.63	129.66	-26.31	150.66	131.32	-27.27	239.68	132.82	-27.54									
65.06	129.78	-26.31	154.08	131.33	-27.33	243.10	132.89	-27.52									
68.48	129.81	-26.33	157.50	131.38	-27.36	246.53	132.88	-27.55									
71.90	129.88	-26.36	160.93	131.41	-27.40	249.95	132.91	-27.64									
75.33	129.94	-26.38	164.35	131.50	-27.48	253.38	132.97	-27.67									
78.75	129.94	-26.43	167.78	131.59	-27.55	256.80	133.02	-27.68									
82.18	130.03	-26.43	171.20	131.62	-27.62	260.22	133.06	-27.68									
85.60	130.14	-26.49	174.62	131.63	-27.64	263.65	133.14	-27.67								•	



Sample

(m)

No.

From To Interval Au

(m)

(m)

Hole-ID: TCU04129

Pb %

Cu % Page: 2

Zn %

Interva	ıl (m)	Description
From	То	
0.00	1.52	Casing: 5 feet NW casing
1.52	6.15	Rhyolite Flow: Chlorite; Jasper Broken Rhyolite Flows. Minor chl vein/fracture fills with rare wormy jasper. Color varies from pale cream to maroon. Minor bleaching around chl veins. Interval is quite broken, likely blast shatter, we're drilling throught the wall of the roundabout. Lower contact is conformable, marked by first fragments.
6.15	15.37	Rhyolite Lapilli Ash Tuff: Chlorite; Jasper; Epidote Rhyolite Lapilli Ash Tuff. Variable pale to dark grey, Lapilli are subrounded rhyolite fragments, variably bleached. Lapilli are supported by a moderately bedded ashy matrix with jasper chips. Bedding 60 degrees TCA. Chl and Ep as alteration around fractures. Lower contact gradational, coarsening with depth.
15.37	42.37	Rhyolite Debris Flow: Chlorite; Jasper; Carbonate Rhyolite Debris Flow. Grey Green to grey rhyolite with large pale green-grey clasts or blocks. Clasts generally, >10 cm possibly greater than 1 m. Clast are supported by an ashy chl alt'd matrix with minor jasper. Abundant carbonate on fractures. Locally feldspar phyric both in clasts and matrix, laths to 3mm. Minor fits and caves, pulverized. Drillers note cave at ~22.56m. Lower contact is sharp, wavy and intrusive, 50 degrees TCA. 17.98 18.30 Fault Zone: Calcite; Pulverized core
		 20.57 20.80 Fault Zone: Calcite; Open space filled txt's fit, approx 45 degrees TCA. 25.01 27.36 Feldspar-phyric Rhyolite Flow: Possible rhyolite flow, massive glassy maroon rhyolite. Lower contact marked by open Ep vein, shattered, 70-80 degrees TCA, possible sill? 31.70 32.64 Basalt Dyke: Quartz Vein; Chlorite; Magnetite; Basalt dyke. Chl alt'd. Qtz +/- Mag veins throughout. 1-2 cm. Contacts are sharp, HW 80 degrees TCA straight, FW 70 degrees TCA, sharp straight, broken.
		33.68 35.60 Basalt Dyke: Chlorite; Quartz Vein; Fault Zone; Broken and flt'd Basalt dyke. pervassive chl alt'n. Prominent QZVNs +/- Mag and Chl. Rare xeno of RDF. Muddy Chl and Hem on fractures/flts, sub parallel TCA. Lower contact broken possibly sub



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Interval (m)	Description	Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From To		No.	(m)	(m)	(m)	g/t	g/t	%	%	%

parallel TCA. HW sharp, broken, 70 degrees TCA. Lower contact sharp, wavy, intrusive, 50 degrees TCA.

42.37 63.92 Basalt Intrusive: Amphobile; Chlorite; Epidote

Amphibole Bearing Basalt Intrusive. Dark green mafic intrusive, minor v dark green chl alt'd amphiboles with possible feathery alt'd felspars. Upper portion of interval is finer grained or more intensely CHL alt'd. No primary features preserved, either a chill margin or an alteration margin. Alt'n fades with depth showing primary intrusive txt's. Ep alt'n noted as patches or seams.

45.39 46.63 Rhyolite Flow: Rhyolite xenolith/block. Upper contact wavy and irregular, lower contact subtle, partially absorbed.

63.92 67.82 Quartz-Feldspar Porphyry Dyke: Feldspar, Calcite

Broken Qtz-feldspar porhyry dyke. Fractures are rough and irregular and covered with hard calcite 1-2mm thick. Rare qtz eyes, grey 0.5-1mm. Feldspars are angular to rounded to 6 mm. VFG chl alt'd groundmass. Trace py on fractures. Approx 50 cm of chill margin @ contact. Feldspars are somewhat darker in this zone. Lower contact marked by 1.5 cm chl-carb vein 60 degrees TCA.

67.82 76.16 Feldspar-phyric Basalt Intrusive: Chlorite; Hematite; Calcite

Chl alt'd felspar phyric basalt intrusive. Feldspars 1-3 mm, feathery, grey green in a chl matrix. Abundant small fits and bleached zones with calcite and hem on fracture surfaces. Fits 45 degrees TCA with slicks at 75 degrees TCA. Lower contact marked by 1 cm pink clacite vein, open space filled.

76.16 102.11 Fault Zone: Bleached: Calcite: Hematite

5300 Fit. Rubbley to gougey core, abundant carbonate +/- hematite staining. Locally sandy. Main fault plane approx 25 degrees TCA. Rubbley and blocky to 85.04m. Gouge more common to 102.11. Large gouge interval from 92.54 to 94.79m. Fit becomes more hematitic with depth. Fit cuts BIN. Lower contact spun/ pulverized at 102.11m

102.11 205.02 Feldspar-phyric Basalt Intrusive: Chlorite; Magnetite; Epidote
Feldspar Phyric basalt intrusive. Relatively coarse grained. pale grey green feldspars 3-4mm.



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		(m)	(m)	(m)	g/t	g/t	%	%	Zn %
Trace dpy rare ep alt'n as stringers and around fractures. Relatively massive with rare veins of calcite, ep or mag. Mag also as seams. Rare broken zone. Lower contact sharp wavy, intrusive, 70 degrees TCA.									
	40000	004.00	000.0	0 400	0.00	0.00	0.00	0.00	2 20
	10325	222.20	222.8	SU U.6U	0.11	0.00	0.00	0.00	0.00
Lower contact marked by 10 cm of QSP alteration. Actual contact broken 70 degrees TCA.									
	40226	222.00	222	0 100	6.26	402.00	E 01	E 64	26 70
	10326	224.50	225.2	0.70	0.30	336.00	11.00	1.11	10.70
• • • • • • • • • • • • • • • • • • • •				•					
degrees TCA.									
223.80 225.20 Copper Facies: High Grade Copper Facies Minerialization. 30-40% Cpy, 15-20% Sphal,									
5-8% sooty gal +/-tetrahedrite. 5% barite clasts, 1-2 % rhyolite fragments. No well									
developed bedding. Cpy increases with depth possibly getting as high as 60%.									
Rhyolite Debris Flow: Chlorite									
	10329	225.20	227.2	20 2.00	0.03	0.00	0.00	0.00	0.00
	10330	227.20	229.1	7 1.97	0.04	0.00	0.00	0.00	0.00
alteration along fractures. Function of disarticulation? Lower contact sharp but conformable with					•				
	Rhyolite Debris Flow: Epidote Rhyolite Debris Flow. Feldspar phyric, both in matrix and clasts. Matrix varies from glassy with angular white feldspar to ashy with depth. Clasts to 40 cm +, crudely bedded, long axis of smaller clasts oriented 20-30 degrees TCA. Clasts are dominantly rhyolite, variably bleached, with chl fractures, (disarticualtion??) Rhyolite clasts tend to be rounded. Rare small (~1cm), subangular to angular mafic or sed clasts noted with py inclusions noted in ashy intervals. V rare qtz-chl veins+/- ep. Rare fracture with calcite coating. 2cm band of spahl at 222.52, 50 degrees TCA. Lower contact marked by 10 cm of QSP alteration. Actual contact broken 70 degrees TCA. Massive Sulphide: Copper Facies; Zinc Facies Massive Sulphide Massive Sulphide, G zone. Looks to be a high grade interval. Upper 1 metre of zone ZnF fading to CuF with depth. Bedding 45-65 degrees TCA, with possible crossbedding noted??? Transition between ZnF and CuF is gradual, possible metal zonation by replacement? Lower contact marked by 6 cm wormy qtz-chl vein, with plucked margins, possible tetrahedrite, washed out by drill?? 222.80 223.80 Zinc Facies Massive Sulphide: Zinc Facies Mineralization, interval 40-50% brown sphal, 5-10% cpy, 8-10 galena +/-tetrahedrite. 5% barite clats<1cm. Lower contact somewhat arbriatry, cpy increases with depth. Bedded at top of interval 45-60 degrees TCA. 223.80 225.20 Copper Facies: High Grade Copper Facies Minerialization. 30-40% Cpy, 15-20% Sphal, 5-8% sooty gal +/-tetrahedrite. 5% barite clasts, 1-2 % rhyolite fragments. No well developed bedding. Cpy increases with depth possibly getting as high as 60%. Rhyolite Debris Flow: Chlorite Rhyolite Debris flow. Dark blueish green feldspar phyric to ashy matrix supporting clasts to 15 cm. Felspars 1-2 mm, matrix is dominantly an ash. Clasts are variably bleached with minor ep	Rhyolite Debris Flow: Epidote Rhyolite Debris Flow. Feldspar phyric, both in matrix and clasts. Matrix varies from glassy with 10323 angular white feldspar to ashy with depth. Clasts to 40 cm +, crudely bedded, long axis of smaller 10325 clasts oriented 20-30 degrees TCA. Clasts are dominantly rhyolite, variably bleached, with chl fractures, (disarticualition??) Rhyolite clasts tend to be rounded. Rare small (~1cm), subangular to angular mafic or sed clasts noted with py inclusions noted in ashy intervals. V rare qtz-chl veins+/- ep. Rare fracture with calcite coating. 2cm band of spahl at 222.52, 50 degrees TCA. Lower contact marked by 10 cm of QSP alteration. Actual contact broken 70 degrees TCA. Massive Sulphide: Copper Facies; Zinc Facies Massive Sulphide Massive Sulphide, G zone. Looks to be a high grade interval. Upper 1 metre of zone ZnF fading to 10326 CuF with depth. Bedding 45-65 degrees TCA, with possible crossbedding noted??? Transition between 10327 ZnF and CuF is gradual, possible metal zonation by replacement? Lower contact marked by 6 cm wormy qtz-chl vein, with plucked margins, possible tetrahedrite, washed out by drill?? 222.80 223.80 Zinc Facies Massive Sulphide: Zinc Facies Mineralization, interval 40-50% brown sphal, 5-10% cpy, 8-10 galena +/-tetrahedrite. 5% barite clats<1cm. Lower contact somewhat arbriatry, cpy increases with depth. Bedded at top of interval 45-60 degrees TCA. 223.80 225.20 Copper Facies: High Grade Copper Facies Minerialization. 30-40% Cpy, 15-20% Sphal, 5-8% sooty gal +/-tetrahedrite. 5% barite clasts, 1-2 % rhyolite fragments. No well developed bedding. Cpy increases with depth possibly getting as high as 60%. Rhyolite Debris Flow: Chlorite Rhyolite Debris flow. Dark blueish green feldspar phyric to ashy matrix supporting clasts to 15 10329 cm. Felspars 1-2 mm, matrix is dominantly an ash. Clasts are variably bleached with minor ep 10330 alteration along fractures. Function of disarticulation? Lower contact sharp but conformable with	Rhyolite Debris Flow: Epidote Rhyolite Debris Flow. Epidote Rhyolite Debris Flow. Feldspar phyric, both in matrix and clasts. Matrix varies from glassy with 10323 221.20 angular white feldspar to ashy with depth. Clasts to 40 cm +, crudely bedded, long axis of smaller 10325 222.20 clasts oriented 20-30 degrees TCA. Clasts are dominantly rhyolite, variably bleached, with chl fractures, (disarticualtion??) Rhyolite clasts tend to be rounded. Rare small (~1cm), subangular to angular mafic or sed clasts noted with py inclusions noted in ashy intervals. V rare dtz-chl veins+/- ep. Rare fracture with calcite coating. 2cm band of spahl at 222.52, 50 degrees TCA. Lower contact marked by 10 cm of QSP alteration. Actual contact broken 70 degrees TCA. Massive Sulphide: Copper Facies; Zinc Facies Massive Sulphide Massive Sulphide, G zone. Looks to be a high grade interval. Upper 1 metre of zone ZnF fading to 10326 222.80 CuF with depth. Bedding 45-65 degrees TCA, with possible crossbedding noted??? Transition between 10327 223.80 ZnF and CuF is gradual, possible metal zonation by replacement? Lower contact marked by 6 cm wormy qtz-chl vein, with plucked margins, possible tetrahedrite, washed out by drill?? 222.80 223.80 Zinc Facies Massive Sulphide: Zinc Facies Mineralization, interval 40-50% brown sphal, 5-10% cpy, 8-10 galena +/-tetrahedrite. 5% barite clats	Rhyolite Debris Flow: Epidote Rhyolite Debris Flow: Epidote Rhyolite Debris Flow: Feldspar phyric, both in matrix and clasts. Matrix varies from glassy with 10323 221.20 222.2 angular white feldspar to ashy with depth. Clasts to 40 cm +, crudely bedded, long axis of smaller clasts oriented 20-30 degrees TCA. Clasts are dominantly rhyolite, variably bleached, with chl fractures, (disarticulation??) Rhyolite clasts tend to be rounded. Rare small (~1cm), subangular to angular mafic or sed clasts noted with py inclusions noted in ashy intervals. V rare qtz-chl veins+/-ep. Rare fracture with calcite coating. 2cm band of spahl at 222.52, 50 degrees TCA. Lower contact marked by 10 cm of QSP alteration. Actual contact broken 70 degrees TCA. Massive Sulphide: Copper Facies; Zinc Facies Massive Sulphide Massive Sulphide: Gzone. Looks to be a high grade interval. Upper 1 metre of zone ZnF fading to 10327 223.80 224.50 CuF with depth. Bedding 45-65 degrees TCA, with possible crossbedding noted??? Transition between 10327 223.80 224.50 Zinc and CuF is gradual, possible metal zonation by replacement? Lower contact marked by 6 cm wormy 10328 224.50 225.20 qtz-chl vein, with plucked margins, possible tetrahedrite, washed out by drill?? 222.80 223.80 Zinc Facies Massive Sulphide: Zinc Facies Mineralization, interval 40-50% brown sphal, 5-10% cpy, 8-10 galena +/-tetrahedrite. 5% barite clasts 10328 224.50 225.20 Z25.20 Copper Facies: High Grade Copper Facies Mineralization. 30-40% Cpy, 15-20% Sphal, 5-8% sooty gal +/-tetrahedrite. 5% barite clasts, 1-2 % rhyolite fragments. No well developed bedding. Cpy increases with depth possibly getting as high as 60%. Rhyolite Debris Flow: Chlorite Rhyolite Debris Flow: Dark blueish green feldspar phyric to ashy matrix supporting clasts to 15 10329 225.20 227.20 229.1 atteration along fractures. Function of disarticulation? Lower contact sharp but conformable with	Rhyolite Debris Flow: Epidote Rhyolite Debris Flow: Feldspar phyric, both in matrix and clasts. Matrix varies from glassy with 10323 221.20 222.20 1.00 angular white feldspar to ashy with depth. Clasts to 40 cm +, crudely bedded, long axis of smaller 10325 222.20 222.80 0.60 clasts oriented 20-30 degrees TCA. Clasts are dominantly rhyolite, variably bleached, with chil fractures, (disarticualtion??) Rhyolite clasts tend to be rounded. Rare small (~1cm), subangular to angular mafic or sed clasts noted with py inclusions noted in ashy intervals. V rare qtz-chl veins+/- ep. Rare fracture with calcite coating. 2cm band of spahl at 222.52, 50 degrees TCA. Lower contact marked by 10 cm of QSP alteration. Actual contact broken 70 degrees TCA. Massive Sulphide: Copper Facies; Zinc Facies Massive Sulphide Massive Sulphide, G zone. Looks to be a high grade interval. Upper 1 metre of zone ZnF fading to 10326 222.80 223.80 225.80 Copper Facies: High Grade Copper Facies Mineralization, interval 45-60 degrees TCA. Rhyolite Debris Flow: Chlorite Rhyolite Debris Flow: Chlorite Rhyolite Debris Flow: Chlorite Rhyolite Debris Flow: Chlorite Rhyolite Debris flow. Dark blueish green feldspar phyric to ashy matrix supporting clasts to 15 10329 225.20 227.20 227.20 229.17 1.97 alteration along fractures. Function of disarticulation? Lower contact sharp but conformable with	Rhyolite Debris Flow: Epidote Rhyolite Debris Flow: Feldspar phyric, both in matrix and clasts. Matrix varies from glassy with 10323 221.20 222.20 1.00 0.03 angular white feldspar to ashy with depth. Clasts to 40 cm +, crudely bedded, long axis of smaller 10325 222.20 222.80 0.01 clasts oriented 20-30 degrees TCA. Clasts are dominantly rhyolite, variably bleached, with chl fractures, (disarticualtion??) Rhyolite clasts tend to be rounded. Rare small (~1cm), subangular to angular mafic or sed clasts noted with py inclusions noted in ashy intervals. V rare qtz-chl veins+/- ep. Rare fracture with calcite coating. 2cm band of spahl at 222.52, 50 degrees TCA. Lower contact marked by 10 cm of QSP alteration. Actual contact broken 70 degrees TCA. Massive Sulphide, G zone. Looks to be a high grade interval. Upper 1 metre of zone ZnF fading to 10326 222.80 223.80 224.50 0.00 6.26 CuF with depth. Bedding 45-65 degrees TCA, with possible crossbedding noted???? Transition between 10327 223.80 224.50 0.00 0.30 1.00 0.00 0.00 0.00 0.00 0.0	Rhyolite Debris Flow: Epidote Rhyolite Debris Flow. Feldspar phyric, both in matrix and clasts. Matrix varies from glassy with 10323 221.0 222.0 1.00 0.03 0.00 angular white feldspar to ashry with depth. Clasts to 40 cm +, crudely bedded, long axis of smaller clasts oriented 20-30 degrees TCA. Clasts are dominantly rhyolite, variably bleached, with chl fractures, (disarticuation??) Rhyolite clasts tend to be rounded. Rare small (~1cm), subangular to angular mafic or sed clasts noted with py inclusions noted in ashry intervals. V rare qtz-chl veins+/- ep. Rare fracture with calcite coating. 2cm band of spahl at 222.52, 50 degrees TCA. Massive Sulphide: Copper Facies; Zinc Facies Massive Sulphide Massive Sulphide: Copper Facies, Zinc Facies Massive Sulphide Cuff with depth. Bedding 45-65 degrees TCA, with possible crossbedding noted??? Transition between 10327 223.00 225.00 225.00 20.00 0.00 0.00 0.00 0	Rhyolite Debris Flow: Epidote Rhyolite Debris Flow. Feldspar phyric, both in matrix and clasts. Matrix varies from glassy with 10323 221.20 222.20 1.00 0.00 0.00 angular white feldspar to ashy with depth. Clasts to 40 cm +, crudely bedded, long axis of smaller 10325 222.20 22.20 0.00 0.00 0.00 angular white feldspar to ashy with depth. Clasts to 40 cm +, crudely bedded, long axis of smaller 10325 222.20 22.20 0.00 0.00 0.00 0.00 clasts oriented 20-30 degrees TCA. Clasts are dominantly rhyolite, variably bleached, with chl fractures, (disarticuation??) Rhyolite clasts tend to be rounded. Rare small (~1cm), subangular to angular mafic or sed clasts noted with py inclusions noted in ashy intervals. V rare qtz-chl veins+/- ep. Rare fracture with calcite coating. 2cm band of spahl at 222.52, 50 degrees TCA. Massive Sulphide: Copper Facies; Zinc Facies Massive Sulphide Massive Sulphide: Copper Facies; Zinc Facies Massive Sulphide Massive Sulphide: Copper Facies, Zinc Facies Massive Sulphide CuF with depth. Bedding 45-65 degrees TCA, with possible crossbedding noted??? Transition between 10327 223.80 224.50 0.00 0.00 0.00 0.00 0.00 0.00 0.00	Rhyolite Debris Flow: Epidote Rhyolite Debris Flow: Feldspar phyric, both in matrix and clasts. Matrix varies from glassy with Angular white feldspar to ashy with depth. Clasts to 40 cm +, crudely bedded, long axis of smaller (lasts to refer to 2-30 degrees TCA. Clasts are dominantly rhyolite, variably bleached, with chl (fractures, (disarticualition??) Rhyolite clasts tend to be rounded. Rare small (~1cm), subangular to angular maffic or sed clasts noted with py inclusions noted in ashy intervals. V rare qtz-chl veins+/-e.p. Rare fracture with calcite coating. 2cm band of spahl at 222.52, 50 degrees TCA. Massive Sulphide: Copper Facies; Zinc Facies Massive Sulphide Massive Sulphide (S. Qoper Facies; Zinc Facies Massive Sulphide Massive Sulphide, G. Zone. Looks to be a high grade interval. Upper 1 metre of zone ZnF fading to CuF with depth. Bedding 45-65 degrees TCA, with possible crossbedding noted??? Transition between 10327 223.80 224.50 23.80 1.00 626 482.00 1.10 6.01 10328 224.50 0.00 0.00 0.00 0.00 0.00 0.00 0.00



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Interva From	l (m) To	Description	Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %
229.17	231.50	Ore Clast Breccia: Quartz-Sericite-Pyrite Alteration Debris Flow facies minerialization with sericite and pyrite alt'd matrixQSP?? Prominent sulphide clasts noted, granular py plus reddish sphal with black rim (tet??) Sulphide clasts to 12 cm. Rhyolite and mafic clasts also noted, hetrolithic debris flow. Mafics small and angular,	10331 10332	229.17 230.25		25 1.08 50 1.25	0.91 0.59	28.00 16.00	0.48 0.55	0.39 0.25	7.70 1.32
		rhyolites rounded and bleached. Matrix is ser and py, with cpy and sphal as small nodules. Lower contact marked by a decrease in sulphides over approx 20 cm. Conformable.									
231.50	246.24	Rhyolite Debris Flow:									
		Pale to medium grey, cream, white, pale green debris flow. Polymict fragments up to 35 cm, in a	10333	231.50	232.5	0 1.00	0.03	0.00	0.00	0.00	0.00
		chaotic, multi coloured, multi textured matrix, ranging from ash sized grains, to very fine	10334	244.39	245.8	9 1.50	0.03	0.00	0.00	0.00	0.00
		grained, chloritic, to feldspar phyric to pale green glassy. Many angular lapilli fragments, with sharp edges throughout. Quartz veins with chlorite halos, often with diffuse margins. Locally, weak	10335	245.89	246.4	0 0.51	0.13	0.00	0.00	0.00	0.00
		to well defined bedding. Variable amounts of magnetite with chlorite, and in chloritic veins.									
		Epidote in fractures, more so in and near the quartz veins, and in chloritic zones. Basal contact sharp, 50 degrees to core axis.									
		237.79 238.10 Basalt Dyke: Chlorite; Magnetite; Dark grey-green, very fine grained, massive diabase, 50 degrees to CA. 3 cm magnetite chlorite vein, 63 degrees to CA.									
		240.44 240.08 Basalt Dyke: Chlorite; Dark grey-green, very fine grained, massive diabase, 85 degrees to CA.									
		244.75 244.82 Basalt Dyke: Chlorite; Dark grey-green, very fine grained, massive diabase, 77 degrees to CA.									
246.24	246.40	Semi-Massive Sulphide: Sericite; Pyrite									
		Quartz-sericite-pyrite alteration zone, with 15 to 20% coarse disseminated pyrite. Appears to be									
		altered lapilli tuff, with angular fragments < 2 cm. Basal contact, well defined, but gradual, approximately 70 degrees to CA.									
246.40	250.59	Massive Sulphide: Barite; Pyrite									
		Banded, massive sulphides, with mostly pyrite (25-60%, and bands up to 90%). Interstitial	10336	246.40	246.9	1 0.51	3.84	164.00	1.24	4.76	14.80
		chalcopyrite from 1-40%, distributed as patches and bands. Also 1-2% galena, 2-5% sphalerite and	10337	246,91	247.4	1 0.50		58.00		1.22	7.49
		local traces of tetrahedrite. Includes 12 cm band of 30% sphalerite, 25% galena, 1% tetrahedrite (?) at 246.88 m, and a 9 cm band of 40% galena, 15% sphalerite and minor (1-2%) tetrahedrite at	10339 10340	247.41 248.28	248.2	8 0.87	6.98	198.00	1.62	2.06	9.37



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Interval (m) From To	Description	Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %
	 248.68 m. Many polymict lapilli fragments throughout. May be near vent. Wet sediment deformation features, with folds and swirls. Gangue of barite. Bedding, 68 degrees to CA. Basal contact gradual, in zone of diffuse white barite (gypsum?) veins < 1 cm, perpendicular to CA. 248.78 249.45 Copper Facies: Copper facies massive sulphide. Banded barite and pyrite (25 to 60%), with bands and patches of up to 40% chalcopyrite. Gradual contact. 	10341 10343	248.78 249.45				186.00 284.00	1.97 1.76		14.90 18.10
250.59 251.18	Semi-Massive Sulphide: Barite; Pyrite; Sericite Barite gangue, with quartz grains < 0.5 mm, containing bands and swirls rich in sericite and disseminated sulfides, up to 15% pyrite, 3% galena, 2% sphalerite and interstitial chalcopyrite (up to 15% in bands). Two 5 cm rhyolite fragments at base. Deformed matrix, with undulating chalcopyrite laminae between these fragments. Footwall contact is a narrow, 2 cm very strong bleached zone (fault?) with ground up core and minor gouge, 53 degrees to CA.	10344	250.59	251.1	8 0.59	16.80	540.00	1.41	3.91	7.37
251.18 252.09	Quartz-Sericite-Pyrite Alteration: Quartz-sericite-pyrite alteration zone in lapilli tuff. Pale green, banded, foliated (58 degrees to CA), with 10-15% fine disseminated pyrite and 1-2% chalcopyrite, mostly with sericite and chlorite in fractures. Quartz-chlorite veins < 3 cm, with pyrite. Rapid decrease in pyrite in last 15 cm to basal contact, but strong sericite alteration. Contact sharp, 60 degrees to CA.	10345	251.18	252.0	9 0.91	3.12	96.00	0.36	0.17	1.28
252.09 254.22	Volcanic Sediment: Magnetite Purplish grey, very fine grained (volcano?)sedimentary rock, with weak fabric (bedding?) 50 degrees to CA. Strong magnetism. Sheeted calcite veins < 2 mm in cleavage, 49 degrees to CA. Some weak hematite. Abundant chlorite (+/- magnetite) rich stringers < 1 mm throughout, as well as quartz veins < 3 mm, various directions and pale, tan to beige, mesh like microfractures, giving the rock a brecciated appearance. Includes 12 cm breccia zone: angular, mauve to grey to green fragments in a quartz-chlorite-magnetite rich matrix. Basal contact sharp, 43 degrees to CA.	10346	252.09	253.6	2 1.53	0.06	0.00	0.00	0.00	0.00
254.22 259.22	Basalt Flow: Magnetite Basalt flow, with tuffaceous fragments, possibly a tuff. Very fine grained, dark grey to green-grey, with some lapilli and ash fragments in top 1.5 metres. Darker, almost black bands < 5 cm, and very fine hematite (jasper?) specks < 0.1 mm in some bands. 1-2% disseminated and stringers < 0.5 mm of pyrite. Moderate to strong magnetism. Few chlorite-magnetite veins and bands (beds?) 50 degrees to									



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Interval (m)	Description	Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From To		No.	(m)	(m)	(m)	g/t	g/t	%	%	%

CA. Basal contact in broken core (fault).

259.22 261.44 Fault: Chlorite; Magnetite; Hematite

Broken and shattered core, chloritic, with abundant chlorite (and hematite) in fractures. Very fine grained (flow?). Moderate to strong magnetism. Calcite veins < 2 mm. Fractures (fault direction?) 50 degrees to CA.

261.44 289.26 Amygdaloidal Basalt:

Dark grey to grey-green, amygduloidal basalt flow. Massive, very fine grained, with quartz amygdules < 3 mm. Few bands (flow tops?) with as much as 50% amygdules. Magnetism varies widely, from none to moderate. Chlorite 'layers' < 5 cm +/- magnetite 35 degrees to CA. Few quartz-epidote-chlorite veins < 2 cm, increasing downsection. Epidote alteration and bleaching at 288 m. Chlorite and pyrite in fractures.



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Assays

Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %	SG	Cu ppm	Pb ppm	Zn ppm	Au ppb	Ag ppm	As ppm	AI %	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm
10323	221.20	222.20	1.00	0.03	0.00	0.00	0.00	0.00	0.00	66	22	162	0	0.3	55	1.09	355	5	0.40	1	2
10325	222.20	222.80	0.60	0.11	0.00	0.00	0.00	0.00	0.00	540	38	467	0	8.0	45	0.73	45	5	0.29	1	4
10326	222.80	223.80	1.00	6.26	482.00	5.01	5.64	26.70	3.98	10000	10000	10000	0	30.0	4880	0.03	25	5	0.06	1000	2
10327	223.80	224.50	0.70	9.98	464.00	8.97	1.12	12.60	4.10	10000	10000	10000	O	30.0	4380	0.03	65	5	0.03	512	9
10328	224.50	225.20	0.70	6.30	338.00	11.60	1.11	10.70	3.43	10000	10000	10000	0	30.0	1410	0.08	60	5	0.10	453	8
10329	225.20	227.20	2.00	0.03	0.00	0.00	0.00	0.00	0.00	257	56	332	0	2.4	30	1.40	450	. 5	0.48	. 1	1
10330	227.20	229.17	1.97	0.04	0.00	0.00	0.00	0.00	0.00	168	72	298	0	1.3	15	1.34	425	5	0.63	1	2
10331	229.17	230.25	1.08	0.91	28.00	0.48	0.39	7.70	2.69	4518	3754	10000	0	24.6	20	0.59	30	5	0.21	97	9
10332	230.25	231.50	1.25	0.59	16.00	0.55	0.25	1.32	2.75	5216	2212	10000	. 0	13.9	35	0.58	25	5	0.25	62	5
10333	231.50	232.50	1.00	0.03	0.00	0.00	0.00	0.00	0.00	33	36	168	0	0.6	15	1.27	185	5	0.46	1	2
10334	244.39	245.89	1.50	0.03	0.00	0.00	0.00	0.00	0.00	28	26	105	. 0	0.3	10	1.44	615	5	0.74	1	1
10335	245.89	246.40	0.51	0.13	0.00	0.00	0.00	0.00	0.00	423	420	2097	0	2.0	5	0.84	40	5	0.63	10	4
10336	246.40	246.91	0.51	3.84	164.00	1.24	4.76	14.80	3.66	10000	10000	10000	0	30.0	55	0.18	25	5	0.17	515	4
10337	246.91	247.41	0.50	2.84	58.00	0.94	1.22	7.49	3.20	9321	10000	10000	0	30.0	100	0.21	45	5	0.32	320	8
10339	247.41	248.28	0.87	6.98	198.00	1.62	2.06	9.37	3.16	10000	10000	10000	0	30.0	1130	0.22	60	5	0.28	455	8
10340	248.28	248.78	0.50	10.10	330.00	1.47	3.48	11.10	3.55	10000	10000	10000	0	30.0	1380	0.21	50	5	0.14	480	7
10341	248.78	249.45	0.67	4.22	186.00	1.97	3.36	14.90	3.78	10000	10000	10000	0	30.0	510	0.18	50	5	0.21	623	5
10343	249.45	250.59	1.14	11.60	284.00	1.76	4.06	18.10	3.58	10000	10000	10000	0	30.0	480	0.13	30	5	1.05	785	4
10344	250.59	251.18	0.59	16.80	540.00	1.41	3.91	7.37	3.64	10000	10000	10000	0	30.0	460	0.07	10	5	0.10	275	2
10345	251.18	252.09	0.91	3.12	96.00	0.36	0.17	1.28	2.87	3352	1642	10000	0	30.0	175	0.60	20	5	0.68	49	. 8
10346	252.09	253.62	1.53	0.06	0.00	0.00	0.00	0.00	0.00	20	62	108	0	1.2	5	0.57	255	5	1.48	1	5



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Assays ... continued

Sample No.	From (m)	To (m)	Interval (m)	Cr ppm	Fe %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Sb ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W	Y ppm
0323	221.20	222.20	1.00	35	1.32	10	0.46	162	1.	0.12	1	170	5	20	40	0.04	10	1	10	12
10325	222.20	222.80	0.60	47	1.65	10	0.22	103	1	0.07	1	70	5	20	49	0.02	10	2	10	4
10326	222.80	223.80	1.00	7	3.46	. 10	0.01	71	1	0.01	1	10	1605	20	38	0.01	10	1	10	1
10327	223.80	224.50	0.70	6	10.00	10	0.01	43	1	0.01	1	10000	1685	20	34	0.01	10	1	10	1
10328	224.50	225.20	0.70	8	10.00	10	0.01	61	1	0.01	. 1	10000	1420	20	51	0.01	10	1	10	1
0329	225.20	227.20	2.00	57	1.32	10	0.53	189	1	0.14	2	180	10	20	46	0.05	10	1	10	9
0330	227.20	229.17	1.97	63	1.50	10	0.46	197	1	0.16	2	190	10	20	60	0.05	10	1	10	10
0331	229.17	230.25	1.08	41	4.38	10	0.26	102	1	0.03	1	10	5	20	28	0.01	10	2	10	1
10332	230.25	231.50	1.25	53	3.40	10	0.23	101	1	0.04	1	10	20	20	27	0.01	10	6	10	1
0333	231.50	232.50	1.00	54	1.05	10	0.56	218	1	0.12	2	240	5	20	23	0.04	10	1	10	16
10334	244.39	245.89	1.50	53	1.33	10	0.72	308	1	0.13	3	300	5	20	66	0.04	10	4	10	11
0335	245.89	246.40	0.51	26	1.67	10	0.60	251	1	0.02	1	180	5	20	57	0,01	10	1	10	4
10336	246.40	246.91	0.51	22	6.41	10	0.12	53	1	0.01	1	10	30	20	30	0.01	10	1	10	1
0337	246.91	247.41	0.50	39	10.00	10	0.06	50	1	0.01	1	10	5	20	22	0.01	10	1	10	1.
0339	247.41	248.28	0.87	28	10.00	10	0.12	67	. 1	0.01	1	10	440	20	31	0.01	10	.1	10	1
0340	248.28	248.78	0.50	33	10.00	10	0.13	53	1	0.01	1	10	745	20	20	0.01	10	2	10	1
10341	248.78	249.45	0.67	23	8.80	10	0.15	92	1	0.01	1	10	190	20	28	0.01	10	3	10	1
0343	249.45	250.59	1.14	24	4.80	10	0.06	193	1	0.01	1	10	340	20	32	0.01	10	2	10	1
0344	250.59	251.18	0.59	4	1.57	10	0.02	26	1	0.01	1	10	1555	20	50	0.01	10	. 1	10	1
0345	251.18	252.09	0.91	57	4.96	10	0.30	156	3	0.02	5	130	360	20	41	0.01	10	7	10	1
0346	252.09	253.62	2 1.53	62	2.36	10	0.26	358	2	0.05	2	610	5	20	51	0.01	10	5	10	19



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Collar Coordinates

North (m): East (m) Elevation (m): 15374.00 10663.00 114.00 Azimuth (degrees):

Dip (degrees): Length (m): 211.73 -80.12

648.92

Started: Completed:

23/09/2004 02/10/2004 Date Logged: Logged By: 23/10/2004 MTV./ MA.

Report Printed:

17/12/2004

Down Hole Survey Tests

							_	• • • • • • • • • • • • • • • • • • • •	1010 041 1	,							
Depth (m)	Azimuth	n Dip	Depth (m)	Azimuth	Dip		pth Azi m)	imuth I	Dip Dept (m	h Azimu	th Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	n Dip
0.00	211.73	-80.12	78.49	215.94	-79.44	156	.99 218	3.12 -79	9.55 235.4	9 219.70	-79.39	313.99	219.99	-79.42	392.48	218.92	-79.44
3.01	212.00	-80.14	81.51	216.33	-79.45	160	.01 218	3.23 -79	0.56 238.5	1 219.78	-79.38	317.01	219.73	-79.42	395.50	219.16	-79.44
6.03	212.30	-80.16	84.53	216.76	-79.50	163	.03 218	3.26 -79	0.53 241.5	3 219.77	-79.36	320.02	219.80	-79.41	398.52	219.06	-79.42
9.05	212.45	-80.18	87.55	217.13	-79.52	166	05 218	3.28 -79	9.52 244.5	5 219.84	-79.35	323.04	219.81	-79.41	401.54	218.80	-79.42
12.07	212.10	-80.25	90.57	217.20	-79.53	169	.07 218	3.58 -79	9.54 247.5	6 219.84	-79.32	326.06	219.79	-79.39	404.56	218.99	-79.42
15.09	211.32	-80.24	93.59	217.28	-79.58	172	.09 218	3.55 -79	9.49 250.5	8 219.87	-79.32	329.08	219.93	-79.38	407.58	219.15	-79.42
18.11	210.58	-80.22	96.61	217.73	-79.59	175	5.11 218	3.41 -79	9.45 253.6	0 219.85	-79.31	332.10	219.88	- 79.40	410.60	219.08	-79.40
21.13	210.57	-80.20	99.63	217.91	-79.56	178	3.12 218	3.75 <i>-</i> 79).41 256.6	2 219.95	-79.33	335.12	219.72	-79.39	413.62	218.97	-79.41
24.15	210.60	-80.15	102.65	217.83	-79.52	181	.14 219	9.01 -79	9.39 259.6	4 219.89	-79.35	338.14	219.77	-79.40	416.64	219.06	-79.40
27.17	210.36	-80.09	105,67	217.82	-79.54	184	.16 219	9.22 -79	262.6	6 219.89	-79.35	341.16	219.65	-79.41	419.66	219.03	-79.40
30.19	210.40	-80.09	108.68	217.82	-79.59	187	'.18 219	9.33 -79	265.6	8 219.79	-79,34	344.18	219.57	-79.40	422.68	218.89	-79.41
33.21	210.49	-80.12	111.70	217.88	-79.60	190	.20 219	9.24 -79	9.49 268.7	0 219.82	-79.32	347.20	219.72	-79.43	425.69	218.78	-79.42
36.22	210.75	-80.14	114.72	218.05	-79.59	193	3.22 219	9.34 -79	9.52 271.7	2 219.93	-79.31	350.22	219.70	-79.40	428.71	218.81	-79.41
39.24	211.21	-80.04	117.74	218.37	-79.57	196	5.24 219	9.31 -79	9.52 274.7	4 219.94	-79.34	353.24	219.74	-79.40	431.73	218.76	-79.44
42.26	211.90	-79.91	120.76	218.40	-79.54	199	.26 219	9.28 -79	9.52 277.7	6 219.91	-79.37	356.25	219.67	-79.43	434.75	218.38	-79.46
45.28	212.39	-79.82	123.78	218.26	-79.58	202	2.28 219	9.33 -79	9.52 280.7	8 219.83	-79.40	359.27	219.59	-79.38	437.77	218.18	-79.49
48.30	212.76	-79.75	126.80	218.15	-79.57	20	30 219	9.51 -79	9.52 283.7	9 219.86	-79.45	362.29	219.50	-79.40	440.79	217.72	-79.52
51.32	213.08	-79.67	129.82	217.91	-79.60	208	3.32 219	9.46 -79	9.51 286.8	1 219.86	-79.49	365.31	219.45	-79.41	443.81	217.59	-79.53
54.34	213.32	-79.62	132.84	218.20	-79.58	211	.34 219	9.45 -79	9.48 289.8	3 219.78	-79.48	368.33	219.50	-79.39	446.83	217.66	-79.55
57.36	213.29	-79.55	135.86	217.96	-79.49	214	.35 219	9.34 -79	9.45 292.8	5 219.75	-79.47	371.35	219.53	-79.38	449.85	217.51	-79.59
60.38	213.38	-79.44	138.88	217.90	-79.45	217	'.37 219	9.38 -79	9.43 295.8	7 219.83	-79.49	374.37	219.31	-79.39	452.87	217.45	-79.58
63.40	213.65	-79.37	141.89	217.94	-79.46	220	.39 219	9.35 -79	9.41 298.8	9 219.95	-79.47	377.39	219.08	-79.39	455.89	217.52	-79.60
66.42	214.03	-79.35	144.91	217.82	-79.49	223	3.41 219	9.45 -79	9.41 301.9	1 219.96	-79.45	380.41	219.12	-79.41	458.91	217.51	-79.61
69.44	214.51	-79.39	147.93	217.85	-79.51	220	3.43 219	9.56 -79	9.40 304.9	3 219.89	-79.46	383.43	219.02	-79.41	461.92	217.67	-79.62
72.45	215.04	-79.40	150.95	217.96	-79.55	229	9.45 219	9.61 -79	9.42 307.9	5 219.75	-79.45	386.45	218.99	-79.45	464.94	217.71	-79.60
75.47	215.45	-79.38	153.97	217.95	-79.57	232	2.47 219	9.58 -79	9.42 310.9	7 219.91	-79.44	389.46	218.93	-79.45	467.96	217.62	-79.61



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Collar Coordinates

211.73

-80.12

648.92

North (m): East (m) Elevation (m): 15374.00 10663.00

114.00

Azimuth (degrees): Dip (degrees):

Length (m):

Started:

Completed:

23/09/2004 02/10/2004 Date Logged: Logged By:

23/10/2004 MTV./ MA.

Report Printed:

17/12/2004

Down Hole Survey Tests

							DUW	11 11016	Juive	, icata	'						
Depth (m)	Azimut	h Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	n Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip
470.98	217.93	-79.63	549.48	217.83	-79.61	627.98	216.74	-79.13									
474.00	218.01	-79.61	552.50	217.59	-79.61	631.00	216.83	-79.09									
477.02	217.98	-79.60	555.52	217.33	-79.63	634.02	216.68	-79.03									
480.04	218.23	-79.59	558.54	217.42	-79.61	637.03	216.67	-78.98									
483.06	218.09	-79.60	561.56	217.29	-79.61												
486.08	217.93	-79.60	564.58	217.19	-79.62												
489.10	218.03	-79.64	567.59	217.23	-79.60												
492.12	218.18	-79.65	570.61	217.21	-79.58												
495.13	218.09	-79.62	573.63	217.02	-79.56												
498.15	217.90	-79.65	576.65	216.93	-79.54												
501.17	217.86	-79.64	579.67	217.00	-79.51												
504.19	217.97	-79.64	582.69	216.83	-79.50												
507.21	217.89	-79.64	585.71	216.83	-79.47												
510.23	217.96	-79.63	588.73	216.95	-79.45												
513.25	218.09	-79.57	591.75	217.04	-79.43												
516.27	218.06	-79.55	594.77	216.88	-79.37												
519.29	218.05	-79.53	597.79	216.54	-79.36												
522.31	218.22	-79.48	600.80	216.63	-79.33												
525.33	218.23	-79.44	603.82	216.44	-79.32												
528.35	218.06	-79.45	606.84	216.37	-79.26												
531.36	217.75	-79.41	609.86	216.49	-79.24												
534.38	217.86	-79.39	612.88	216.65	-79.25												
	218.05		615.90	216.75	-79.23												
540.42	218.00	-79.50		216.61													
543.44	217.95	-79.48	621.94	216.62	-79.23												
546.46	217.90	-79.55	624.96	216.40	-79.18												
																	-



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Interval (m)	Description			Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From To				No.	(m)	(m)	(m)	g/t	g/t	%	%	%

0.00 1.52 Casing:

Casing. No recovery.

1.52 6.77 Rhyolite Flow: Jasper

Mauve-maroon rhyolite flow. Diffuse feldspar phenocrysts < 1 mm, in siliceous matrix. Strong jasper-magnetite alteration patches with very sharp terminations to alteration patches, usually at fractures or veins. Quartz veins < 3 cm, some vuggy, with minor epidote, in various directions. Magnetite as open space fillings, mostly in quartz vein vugs. Few pink calcite stringers < 0.5 mm towards fault. Basal contact tectonic, gradual increase in fracturing and gypsum veins.

6.77 10.37 Fault:

Broken core. Sections with pieces < 4 cm, intermittent with section with pieces < 15 cm. Rhyolite flow as above, but broken and shattered, with abundant pink gypsum (?) stringers < 2 mm, approximately 10 degrees to CA. Chlorite and epidote +/- hematite in fractures, some with slickensides. More epidote as open space fillings, than rhyolite above. Local weak magnetism, probably related with jasper alteration.

10.37 16.29 Rhyolite Flow: Jasper

Rhyolite flow as above. Fractured at top, with decreasing fracturing downsection. Abundant jasper-magnetite alteration and chlorite-magnetite stringers < 1 mm throughout. Increasing chlorite downsection, more so in fractures, with abundant slickensides. Quartz and chlorite veins < 5 cm, various directions. Basal contact faint and irregular.

16.29 23.90 Rhyolite Ash Tuff: Chlorite; Epidote

Medium to dark, grey-green ash tuff with locally very weak foliation, 28 degrees to CA, with local bleached zones, where some ash fragments have been chloritized. Chlorite +/- quartz +/- epidote stringers < 2 mm throughout. 16.29 - 16.80 m: maroon, weak siliceous section, with abundant quartz +/- chlorite veins < 2 cm, some with diffuse margins. Weak to moderate magnetism, but magnetism fades in bleached zones. Patchy zones with white, subangular to subrouded fragments < 2 mm, thought to be broken feldspar phenocrysts (ash crystal tuff?). Maroon-green mottled zone from 20.43 to 21.19 m, with no primary texture visible. Very few quartz (chlorite) veins below 17.16 m. Basal contact sharp, 18 degrees to CA.



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Interval (m)	Description		Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From To			No.	(m)	(m)	(m)	g/t	g/t	%	%	%

23.90 27.13 Rhyolite Flow: Chlorite

Maroon-grey to pale green to mauve, fine grained rhyolite flow, locally with feldspar phenocrysts (diffuse < 1 mm) and subrounded to angular quartz 'eyes'. Patchy bleached zones with chlorite specks. Generally glassy appearance, with many pale white to green fractures and hairline stringers with epidote. Few quartz-chlorite-magnetite veins < 3 mm, 30-75 degrees to CA. Few pink calcite veins < 1 mm. Increasing brecciation and bleaching in bottom 60 cm (micro breccia with chlorite +/-quartz stringers, filling crackle zones). Patchy magnetism. Basal contact in broken core.

27.13 33.40 Fault:

Broken and shattered core, rich in chlorite and calcite, with little gouge and slicks in fractures. Most sections with fragments < 4 cm, but competent core (pieces average 15 cm) from 28.5 to 30.0 m. The section from 28.5 to 29.3 m is a breccia zone, with angular ash tuff (?) fragments < 10 cm in a quartz-chlorite +/- magnetite matrix, crosscut by veins < 1.5 cm of same composition. Some hematite stain, mostly near vein margins. From 29.3 to 30.0 m is chloritic ash tuff, with few chlorite stringers < 1 mm. Weak magnetism only in chlorite veins. Basal contact in area of fractures at 48 degrees to CA. Also brecciated and bleached zone (chlorite matrix) and calcite veins < 7 mm from 30.74 to 31.24 m.

33.40 42.82 Rhyolite Debris Flow:

Pale green to mauve, mottled rhyolite debris flow, highly unsorted. Subangular fragments of mostly pale green rhyolite, with diffuse margins < 10 cm or more. Very little veining (few quartz-epidote < 1 cm). Basal contact gradual, but a distinct plane, below which bedding is visible, assumed to be the contact, 25 degrees to CA.

42.82 49.44 Rhyolite Lapilli Tuff:

Lapilli tuff, very similar in appearance to overlying debris flow, but matrix made up of ashy material with locally well developed bedding (25 degrees to CA) and smaller (< 4 cm) more angular polymict lapilli fragments, with sharper margins. Abundance and size of lapilli fragments decreases down section. Basal contact sharp, but very irregular.

49.44 51.00 Rhyolite Flow:



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Interval ((m)	Description			Sample	From		Interval				Pb	Zn
From	To				No.	(m)	(m)	(m)	g/t	g/t	· %	%	%

Mauve feldspar phyric flow, with euhedral feldspar phenocrysts < 1 mm. Massive. Basal contact sharp, 30 degrees to CA.

51.00 63.67 Rhyolite Debris Flow: Chlorite

Polymict debris flow as 33.40 to 42.82, with fragments < 15 cm or more. Medium to dark green, chloritic. Sections with ashy matrix and/or matrix with abundant feldspar phenocrysts. Few maroon, hematitic fragments, more so in ash matrix. Quartz-chlorite-magnetite-epidote veins < 1 cm, some with albite alteration envelopes. Patchy, weak magnetism. Basal contact sharp, tectonic 45 degrees to CA, at a quartz-chlorite vein.

63.67 65.23 Fault: Chlorite

Sheared, chloritized rhyolite with foliation 45 degrees to CA. Quartz-chlorite +/- calcite veins < 7 cm parallel to foliation. Chlorite and slickensides in fractures.

65.23 73.86 Rhyolite Debris Flow:

Debris flow as above fault. Anhedral fragments < 10 cm, polymict, diffuse margins, in matrix of mixed texture and composition, from ash to feldspar phyric. Colour mostly bleached, pale grey to green, with few maroon sections. Quartz-chlorite-epidote veins < 1 cm. Basal contact sharp, 20 degrees to CA.

73.86 88.67 Rhyolite Lapilli Tuff: Chlorite

Dark to medium grey to green-grey lapilli tuff, with rounded to subrounded polymict fragments < 4 cm, usually sharp, but some with diffuse margins. Variably chloritic. Small hematitic patches and smears < 1 cm. Some crystal tuff sections. Generally massive, with some weak bedding traces, approximately 20 to 30 degrees to CA. 76.35 - 78.94: appears sheared at 5 to 15 degrees to CA, with banded chlorite-epidote-quartz +/- magnetite. Quartz-chlorite-epidote stringers < 3 mm, with albite alteration halos. At 82.20 m: chlorite wisps parallel to CA in albite zone. Grades downwards into ash tuff.

88.67 93.77 Rhyolite Ash Tuff: Chlorite

Medium grey to grey-green, mottled ash tuff, with dark green chloritized fragments. Few jasper fragments < 1 mm. Locally well developed bedding 18 degrees to CA. Chlorite-epidote-hematite fault,



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Interval (m)	Description				Sample	From		Interval					
From	То					No.	(m)	(m)	(m)	g/t	g/t	%	%	%

20 degrees to CA, from 90.32 to 91.08 m. Basal contact abrupt, but not well defined, due to spun out core.

93.77 95.99 Rhyolite Flow:

Mauve to beige rhyolite flow, with white feldspar phenocrysts < 2mm and some white rounded fragments (?) < 1 cm, which could be alteration patches. Massive chlorite-epidote +/- quartz stringers < 1 mm, 43 degrees to CA, with bleached halos. Basal contact poorly defined, with feldspar phenocrysts gradually disappearing into a similar coloured ash tuff. Approximate contact left open to interpretation.

95.99 101.92 Rhyolite Undifferentiated:

This section is predominantly dark green to grey-green ash tuff, grading downwards from a crystal tuff, but at 96.93, at approximately 5 degrees to CA (sharp contact) changes to aphanitic, mottled, pale green to purple, somewhat glassy flow (?), with chlorite stringers and patches. From 99.59 to 101.92 m, an intermittent sequence of pale green rhyolite (with quartz eyes) and ash tuff appears to be a set of rhyolite boulders, infilled with ash tuff. Chlorite-magnetite stringers < 2 mm exclusively in rhyolite, with bleached halo, possibly albitization. Basal contact sharp, undulating, 32 degrees to CA.

101.92 107.64 Rhyolite Ash Tuff:

Dark green-grey ash tuff. Bedding 28 degrees to CA, with chlorite rich beds. Ash coarsens downsection starting at 103 m, with a few lapilli fragments < 1 cm. Although bedding is visible in the finer tuff near the top, it becomes massive downwards. One large, 10 cm fragment at 105.90 m. Few pyrite cubes < 1 cm at 103.5 m. Quartz-chlorite +/- magnetite veins < 2 cm parallel to CA, and 30 degrees to CA. Denser occurrence of these veins in lower 40 cm. Basal contact diffuse, approximately 75 degrees to CA.

107.64 111.08 Rhyolite Debris Flow:

Subrounded to subangular fragments < 15 cm of rhyolitic composition, and a 56 cm boulder, in a matrix varying from highly unsorted to feldspar phyric to lapilli tuff (108.72 - 109.58 m). Very little quartz-chlorite veining. Weak magnetism. Poorly defined basal contact.



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Zn

		Lithology Description							
Interva	l (m)	Description	Sample	From	То	Interval	Au	Ag	
From	То		No.	(m)	(m)	(m)	g/t	g/t	
111.08	116.85	Rhyolite Lapilli Tuff: Dark grey to purple-grey, generally massive lapilli tuff, with only locally developed weak bedding, 30 degrees to CA. Polymict clasts, generally < 1.5 cm, flattened or imbricated along bedding. However, few large pale green rhyolite fragments with faded margins < 10 cm. Rare quartz-chlorite-magnetite veins < 2 cm, 48 degrees to CA, with bleached, possibly albite halos, and a few gypsum veins < 2 mm, 18 degrees to CA. Basal contact poorly defined, approximately 45 degrees to CA.							
116.85	117.45	Rhyolite Debris Flow: Maroon, feldspar phyric debris flow, with very few fragments, but same unit as the debris flow below the underlying dyke. Quartz-chlorite stringers < 2 mm throughout, mostly 65-75 degrees to CA, with bleached halos. Sharp intrusive (dyke) contact 40 degrees to CA.							
117.45	118.53	Basalt Dyke: Magnetite Medium green-grey, fine grained diabase dyke, with a few chloritized amphibole phenocrysts < 1 mm. Highly magnetic. Quartz +/- chlorite veins < 1 cm in various directions. Basal contact sharp, 35 degrees to CA.							
118.53	129.68	Rhyolite Debris Flow: Polymict, but mostly pale green rhyolite fragments < 10 cm in a green and purple-maroon mottled matrix, locally with feldspar phenocrysts < 1 mm. Quartz-chlorite-magnetite veins < 2 cm, some with massive magnetite core. Generally weak to moderate magnetism throughout. Fragments decrease in last 1.5 m, while phenocrysts and purple colour increase, appearing like a rhyolite flow. Basalt dykes							

30 degrees to CA. 122.29 122.54 Basalt Dyke: Dyke as above.

122.69 122.86 Basalt Dyke: Dyke as above.

123.84 124.52 Rhyolite Lapilli Tuff: Massive lapilli tuff, with no bedding visible. Pale grey,

from 120.10 - 120.95, 122.29-122.54, 122.69-122.86, 125.94-126.31 m, and a small, irregular dykelet from approximately 126.97 to 127.07. This debris flow includes sections of lapilli sized fragments only, but still has all attributes of typical rhyolite debris flow. Basal contact in broken core. 120.10 120.95 Basalt Dyke: Fine grained, medium green-grey diabase dyke, with scattered

chloritized amphibole phenocrysts < 1 mm. Sharp contacts (hangingwall and footwall)



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Interval ((m)	Description					Sar	nple	From	То	Interval	Au	Ag	Cu	Pb	Zn
From	То						No		(m)	(m)	(m)	g/t	g/t	%	%	%

ashy matrix, with fragments < 4 cm, mostly maroon (hem?) feldspar porphyry, with diffuse margins. Gradual upper and lower contacts.

125.94 126.31 Basalt Dyke: Dyke as above.

129.68 134.23 Rhyolite Lapilli Tuff: Chlorite

Ashy, purplish grey matrix, with angular, polymict fragments < 4 cm. Few narrow bands with exclusively feldspar phenocrysts (crystal tuff?). Few chloritic +/- quartz +/- magnetite veins < 2 cm, 45 degrees to CA and 85 - 90 degrees to CA. Increase in fracturing, chloritization and magnetite in veins downsection. Fragment abundance decreases downsection, where tuff grades into what appears to be a flow. Basal contact very gradual.

134.23 135.76 Rhyolite Flow: Chlorite

Pale, cream to mottled green and marron, aphanitic to feldspar phyric flow. Brecciated (crackle) with network of chlorite veins < 5 mm, various directions. Brecciation and chlorite content increases downsection. Few quartz veins < 3 mm, crosscut by chlorite veins. Basal contact in broken core. Some sickensides with epidote in fractures.

135.76 429.23 Basalt Intrusive:

Fine grained, green-grey diabase, with texture varying from equigranular to amphibole phyric (< 1mm anhedral to subhedral phenocrysts) to feldspar phyric (< 0.5 mm euhedral phenocrysts). Some small zones of bleaching. Very few chlorite and or epidote veins < 1 cm. 188.87-189.57: bleached zone with leached out quartz-epidote vein stockwork (breccia) sub parallel to CA. From 191 to 202.5 m: coarse anhedral amphibole phenocrysts (< 2 mm). May be a different intrusive phase. Magnetism and quartz-chlorite-magnetite veins appear from 233 to 240 m, and from 356 to 370 m. Magnetism varies from none to weak, with few moderately strong patches. Basal contact sharp, but irregular.

429.23 433.23 Rhyolite Debris Flow:

Medium grey feldspar phyric debris flow, with fragments < 4 cm, polymict, but mostly white to cream coloured quartz and rhyolite. Fragments have both sharp and diffuse margins. Feldspar phenocrysts and phenocryst fragments < 1 mm, in a matrix of finely interlayered grey ashy material, and pale green glassy material, with locally strong fabric, 33 degrees to CA. Fragments generally aligned with this fabric. Quartz lenses and quartz-chlorite veins < 3 cm, with very diffuse margins,



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Zn

Interval (r	n)	Description				Sample	From	То	Interval	Au	Ag	Cu	
From	То					No.	(m)	(m)	(m)	g/t	g/t	%	%

sometimes appearing more as alteration zones, with abundant epidote. Basal contact at 5 cm wide quartz-chlorite vein, 37 degrees to CA.

433.23 448.50 Rhyolite Lapilli Tuff:

Lithic tuff, with pale grey, granular, ashy matrix, well bedded (30 degrees to CA). Polymict fragments < 32 cm, but mostly pale grey, aphanitic, weak sericitic (?) volcanics, and epidote altered fragments of same feldspar-phyric material as debris flow above. Many lapilli fragments, flattened parallel to bedding. Irregular quartz-epidote veins up to 5 mm, approximately 80 to 90 degrees to CA, with minor albitized halos. Few jasperoid microstringers and fragments < 0.5 mm. Basal contact abrupt, but very irregular.

440.93 444.20 Rhyolite Debris Flow: Debris flow, with feldspar phyric, medium grey matrix. White to cream fragments of quartz and rhyolite, but generally polymict. Feldspar phenocrysts and phenocryst fragments < 1 mm, in a medium grey matrix of laminated grey ashy and pale green glassy material. Only one 1 cm vein of grey calcite, with quartz-epidote alteration halo. Diffuse, irregular contacts.

448.50 460.80 Rhyolite Debris Flow: Quartz Vein

Rhyolite Debris Flow. Feldspar Phyric. Feldspar laths are poorly preserved, somewhat rounded, or irregular. Interval is mottled, greyish groundmass with pale greeen clasts, possibly as big as 40 cm Clasts are irregular, possibly partial resorbed? Minor ashy intervals, bedded 20-30 degrees TCA. Rare to moderate qtz +/- chl veining, 1-5 cm, bullish. Rare ep-alt'd clasts. Lower contact is ashy, trasitional, varies from CHL alt'n to ser alt'n. Contact itself is marked by a 5 cm chl-ep vein.

460.80 465.10 Quartz-Sericite-Pyrite Alteration: Silica; Sericite

Qtz-Ser-Py alt'd RLAT? Hetrolithic fragments, dark green-brown angular mafics, to pale bleached rounded rhyolites. Locally some clasts are flattened, pumice? Interval is dominately ser and qtz alt'd dark grey with limited py- silica facies QSP. Minor speckling of pale leucoxene. Locally sphalerite fragments noted, possible thin interval of debris facies mineralization Sphal possibly 2-3% of interval, but to 20% locally. Bedding is variable, 20-60 degrees TCA, possibly folded, or soft sediment deformation. Thin muddy calcite on v rare fractures. Lower contact is marked by an increase in sulphide clasts, conformable. <RGC> Several ZNF fragments noted @ 462.8 meters.

10347 464.10 465.10 1.00 0.05 0.00 0.00 0.00 0.00



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Interva From	al (m) To	Description	Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %
465.10	468.35	Ore Clast Breccia: Sphalerite; Chalcopyrite; Sericite									
		Sericite altered debris flow facies mineralization. Abundant sericite and leucoxene in matrix.	10348	465.10	466.	04 0.94	0.28	26.00	0.14	0.25	1.35
		Sphal as clasts or clots 5%? red to pale brown. Py 10%, 2-3 % cpy possible rare tet as a rim on	10349	466.04	467.	00 0.96	0.12	6.70	0.06	0.13	0.61
		sulphide clasts. Lithic fragments are dominately rhyolite, rarely to 5 cm , mostly sub angular 1-3	10350	467.00	468.	35 1.35	0.14	8.50	0.18	0.16	0.50
		cm. Well developed foliation or bedding 35 degrees TCA, rare folds developed, axial planes 70									
		degrees TCA. Lower contact marked by a sharp increase in sulphides, contact is irregular to wavy, 70 degrees TCA.									
468.35	470.12	Massive Sulphide: Pyrite; Chalcopyrite									
		Dominantly pyrite facies mineralization. Interval is 40-50% py, varying from, VFG bedded to coarse	10351	468.35	469.	09 0.74	0.57	35.00	0.58	0.13	1.06
		granular. An alteration front is noted at ~467.2m where fine grained py appears to be replaced by	10353	469.09	470.	12 1.03	0.55	0.00	0.00	0.00	0.00
		coarse granular py. CPY appears to be secondary, x-cutting py bands and possibly replacing py. No significant tet or gal noted. Gangue minerals: waxy brown sericite and bleached qtz-rich clasts to 2 cm, probably rhyolites. Lower contact marked by a sharp drop sulphides 50 degrees TCA.									
470.12	474.97	Ore Clast Breccia: Sericite; Chlorite									
		Stongly sheared and folded debris facies mineralization. Sulphides are patchy with local sphal and	10354	470.12	472.	14 2.02	0.38	0.00	0.00	0.00	0.00
		py clasts. Shear planes (foliation?) 55 degrees TCA, 1 well developed fold noted with axial plane	10355	472.14	473.	64 1.50	0.11	0.00	0.00	0.00	0.00
		55 degrees TCA. Interestingly local cpy along shear planes with rare rolled barite clast. Total	10356	473.64	474.	97 1.33	0.16	0.00	0.00	0.00	0.00
		sulphide content of interval ~10%, mostly py 5-6%, sphal 2-3%, cpy 1-2%. Interval is pervassively									
		ser and chl alt'd. Pale to dark green with local leucoxene Lower contact is gradual, marked by decreased shearing and ser-chl alt'n.									
474.97	475.18	Quartz-Sericite-Pyrite Alteration: Bleached; Disseminated Pyrite									
		Bleached QSP, Qtz-dominant phase, pale grey with chl specks, and x-cutting 1-2 mm qtz-mag veins,	10357	474.97	475.	58 0.61	0.30	0.00	0.00	0.00	0.00
		trace dpy, and dissem mag. Lower contact is quite sharp as protolith changes, but not alteration.									
475.18	475.58	Rhyolite Flow: Quartz Eyes; Epidote									
		Pale grey, mottled section of quartz-feldspar phyric rhyolite flow or sill. Moderate									
		silica-sericite altered here, with minor epidote. Quartz eyes are 1-2%, <1mm. Feldspar phenos are anhedral, ghosted. Lower contact sharp, intrusive at 50 degrees.									



Hole-ID: TCU04130

Interva From	al (m) To	Description	Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %
475.58	475.92	Quartz-Feldspar Porphyry Dyke: Chlorite Qtz-feldspar porhyry dyke. Dark green dyke with ghostly pale grey to white feldspar masses to 3mm. Rare qtz-eye, grey glassy, 1-2mm. Lower contact sharp, wavy to undulating, 55 degrees TCA.									
475.92	482.43		10358	481.72	482.7	72 1.00	1.37	47.00	0.34	0.25	0.47
482.43	483.20	Pyrite Facies Massive Sulphide: Barite; Chalcopyrite Pyrite Facies Massive Sulphide. Minor cpy noted Interval is approx 80% py with trace cpy. Py varies from vfg to coarse granular. Py is bedded 45 degrees TCA Barite as beds or clasts, locally sooty, tet? Lower contact sharp, 45 degrees TCA, conformable. <rgc> Upper 30 cm is 50% coarse pyrite in a matrix of massive, transluscent olive-green, leucoxene speckled sericite. It is also clearly fragmental, with cherty and massive sulphide clasts to 1 cm, smaller ZNF ones.</rgc>	10359	482.72	483.2	20 0.48	1.49	50.00	0.41	0.21	0.90
483.20	486.80	Quartz-Sericite-Pyrite Alteration: Quartz-Sericite-Pyrite Alteration; Sphalerite Qtz-Ser-Py alt'n of a QFP rhyolite flow. Grey green bleached rhyolite, with v strong dissem sphal. Sphal varies from reddish brown to honey brown, often encapsulated in sooty tet? Flow banding at 30-40 degrees TCA, sphal aligned with this plane, with rare x-cutting stringer. Minor wormy barite. Lower contact marked by sulphide clast and a sharp decrease in alteration, 45 degrees TCA. <rgc> Basically same lithology as above sulphide interval - identified from flow-banding and distinct quartz-eyes. Alteration here is more intense than above.</rgc>	10360 10361 10362	483.20 484.20 485.30	485.3	20 1.00 30 1.10 30 1.50	0.52	6.00	0.15	0.31 0.68 0.51	1.35



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Interva From	al (m) To	Description	Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %
486.80	487.65	Ore Clast Breccia: Pyrite; Sphalerite; Chalcopyrite Debris flow facies mineralization. Rhyolite and sulphide clasts in a strongly foliated ser and py matrix. Clasts up to 4 cm, tabular sulphides, and rounded rhyolites. Sulphide fragments generally, 0.5 to 1 cm. py and sphal dominant with rare cpy. CPY also often occurs as x-cutting stringers with possible tet rims. Interval 30-40% sulphides, 15-20% py, 5-8 % sphal, 1-2 % cpy, trace gal and tet. Lower contact is transitional over 5cm to massive sulphide.	10363	486.80	487.	65 0.85	0.51	47.00	0.62	0.55	2.07
487.65	489.82	Zinc Facies Massive Sulphide: Pyrite Facies Massive Sulphide Well-banded massive sulphide, H lens. Is this lens fold duplicated? Interval is 60-80% sulphides with locally abundant barite Majority of sulphides are pale brown sphal in a sugary barite gangue, with local massive py, rare possible bands of VFG Galena. Locally well preserved bedding, 50-55 degrees TCA. Of note is an 8 cm x-cutting qtz vein at top of interval, tet and cpy noted as fracture fill @ a high angle to vein margin. Vein has irregular margins 60 to 90 degrees TCA. Lower contact razor sharp and conformable, 35 degrees TCA. 488.66 489.00 Pyrite Facies Massive Sulphide: Massive pyrite - coarse grained, brassy, sharp contacts parallel to banding.	10364 10365 10366	487.65 488.66 489.00	489	66 1.01 00 0.34 82 0.82	2.37	90.00	1.21	0.49	19.50 2.37 14.50
489.82	505.72	Quartz-Sericite-Pyrite Alteration: Silica; Bleached Silica Rich QSP, bleached pale grey. Minor stringers of py and red sphal with wormy qtz-veins. trace sphal, 1% py. Rock appears to be an unusual sandy rhyolite with bleached blocks. Minor jasper noted, RLAT? Jasper as 1-2 mm chips. Local trace leucoxene, and DPY. Alteration intesity decreases with depth. Lower contact marked by the end of the alteration Contact marked by a vein breccia 40 degrees TCA. <rgc> Upper 60 cm weakly banded pale green, siliceous and sericitic may correlate with QSPA interval immediately below ore horizon. Down to about 497.20 meters is sandy grey rhyolite ash tuff, below looks more aphanitic, glassy and massive to mottled. More likely a flow or flow breccia.</rgc>	10368	489.82	490.	82 1.00	1.66	34.00	0.46	0.05	0.43
505.72	544.07	Rhyolite Undifferentiated: Chlorite; Jasper; Feldspar Rhyolite Lapilli Ash Tuff, chlorite darkened throughout. Possibly an unbleached version of the above QSP Matrix is sandy to ashy with v fine jasper chips. Lapilli are generally small and dark (alt'd??) They appear to be dominantly rhyolite, with rare jasper lapilli. Rare feldspars noted in									



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Zn

%

Interval (m)

To

From

Description

Sample No. To (m)

From

(m)

Interval (m) Au ~/* Cu Pb % %

matrix. Rare bullish white qtz vein. Lower contact marked by a 4 cm carbonate veins, but is transitional, an increase in angular fragments occurs over an interval of approximately 1 m. <RGC> Overall, a dark grey section of fine-grained, but distinctly granular rhyolite. Looks tuffaceous, but several distinct, hyaloclastic looking (jigsaw fit, cuspate fragments) breccia sections are noted (507m; 527m; 530.4m).

- 514.20 517.55 Rhyolite Lapilli Ash Tuff: Broken Core; Broken Zone, rubble. Carb an Py on fracture surfaces.
- 520.12 520.40 Basalt Dyke: Chlorite; Amphobile; Broken basalt dyke, amphibole bearing. Contacts are shattered.
- 520.40 521.40 Rhyolite Lapilli Ash Tuff: Sericite; Decreased chl alt'n, increased Ser alt'n, clearly RLAT.
- 521.40 523.95 Basalt Dyke: Chlorite; CHL alt'd BDY. Possible amphiboles preserved towards contacts. HW muddy and broken 30 degrees TCA. FW shattered, marked by a 1 cm mag vein, 25 degrees TCA.
- 526.06 526.26 Basalt Dyke: Chlorite; CHI alt'd BDY. Contacts are sharp and parallel, 40 degrees TCA.
- 527.26 527.56 Basalt Dyke: Chlorite; CHL alt'd BDY, HW sharp, 35 degrees TCA. FW broken 45 degrees TCA.
- 528.51 530.42 Basalt Dyke: Disseminated Pyrite; CHL alt'd basalt dyke, HW sharp, straight, 50 degrees TCA. FW irregular, 20 degrees TCA. Trace DPY.
- 533.50 536.09 Rhyolite Lapilli Ash Tuff: Bleached; Bleached mechanical rubble zone. Rough irregular fractures,
- 536.09 537.48 Basalt Dyke: Chlorite; Broken chl alt'd fine grained BDY.

544.07 548.26

548.26 Rhyolite Undifferentiated: Magnetite; Jasper

Charcoal-grey to black section of fine-grained, very strongly magnetic rhyolite with a few dark red jasper disrupted laminae. Jasper also occurs in patchy, siliceous sections with brassy pyrite. Appears to be magnetite-rich ash tuff layer - possible exhalite. Lateral equivalent of lower zone in TCU18 and 31?

545.09 546.70 Basalt Dyke: Epidote; Chlorite; VFG basalt dyke, with prominent qtz-ep, gar veins. HW hidden by grease, FW 40 degrees TCA, marked by a 15 cm of qtz-ep-gar veining.



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Interval (m	1)	Description				Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From	То					No.	(m)	(m)	(m)	g/t	g/t	%	%	%

548.26 571.93 Basalt Hyaloclastite: Jasper; Sphalerite; Disseminated Pyrite

Evolved Andesite (?) Hyaloclastite. Dark greyish black (pristine?) Key feature of this unit is numerous cuspate fragments (dark grey) in a silver grey to dark grey matrix. Fragments locally to 15 cm, rarely poorly aligned. Matrix is silvery grey when sericite altered and dark grey when pristine. In unaltered intervals fragments are obscure. Rare trace sphal, jasp, and py. Unit appears to be coarsely banded or bedded, 20-30 degrees TCA, based on the alignment of long axis of fragments. Rare late qtz-chl veins, x-cutting. Locally ashy, bedded 40 degrees TCA. Patches of ep alt'n around fractures locally give the rock a pseudo rhyolitic look. Rare intervals of cord alt'n particularly associated with more ashy intervals. Lower contact is sharp, marked by two 2cm chl veins 20 degrees TCA. <RGC> Possibly rhyolite? Blebs of beige sphalerite over the upper 3 meters <1% support this as footwall to the lower ore horizon?

571.93 605.58 Feldspar-phyric Basalt Flow:

Basalt Flow? Feldspar phyric. Pale grey to white feldspars in a wkly chl alt'd matrix. Possibly a weakly chl alt'd BIN? Feldspars are rounded to well preserved laths, generally 1-2 mm laths rarely as smaller fragments. Unit is essentially massive, fractured by late chl-carb or ep stringers. 1 extremely alt'd clast noted, 1.5X 1.5cm, possible poorly developed alignment of feldspar, 40-60 degrees TCA. Interestingly, when the rock is bleached it looks rhyolitic. Lower contact gradual, possibly conformable. An increase in hyaloclastite breccia txt's noted. Contact marked by carb veining 20 degrees TCA.

581.71 591.77 Basalt Hyaloclastite: Cordierite; Abundant cordierite pophroblasts. Blue to pinkish purple, up to 5 mm.

588.92 591.77 Basalt Hyaloclastite: Rubble zone, think muddy chl and carb on fractures sub parallel TCA.

600.44 603.42 Feldspar-phyric Basalt Flow: Sparse feldspars.

605.58 618.52 Basalt Lapilli Ash Tuff: Basalt Hyaloclastite, Cordierite

Basalt lapilli ash tuff, possibly basalt/andesite hyaloclastite. Angular/cuspate lapilli of above phyric basalt flow in an ashy matrix. Lapilli to 4 cm but generally 1-2 cm. Rarely feldspar phyric, Poorly developed bedding in ashy intervals, 20-30 degrees TCA. Rare purpleish cordierite porphroblasts, particularly in ashy intervals, possibly indicating a sedimentary influence? Lower contact marked by 10 cm of silica alteration, 30 degrees TCA.



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Cu Pb Zn Interval (m) Description Sample From То Interval Au % % % No. (m) (m) (m) g/t From To

618.52 635.67 Feldspar-phyric Basalt Flow: Chlorite; Magnetite; Cordierite

Feldspar phyric basalt flow. Similar to above. 1-5 mm feldspar masses in a dark blue grey matrix. Feldspars vary from pale grey to white, poorly formed, somewhat shattered. Interval is broken by a series of seams. Chl+/-ep+/-carb+/-mag 20-40 degrees TCA, flow margins? Locally a breccia txt develops, flow tops? Rare patch of cord alt'n 3-5 mm porphyroblasts. Lower contact wavy, 10-20 degrees TCA, increased ash content and angular lapilli frags.

626.00 626.10 Fault: Calcite; Chlorite; Pyrite; Thin muddy flt, carb, chl and py noted. FLT 25 degrees TCA, slicks rake 40 degrees to the face, right lateral flt.

635.67 648.92 Basalt Hyaloclastite: Cordierite; Epidote

Basalt Hyaloclastite, somewhat ashy. Main feature of this interval is a series of lapilli sized angular to cuspate fragments floating in a variable matirx. Fragments appear to be feldspar phyric basalt flow, similar to above. Matrix is variable, ashy to ser alt'd with patcy cord alt'n (sed influence?) Patch ep alt'n somewhat related to qtz fractures, -bleaching event? Poor bedding, aligned lapilli, 20-40 degrees TCA.



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Assays

Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %	SG	Cu ppm	Pb ppm	Zn ppm	Au ppb	Ag ppm	As ppm	Al %	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm
10347	464.10	465.10	1.00	0.05	0.00	0.00	0.00	0.00	0.00	29	108	437	0	1.2	20	1.07	50	5	0.38	1	4
10348	465.10	466.04	0.94	0.28	26.00	0.14	0.25	1.35	2.66	1281	2438	10000	0	24.7	230	1.00	25	5	0.29	49	6
10349	466.04	467.00	0.96	0.12	6.70	0.06	0.13	0.61	2.60	614	1338	6135	0	6.7	80	0.95	30	5	0.29	23	5
10350	467.00	468.35	1.35	0.14	8.50	0.18	0.16	0.50	2.60	1787	1564	4993	0	8.5	70	1.00	20	5	0.30	18	5
10351	468.35	469.09	0.74	0.57	35.00	0.58	0.13	1.06	3.16	5575	1202	10000	0	30.0	195	0.66	45	5	0.29	40	14
10353	469.09	470.12	1.03	0.55	0.00	0.00	0.00	0.00	0.00	414	726	2440	0	7.9	5	0.52	40	5	0.17	8	12
10354	470.12	472.14	2.02	0.38	0.00	0.00	0.00	0.00	0.00	744	920	2543	0	10.4	15	1.12	40	5	0.80	9	5
10355	472.14	473.64	1.50	0.11	0.00	0.00	0.00	0.00	0.00	385	402	2291	0	4.8	10	1.55	40	5	1.19	10	7
10356	473.64	474.97	1.33	0.16	0.00	0.00	0.00	0.00	0.00	528	956	5550	0	14.5	55	0.74	20	5	0.43	22	6
10357	474.97	475.58	0.61	0.30	0.00	0.00	0.00	0.00	0.00	64	134	469	0	7.7	15	1.18	35	5	1.32	1	5
10358	481.72	482.72	1.00	1.37	47.00	0.34	0.25	0.47	2.80	3172	2482	4808	0	30.0	845	0.35	20	5	0.37	10	8
10359	482.72	483.20	0.48	1.49	50.00	0.41	0.21	0.90	3.67	3948	1984	8837	0	30.0	1070	0.11	45	5	0.72	21	8
10360	483.20	484.20	1.00	0.70	32.00	0.40	0.31	4.05	2.79	3839	3202	10000	Ó	30.0	1600	0.23	10	5	0.14	142	5
10361	484.20	485.30	1.10	0.52	6.00	0.15	0.68	1.35	2.54	1287	6864	10000	0	5.2	330	0.17	15	5	0.10	47	4
10362	485.30	486.80	1.50	0.28	5.00	0.12	0.51	1.46	2.65	1024	5186	10000	0	4.8	305	0.20	15	5	0.21	54	4
10363	486.80	487.65	0.85	0.51	47.00	0.62	0.55	2.07	2.58	6006	5564	10000	0	30.0	925	0.42	25	5	0.40	77	8
10364	487. 65	488.66	1.01	2.57	157.00	0.84	5.61	19.50	3.62	8076	10000	10000	0	30.0	1140	0.08	25	5	0.07	824	4
10365	488.66	489.00	0.34	2.37	90.00	1.21	0.49	2.37	3.79	10000	4622	10000	0	30.0	1035	0.06	50	5	0.08	83	7
10366	489.00	489.82	0.82	5.23	253.00	1.30	4.11	14.50	3.67	10000	10000	10000	0	30.0	2840	0.11	15	5	0.11	611	6
10368	489.82	490.82	1.00	1.66	34.00	0.46	0.05	0.43	2.65	4501	408	4014	0	30.0	425	0.28	20	5	0.19	19	6



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Assays ...continued

Sample No.	From (m)	To (m)	Interval (m)	Cr ppm	Fe %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Sb ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W ppm	Y ppm
10347	464.10	465.10	1.00	52	1.90	10	0.51	100	8	0.03	2	310	5	20	18	0.01	10	1	10	1
10348	465.10	466.04	0.94	63	2.64	10	0.59	114	5	0.02	1	160	250	20	23	0.01	10	1	10	1
10349	466.04	467.00	0.96	58	2.18	10	0.55	115	3	0.02	1	180	40	20	11	0.01	10	1	10	1
10350	467.00	468.35	1.35	69	2.84	10	0.57	114	8	0.02	1	200	30	20	20	0.01	10	1	10	1
10351	468.35	469.09	0.74	32	10.00	10	0.49	95	16	0.01	2	10	80	20	35	0.01	10	1.	10	1
10353	469.09	470.12	1.03	101	10.00	10	0.34	78	16	0.01	1	10	5	20	18	0.01	10	1	10	1
10354	470.12	472.14	2.02	84	1.86	10	0.45	235	4	0.02	2	190	5	20	68	0.02	10	1	10	6
10355	472.14	473.64	1.50	99	4.21	10	0.39	270	5	0.06	3	170	5	20	51	0.02	10	1	10	1 ,
10356	473.64	474.97	1.33	125	2.84	10	0.14	127	10	0.08	1	180	40	20	31	0.01	10	1	10	1
10357	474.97	475.58	0.61	103	1.25	10	0.01	77	3	0.10	3	220	5	20	60	0.01	10	1	10	- 5
10358	481.72	482.72	1.00	85	4.38	10	0.05	54	7	0.01	2	370	305	20	37	0.01	10	1	10	1
10359	482.72	483.20	0.48	84	10.00	10	0.01	20	12	0.01	1	10	180	20	22	0.01	10	1	10	1
10360	483.20	484.20	1.00	106	2.15	10	0.02	67	1	0.01	- 1	100	225	20	19	0.01	10	1 .	10	1
10361	484.20	485.30	1.10	114	1.26	10	0.01	61	. 1	0.01	1	190	35	20	49	0.01	10	1	10	1
10362	485.30	486.80	1.50	114	1.44	10	0.01	77	. 1	0.01	1	100	50	20	46	0.01	10	1	10	1
10363	486.80	487.65	0.85	49	4.78	. 10	0.18	109	1	0,01	1	410	165	20	22	0.01	10	1	10	. 1
10364	487.65	488.66	3 1.01	63	3.58	10	0.01	50	1	0.01	1	160	195	20	39	0.01	10	1	10	1
10365	488.66	489.00	0.34	81	10.00	10	0.01	11	6	0.01	1	10	490	20	18	0.01	10	1	10	1
10366	489.00	489.82	0.82	31	5.63	10	0.01	66	1	0.01	1	180	1035	20	30	0.01	10	1	10	1
10368	489.82	490.82	2 1.00	69	2.01	10	0.03	48	2	0.01	4	260	195	20	22	0.01	10	3	10	1



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Collar Coordinates

North (m): East (m) Elevation (m): 15636.00 10486.00

117.00

Azimuth (degrees): Dip (degrees):

Length (m):

156.56 -79.76

908.34

Started: Completed: 27/09/2004 18/10/2004 Date Logged:

27/09/2004

Logged By:

TS.

Report Printed:

17/12/2004

Down Hole Survey Tests

Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	n Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip
0.00	156.56	-79.76	79.20	154.34	-79.48	158.50	153.52	-79.71	237.70	153.23	-80.08	490.42	150.40	-81.70			
3.00	156.83	-79.63	82.30	154.31	-79.43	161.50	153.53	-79.74	240.80	153.23	-80.05	520.90	147.60	-81.80			
6.10	156.82	-79.58	85.30	154.24	-79.42	164.60	153.33	-79.74	243.80	153.45	-80.05	548.64	153.60	-81.60			
9.10	156.54	-79.57	88.40	154.10	-79.43	167.60	153.29	-79.74	246.90	153.50	-80.05	642.82	151.10	-81.30			
12.20	156.23	-79.58	91.40	153.95	-79.46	170.70	153.09	-79.75	249.90	153.37	-80.02	673.30	152.90	-81.30			
15.20	155.70	-79.58	94.50	153.83	-79.46	173.70	153.08	-79.78	253.00	153.30	-80.06	703.78	152.80	-81.40			
18.30	155.15	-79.57	97.50	153.64	-79.52	176.80	153.16	-79.78	256.00	153.53	-80.09	731.52	146.20	-81.40			
21.30	154.90	-79.61	100.60	153.59	-79.54	179.80	153.25	-79.78	259.10	153.58	-80.13	764.74	151.50	-81.00			
24.40	154.67	-79.62	103.60	153.34	-79.56	182.90	153.23	-79.78	262.10	153.32	-80.10	792.48	149.00	-80.80			
27.40	154.60	-79.59	106.70	153.37	-79.58	185.90	152.88	-79.78	265.20	153.10	-80.04	825.70	151.10	-80.60			
30.50	154.58	-79.58	109.70	153.17	-79.58	189.00	152.75	-79.78	268.20	152.67	-80.00	856.18	160.80	-80.40			
33.50	154.40	-79.55	112.80	153.17	-79.59	192.00	152.73	-79.78	271.30	152.11	-79.97	886.66	151.60	-80.30			
36.60	154.36	-79.55	115.80	153.24	-79.64	195.10	152.80	-79.83	274.30	151.87	-79.95						
39.60	154.08	-79.56	118.90	153.38	-79.65	198.10	153.10	-79.88	277.40	151.61	-79.94						
42.70	154.02	-79.58	121.90	153.47	-79.63	201.20	152.96	-79.95	280.40	151.62	-79.96						
45.70	154.01	-79.57	125.00	153.37	-79.63	204.20	152.99	-79.99	283.50	151.60	-79.97						
48.80	153.92	-79.57	128.00	153.24	-79.64	207.30	152.88	-80.00	286.50	151.53	-79.99						
51.80	153.98	-79.59	131.10	153.22	-79.66	210.30	152.87	-80.01	289.60	151.66	-80.00						
54.90	154.02	-79.57	134.10	153.12	-79.68	213.40	152.70	-80.01	292.60	151.62	-80.02						
57.90	154.00	-79.55	137.20	153.16	-79.69	216.40	152.75	-80.06	295.70	151.68	-80.02						
61.00	154.10	-79.53	140.20	153.35	-79.68	219.50	152.80	-80.07	298.70	151.58	-80.02						
64.00	154.23	-79.52	143.30	153.26	-79.69	222.50	152.79	-80.07	301.80	151.63	-79.97						
67.10	154.37	-79.54	146.30	153.20	-79.71	225.60	152.86	-80.09	304.80	152.20	-79.30						
70.10	154.51	-79.54	149.40	153.42	-79.65	228.60	152.91	-80.10	335.28	152.70	-81.80						
73.20	154.37	-79.52	152.40	153.66	-79.65	231.60	153.02	-80.08	367.59	147.60	- 81.60						
76.20	154.29	-79.50	155.40	153.69	-79.71	234.70	153.19	-80.06	429.46	148.50	-81.60						



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Interval (m)	Description		**.	Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From To				No.	(m)	(m)	(m)	g/t	g/t	%	%	%
		· · · · · · · · · · · · · · · · · · ·	internal control of the control of t		•							

0.00 1.07 Casing:

Casing, no recovery

1.07 86.60 Basalt Flow: Magnetite; Hematite; Chlorite

Dark green grey - dark grey - maroon colored, variably hematite stained, very fine - (rarely, locally) medium grained (feldspar phyric), mafic extrusive. Generally the hematite appears to be disseminated, but there are some sub angular - sub rounded, rarely irregular shaped iasper fragments?, specks?, clots?, with variably sharp - frayed and/ or blurry contacts (very small scale). Interval with not well defined sub sections, that display bright white, sub mm - 4 mm sized, mostly subhedral, occasionally euhedral feldspar phenocrysts, amounting to approx 2 % within those sections and << 1 % overall. Interval with sub sections (frequently wider than 1 m) displaying a fragmental texture: Sub angular - sub rounded, variably hematite stained fragments, partially containing hematite inclusions (as described above), are enclosed by a very fine grained, frequently slightly lighter colored, chloritic matrix. Matrix supported. These textures are assumed to be the result of autobrecciation, possibly hyaloclastites. Sometimes these textures are associated with a decrease of the overall persistently strong magnetism. +/- quartz, +/- chlorite, +/- epidote, +/- magnetite, +/- minor carbonate veins with variable width (from mostly hairline rarely cm width) and variable orientation (from 20 deg - steep angle to CA) have a tendency to cluster together in zones (typically of approx 30 cm width), which results in a shattered, bleached and altered appearance of these zones. Occasionally the veins display irregular, wavy or swirly outlines. In some sub sections the textures of the rock resemble sedimentary textures: for example at approx 18.2 m the jasper outlines are very reminiscent to lapilli sized fragments, possibly indicating the entire interval to be a reworked volcaniclastic sediment, possibly indicating sedimentary lenses within basalt flows or these sections are autobreccias resembling sediments, which is suggested by the presence of euhedral feldspar phenocrysts. However the presence of sediments can not be excluded. From approx 35 m downwards the abundance of jasper decreases and near the lower contact no jasper or hematite stain is visible. The abundance of feldspar phenocrysts is decreasing from approx 27 m downwards until around 45 m hardly any feldspar phenocrysts can be detected. At 45.65 m a very abrupt change in magnetism: From here on downward variably magnetic; Non- to strongly magnetic, patchy and in sections. Also within this part of the interval subsections resembling ash tuffs, but no clear contacts can be found. From 56.2 - approx 58 m: Zone of intense pervasive chlorite alteration, with swirly wavy textures, grading into a



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Pb

%

Cu

%

Page: 3

Zn

Interval (m) To

From

Description

Sample From To Interval Au No. (m) (m) g/t (m) g/t

texture, strongly reminiscent to a breccia (possibly a breccia, an autobreccia, a pseudo breccia, a debris flow of some kind?): Pale green - green (chlorite) mottled, rounded, up to several cm sized fragments are separated by a fine grained, dark grey, very hard and non magnetic matrix (picture taken). Lower contact: Marked by increasingly broken core, no plane.

- 26.72 34.48 Fault Zone: Zone with intensive chlorite-, epidote alteration near upper contact, that grades - within defined subsections into more or less persistant, swirly- wavy alteration textures and grading further into more or less persistent swirly - wayy alteration textures and grading further into more or less pervasive quartz-, chlorite-, epidote alteration with a finely mottled appearance. From 29.57 - 29.88: Broken core, carbonate bearing quartz-, chlorite-, epidote- veins, sub parallel to CA. Slickensides on fracture planes sub parallel to CA and @ approx 20 deg to CA (associated with minor fault gauge). From 33.60 - 34.20: Broken core: 50 % of the core pieces < 5 cm. Intense chloritic alteration and gypsum-, quartz veining @ shallow angles to CA?. Slickensides on fracture planes sub parallel to CA. Lower contact: Marked by decreasingly broken core and decreasing veining, alteration.
- 53.50 55.61 Fault Zone: Zone with relatively intense, white carbonate veining, width varying from hairline up to approx 5 mm (locally grading into clots with drusen and several mm sized euhedral calcite crystals), most conspicuously sub parallel to CA and @ 15 -40 deg to CA. Veining results in a shattered appearance of the rock, associated with bleaching, which results in an olive green color. Slickensides on fracture planes @ 15 deg to CA.
- 61.80 67.00 Fault Zone: Fracture zone: Broken core: 75 % of core pieces < 10 cm, 30 % of core pieces < 5 cm. From 63.70 - 64.0 m: Slickensides on hematite coated fracture planes @ 25 deg to CA. From approx 65 - 66 m; Section is bleached to olive green and displays hairline up to several cm wide, strongly carbonate bearing quartz-, chlorite-, gypsum? veins, which are sub parallel to CA or cut CA @ 15 deg - 30 deg. From 66.00 -67.00 zone of intense chloritic alteration with swirly - wavy textures and quartz? clots (5 - 10 mm sized), magnetite clots (approx 5 mm sized) and few pyrite specks (approx 1 - 3 mm). Lower contact: Marked by decreasing alteration.

86.60 92.00 Fault Zone:

Fracture zone: Approx 85 % of core pieces < 10 cm, 30 % < 5 cm. Slickensides on chlorite coated



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Interval (m)	Description	•	Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From To			No.	(m)	(m)	(m)	g/t	g/t	%	%	%

fracture sub parallel to CA. Lithology: Upper part is the same lithological interval as overlying interval and lower part is the same as underlying interval. The lithological contact is assumed to be at or near 87.75 m. From approx 90 - 90.50 m strongly epidote-, chlorite alteration and bleaching. This zone also displays few approx 2 mm sized pyrite specks. Lower contact: Marked by decreasingly broken core, no plane.

92.00 95.45 Volcanic Sediment: Magnetite: Chlorite

Very fine grained - fine grained, dense, green grey - dark grey, locally maroon colored mudstone (argillite?). Bedding (based on color change, rather than change in grain size, grading into a lamination) with an orientation of 40 - 45 deg to CA. Conchoidal fracturing, associated with soapy - slippery fracture planes. Variably magnetic: Non - moderately magnetic, patchy. Interval with chlorite-, magnetite veins (width varying from hairline - > 2 cm, with variable orientation to CA. Lower contact: Sharp, indistinct, broken core, no plane (presumably @ 40 deg to CA).

136.32 Basalt Flow: 95 45

Very dark (and intensively) green - very dark grey, non - (locally) weakly magnetic, fine grained, aphanitic, mafic rock. Few several mm sized, +/- round amygdules (primarily filled with chlorite and very minor carbonate) are scattered throughout and indicate a basalt flow. Non- to (locally) weakly magnetic throughout, patchy. Overall a dense, homogeneous, featureless interval. Zoned quartz-, +/- chlorite, +/- magnetite-, +/- epidote veins with orientation of predominantly 30 deg -50 deg to CA, variably width from several mm up to > 10 cm. Less than 1 vein per 1 m core. Within last m of lower contact increasingly broken core, associated with tectonic brecciation, bleaching (to olive green, cream and maroon grey), shattered appearance (chlorite wisps, most conspicuously @ approx 50 deg to CA and sub parallel to CA) and approx 0.5 cm wide, (minor) carbonate bearing quartz-, chlorite-, gypsum veins, which are orientated sub parallel to CA, and which are associated with minor slickensides and several mm sized pyrite aggregates on fracture planes sub parallel to CA. Particularly in the lower part of this interval the veins are associated with alteration halos, that display wispy, wavy, swirly textures with pyrite specks up to several mm size, locally grading into faintly developed clouds and or bands. Lower contact: As a result of alteration, bleaching and shattering difficult to determine. Believed to be sharp, somewhat irregular and @ 60 deg to CA.

136.32 145.93 Volcanic Sediment:



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Interval (m)

To

From

Description

Sample No. From (m)

To Interval

i Au a/t Ag a/t

Cu

Pb Zn

Dark brown grey - dark grey, maroon - mauve grey (bleached sections), very fine grained volcaniclastic sediment. Non magnetic - weakly magnetic, patchy and sections. Locally primary bedding @ approx 55 deg to CA, generally very difficult to detect as a result of veining, bleaching, fracturing. The primary lithology is very similar to 92.00 - 95.45 but overprinted by tectonic activity: +/- quartz, (abundant) chlorite, +/-magnetite, +/- pyrrhotite veins, veinlets, wisps, from hairline up to approx cm width, frequently irregular, kinked or arcuated, with very variable orientation to CA (just about any angle between sub parallel and sub vertical to CA), possibly with a somewhat preferred direction @ approx 50 - 60 deg to CA. Broken core: Particularly the upper part of this interval is more or less pervasively broken (fracture zone with up to several mm sized pyrite aggregates on fracture planes) with a conspicuous orientation of fracture planes sub parallel to CA. Lower contact: Alteration contact, marked by color change to pale beige, cream. No plane.

145.93 156.48 Fault Zone:

The interval starts off with an approx 3.5 m wide, intensively bleached, strongly chloritic, pale beige - pale green - cream colored section, with abundant chlorite stringers and/ or veinlets with a preferred orientation of 40 - 60- deg to CA The central part (approx 1 m) is very similar to the lithology of the overlying unit and appears to be a relatively unaltered relict. The lower third of this subsection displays an increasingly mottled appearance and begins with an approx 1 cm thick layer of clayey, ductile fault gauge sandwiched between white, carbonate bearing, approx mm thick seams of vein mineralization, with an orientation of approx 20 deg to CA. This fault is underlain by approx 15 cm of tectonic breccia: Up to approx cm sized fragments (angular) are enclosed by strongly carbonate bearing, white vein mineralization @ approx 45 deg to CA. Further on downwards the interval grades into a section of pervasive fracturing and altered lithology as described above. Chloritic, ductile clayey fault gauge from approx 150.5 - 151.0, associated with slickensides on fracture planes sub parallel to CA. White quartz-, carbonate veins, from hairline up to several mm width, cut CA @ shallow angles. From 153 - 153.5 m a tectonic breccia (Up to several cm sized, sub angular - sub round fragments are enclosed by a white, carbonate bearing quartz vein mineralization), grading into heavily shattered rock with chloritic, clayey, silty, sandy fault gauge on a fracture plane sub parallel to CA. From 154 m downwards increasing abundance of pyrite within and associated with white, carbonate bearing quartz vein mineralization @ 15 deg, 35 deg and sub parallel to CA. At approx 155.5 m a 8 mm wide carbonate bearing quartz-?, gypsum-?,



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interval (m) To

From

Description

Sample No.

From То (m)

(m)

Interval (m)

g/t

Cu Pb Zn %

pyrite-, garnet vein @ 15 deg to CA, with up to approx 10 mm sized euhedral pyrite crystals and up to approx 8 mm sized euhedral garnet crystals. Interval grades downwards into a subsection with increasingly unaltered (basaltic) lithology, broken core and minor slickensides on fracture planes sub parallel to CA. Lower contact: Marked by decreasingly broken core.

174.26 Basalt Flow: 156.48

Dark green grey - dark grey, very fine grained, dense, massive, homogenous, mafic rock. Few amygdules (1 - 5 mm sized, filled with chlorite, minor carbonate, quartz and very minor pyrite) indicate a basalt flow. Non magnetic - moderately magnetic, patchy and in sections. Fairly featureless interval. Epidote-, chlorite-, magnetite veins, from hairline up to > 1 cm, with variable orientations to CA (from sub vertical - approx 40 deg to CA, most conspicuously @ 30 - 40 deg to CA). At 171.54 - 171.64 epidote green, pyrite brown (high content of disseminated pyrite) and basaltic grey angular fragments (sub mm up to > 1 cm) in a fine grained epidotic matrix, which appears to be composed of increasingly smaller fragments itself. Fragment supported. Believed to be a tectonic breccia or - less likely - a conglomerate in between flows. Picture taken. Few sections with few, up to 3 mm sized, subhedral feldspar phenocrysts. Lower contact: Associated with a cream bleached, approx cm wide alteration halo? which cuts CA @ 60 deg.

174.26 178.70 Volcanic Sediment:

Olive green grey - beige grey - light green grey - dark grey, very fine - fine (sand) grained volcaniclastic sediments. Overall very similar to "136.32 - 145.93 m" and "92.00 - 95.45 m". The beige colored beds, bands, lamina with high content of disseminated pyrite (approx 30 %), amounting to an overall pyrite content of > 10 %? Bedding foliation @ 30 - 50 deg to CA. At 175.40 - 176.0 m: Pervasively epidote altered section, bright light green, associated with minor pyrite (up to approx 5 mm sized subhedral crystals); presumably fracture controlled, with hairline cracks @ variable angle to CA. This section is non magnetic versus the rest of this interval, which is moderately magnetic. Lower contact: Marked by increasingly stronger tectonic overprinting, no plane.

178.70 191.88 Fault Zone:

From 178.82 - 178.94: A fault with light green (chlorite), solidified fault gauge, which contains few, up to several cm sized angular inclusions of host rock near its upper and lower contact. Fine grained with approx mm sized dark, variably shaped, angular spots (fragments?, crystals?) It can



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Interval (m) From To Description

Sample No. From (m) To Interval (m) (m)

Au Ag g/t g/t Pb Zn % %

Cu

not be excluded, that this section is a strongly chloritized felsic dike; orientation is approx @ 20 deg to CA. The interval is mostly comprised of broken core: Approx 75 % of core pieces < 10 cm, approx 50 % of core pieces < 5 cm. Lithologically this interval is part of the overlying interval, but the color grades to dark grey. From 179.53 - 182.00 the core is less fractured than throughout the rest of the interval and nerved by white, carbonate bearing stringers (grading into stringers up to 3 mm wide), orientated sub parallel to CA. The subsection is bleached to olive green - light green. Bedding foliation @ 30 deg to CA. Downwards the sub sections grades into a breccia zone, approx 30 cm wide with sub angular - sub round fragments from few mm up to several cm size in a greenish (chlorite), cream colored (albite?) matrix. Very minor pyrite on fracture planes, which are sub parallel to CA. Lower contact: Marked by decreasingly broken core, no plane.

191.88 207.22 Volcanic Sediment:

Grey - dark grey - olive green grey - mauve and/ or maroon grey, fine grained, dense, homogenous volcaniclastic, with a typical glassy luster on wet core surfaces and soapy fracture planes. Non magnetic - weakly magnetic, patchy and in sections, locally (and very rarely) moderately magnetic. Interval very similar to "174.26 - 178.70 m", "136.32 - 145.93 m" and "92.00 - 95.45 m". Overall relatively massive, locally displaying a faintly developed, very indistinct bedding foliation @ 20 - 30 deg to CA. This foliation is difficult to detect and to verify. Some indication (wavy arcuated foliation) of soft sediment deformation. Sections with a shatterd appearance fracture readily and display chlorite and/ or white (quartz?) stringers @ various angles to CA, most conspicuously @ 30 - 50 deg and @ 60 deg to CA (both sets with a different strike, therefore crosscutting each other). Interval more or less pervasively fractured, with fracture planes @ variable angle to CA, most conspicuously sub parallel to CA and @ 55 deg to CA (@steep angles to CA at a lesser extend). Fracturing increases in some sub sections (frequently wider than 50 cm), with more than 50 % of the core pieces < 5 cm. Lower contact: Very irregular, distinct, no plane.

207.22 219.20 Basalt Flow:

The interval starts off with a basalt flow, that can be clearly identified: Dark green grey - dark grey, very fine grained - fine grained mafic rock. Sub section is weakly - moderately magnetic. Up to 5 mm sized amygdules (filled mostly with chlorite and very minor carbonate) suggest a basalt flow. This sub section appears to be underlain by a fine grained volcaniclastic sediment without a definite contact being found. The assumed sediment appears to be brecciated and altered (chlorite,



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Interval (m) To

From

Description

Sample No.

From (m)

То Interval (m) (m)

Au

Cu

Pb Zn % %

epidote). The interbedded sediment is assumed to be approx 50 cm wide, with its lower contact at 208.73 m: Sharp, indistinct and @ 50 deg to CA. The rest of the interval is composed of dark green grey - dark grey, fine grained, dense, homogenous, featureless rock, presumably a basalt flow or a sequence of flows, possibly with interbedded volcaniclastics. However, it can not be excluded, that at least a portion of this interval is composed of sediments. Mostly the interval is weakly moderately magnetic (patchy, sections), with both non magnetic and strongly magnetic patches and sections. Minor quartz-, chlorite-, magnetite veining: At 211.60 m an approx 15 cm wide zone with irregular quartz-, chlorite-, magnetite veining, somewhat wavy @ approx 35 deg to CA and +/parallel to an assumed overlying contact between VSD and BFL (flow top?). From 213.50 - 214.0 blotchy epidote alteration zone. Lower contact: Sharp @ 40 deg to CA.

219.20 220.43 Andesite Dyke: Epidote

Light green grey (epidote alteration), fine grained - medium grained andesite dike. Sub mm - 2 mm sized, subhedral - euhedral feldspar phenocrysts (which are epidote altered resulting in a bright light green color), enclosed in a fine grained, aphanitic, epidote altered and possibly chlorite altered matrix. Non magnetic. Upper contact with a chill margin (feldspar phenocrysts are decreasing in size). Lower contact: Sharp, broken core, no plane.

220.43 220.77 Fault:

Fault. Broken core: 70 % of core pieces < 10 cm; 70 % of core pieces < 5 cm. Chloritic, clayey, ductile fault gauge, presumably associated with fracture planes @ 30 deg to CA; not accurately to determine. Fracture planes most conspicuously @ 30 - 40 deg to CA. Primary lithology not to determine (presumably part of the interval which underlies the andesite dike): Material is bleached to light green grey - cream colored, brecciated, with shattered appearance as a result of carbonate bearing, white stringers, which cut CA at various directions, most conspicuously @ 30 - 40 deg to CA. Lower contact: Marked by decreasingly broken core, no plane.

220.77 228.20 Basalt Flow:

Dark green grey - dark grey - dark brown grey, very fine - fine grained, aphanitic, mafic rock, presumably part of the same basaltic sequence, which overlies the andesite dike. Non - strongly magnetic (patchy, sections). Few +/- quartz, +/- chlorite, +/- epidote, +/- magnetite veins (locally associated with minor, cloudy - banded pyrite mineralization) @ various directions to CA,



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Interval (m) From To Description

Sample No. From (m) To (m)

Interval Au (m) g/t

ı Ag : g/t

Pb Zn % %

Cu

%

most conspicuously @ 30 deg to 50 deg to CA, occasionally varying from approx 30 deg - very shallow angles to CA. Veining and associated alteration result locally in wispy, wavy textures (flow tops?). Lower contact: Associated with a fracture plane @ approx 30 deg to CA, which possibly represents the contact plane. Not accurately definable because of broken core from 228.20 m downwards.

228.20 246.12 Volcanic Sediment:

Interval is overall very similar to "191.88 - 207.22 m". Bedding foliation (very faintly developed and very difficult to determine definitely) @ 30 deg - 40 deg to CA. Approx half of the interval is pervasively fractured with some silty, sandy, gravely fault gauge and slickensides on fracture planes @ 50 - 60 deg to CA at approx 239.25 m. Also slickensides on fracture planes sub parallel to CA. Zones with white, carbonate bearing stringers (locally with abundant pyrite), sub parallel to CA. Also fracture planes sub parallel to CA with pyritic coating. Locally +/- quartz, chlorite, +/- magnetite veins, up to > 1 cm wide, orientated @ 40 deg to CA and sub parallel to CA. Lower contact: Distinct, sharp, irregular, no plane.

234.30 324.45 Basalt Dyke: Dark brown grey, very fine grained, dense, massive, featureless, mafic rock, very similar to "322.07 - 323.78 m" and possibly a dike with basaltic composition or unaltered relict within bleached/ altered rocks? Picture taken. Upper contact: Sharp, @ 50 deg to CA. Lower contact: Sharp, @ 45 deg to CA.

246.12 249.98 Fault Zone:

Olive green grey - light green grey, very fine grained - fine grained, chloritic rock. Upper part of interval can be identified as VSD, bleached, shattered, with chlorite- and carbonate bearing stringers @ variable angle to CA, most conspicuously @ 10 - 20 deg to CA and sub parallel to CA. Interval is pervasively fractured with slickensides on fracture planes @ shallow angles to CA and intensively chlorite altered and bleached. Primary lithology of central and lower part of interval can not be definitely determined, but it is assumed to be part of the sequence underlying the Fault zone. Interval is non magnetic - moderately magnetic, with magnetism increasing in darker, less bleached areas. At 248.80 m displays 4 quartz-, carbonate veins @ 30 - 45 deg to CA and 3 - 5 mm wide within an approx 15 cm wide zone. From 248.80 downwards the interval grades into an intensively fractured zone (approx 40 cm wide) with > 90 % of the core pieces < 5 cm. Minor fault gauge and slickensides on fracture planes @ < 10 deg to CA and approx 35 deg to CA. This subsection



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Pb

Сu

Au

g/t

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Zn

%

Interval (m) Description Sample From To Interval
From To No. (m) (m) (m)

is highly chloritic. Lower contact: Gradual over approx 0.5 m with decreasing fracturing and decreasing bleaching, no plane.

249.98 256.81 Basalt Flow: Chlorite

Dark green grey - dark grey - dark brown grey, very fine - fine grained mafic extrusive: Variably feldspar phyric: Sections (rarely up to 50 cm wide) with up to 1 mm sized, very rarely 2 mm sized anhedral - subhedral feldspar phenocrysts (amounting to approx 20 %) alternate with dense, massive sections. Non magnetic - moderately magnetic, patchy, sections. Minor veining: 1 approx 0.5 m wide zone with irregular, patchy quartz-, chlorite-, epidote-, magnetite veining, irregular, patchy. Lower contact: Very indistinct, very irregular, no plane.

256.81 260.07 Volcanic Sediment: Chlorite

Dark olive green grey - dark mauve grey, very fine - fine grained (silt sized clasts) volcaniclastic sediments. Predominantly muddy sections alternating with predominantly silty - sandy sections, with bedding planes appearing wavy, irregular and - as a result of entirely lacking color changes - very difficult to detect. A definite bedding is not detectable, but assumed to be @ vaguely 40 deg to CA. Indications of wet sediment deformation. Superficially a very homogeneous and featureless appearing interval. At 258.1 m possibly few cordierite granoblasts. Variably magnetic:

Non magnetic - moderately magnetic, mostly weakly - moderately magnetic with non magnetic patches. Locally with a coating of up to several mm sized pyrite aggregates, associated with minor carbonate and minor quartz on fracture planes @ shallow angle to CA. Lower contact: Sharp, broken core, no plane.

260.07 265.57 Basalt Flow:

Dark green grey - dark grey - dark brown grey, very fine grained - medium grained, variably feldspar phyric basalt flow. From upper contact - 263.6 m feldspar phyric, with sub mm up to approx 4 mm sized, anhedral, slightly chloritized feldspar phenocrysts, amounting to approx 20 %, enclosed by an aphanitic matrix. At 263.6 m abrupt decrease of feldspar phenocrysts. Lower section with few, up to 3 mm sized pyrite granoblasts. Within approx 0.5 m of lower contact, color change to very dark brown. Non magnetic - moderately magnetic, patchy and sections. Lower contact: Very indistinct, broken core, no plane.



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Interval (m) Description Pb Zn Sample From To Interval Au Cu % % % No. (m) (m) (m) g/t g/t Τо From

265.57 268.17 Volcanic Sediment: Magnetite

Dark mauve grey - dark grey - dark brown grey, locally olive - epidote green volcaniclastic sediment. Relatively homogeneous, dense sections alternate with bedded mudstones (particularly near lower contact). Bedding (near lower contact) @ 50 deg to CA. Bedding in this sub section easy to detect, based on variably epidotic altered beds and/ or laminae, highlighting the primary bedding. Moderately - strongly magnetic throughout. Interval is pervasively fractured. Lower contact: Sharp, conformable, @ 50 deg to CA.

268.17 272.45 Basalt Flow:

Very dark green grey - very dark grey - very dark brown grey, very fine grained - fine grained mafic rock. Sub mm - approx 4 mm sized amygdules (filled with chlorite, carbonate, minor pyrite and quartz?) and/ or anhedral - subhedral feldspar phenocrysts are scattered throughout (sections with small amygdules being abundant) and suggest a basalt flow. Non magnetic - weakly magnetic, patchy and sections. Lower contact: Not definable. Arbitrarily chosen with incipient epidotic alteration, no plane.

272.45 291.34 Basalt Intrusive:

Dark green grey - dark grey, very fine grained - fine grained, dense, massive, homogenous, featureless, monotonous, aphanitic, mafic rock, presumably a sub volcanic or the center of a thick basalt flow. Very few amygdules, approx 1 - 5 mm sized, are filled with chlorite, quartz, minor carbonate, minor pyrite. Usually the amygdules form little clusters (2 - 5 amygdules) and these clusters are few and far apart. Interval is non magnetic - weakly magnetic, patchy, sections. Few quartz-, chlorite-, magnetite-, +/- epidote veins, width varying from few mm up to > 5 cm, mostly @ approx 20 - 30 deg to CA, partially associated with epidote alteration halos from mm up to several cm width. Lower contact: Arbitrarily chosen, not accurately definable, chosen with the incipient appearance of feldspar phenocrysts. The lack of both upper and lower contact may indicate this interval to be part of a thick flow rather than an intrusive.

291.34 295.70 Basalt Undifferentiated:

Dark green grey - grey, dense, homogenous, massive, fine - medium grained, weakly magnetic, mafic rock. Sub mm - approx 4 mm sized anhedral - euhedral feldspar phenocrysts (possibly some of these assumed feldspar phenocrysts may be amygdules) are enclosed by an aphanitic, grey matrix and amount



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Interval (m)

То

From

Description

Sample No To (m)

From

(m)

Interval (m)

Au A

Pb Zn % %

Cu

to approx 10 %. Interval also displays dark colored, round - angular, variably shaped and 3 - 4 mm sized spots (abundance increases downwards), which are assumed to be chloritized amphiboles. Lower contact: Very indistinct, sharp, irregular, unlikely to be an intrusive contact, @ shallow angle to CA. Sharply increasing magnetism downwards.

295.70 307.98 Volcanic Sediment:

Mauve grey - green grey - grey, very fine grained - fine grained volcaniclastic, possibly with interbedded basalt flows. Predominantly mud rich sections are alternating with predominantly silt rich sections; the interval overall is rather silty than muddy. Bedding near upper contact @ approx 25 - 40 deg to CA, accentuated by variably epidotic altered beds/ laminae. The interval is variably magnetic: Upper and lower subsection are moderately magnetic and the central part is non magnetic - moderately magnetic, patchy, sections. Superficially this interval with a dense, massive and monotonous appearance (exception: near upper contact). The interval is pervasively shattered, approx 50 % of core pieces < 10 cm and 25 % < 5 cm. Fracture planes @ various angles to CA, partially with small (sub mm - several mm sized) pyrite aggregates. Upper part of the interval with few, approx 2 mm sized pyrite granoblasts. Few, up to several mm wide +/- quartz-, +/- chlorite-, +/- magnetite-, +/- epidote veins, mostly @ shallow angles to CA. Lower contact: Sharp, broken core, no plane.

301.12 301.36 Fault: Core is bleached to olive green - pale green grey and shattered (hairline stringers, presumably with chlorite mineralization). Approx 5 mm clayey, ductile, strongly chloritic fault gauge between fracture planes @ 40 deg to CA, associated with +/- parallel, white, carbonate bearing quartz-, chlorite veining, several mm wide. Upper contact: Broken core. Lower contact: Broken core.

307.98 311.00 Basalt Undifferentiated: Magnetite

Very fine - fine grained, dark green grey - dark grey, mafic rock. Modereately - strongly magnetic throughout. Upper subsection with white - cream colored, approx mm sized spots amounting to approx 35 %, which could be interpreted as subhedral - anhedral feldspar phenocrysts in a basaltic rock or (crystal) fragments in a tuff or other volcaniclastic. Around 310 m the white spots disappear and the material displays a foliation @ 35 deg to CA, based on sub mm thin pyrite laminae, with a several mm spacing. Whether these laminae accentuate a primary bedding (indicating the interval to be of sedimentary origin or an alternating sequence of sediments and flows) or whether they are



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Interval (m)	Description			Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From To				No.	(m)	(m)	(m)	g/t	g/t	%	%	%

entirely the result of secondary processes can not be determined. The interval is pervasively fractured. Lower contact: Broken core, no plane. Core with 3 cm diameter from 310.59 m downwards.

311.00 311.58 Volcanic Sediment:

Mauve grey - maroon grey, hard, moderately magnetic rock with a distinct (bedding) foliation @ approx 40 deg to CA. Aphanitic, no individual clasts, crystals and/ or fragments can be recognized. Possibly a volcaniclastic or a very fine ash. Lower contact: Broken core, no plane; but assumed to be sharp, conformable, @ approx 30 deg to CA.

311.58 313.05 Basalt Undifferentiated:

Dark green grey - dark brown grey, very fine grained, dense, massive, homogeneous mafic rock. Upper part is moderately magnetic, lower part is non magnetic. Lower contact: Sharp, @ 30 deg to CA.

313.05 322.07 Basalt Ash Tuff:

Green grey - mauve grey, non magnetic, dense, massive, homogeneous basalt ash tuff. Non magnetic, except near lower contact, were it is weakly magnetic. Locally with a very faintly developed bedding @ approx 35 deg - 45 deg to CA. Individual beds (approx cm wide) and few sections with variable abundance of lapilli sized fragments, up to 3 or 4 mm size, mostly sub rounded. Lower contact: Indistinct, sharp, @ steep angle to CA, without a well defined plane, rather gradational over approx a cm. Core with 5 cm diameter from 318.21 downwards.

313.64 316.61 Basalt Lapilli Tuff: Magnetite; Mauve grey - maroon grey, moderately magnetic basalt lapilli tuff. Up to 5 mm sized, rounded lapilli amounting to approx 50 % in an ash sized matrix. Bedding @ 30 - 40 deg to CA. Upper contact: Gradationally increasing abundance of lapilli, no plane. Lower contact: Sharp, conformable, @ 40 deg to CA.

322.07 323.78 Basalt Undifferentiated:

Dark green grey - dark brown grey, very fine grained, dense, massive, non magnetic, mafic rock, possibly a basalt flow or a basalt dike (or a homogenous VSD?). Lower contact: Sharp, @ 40 deg to CA. Alteration contact?

323.78 333.09 Fault Zone: Chlorite

Very variably colored (dark green grey, green grey, white - cream, olive green grey, dark brown



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Interval (m)

То

From

Description

Sample No. From (m)

То

(m)

Interval (m) Au a/t Cu % Pb Zn % %

grey - brown - brown grey) with a dirty, mottled, chaotic appearance. Light grey - cream colored, sub rounded - sub angular, frequently irregular shaped fragments or pseudo fragments in a dark brown matrix. (Pseudo) fragments are frequently elongated, grading into a foliation (laminae), for example near the upper contact @ 40 deg to CA, and grading further into massive, white - cream colored subsections. Subsections with intense, pervasive chlorite alteration, partially associated with approx 2 mm sized, round, beige - cream - white granoblasts, presumably cordierite. Few carbonate bearing quartz-, chlorite-, minor pyrite-, albite veins, veinlets, stringers, up to several cm wide and partially associated with alteration/ bleaching halos; at 324.75 m @ 25 deg to CA (associated with slickensides) and at 326.58 m @ 50 deg and 15 deg to CA. Disseminated pyrite, pyrite specks and stringers, pyrite aggregates on fracture planes, abundance increasing downwards (accessoric overall). The primary lithology is not accurately to determine, but within 2 m from lower contact a fine grained, muddy, olive green grey - dark green grey volcaniclastic can be identified. Interval is pervasively fractured, approx 60 of core pieces < 10 cm and 30 of core pieces < 5 cm, occasionally with slickensides on fracture planes, most conspicuously @ 30 deg and sub parallel to CA. From 330.36 - 330.89 a breccia zone with up to 10 mm sized fragments, sub angular - angular, partially jig saw fit in a strongly chloritic matrix. Lower contact: Alteration contact, sharp, @ 45 deg to CA.

323.85 323.92 Basalt Dyke: Dark brown grey, very fine grained, dense, massive, featureless, mafic rock, very similar to "322.07 - 323.78 m" and possibly a dike with basaltic composition or unaltered relict within bleached/ altered rocks? Picture taken. Upper contact: Sharp, @ 40 deg to CA. Lower contact: Sharp, @ 40 deg to CA.

333.09 343.86 Volcanic Sediment:

Dark grey - green grey - maroon grey - mauve grey, fine grained - medium grained volcaniclastics consisting of a sequence of sub intervals (mostly < 1 m), which display a crude - well developed grading from sand to mud over several dm. It is important to recognize, that these intervals resemble very much mafic intrusions and therefore may be misinterpreted easily. The lower parts of each sub interval display sand sized white spots (reminiscent to feldspar phenocrysts) which become less and smaller upwards and grade into mudstones (picture taken). Locally very narrow sections (approx 20 cm) with few, approx 3 mm sized amygdules with carbonate bearing mineralization, which may indicate basalt dikes or basalt flows (interval possibly consisting of an alternating sequence of volcaniclastics and flows). Variably magnetic: Mostly weakly magnetic, rarely non magnetic or



From

Redfern Resources Ltd. **Diamond Drill Log Lithology Description**

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Interval (m)

To

Description

Sample From То Interval No. (m)

Cu

Pb Zn %

moderately magnetic. Magnetism decreasing within altered, bleached (veined) sections. Bedding is mostly difficult to detect, or entirely lacking. Bedding planes can be noted, when muddy layers are overlain by sandy layers indicating the beginning of a new sequence. These bedding planes are frequently quite irregular and orientation varies from approx 30 deg - approx 45 deg to CA. The lower part of the interval (2 m) is intensively fractured: > 80 % of core pieces are < 5 cm. This section with very few, carbonate bearing, white stringers, which cut CA at shallow angles. Some fracture planes with chlorite coating. Lower contact: marked by increasingly broken core, no plane.

343.86

358.69 Fault Zone:

Fault zone: The interval is intensively fractured throughout. Approx 85 % of the core pieces < 10 cm, approx 50 % < 5 cm. Particularly the section from 352 - 356 m is intensively chloritized and fractured, with 100 % of core pieces < 5 cm and many of the red brown - maroon colored core pieces display slickensides on fracture planes with variable orientation, from shallow angles (most conspicuously) - steep angles, as far as detectable. From approx 352.5 - 353.3 strong bleaching to olive green grey, associated with white, irregular quartz-, albite -? veins, which are up to 2 cm wide and sub parallel to CA. From 353.3 - 356 minor carbonate bearing, white quartz veins @ steep angle to CA. Larger core pieces with a shattered appearance as a result of partially rehealed (chlorite) fractures (approx cm spacing), @ variable, predominantly steep and shallow angles to CA. Primary lithology: As a result of fracturing not to define. Down to approx 353.5 m presumably the same as overlying unit, with a mudstone piece displaying bedding? @ approx 40 deg to CA. From 353.5 - 356.5 assumed to be a volcaniclastic still, but with a very distinct maroon - brown color, and locally with very dark grey - black, several mm sized black spots (for example at 353.5 m), which are assumed to be cordierite. From 353.5 m - lower contact very similar to overlying interval: Grey - green grey, mostly fine grained, locally with sand sized white spots, assumed to be a volcaniclastic or a basalt flow. Non magnetic (strongly altered and fractured sections) - weakly magnetic (less altered sections near upper and lower contact). Lower contact: Decreasingly broken core, no plane.

358.69

359.86 Basalt Flow:

Dark green grey - grey, very fine grained - fine grained, non magnetic - moderately magnetic (patchy) mafic rock or volcaniclastic of mafic composition. Mostly irregular quartz-, chlorite-, pyrite-, +/- magnetite veins, up to approx 2.5 cm wide and most conspicuously @ approx 55 deg to



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Zn

%

Interval (m)

From

То

Description

Sample No. From To (m)

interval (m) Au Agg/t g/

Cu Pb % %

CA. Lower contact: Very indistinct, sub parallel to CA.

359.86 582.15 Amphibole-phyric Basalt Intrusive:

Dark green grey - dark grey (locally grading into very dark brown - black), very fine - medium grained, dense homogenous (mostly) non magnetic - (rarely) weakly magnetic mafic intrusive. Generally magnetism appears to be increasing downwards (from 490 m downwards non magnetic sections are less, weakly magnetic sections are abundant with a few moderately magnetic sections and rare strongly magnetic sections). Dense, massive sections alternate with amphibole phyric sections: Approx 3 mm sized, green, partially chloritized dimly, ghostly amphibole phenocrysts in grey, aphanitic matrix. In sections the amphibole phenocrysts may amount to > 50 %. Locally with scattered, round, approx mm - 5 mm sized, dark spots of unknown origin. Very minor quartz-, chlorite-, +/- magnetite veining, veins up to > 1 cm wide, @ 25 deg, 40 - 60 deg and 80 deg to CA. Also locally magnetite-, +/- chlorite, +/- quartz, +/- pyrite veins, up to approx 1.5 cm wide @ 30 deg - 40 deg to CA. Within the lower part of the interval the interval displays a few quartz-, chlorite-, epidote-, +/- magnetite, +/- garnet veins @ variable angle to CA (from sub parallel steep angles to CA, most conspicuously @ 20 deg - 30 deg to CA). Locally (for example at 474 - 475 m) subround - round, up to 5 mm sized, scattered dark spots (up to 8 or so with in 10 square cm), which are chloritized and assumed to be amygdules. From 536.60 - 554.70 m: Zone of relatively intense epidotic alteration: Dense, massive zones (as described above) alternating with zones, which display relatively intense veining and mottled alteration textures. Most of this sections appears to be finer grained than the rest of this interval, locally with a glassy appearance. Generally the color within this interval changes somewhat to brown - maroon grey - mauve grey. +/quartz-, +/- chlorite-, +/- epidote-, +/- magnetite, +/- pyrite, partially irregular, partially planar, from hairline up to several cm width (rarely > 2 cm), @ variable angle to CA (from sub parallel - approx 70 deg to CA, mostly @ 35 deg - 50- deg to CA). Veins are frequently associated with pale green bleaching and alteration halos (partially chloritic, partially epidotic) and locally grade into pervasive epidote alteration, for example at 540.15 - 540.85: Variably intense epidotic altered, patchy, with a network of quartz?-, chlorite? stringers (approx cm scale) @ variable angle to CA. Locally the stringers grade into quartz clots. Stringers partially +/parallel to quartz-, chlorite veins @ 30 deg - 50 deg to CA. Some veins within this subsection are offset, discontinuous, possibly indicating minor faulting during their genesis. The intensively altered areas are non magnetic; the rest of this subsection is variably magnetic, from non magnetic



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Zn

Interval (m) То From

Description

Sample No.

From (m)

Τo Interval Au (m) (m)

Pb Cu %

- strongly magnetic, patchy, sections. Also this subsection displays textures, which resemble peperites (picture taken). Lower contact: Very indistinct, not accurately to determine, because of an approx 8 cm wide, mottled, irregular quartz (+/- minor epidote and chlorite) vein zone, with up to several cm sized inclusions of host rock, @ 35 - 45 deg to CA.

582.15 583.57 Volcanic Sediment:

Dark brown - maroon colored, very fine grained, non magnetic - weakly magnetic (near upper contact) volcaniclastic. The interval displays wavy, arcuated bedding within 50 cm of upper contact, idicating wet sediment deformation. Bedding is detectable throughout the interval with the most conspicuous orientation of 30 - 40 deg to CA. Near the center of the interval a 45 cm wide quartz-. chlorite vein with a V-shaped upper contact (both scales cut CA at shallow angle and are somewhat irregular. Lower contact of vein is sharp @ 30 deg to CA. Lower contact: Sharp, conformable, associated with a approx 15 cm wide chlorite-, quartz vein zone, somewhat irregular @ 35 deg to CA.

583.57 592.77 Rhyolite Ash Tuff:

The upper part of the interval is comprised of approx 3 m very fine - fine grained, dark green dark brown grey, intermediate ash?. Superficially this part of the interval is quite dense, homogeneous and featureless. Locally it displays a very faintly visible foliation @ shallow angle to CA. The upper part of this subsection displays chlorite-, +/- epidote-, +/- quartz veins (approx 10 veins per 1 m core, width varying from hairline up to approx cm, orientation to CA is variable), that possibly camouflage similar textures. Based on these textures the interval is reluctantly interpreted as ash rather than as mafic or intermediate flow. At 586.91 sedimentary textures (grain size change from very fine to fine sand, @ very shallow angle to CA) become visible, indicating bedding (or possibly the contact between a flow and a volcaniclastic). From 587 m downwards bedding is detectable throughout, cutting CA @ 30 deg. With the exception of a very fine grained section from approx 588.75 - 590.30, the interval displays continuous coarsening downwards. Within approx 1.5 m from lower contact the interval displays abundant lapilli, up to 4 mm size (approx 40 %) and approx 15 % (rough estimation) lapilli up to 1.5cm size (this subsection on its own could be identified as RLAT). This section is very variably magnetic, from non- to moderately magnetic, sections, patches. At approx 588 m up to 4 mm sized, pyritic, round - sub round fragments with chlorite-, epidote halos and sub mm - > 1 mm sized, mostly elongated jasper and/ or hematite specks (fragments?). At 589.40 m up to 7 mm sized, sub round - round jasper fragments. Chlorite-,



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Interval (m)

From

Description

To

_ -

epidote-, +/- quartz-, +/- garnet? veins (up to > 3 cm width, @ steep - shallow angles to CA, approx 3 veins per 1 m core). Lower contact: Sharp (associated with quartz-, chlorite-, epidote veining), conformable @ 35 deg to CA.

592.77 596.50 Volcanic Sediment:

Very fine - fine grained, green grey - grey - maroon grey volcaniclastic. The upper approx 1.5 m are moderately - strongly magnetic, the rest of the interval is non- to weakly magnetic. Dense, massive sections alternate with sections, which display a faintly visible bedding @ approx 30 deg to CA. +/- quartz, +/- chlorite, +/- epidote veining (approx 4 veins per 1 m core) from hairline up to approx 1 cm width, @ variable angle to CA. From 595.8 - 596.2: Bleached and altered (to olive green grey - beige grey, with dirty, mottled and shattered appearance) subsection with 4 zoned chlorite-, +/- quartz veins (width varies from approx 2 - 5 mm, most conspicuously @ 50 - 70 deg to CA), associated with a dense network of chlorite stringers (cm scale), that interconnects the veins. Lower contact: Sharp, conformable, @ 25 deg to CA.

596.50 602.56 Rhyolite Ash Tuff:

Dark grey - grey - green grey - mottled - foliated ash tuff, presumably of intermediate composition. Massive, dense sections with a somewhat mottled appearance (which is possibly the result of alteration, clast size or compaction; sub cm - several cm scale) alternate with weakly - moderately foliated sections. Foliation with an orientation of approx 30 deg to CA. The majority of the identifiable clasts is sub mm - < 2 mm sized. However, the interval displays lapilli (mostly < 4 mm) throughout. Faintly developed grading, with lapilli (mostly 2 - 3 mm sized) becoming more frequent towards the lower contact. Interval displays very few jasper/ hematite specks/ fragments, up to several mm size. Lower contact: Sharp, @ 18 deg to CA.

602.56 604.42 Volcanic Sediment:

Green grey - grey, slightly maroon grey, very fine grained - fine grained volcaniclastic. Interval displays few, partly elongated (mostly up to 5 mm long and << 1 mm wide), partly sub round - round - elliptic jasper fragments? specks?, which are aligned to a foliation @ 25 - 30 deg to CA. Sporadically with up to approx cm wide, coarser (sandy) interbeds. Lower subsection with a pyrite stringer @ 45 deg to CA and a cluster of approx 20 euhedral, up to 4 mm sized pyrite (+/-pyrrhotite) granoblasts. Interval is mostly moderately magnetic. Quartz-, +/- chlorite, +/-



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Interval (m)
From To

Description

Sample No. From (m)

To Interval

i Au g/t

Ag g/t Cu

%

Pb Zn % %

epidote-, +/- magnetite? veins (width varies from approx mm - 2 cm, most conspicuously @ 35 - 40 deg to CA). Lower contact: Sharp, @ 25 deg to CA.

604.42 612.89 Rhyolite Lapilli Ash Tuff:

Sequence of 3 rhyolite lapilli ash tuff cycles, which display grading (fining upwards). Olive green grey - grey rhyolite lapilli ash tuff, mostly weakly magnetic, with non magnetic and moderately magnetic patches and sections. Larger lapilli (up to approx cm size) appear to be polylithic (light colored felsic fragments (+/- feldspar crystal clasts?), dark colored mafic? fragments and rare but distinct jasper/ hematitic clasts/ specks). Many of the light colored, presumably felsic clasts appear to be variably epidotic altered; dark colored sections appear to have a high chlorite content. Bedding (distinct only in finer grained sections and at contacts between fine- and coarse grained sections, i.e. the beginning of a new cycle) @ approx 20 deg to CA. Color, composition and texture are somewhat different for each cycle. Generally each cycle starts with a muddy section at the top, that grades into ash tuff. Downwards the abundance of lapilli (up to several mm size) increases more or less gradually; the part of each cycle comprises lapilli ash tuff. Grain size, grainsize distribution and overall length of each cycle vary from > 4 m -< 2 m. The size of lapilli - even in the coarse grained sections - rarely exceeds approx 1 cm. In these sections lapilli sized clasts amount to > 50 %.

612.89 616.65 Volcanic Sediment: Magnetite; Pyrite

Olive green grey - grey, very fine grained - fine grained volcaniclastic. Moderately - strongly magnetic throughout. Interval displays a more or less weakly developed - distinct foliation @ 30 - 40 deg to CA, mostly muddy with few silty interbeds. Few pyrite rich laminae are interbedded. Near lower contact a cluster of approx 15 euhedral, 1 - 3 mm sized pyrite granoblasts, which are roughly aligned along bedding and grade downwards into approx 1 - 3 mm wide pyrite bands, which are aligned to foliation. Approx 0.5 m above lower contact an approx 10 cm wide zone with approx 2 mm sized pale white, round granoblasts, amounting to approx 25 % (cordierite?). Lower contact: Very indistinct and within (possibly associated with?) an irregular mottled quartz-, epidote veining zone: Quartz-, epidote veins, clots, patches from several mm up to > 7 cm @ variable angle to CA. Chosen with incipient lack of sedimentary textures. True location possibly camouflaged by veining, no plane.



Sample

No.

From

(m)

То

(m)

Interval

(m)

g/t

Hole-ID: TCU04131

Pb

Cu

Page: 20

Zn

%

Interval (m)

From

616.65

Description

То

635.30 Basalt Intrusive: Dark green grey - dark grey, fine - medium grained, mafic rock, possibly a basaltic intrusive. Dense featureless sections alternate with amphibole phyric sections. Subhedral - anhedral, ghostly greenish, approx 1 - 3 mm sized amphibole phenocrysts, amounting to approx 40 % (within amphibole

phyric sections). Variably magnetic (mostly weakly magnetic with non magnetic patches and sections, very rarely moderately magnetic patches and sections). Minor quartz-, chlorite-, epidote veining, @ variable angle to CA and width varying from hairline up to several cm. Picture taken, litho sample

taken. Lower contact: Very indistinct, broken core, no plane.

of veins and stringers, no plane.

625.28 630.56 Fault Zone: Near upper contact an approx 20 cm wide zone, bleached to olive green grey, with few parallel, several mm - approx cm wide, carbonate bearing, quartz-, chlorite-, +/- albite-?, +/- gypsum-?, veins, @ 30 deg to CA, associated with chloritic, silty, sandy, gravely fault gauge and slickensides on fracture planes, all @ 30 deg to CA. The entire rest of the interval displays carbonate bearing white stringers, irregular and @ variable direction to CA, resulting in a shattered appearance. Locally stringers grade, merge, intersect with quartz-, chlorite-, carbonate veins and patches (vein mineralization locally with up to several cm sized, angular inclusions of host rock: Breccia veins) @ variable angle to CA, most conspicuously @ 20 - 25 deg to CA and sub parallel to CA. Upper contact: Sharp, alteration contact @ 20 deg to CA. Lower contact: Chosen with decreasing abundance

635.30 637.02 Volcanic Sediment:

Olive green grey - dark brown grey, very fine - fine grained volcaniclastic. Interval is variably magnetic, mostly moderately magnetic, with non - weakly magnetic patches and sections. Bedding appears to be quite variable, locally accentuated by epidotic alteration (particularly near upper contact), @ approx 20 - 35 deg to CA. Interval with very distinct, zoned, mm up to > 3 cm wide and very regular spaced (every 3 - 5 cm), quartz-, chlorite-, epidote-, +/- garnet-, +/- magnetite-, +/- pyrite-, +/- pyrrhotite veins, which are associated with white, up to several cm wide envelopes. Very distinct are the big (up to > 2 cm), subhedral - euhedral garnet crystals, around which the veins widen, therefore resembling eyes (picture taken). Lower contact: Very indistinct, within (possibly associated with?) irregular, patchy, quartz-, chlorite-, epidote veining up to > 5 cm width. Chosen with the incipient appearance of lapilli sized fragments, conformable, @ 25 deg to



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Interval (m)

From

Description

Sample No.

From (m)

То Interval (m) (m)

g/t

Cu

Zn

CA.

To

637.02 644.60 Rhyolite Lapilli Ash Tuff:

Dark green grey - dark brown grey - grey rhyolite lapilli ash tuff. Bedding is detectable throughout the entire interval and varies from 30 - 50 deg to CA. Ashy sections alternate with sections, which are predominantly composed of lapilli sized fragments. Lapilli are assumed to be polylithic: Light colored (felsic) and dark colored (possibly mafic) lapilli. The majority of the lapilli < 1 cm, very rarely up to > 2 cm. Interval is variably magnetic, mostly weakly magnetic, with non magnetic and moderately magnetic patches and sections. Picture taken. Lower contact: Alteration contact, sharp, conformable, @ 30 deg to CA.

644.60

649.63 Fault Zone: Bleached

Dark green grey - maroon grey - mauve grey and bleached to olive green grey, cream and beige grey with a dirty mottled and chaotic appearance. Relatively unaltered sections (rock presumably very similar and possibly part of the overlying interval) alternate with intensively overprinted and bleached sections: Intensively veined with white (quartz?, albite?, very minor carbonate) and green (chlorite) stringers and veins, width varying from hairline up to > 1.5 cm, @ variable orientation to CA, conspicuously @ shallow angle to CA, resulting in a 3-dimensional network, which create a shattered appearance. Picture taken. Particularly remarkable is an alteration zone at 647.53 -647.78 m with irregular, up to 3 cm sized jasper patches. Picture taken. Lower contact: Indistinct, sharp, @ approx 75 deg to CA.

649.63

650.99 Volcanic Sediment:

Dark green grey - dark brown grey (slightly maroon tinted), very fine grained, non - weakly magnetic (patchy, sections) volcaniclastic. Bedding is only locally detectable and is estimated to be @ 50 - 60 deg to CA. At approx 650.40 m a small band (approx 7 mm wide), that could be interpreted as a pyrite bearing, sandy interbed, or as a small breccia zone, @ 30 deg to CA. Interval is non magnetic - moderately magnetic (patchy, sections). Interval is pervasively fractured, most conspicuously @ 30 - 40 deg to CA and shallow angle to CA. Lower contact: Sharp, indistinct, conformable, @ 65 deg to CA, chosen with incipient presence of lapilli sized fragments.

650.99

652.57 Rhyolite Lapilli Ash Tuff:



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Pb

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Zn

%

Interval (m)

То

From

Description

Sample From To Interval Au Ag Cu No. (m) (m) (m) g/t g/t %

Dark grey - maroon grey - olive green grey - slightly pink tinted rhyolite lapilli ash tuff. Ashy sections are alternating with variably lapilli comprising sections. Bedding is mostly very indistinct, difficult to detect and seems to vary from approx 40 deg - 50 deg to CA. The interval consists of lapilli bearing sections at the top, with black, angular - sub angular, up to approx cm sized lapilli, amounting to approx 30 % in a grey matrix. The lower lapilli bearing section displays sub angular - sub round, frequently elongated (and aligned to foliation), light grey - hematite stained, up to approx cm sized lapilli, in a grey matrix, resulting in a mottled appearance (individual clasts are frequently not recognizable as a result of compaction?, alteration?, welding?). The lapilli bearing sections are separated by an ashy section, that displays an approx cm wide, 7 cm long, arcuated jasper vein?, patch?, clot? with a 2 - 3 mm wide chloritic envelope. Picture taken. Interval is non- moderately magnetic (patchy, sections). Lower contact: Sharp, somewhat irregular, @ approx 20 deg to CA.

652.57 667.85 Basalt Intrusive:

Dark green grey - dark grey, very fine grained - fine grained, dense, massive, featureless, mafic rock. Variably magnetic, from non magnetic - moderately magnetic (patchy, sections), mostly weakly magnetic. Light green veins, from hairline up to several cm wide, with variable orientation, presumably comprising the propylitic mineral assembly (quartz, chlorite epidote), partially with alteration- and bleaching halos (camouflaging the vein's contacts), highly irregular, creating a crackled appearance. Picture taken. Lower contact: Alteration contact, no plane.

667.85 670.76 Fault Zone: Chlorite

Fault zone: Interval is intensively overprinted by veining and associated bleaching, which makes it difficult to asses the primary lithology of the interval. It is assumed, that the upper part of the interval originally was part of the overlying unit and the lower section was part of the underlying unit. The contact is believed to be at approx 670.2 m, but is not definitely identified. The rock is bleached to olive green grey - dark brown grey - beige grey with a dirty mottled appearance. Down to approx 670 m the interval displays white and green, carbonate bearing quartz-, chlorite veins and stringers @ variable angle to CA, conspicuously @ 25 deg to CA. The veins and stringers are partially cut off, offset, pinched off, merging and grading into clots and patches with vein mineralization, creating a shattered appearance. Slickensides on fracture planes @ 25 and 45 deg to CA. From 670 m downwards the core is intensively fractured, with chlorite coating and slickensides



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Interval (m)

То

From

Description

Sample No.

From (m)

То Interval (m) (m)

g/t g/t Cu Pb

Zn %

on fracture planes @ shallow angle to CA. Lower contact: Abrupt end of broken core, no plane.

670.76 676.35 Rhyolite Lapilli Ash Tuff: Chlorite

Dark green grey - dark brown grey - green grey - mauve grey rhyolite lapilli ash tuff. Interval is non magnetic - moderately magnetic, patchy, sections; mostly weakly magnetic. Interval with variably intense chloritic alteration throughout. Upper section with pale beige, up to > 2 cm sized, rounded rhyolite fragments and up to several cm sized, dark grey, subangular, mafic? fragments in a green grey - beige grey matrix. The majority of lapilli is smaller than 5 mm. The abundance of lapilli is difficult to asses, because over extensive sections of the interval it's appearance is rather mottled (individual fragments are not well defined, blurry), possibly as a result of alteration?, compaction?, welding?; particularly within the lower section of the interval the outlines of the mostly mauve grey - cream - light green grey, felsic lapilli are blurry and often elongated and somewhat aligned to foliation. Foliation @ 25 - 50 deg to CA. Ashy sections are alternating with sections comprising variably abundant lapilli. Few, scatterd, patchy, irregular, quartz-, chlorite-, +/- epidote-, +/- magnetite veins cut CA @ variable angles, conspicuously @ 40 - 60 deg to CA, Interval with intensively fractured sections. Picture taken. Lower contact: Sharp, broken core, no plane.

675.19 675.65 Basalt Dyke: Chlorite: Dark green grey - dark grey, very fine - fine grained, dense, massive, weakly magnetic, mafic intrusive. Very few, scattered, approx 2 mm sized feldspar phenocrysts, Upper contact: Sharp, @ 20 deg to CA. Lower contact: Sharp, @ 45 deg to CA.

676.35 677.52 Quartz-Feldspar Porphyry Dyke:

Dark grey - black, fine - medium grained, dense, massive, homogenous, moderately magnetic throughout, feldspar phyric, felsic intrusive. Sub mm - 2 mm sized, very rarely up to 6 mm sized, subhedral - anhedral feldspar phenocrysts and approx mm up to approx 6 mm sized, sub round quartz eyes. Chill margins associated with both contacts. Picture taken. Lower contact: Sharp, broken core, assumed to be @ approx 50 deg to CA.

677.52 682.77 Basalt Intrusive: Chlorite

Very fine - fine grained, dense, massive, dark green grey - grey, mafic intrusive. Interval is mostly non magnetic, with weakly magnetic patches and sections. Interval is featureless with a



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Zn

%

Interval (m)

То

From

Description

From Sample No. (m)

То (m)

Interval (m)

g/t

Cu Pb % %

strongly chloritized and pale green, siliceous, mottled (possibly fragmental or pseudo fragmental) section at 679.80 - 680.10, which is possibly the result of propylitic alteration (section is intensively veined, with up to > 1 cm wide veins and up to several cm sized patches with quartz-, chlorite-, +/- magnetite-, +/- epidote mineralization). Several quartz-, chlorite-, +/- epidote-, +/- magnetite, +/- garnet veins per m core, partially associated with up to several dm wide. pervasive chlorite-, epidote alteration zones. Width of veins varies from hairline up to approx 2 cm, orientation varies from approx 30 deg - approx 60 deg to CA. Lower contact: Abrupt change to dark grey - dark green grey, silty, sandy, gravely, weakly magnetic fault gauge, without signs of alteration. No plane.

682.77 689.87

Fault Zone: Crush Zone

The magnetic fault. Sections as described at "677.52 - 682.77 m" alternate with sections of very intensively shattered basaltic rock. Width of sections from several dm up to approx 1m. The material is still in place and gains volume, when exposed to air and water and no longer exposed to the extra load of the overlying units. When picked up it crumbles to sand and fine gravel sized fragments. The sand (fault gauge) is dark grey and moderately magnetic. No visible signs of alteration associated with faulting. Picture taken. Lower contact: Abrupt change to non faulted rock, no plane.

689.87

690.38 Basalt Intrusive:

> Dark brown grey- dark green grey - dark grey, very fine grained - fine grained, dense, massive, mafic rock, presumably part of the same unit as described at "677.52- 682.77 m". Interval is weakly - moderately magnetic. Interval is intensively veined with quartz-, chlorite-, epidote veins, with variable orientation and width varying from hairline up to several cm. Lower contact: Very indistinct, presumably irregular, chosen with incipient presence of sedimentary textures, no plane.

690.38

703.70 Rhyolite Lapilli Ash Tuff:

Rhyolite lapilli ash tuff with variable composition and color and textural differences. From upper contact - approx 697 m the interval is comprised of dark beige grey - dark green grey - grey cream colored lapilli ash tuff, possibly locally/ in sections grading into a lapilli tuff. Generally individual fragments are difficult to identify (as a result of compaction?, alteration? welding?), which makes it impossible to detect grain size distribution. However a few light



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Interval (m) From To Description

Sample No.

From (m)

То Interval (m) (m)

g/t

Au

Рb Zn % %

Cu

colored, up to 2 cm sized, sub angular - sub round, felsic lapilli can be identified (partially with quartz eyes) and a few up to approx 3 cm sized, dark grey, sub angular - irregular shaped, mafic lapilli can be identified. The subsection is crudely foliated throughout @ approx 25 - 35 deg to CA (Picture taken). The sub section possibly displaying a crudely developed grading: At approx 693 m a block sized (approx 8 cm) fragment. From approx 697 m downwards jasper specks are displayed (approx mm sized). Size and abundance of these jasper specks increase downwards and grade into several mm wide jasper bands and small patches, which locally amount to approx 5 % and are aligned to foliation @ 35 - 40 deg to CA (picture taken). The jasper bands and patches are partially associated with moderate - strong magnetism (otherwise the entire interval is non magnetic). This section ends abrupt at 699.55 m with sharp, conformable contact @ 35 deg to CA and is underlain by an olive green grey mottled, waxy, softer, sericite bearing (with accessory jasper) section of approx 1.5 m width. Locally dense and massive, locally foliated @ 40 - 45 deg to CA. Few fragments up to several cm size can be identified (picture taken). From 701 - 702.3 m a relatively dense, massive, grey - cream colored section. From 702.3 - lower contact: Dark grey - dark brown grey sub section, foliated @ approx 35 - 40 deg to CA, with few, light colored, sub angular, up to 3 cm sized, felsic fragments and sub round, up to approx 5 mm sized, hematite stained and/ or jasper fragments, which amount to several %. Sub section displays grading (fining upwards). Picture taken. Lower contact: Chosen with incipient appearance of feldspar phenocrysts, sharp, irregular, no plane.

703.70

708.98 Rhyolite Debris Flow:

Green grey - grey - light grey, locally slightly hematite stained, cream mottled (fragments) rhyolite debris flow. Sub angular - sub round, frequently irregular shaped, cream - light green colored, felsic fragments in a feldspar phyric matrix (fragments partially with dark green spots, which are assumed to be chloritized feldspar phenocrysts), Interval displays no grading and no sorting. Interval is variably intense chloritic altered. The majority of the fragments is < 2 cm. Interval is non magnetic throughout. Particularly near the lower contact with not well defined, up to approx cm sized, maroon - dark brown, hematitic patches, amounting to approx 10 % within the lower sub section. Lower contact: Very indistinct, sharp, @ 45 deg to CA.

708.98 714.63 Rhyolite Lapilli Ash Tuff: Jasper

Rhyolite lapilli ash tuff, variably dark grey - light grey sections. Dark grey sections with



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Interval (m)

То

From

Description

Sample No. To (m)

From

(m)

Interval (m)

Au g/t

Cu %

g/t

Pb Zn % %

elongated jasper specks and jasper bands, up to several cm wide, aligned to foliation @ 45 deg to CA, very similar to the RLAT described at "690.38 - 703.70 m". Jasper bearing sections are variably magnetic: Moderately - strongly magnetic patches (other than that the interval is non magnetic). The light grey sections contain only accessory amounts of jasper/ hematite and appear to contain abundant, up to several mm sized, felsic lapilli, which are partially elongated. Foliation is only very crude or entirely lacking. Individual clasts are difficult to identify throughout the interval (as a result of compaction?, alteration?, welding?), but it appears, that within the light colored sections lapilli from 2 - 5 mm size amount to > 25 % and few, sub round, several mm sized (very rarely up to > 4 cm) felsic lapilli are identifiable within the dark colored sections. From approx 712.70 - 713.5 m: Intense epidote alteration, vein controlled, grading into pervasive alteration. Lower contact: Gradational over approx 30 cm, no plane.

714.63 719.25 Rhyolite Flow Breccia:

Light green grey - cream - green grey, locally dark grey rhyolite flow breccia; locally with a red brown - maroon hint and with a dirty - slightly mottled appearance. Fragments have blurry outlines and are partially more or less entirely absorbed (recognizable as local color changes rather than fragments with an actual outline) and appear to be up to > 20 cm size. Fragments appear to be of felsic composition (rhyolite, partially with dark green spots which are assumed to be chloritized feldspar phenocrysts and partially pervasively chlorite- and epidote altered). The matrix is feldspar phyric with subhedral to anhedral , up to 2 or 3 mm sized feldspar phenocrysts. In lower sub section of interval jasper specks, which are increasing in size (up to > 1 cm and partially irregular shaped) and abundance downwards. Interval is variably non- to moderately magnetic, patchy. Lower contact: Sharp, @ 30 deg to CA.

719.25 721.57 Rhyolite Lapilli Ash Tuff:

Grey - slightly maroon grey - green grey rhyolite lapilli ash tuff with a cream colored element. The interval appears to be mostly comprised of ash, with few felsic, pale green grey - cream colored, not well defined (with blurry contacts), up to several cm sized lapilli. Locally the assumed lapilli grade into cream colored, up to 3 cm wide bands, which cut CA @ approx 30 deg (possibly these bands indicate veins rather than fragments?). Interval displays locally irregularly orientated jasper bands, up to several mm wide. Generally the interval is non magnetic with an approx 0.5 m wide moderately magnetic section near the upper contact. Foliation is generally



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Zn

%

Interval (m)

From

То

Description

Sample No.

From (m)

Τо

(m)

Interval (m)

Au g/t Cu Pb

difficult to detect (crude - entirely lacking), but locally can be noted @ 30 deg to CA. Picture taken. Lower contact: Chosen with incipient occurrence of feldspar phenocrysts and lack of sedimentary textures, no plane.

721.57 735.84 Rhyolite Flow:

Variably light grey - slightly maroon pink, dense, massive, variably feldspar phyric rhyolite flow. Near upper and lower contact with sections, which resemble flow breccias and contain up to several cm sized rhyolite fragments (possibly an auto breccia?). Particularly within the upper third of the interval magnetite veins (up to approx 5 mm wide, irregular, frequently arcuated) and magnetite clots (up to several cm size), with a very distinct hematite stain, creating a blotchy - nerved appearance. Interval is non magnetic - moderately magnetic, patchy, sections. Interval displays quartz veins, up to approx 5 cm wide, with variable orientation. Lower contact: Sharp, irregular, no plane.

735.84

753.70 Rhyolite Debris Flow:

Green grey - maroon grey - cream grey - dark brown grey; variably colored (patchy, sections) rhyolite debris flow. Variably dense, massive sections alternate with variably feldspar phyric sections (the matrix within the feldspar phyric sections is typically dark colored, for example dark maroon grey, feldspar phenocrysts are subhedral - anhedral, up to 4 mm sized and weakly magnetic, felsic fragments up to several cm size), tuffaceous and/ or tuff resembling sections (typically dark grey - grey, with variable abundance of lapilli sized fragments/ clasts, locally grading from RLAT - RLT, with a more or less distinct foliation @ 40 - 50 deg to CA, width varying from several dm - several m, but without defined contacts, non magnetic) and more or less intense flow brecciated sections (fragments up to several cm size, possibly several dm size, with blurry contacts, not well defined, felsic composition) grading into typical debris flow sections (with up to several cm sized, greenish - cream colored, sub-round - rounded, felsic fragments, which are partially chloritized and/ or epidote altered, scattered throughout and enclosed by a green grey cream colored, fine - medium grained matrix, which is non magnetic - very weakly magnetic). Near upper contact a small section with up to several mm sized euhedral pyrite granoblasts. Very few, up to > 10 cm wide quartz veins (chlorite-, magnetite-, pyrite-, epidote-, garnet bearing). Lower contact: Very sharp, very indistinct, no plane.



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Interval (m) Description

Sample From To Interval Au Ag Cu Pb Zn No. (m) (m) g/t g/t % % %

753.70 754.17 Basalt Dyke:

Dark green grey, fine grained, moderately - strongly magnetic, dense, massive, mafic intrusive. Lower contact: Sharp @ 42 deg to CA.

754.17 760.84 Rhyolite Flow: Magnetite

Dark brown grey - dark maroon grey, fine - medium grained felsic flow?, mafic intrusive?. Anhedral, sub round, pale green - cream colored, up to 4 mm sized phenocrysts, assumed to be feldspars, amount to approx 30 % and are enclosed in a very fine grained, gassy, dark brown - dark maroon grey matrix. Moderately - strongly magnetic throughout. Picture taken. Lower contact: Indistinct, possibly sharp, @ 40 deg to CA; possibly gradational over approx 10 - 20 cm.

760.84 801.57 Rhyolite Debris Flow:

Overall similar to "735.84 - 753.70m": Green grey - maroon grey - dark brown grey - cream mottled (patchy, sections) rhyolite debris flow. Variably dense, massive sections alternate with variably feldspar phyric sections (as described at "735.84 - 753.70 m", but non magnetic - weakly magnetic) and tuffaceous and/ or tuff resembling sections (mostly grey, with variable abundance of lapilli sized clasts/ fragments, locally grading from RLAT to RLT, but individual clasts/ fragments within these sections are not well defined and crude foliation @ approx 40 deg to CA is only locally detected, generally non magnetic, locally weakly magnetic). Whether the tuffaceous/ tuff resembling sections are partially debris flows (with an overall smaller fragments size) and the foliation is a flow foliation rather than a bedding is not detectable. However one nested tuff interbed can be clearly identified (see nested interval). More or less intense flow brecciated sections (as described at "735.84 - 753.70 m") often in immediate vicinity to rounded, well defined rhyolite fragments (which often display green, approx mm sized spots: presumably chloritized feldspar) indicate that rhyolite debris flow and rhyolite flow breccia repeatedly grade into each other. These sections are variably non magnetic - weakly magnetic. Few amygdaloid mafic fragments up to approx 4 cm size can be noted. The vast majority of the fragments is felsic (rhyolite) and up to several cm sized, possibly up to several dm sized: The relatively dense, massive, pale green (chlorite) - pink cream colored section at 789.1 - 790.0 m may be interpreted as a rhyolite fragment. The interval is variably intense chloritized throughout, locally sericitic (sericite is associated with leucoxene). Minor propylitic alteration veining throughout, but the section from 785 - 787.5 m is intensively veined: From 785 - 786 m an irregular, wavy, up to > 3 cm wide vein

9907 800.07 801.57 1.50 0.05 0.00 0.00 0.00 0.00



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Interval (m)

To

From

Description

Sample No. From To (m)

Interval (m) \u . ارا Pb Zn % %

Cu

(with a pale green alteration halo), sub parallel to CA, associated with chlorite-, carbonate coated fracture planes, which are sub parallel to CA and display slickensides (picture taken). At 787 m an approx 30 cm wide vein zone, with identical mineral assembly (a swarm of parallel veins?), @ 25 deg to CA (arcuated) and associated with an alteration/ bleaching halo, which camouflages the true width of the vein. Lower contact: Sharp, @ 55 deg to CA.

778.02 779.77 Rhyolite Lapilli Ash Tuff: Dark grey - cream laminated - very slightly mottled (on a cm scale) rhyolite lapilli ash tuff with sub round - round lapilli, which are rarely larger than 2 cm, mostly up to several mm sized. Near lower contact the abundance of up to approx 5 mm sized lapilli appears to increase, interval grading into a RLT and indicating a weak grading. However, approx cm sized lapilli can be noted near upper contact and are enclosed by grey - cream foliated (@ approx 40 deg to CA) ash. The interval is non - very weakly magnetic. Locally with up to several mm wide elongated jasper specks/ hematitic clasts. Picture taken. Upper contact: Very sharp, indistinct, wavy (irregular) @ 65 deg to CA. Lower contact: Very sharp, wavy - irregular @ steep angle to CA.

781.44 781.59 Basalt Dyke: Dark green grey - dark grey, fine grained, dense, massive, moderately magnetic mafic intrusive. Upper contact: Sharp, @ 25 deg to CA. Lower contact: Sharp, @ 40 deg to CA.

801.57 809.38 Ore Clast Breccia: Pyrite Facies Massive Sulphide

Dark brown grey -dark light grey - beige grey - olive green grey - pyrite colored debris flow facies, with variably waxy appearance. Dense, foliated sections alternate with sections with a clearly visible fragmental texture, with mostly < 2 cm (occasionally up to > 6 cm) sized, sub rounded, highly siliceous fragments and massive sulfide fragments (size and abundance of fragments appear to be greater in the lower section, but no grading or sorting). Fragments are enclosed by a highly sericitic and variably pyritic (< 5 % - approx 30 %) matrix, which displays a foliation @ approx 25 deg - 35 deg to CA. Locally the foliation wraps around larger fragments, for example at 802.5 m. Within the upper section, the pyrite contained in the matrix is mostly disseminated, locally grading into dusty clouds. Lower section with disseminated pyrite; pyrite clouds are common (partially they contain up to 4 mm sized, subhedral pyrite granoblasts) and locally grade into massive sulfide bands and layers (up to approx 2 cm wide), indicating an overall higher sulfide content within the lower section. Lower contact: Sharp, distinct, @ 55 deg to CA.

9908	801.57	802.47	0.90	0.24	0.00	0.00	0.00	0.00
9909	802.47	803.35	0.88	0.20	0.00	0.00	0.00	0.00
9910	803.35	804.66	1.31	0.11	0.00	0.00	0.00	0.00
9911	804.66	805.66	1.00	0.08	0.00	0.00	0.00	0.00
9913	805.66	806.66	1.00	0.53	0.00	0.00	0.00	0.00
9914	806.66	807.66	1.00	0.24	14.30	0.15	0.17	1.04
9915	807.66	808.66	1.00	0.36	10.60	0.14	0.08	0.32
9916	808.66	809.38	0.72	0.08	0.00	0.00	0.00	0.00



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Interval (m)	Description					Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From	To						No.	(m)	(m)	(m)	g/t	g/t	%	%	%

803.35 804.66 Rhyolite Lapilli Tuff: Light green - beige grey - dark green grey rhyolite lapilli tuff. Displays a fragmental texture, with abundant lapilli sized (up to 1 cm, rarely up to 2 cm), sub round clasts (presumably amounting to > 50 %, but difficult to estimate accurately, because many fragments are not well defined and/ or indistinct). Clasts are enclosed by a dark green grey - cream laminated and/ or mottled, chloritic, ashy matrix, that displays a crude foliation @ 35 - 45 deg to CA. The lower subsection of the interval is lighter colored and appears to have a higher silica content. Very minor disseminated pyrite near upper contact. Minor disseminated pyrite, grading into wisps and specks near the lower contact. Overall sulfide content is accessory. Interval is non magnetic, chloritic and contains some sericite, particularly near the upper contact. Upper contact: Sharp, @ 15 deg to CA, associated with approx cm wide quartz-, chlorite-, magnetite veining @ 15 deg to CA and @ steep angle to CA. Contact is disconformable with foliation. Lower contact: Sharp, distinct, conformable @ 25 deg to CA.

809.38 815.41 Basalt Dyke:

Dark olive green grey - dark brown grey - maroon grey, very fine - fine grained, dense, massive, aphanitic, homogeneous, monotonous, mafic rock, presumably a basaltic intrusive. Moderately - strongly magnetic throughout. Locally approx dm wide feldspar phyric sections, with subhedral - anhedral, sub mm - 2 mm sized, white feldspar phenocrysts, amounting to 10 % within these zones. Distinct, hairline - several cm wide, irregular epidote-, quartz-, chlorite-, garnet-, +/- magnetite veins, with variable orientation (conspicuously @ > 60 deg to CA). Lower contact: Sharp, distinct, irregular, @ steep angle to CA.

815.41 817.48 Rhyolite Debris Flow:

Light green grey - white cream mottled, non magnetic rhyolite debris flow. Within the upper third of the interval very few, approx 2 cm sized, rounded massive sulfide fragments. Pale green - cream colored, up to several cm sized, sub rounded - irregular shaped, frequently flow brecciated, partially elongated (aligned to foliation) fragments are enclosed by a dark green (chlorite), dark grey - cream laminated matrix (foliation @ 35 deg to CA). Interval displays feldspar phyric and/ or feldspar crystal sections (white, subhedral - anhedral, up to approx 4 mm sized feldspar phenocrysts/ crystal fragments are partially aligned to foliation and typically associated with

9917	809.38	810.88	1.50	0.03	0.00	0.00	0.00	0.00
9919	810.88	812.38	1.50	0.03	0.00	0.00	0.00	0.00
9920	812.38	813.88	1.50	0.03	0.00	0.00	0.00	0.00
9921	813.88	815.41	1.53	0.03	0.00	0.00	0.00	0.00

0.00

0.00 0.00 0.00

0.00 0.00 0.00 0.00

815.41 816.41 1.00 0.03

816.41 817.48 1.07 0.03

9922

9923



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Interva From	al (m) To	Description	Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %
		intensively brecciated felsic fragments). Minor disseminated pyrite and possibly some sericite near									
		the upper contact. Lower contact: Sharp, distinct, @ 50 deg to CA, disconformable to foliation.									
817.48	819.88	Basalt Dyke:									
		Dark green grey - green grey - dark grey, fine grained - (locally) medium grained, weakly -	9925	817.48	818.6	8 1.20	0.03	0.00	0.00	0.00	0.00
		moderately magnetic, mafic rock, possibly an intrusive or a flow. Irregular, patchy - blotchy	9926	818.68	819.8	38 1.20	0.03	0.00	0.00	0.00	0.00
		quartz-, chlorite-, +/- epidote, +/- garnet, +/- magnetite veins, up to approx 20 cm wide? (at									
		least up to > 5 cm wide), with variable orientation (conspicuously @ 35 deg to CA and @ shallow									
		angles to CA). Lower contact: Sharp, @ approx 35 deg to CA.									
819.88	824.50	Ore Clast Breccia:									
		Light grey - grey, with yellow and white blotches (fragments) debris flow facies. Generally quite	9927	819.88	820.8	38 1.00	0.29	4.40	0.04	0.10	1.56
		similar to "801.57 - 809.38 m", but overall lighter colored and less sericitic. Interval with a	9928	820.88	821.8	38 1.00	0.12	5.30	0.06	0.10	0.76
		variably waxy (sericite) and siliceous appearance. Dense sections alternate with fragmental	9929	821.88	822.8	38 1.00	0.16	2.70	0.03	0.03	0.40
		sections (white, mostly up to 2 cm sized, rarely up to 6 cm sized, sub round, siliceous, felsic	9930	822.88	823.8	38 1.00	0.80	14.90	0.40	0.24	1.41
		fragments and sub rounded massive sulfide fragments, mostly < 2 cm, but occasionally up to > 7 cm	9931	823.88	824.5	50 0.62	5.43	22.90	0.54	0.69	0.88
		size). The fragments are enclosed by a variably sericitic and sulfide bearing matrix: Swirly, wavy,									
		wispy sphalerite clouds near the upper contact and disseminated pyrite near the center grade into									
		dusty pyrite and chalcopyrite clouds, bands and laminae, which grade into a 40 cm wide semi									
		massive sulfide near the lower contact (pyrite, chalcopyrite, sphalerite?, disseminated									
		tetrahedrite?) with quartz?, barite? and sericite as gangue minerals. The only locally detectable									
		foliation cuts CA @ approx 40 deg. Lower contact: (Same as lower contact of SMS): Sharp,									
		conformable, @ 30 deg to CA.									
00450											
824.50	825.70	Basalt Flow:		00450		70 4 00					
		Dark grey - very dark green grey, moderately magnetic, fine grained, dense, massive, aphanitic,	9932	824.50	825.	70 1.20	0.20	8.00	0.11	0.45	2.64
		mafic rock, possibly a basalt flow or a basaltic intrusive. Near the lower contact with cream									
		white, ghostly appearing, approx 2 mm sized spots (phenocrysts?, grains?, amygdules?) and an approx									
		7 cm long and 1.5 cm wide, green - cream colored inclusion of unknown origin. Lower contact:									
		Sharp, @ 60 deg to CA.									
825.70	826.02	Semi-Massive Sulphide: Pyrite Facies Massive Sulphide									



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Interva From	al (m) To	Description	Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %
		Light grey - dark grey, patchy semi massive sulfide, with pyrite colored clouds and laminae.	9933	825.70	826.	02 0.32	2.73	48.20	0.75	1.67	8.35
		Foliation is crude and swirly - wavy, irregular and possibly indicates soft sediment deformation.									
		Very fine grained, soft, light ofive green grey, sericitic?, baritic? and sulfide bearing (pyrite,									
		chalcopyrite, galena?, tetrahedrite?) matrix: Disseminated pyrite and chalcopyrite, grading into									
		dusty clouds, specks and laminae aligned to and/ or establishing foliation. Interval with very well									
		defined, sub angular - irregular shaped, very dark grey - black, up to several cm sized, highly sericitic patches. Lower contact: sharp, somewhat irregular, @ 50 deg to CA.									
		Sericitic pateries. Lower contact. Sharp, Somewhat Integular, @ 30 deg to CA.									
826.02	829.47	Quartz-Sericite-Pyrite Alteration:									
		Light grey - light green grey - grey (color gets darker gradually towards lower contact), dense,	9934	826.02	827.	22 1.20	0.03	0.00	0.00	0.00	0.00
		massive, highly siliceous (quartz end member) QSP with a dirty, locally mottled appearance. Very	9935	827.22	828.	42 1.20	0.03	0.00	0.00	0.00	0.00
		few cream - white, rounded, up to several cm sized fragments (pseudo fragments?) can be recognized	9936	828.42	829.	47 1.05	0.07	0.00	0.00	0.00	0.00
		and locally a very faintly developed foliation @ approx 35 deg to CA is displayed. Felsic									
		(rhyolite) composition of the protolith is assumed (possibly a RLT or a RDF). Lower contact:									
		Sharp, @ 50 deg to CA.									
829.47	900.16	Basalt Flow:									
		Dark grey - dark green grey (with grey - light grey sections) - dark brown grey, very fine grained	9937	829.47	830.	97 1.50	0.03	0.00	0.00	0.00	0.00
		- fine grained, dense, massive sequence of rocks with mafic composition, possibly an alternating									
		sequence of basaltic flows and fine grained volcaniclastics. Foliated sections alternate with dense									
		sections, sections with chloritized (amphibole) phenocrysts, amygdaloid sections and foliated (@									
		approx 20 - 40 deg to CA) sections within an alternating sequence of basalt flows and									
		volcaniclastics. At 851.66 - 851.96 and at 852.23 - 852.41 sharp, indistinct contacts @ 15 deg to									
		CA - sub parallel to CA. In between the contacts a dense, massive fine grained, weakly magnetic									
		rock, presumably a sandstone interbed, overlain and underlain by very fine grained, dense, massive									
		units, possibly flows or volcaniclastics. Locally contacts between units with different grain size									
		can be identified (+/- parallel to foliation), possibly contacts between flows and/ or sediments,									
		possibly indicating bedding within volcaniclastics (presence of foliation does not disqualify for									
		flows, because sometimes foliation and amygdules are associated). Locally isolated sections with up									
		to 5 mm sized, rarely up to 1 cm sized, subhedral pyrrhotite, pyrite granoblasts. Locally (for									
		example at 875.30 - 876 m) with up to cm sized (mostly < 5 mm), ghostly, pale mauve - cream colored									
		cordierite granoblasts, amounting to < 20 %. Interval is variably magnetic (non - strongly									



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Interval (m) То From

Description

Sample То Interval Cu Zn From No. (m) (m) (m)

magnetic, mostly weakly - moderately magnetic), patchy, sections. Quartz-, chlorite-, epidote-, garnet +/- magnetite veins, partially irregular, up to > 15 cm wide, @ variable angle to CA, mostly with several dm spacing, locally up to >> m spacing. Lower contact: Sharp, @ 60 deg to CA. The upper part of this interval displays several contacts, which makes it possible to describe the upper part of the sequence in detail: See Nested Below:

- 829.47 835.50 Basalt Flow: Magnetite; Chlorite; Moderately strongly magnetic section, which displays approx 15 % angular - sub angular, up to 4 mm sized, dark green chlorite spots (presumably chloritized amphibole phenocrysts). Lower contact of this section is sharp, irregular, @ shallow angle to CA.
- 835.50 839.90 Amygdaloidal Basalt: Weakly magnetic, green grey grey (lighter colored than overlying unit), amygdaloid (amygdules up to 5 mm sized, filled with chlorite, quartz, epidote and minor carbonate) section; lower contact is sharp, indistinct, @ 40 deg to CA.
- 839.90 841.30 Amygdaloidal Basalt: Variably very dark brown grey green grey, fine medium grained, non - weakly magnetic section with up to 5 mm sized, dark colored, round sub round spots (presumably amyodules and/ or chloritized phenocrysts. Lower contact of this section is sharp, indistinct, @ 40 deg to CA.
- 841.30 844.72 Basalt Flow: Fine medium grained, green grey, non weakly magnetic, with dark green, sub angular - sub round spots (chloritized amphibole phenocrysts) and one isolated section with several mm sized, light colored (epidote, minor carbonate), subangular - irregular shaped spots (possibly amygdules). Lower part of this section with an increasingly distinct foliation @ approx 40 deg to CA. Lower contact is indistinct, sharp, @ approx 30 deg to CA.
- 844.72 849.28 Basalt Flow: Bleached; Non moderately magnetic (mostly moderately magnetic), fine grained, dense, massive section, with an approx 3 m wide, bleached, veined section in the center. It locally displays up to 5 mm sized, light colored (chlorite, epidote, minor carbonate) sub round outlines, possibly amygdules. Lower contact of this section is sharp, indistinct, @ 20 deg to CA. The remaining part of this interval is similar to the described lithology.

900.16 902.12 Fault Zone: Crush Zone

Sections of several cm up to several dm width with very intensively shattered basaltic rock. The



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Interval (m)	Description	Sample	From	To	Interval	Au	Ag	Cu	Pb	Zn
From To		No.	(m)	(m)	(m)	g/t	g/t	%	%	%

material is still in place and gains volume, when exposed to air and water and no longer exposed to the extra load of the overlying units. When picked up it crumbles to silt, sand and fine gravel sized fragments. The sand (fault gauge) is dark grey and moderately magnetic. No visible signs of alteration associated with faulting. Faulted zones with several dm spacing. Conspicuous orientation of fracture planes @ approx 60 - 70 deg to CA. Lithologically this interval appears to be part of the overlying unit. Lower contact: Abrupt change to non faulted rock.

902.12 908.34 Basalt Flow:

Lithologically this interval appears to be part of the overlying sequence, as described at "829.47 - 900.16 m".

908.34 908.34 End of Hole:



Hole-ID: TCU04131 Page: 35A

Assays

Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %	SG	Cu ppm	Pb ppm	Zn ppm	Au ppb	Ag ppm	As ppm	AI %	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm
9907	800.07	801.57	1.50	0.05	0.00	0.00	0.00	0.00	0.00	87	86	368	0	0.7	20	2.44	630	5	1.14	1	1
9908	801.57	802.47	0.90	0.24	0.00	0.00	0.00	0.00	0.00	171	720	844	0	5.2	70	2.50	50	5	1.01	2	17
9909	802.47	803.35	0.88	0.20	0.00	0.00	0.00	0.00	0.00	359	968	2731	0	7.7	75	1.37	45	5	0.50	11	11
9910	803.35	804.66	1.31	0.11	0.00	0.00	0.00	0.00	0.00	125	96	357	0	0.9	3Ó	2.16	905	5	0.75	1	1
9911	804.66	805.66	1.00	0.08	0.00	0.00	0.00	0.00	0.00	243	336	1083	0	2.3	25	1.26	75	5	0.50	6	6
9913	805.66	806.66	1.00	0.53	0.00	0.00	0.00	0.00	0.00	685	1738	5290	0	19.7	10	0.97	25	5	0.31	21	9
9914	806.66	807.66	1.00	0.24	14.30	0.15	0.17	1.04	2.72	1385	1760	10000	0	14.2	10	1.00	30	5	0.45	48	7
9915	807.66	808.66	1.00	0.36	10.60	0.14	80.0	0.32	2.60	1328	848	3169	0	10.6	15	0.90	30	5	0.34	12	7
9916	808.66	809.38	0.72	0.08	0.00	0.00	0.00	0.00	0.00	399	506	1886	0	4.6	10	1.13	25	5	0.29	8	9
9917	809.38	810.88	1.50	0.03	0.00	0.00	0.00	0.00	0.00	64	30	163	0	0.4	5	2.62	1010	5	0.93	1	17
9919	810.88	812.38	1.50	0.03	0.00	0.00	0.00	0.00	0.00	77	130	105	, 0	0.2	10	2.60	570	5	0.78	1	20
9920	812.38	813.88	1.50	0.03	0.00	0.00	0.00	0.00	0.00	103	42	181	0	0.3	10	3.35	1120	5	1.17	1	20
9921	813.88	815.41	1.53	0.03	0.00	0.00	0.00	0.00	0.00	73	42	168	0	0.3	10	4.06	790	5	0.84	1	27
9922	815.41	816.41	1.00	0.03	0.00	0.00	0.00	0.00	0.00	53	40	226	0	0.6	15	1.30	375	5	0.50	1	4
9923	816,41	817.48	1.07	0.03	0.00	0.00	0.00	0.00	0.00	22	18	107	0	0.2	10	1.12	625	5	0.49	1	2
9925	817.48	818.68	1.20	0.03	0.00	0.00	0.00	0.00	0.00	86	36	49	0	0.3	20	2.85	890	5	2.66	1	11
9926	818.68	819.88	1.20	0.03	0.00	0.00	0.00	0.00	0.00	92	44	242	0	0.4	10	3.32	1115	5	1.53	1	23
9927	819.88	820.88	1.00	0.29	4.40	0.04	0.10	1.56	2.68	362	856	10000	0	4.5	10	2.41	35	5	0.36	52	10
9928	820.88	821.88	1.00	0.12	5.30	0.06	0.10	0.76	2.60	650	976	7614	0	5.3	10	0.72	35	5	0.17	31	5
9929	821.88	822.88	1.00	0.16	2.70	0.03	0.03	0.40	2.60	255	314	3916	0	2.7	15	0.78	30	5	0.18	16	7
9930	822.88	823.88	1.00	0.80	14.90	0.40	0.24	1.41	2.89	3946	2414	10000	0	15.6	5	0.87	15	5	0.20	65	9
9931	823.88	824.50	0.62	5.43	22.90	0.54	0.69	88.0	2.60	5352	6944	8760	0	22.9	5	0.54	20	5	0.09	153	7
9932	824.50	825.70	1.20	0.20	8.00	0.11	0.45	2.64	2.89	1042	4642	10000	0	8.7	15	3.77	55	5	1.49	123	27
9933	825.70	826.02	0.32	2.73	48.20	0.75	1.67	8.35	3.21	7419	10000	10000	0	30.0	5	0.67	25	5	1.64	453	6
9934	826.02	827.22	1.20	0.03	0.00	0.00	0.00	0.00	0.00	155	86	299	0	1.4	30	0.33	90	5	0.22	1	2
9935	827.22	828.42	1.20	0.03	0.00	0.00	0.00	0.00	0.00	16	84	166	0	2.1	25	0.43	145	5	0.24	1	2
9936	828.42	829.47	1.05	0.07	0.00	0.00	0.00	0.00	0.00	42	68	293	. 0	1.9	15	0.89	120	5	0.55	3	5
9937	829.47	830.97	1.50	0.03	0.00	0.00	0.00	0.00	0.00	177	26	194	0	0.7	5	2.99	80	5	3.41	1	31



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Assays ...continued

Sample No.	From (m)	To (m)	Interval (m)	Cr ppm	Fe %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Sb ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W	Y ppm	
9907	800.07	801.5	7 1.50	31	2.16	10	0.98	314	1	0.18	. 1	310	10	20	276	0.05	10	1	10	. 1	
9908	801.57	802.4	7 0.90	16	5.55	10	1.20	268	7	0.20	8	110	5	20	187	0.07	10	. 1	10	1	
9909	802.47	803.3	5 0.88	27	3.73	10	0.63	118	4	0.12	6	120	135	20	64	0.03	10	- 1	10	1	
9910	803.35	804.6	3 1.31	51	2.23	10	0.99	321	1	0.18	1	260	25	20	132	0.07	10	1	10	2	
9911	804.66	805.6	3 1.00	47	2.04	10	0.81	198	3	0.08	2	360	5	20	63	0.05	10	1	10	2	
9913	805.66	806.6	3 1.00	45	10.00	10	0.48	89	6	0.07	1	20	5	20	24	0.02	10	1	10	1	
9914	806.66	807.6	3 1.00	37	4.62	10	0.63	139	2	0.06	2	150	5	20	94	0.04	10	1	10	1	
9915	807.66	808.6	3 1.00	39	4.56	10	0.58	140	4	0.04	2	190	5	20	56	0.05	10	1	10	1	
9916	808.66	809.3	3 0.72	36	5.73	10	0.77	242	4	0.06	2	120	- 5	20	30	0.07	10	1	10	1	
9917	809.38	810.8	3 1.50	53	5.57	10	1.90	390	2	0.19	9	830	5	20	69	0.17	10	247	10	1	
9919	810.88	812.3	3 1.50	41	5.73	10	1.86	385	2	0.20	9.	930	5	20	47	0.17	10	274	10	1	
9920	812.38	813.8	B 1.50	49	5.90	10	2.12	685	1	0.22	11	980	5	20	115	0.27	10	241	10	1	
9921	813.88	815.4	1 1.53	38	7.08	10	2.74	1014	2	0.18	11	910	5	20	72	0.30	10	247	10	1	
9922	815.41	816.4	1 1.00	54	1.92	10	0.68	237	1	0.06	2	270	5	20	58	0.09	10	1	10	1	
9923	816.41	817.4	8 1.07	52	1.69	. 10	0.62	215	1	0.08	4	250	5	20	55	0.08	10	1	10	5	
9925	817.48	818.6	B 1.20	380	2.56	10	1.54	236	2	0.21	100	2120	5	20	232	80.0	10	98	10	1	
9926	818.68	819.8	B 1.20	508	4.30	10	2.92	309	. 1	0.16	170	2210	5	20	144	0.10	10	179	10	1	
9927	819.88	820.8	8 1.00	143	3.13	10	2.20	289	1	0.06	25	360	5	20	79	0.08	10	24	10	1	
9928	820.88	821.8	8 1.00	46	2.18	10	0.62	88	1	0.01	1	90	5	20	48	0.03	10	1	10	1	
9929	821.88	822.8	8 1.00	38	2.79	10	0.67	106	1	0.01	2	150	. 5	20	20	0.03	10	1	10	1	
9930	822.88	823.8	8 1.00	33	7.07	10	0.70	101	1	0.02	1	200	5	20	21	0.04	10	1	10	1	
9931	823.88	824.5	0 0.62	27	7.75	10	0.37	63	1	0.01	1	10	5	20	31	0.01	10	1	10	. 1	
9932	824.50	825.7	0 1.20	594	5.08	10	3.22	394	1	0.06	216	1410	5	20	86	0.10	10	137	10	1	
9933	825.70	826.0	2 0.32	34	6.88	10	0.43	113	1	0.02	1	120	5	20	142	0.02	10	4	10	1	
9934	826.02	827.2	2 1.20	80	1.15	10	0.21	92	2	0.03	4	180	5	20	49	0.01	10	1	10	4	
9935	827.22	828.4	2 1.20	61	1.43	10	0.32	115	3	0.03	3	230	5	20	23	0.02	10	1	10	4	
9936	828.42	829.4	7 1.05	112	1.90	10	0.77	165	5	0.05	34	380	5	20	23	0.03	10	4	10	3	
9937	829.47	830.9	7 1.50	720	4.25	10	4.22	695	1	0.04	337	1450	5	20	172	0.03	10	145	10	1	



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Collar Coordinates

North (m): East (m) Elevation (m): 15636.00 10486.00 117.00 Azimuth (degrees):

Dip (degrees): Length (m): 156.56 -79.76 768.71 Started:

Completed:

19/10/2004 07/11/2004 Date Logged: Logged By: 19/10/2004 TS./ MA.

Report Printed:

17/12/2004

Down Hole Survey Tests

							2011		o ou ,								
Depth (m)	Azimutl	n Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	ו Dip
0.00	156.56	-79.76	79.20	154.34	-79.48	158.50	153.52	-79.71	237.70	153.23	-80.08	317.00	150.72	-78.37	396.20	154.95	-78.11
3.00	156.83	-79.63	82.30	154.31	-79.43	161.50	153.53	-79.74	240.80	153.23	-80.05	320.00	149.79	-78.30	399.30	154.82	-78.09
6.10	156.82	-79.58	85.30	154.24	-79.42	164.60	153.33	-79.74	243.80	153.45	-80.05	323.10	148.59	-78.18	402.30	154.69	-78.03
9.10	156,54	-79.57	88.40	154.10	-79.43	167.60	153.29	-79.74	246.90	153.50	-80.05	326.10	147.84	-78.04	405.40	154.77	-77.99
12.20	156.23	-79.58	91.40	153.95	-79.46	170.70	153.09	-79.75	249.90	153.37	-80.02	329.20	147.27	-77.93	408.40	154.82	-78.01
15.20	155.70	-79.58	94.50	153.83	-79.46	173.70	153.08	-79.78	253.00	153.30	-80.06	332.20	146.69	-77.67	411.50	154.93	-78.00
18.30	155.15	-79.57	97.50	153.64	-79.52	176.80	153.16	-79.78	256.00	153.53	-80.09	335.30	145.93	-77.19	414.50	154.95	-77.94
21.30	154.90	-79.61	100.60	153.59	-79.54	179.80	153.25	-79.78	259.10	153.58	-80.13	338.30	145.70	-76.87	417.60	155.28	-77.65
24.40	154.67	-79.62	103.60	153.34	-79.56	182.90	153.23	-79.78	262.10	153.32	-80.10	341.40	145.88	-76.82	420.60	156.33	-76.82
27.40	154.60	-79.59	106.70	153.37	-79.58	185.90	152.88	-79.78	265.20	153.10	-80.04	344.40	146.75	-76.98	423.70	158.52	-75.50
30.50	154.58	-79.58	109.70	153.17	-79.58	189.00	152.75	-79.78	268.20	152.67	-80.00	347.50	149.02	-77.46	426.70	161.72	-74.04
33.50	154.40	-79.55	112.80	153.17	-79.59	192.00	152.73	-79.78	271.30	152.11	-79.97	350.50	151.74	-78.01	429.80	164.80	-72.75
36.60	154.36	-79.55	115.80	153.24	-79.64	195.10	152.80	-79.83	274.30	151.87	-79.95	353.60	153.17	-78.33	432.80	166.32	-72.01
39.60	154.08	-79.56	118.90	153.38	-79.65	198.10	153.10	-79.88	277.40	151.61	-79.94	356.60	153.90	-78.28	435.90	166.28	-71.86
42.70	154.02	-79.58	121.90	153.47	-79.63	201.20	152.96	-79.95	280.40	151.62	-79.96	359.70	154.36	-78.23	438,90	166.00	-71.84
45.70	154.01	-79.57	125.00	153.37	-79.63	204.20	152.99	-79.99	283.50	151.60	-79.97	362.70	154.65	-78.21	442.00	165.91	-71.80
48.80	153.92	-79.57	128.00	153.24	-79.64	207.30	152.88	-80.00	286.50	151.53	-79.99	365.80	154.84	-78.22	445.00	165.95	-71.77
51.80	153.98	-79.59	131.10	153.22	-79.66	210.30	152.87	-80.01	289.60	151.66	-80.00	368.80	155.01	-78.24	448.10	165.93	-71.76
54.90	154.02	-79.57	134.10	153.12	-79.68	213.40	152.70	-80.01	292.60	151.62	-80.02	371.90	155.03	-78.25	451.10	166.10	-71.79
57.90	154.00	-79.55	137.20	153.16	-79.69	216.40	152.75	-80.06	295.70	151.68	-80.02	374.90	155.06	-78.31	454.20	166.16	-71.81
61.00	154.10	-79.53	140.20	153.35	-79.68	219.50	152.80	-80.07	298.70	151.58	-80.02	378.00	155.19	-78.32	457.20	166.18	-71.84
64.00	154.23	-79.52	143.30	153.26	-79.69	222.50	152.79	-80.07	301.80	151.63	-79.97	381.00	155.23	-78.31	460.20	166.31	-71.85
67.10	154.37	-79.54	146.30	153.20	-79.71	225.60	152.86	-80.09	304.80	151.47	-79.73	384.00	155.07	-78.33	463.30	166.26	-71.85
70.10	154.51	-79.54	149.40	153.42	-79.65	228.60	152.91	-80.10	307.80	151.29	-79.13	387.10	154.95	-78.29	466.30	166.29	-71.87
73.20	154.37	-79.52	152.40	153.66	-79.65	231.60	153.02	-80.08	310.90	151.13	-78.61	390.10	155.01	-78.23	469.40	166.23	-71.89
76.20	154.29	-79.50	155.40	153.69	-79.71	234.70	153.19	-80.06	313.90	151.00	-78.44	393.20	155.15	-78.16	472.40	166.24	-71.89



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Collar Coordinates

North (m): East (m) Elevation (m): 15636.00 10486.00

117.00

Azimuth (degrees): Dip (degrees):

Length (m):

156.56 Started: -79.76 Completed:

768.71

19/10/2004 07/11/2004 Date Logged: Logged By:

19/10/2004 TS./ MA.

Report Printed:

17/12/2004

Down Hole Survey Tests

							DOW	11 11010	Juive	, 1636	J						
Depth (m)	Azimuth	n Dip	Depth (m)	Azimuth	n Dip	Depth (m)	Azimutl	n Dip	Depth (m)	Azimuth	n Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip
475.50	166.22	-71.87	554.70	165.65	-71.23	634.00	170.09	-71.38	713.20	173.85	-70.14						
478.50	166.28	-71.87	557.80	165.73	-71.19	637.00	170.37	-71.39	716.30	173.94	-70.10						
481.60	166.36	-71.86	560.80	165.77	-71.15	640.10	170.63	-71.39	719.30	173.97	-70.05						
484.60	166.44	-71.85	563.90	165.91	-71.15	643.10	170.83	-71.39	722.40	174.00	-70.03						
487.70	166.49	-71.86	566.90	166.09	-71.17	646.20	171.04	-71.37	725.40	174.00	-69.99						
490.70	166.48	-71.87	570.00	166.24	-71.18	649.20	171.29	-71.35	728.50	173.88	-69.93						
493.80	166.61	-71.83	573.00	166.41	-71.18	652.30	171.51	-71.32	731.50	173.93	-69.87						
496.80	166.65	-71.82	576.10	166.58	-71.19	655.30	171.76	-71.28	734.60	174.01	-69.83						
499.90	166.81	-71.83	579.10	166.74	-71.24	658.40	172.13	-71.24	737.60	174.09	-69.77						
502.90	166.87	-71.83	582.20	166.92	-71.25	661.40	172.40	-71.19	740.70	174.22	-69.70						
506.00	166.76	-71.84	585.20	167.17	-71.26	664.50	172.50	-71.15	743.70	174.29	-69.63						
509.00	166.61	-71.84	588.30	167.28	-71.28	667.50	172.71	-71.10	746.80	174.27	-69.58						
512.10	166.49	-71.84	591.30	167.44	-71.30	670.60	172.90	-71.02	749.80	174.23	-69.54						
515.10	166.38	-71.88	594.40	167.57	-71.32	673.60	173.01	-70.99	752.90	174.20	-69.51						
518.20	166.24	-71.89	597.40	167.72	-71.35	676.70	173.27	-70.93	755.90	174.28	-69.45						
521.20	166.08	-71.82	600.50	167.85	-71.36	679.70	173.45	-70.84	762.00	174.45	-69.32						
524.30	166.12	-71.67	603,50	168.05	-71.37	682.80	173.56	-70.77									
527.30	166.12	-71.54	606.60	168.15	-71.36	685.80	173.68	-70.71									
530.40	166.20	-71.48	609.60	168.27	-71.39	688.80	173.71	-70.67									
533.40	165.91	-71.46	612.60	168.47	-71.40	691.90	173.68	-70.61									
536.40	165.70	-71.41	615.70	168.67	-71.42	694.90	173.82	-70.56									
539.50	165.64	-71.34	618.70	168.86	-71.42	698.00	173.75	-70.50									
542.50	165.68	-71.28	621.80	169.17	-71.39	701.00	173.51	-70.43									
545.60	165.70	-71.23	624.80	169.41	-71.36	704.10	173.46	-70.34									
	165.73			169.56		707.10	173.51	-70.23									
	165.65		630.90	169.81	-71.36	710.20	173.71	-70.17									



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Interval (m)	Description			Sample	From	То	Interval	Au	Ag	Cu	Pb	Żn
From To				No.	(m)	(m)	(m)	g/t	g/t	%	%	%

306.90 309.90

Concrete

309.90 313.32 Volcanic Sediment:

Olive green grey - mauve grey - dark green grey - dark grey, very fine grained - fine grained, non magnetic (from 310.90 downwards) and moderately magnetic (from 310.90 upwards) volcaniclastic. Above 310.9 displaying a only locally detectable (as a result of broken core) foliation @ approx 30 deg to CA, with dusty - cloudy pyrite bands, which are aligned to foliation. Above 310.9 the interval is more or less pervasively fractured. The section from 310.90 downwards is softer than the upper section and displays up to several cm sized dark brown patches, presumably sericite. Possibly the section between 310.9 and lower contact is a basaltic subvolcanic or extrusive. (According to the blocks the interval is missing 1.5 m core?!) Picture taken. Lower contact: Sharp, @ 35 deg to CA, associated with a 5 cm wide silicified?, possibly veined zone (picture taken).

313.32 316.20 Basalt Dyke:

Brown grey - mauve grey, fine - medium grained, finely cream mottled mafic rock, possibly an intrusive or an ash tuff. Near the lower contact with few, sub mm sized jasper specks. Material is soft, which is presumably the result of a high sericite content? Interval with pale olive green grey, very soft, waxy sericite? patches. Mostly dense, massive, locally with a very crude foliation @ 35 deg to CA. Moderately - strongly magnetic throughout. Lower contact: Sharp, broken core, no plane. Associated with several, up to several mm wide carbonate, pyrite and chlorite bearing mostly white veins @ 40 - 45 deg to CA.

316.20 328.83 Volcanic Sediment:

Variably green grey - maroon grey - cream grey, very fine - medium grained, mostly non magnetic (with few weakly - moderately magnetic patches and sections) volcaniclastic. Bedding is very indistinct and is only locally detected, presumably variable and @ approx 50 deg to CA within the upper section and very steep to CA within the lower section of the interval. Interval comprises mostly mudstones, with sandy interbeds and sections. Locally disseminated pyrite, grading into dusty clouds and few specks. Occasionally pyrite aggregates up to several mm size on fracture planes. From 323.7 - 326.2 intensively bleached and altered to locally white (siliceous), mostly



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Zn

%

Interval (m)

To

From

Description

Sample No. From (m)

То

(m)

Interval Au (m) g/t

Au Ag g/t g/t Cu Pb

pale green grey (chlorite) with white carbonate bearing veins, veinlets (mostly hairline width, sometimes up to several mm width, @ variable angle to CA, conspicuously @ 15 - 30 deg to CA) and white albite? bearing stringers, which locally grade into white albite? patches. One approx cm wide vein @ 30 deg to CA, mostly comprising chlorite with up to 2 mm sized, euhedral pyrite crystals. Section displays groups of euhedral, up to 5 mm sized pyrite granoblasts. Primary textures within this section more or less entirely overprinted. Lower contact: Sharp, @ 45 deg to CA.

328.83 330.69 Basalt Flow:

Very dark brown grey - very dark green grey, very fine grained, dense, massive, homogenous, non magnetic, mafic rock, presumably a basalt flow. Few, scattered, up to 3 mm sized amygdules (filled with chlorite, carbonate, pyrite and presumably quartz). Lower contact: Gradational, no plane.

330.69 334.16 Fault Zone:

Interval is pervasively fractured (with the exception of 1 subsection). Approx 70 % of core pieces < 10 cm and approx 40 % of core pieces < 5 cm. Partially intensively chlorite altered and bleached. Fracture planes sub parallel to CA and @ 50 deg to CA with chlorite-, carbonate coating and slickensides. Interval is intensively veined with carbonate, chlorite, +/- magnetite, +/- pyrite, +/- quartz veins, partially very irregular, @ variable angle to CA, most conspicuously @ 50 deg to CA. Primary lithology is generally non detectable. Lower contact: Marked by decreasingly broken core, no plane.

334.16 341.75 Volcanic Sediment:

Variably colored, dark green grey - dark brown grey - dark grey, locally with slight maroon and/ or mauve tint, very fine - medium grained volcaniclastic. Locally sandstone can be noted, which grades over several dm into mudstones (fining upwards). Locally displayed sharp contacts between mudstones and overlying sandstones allow to detect bedding @ approx 42 deg to CA and possibly @ 30 deg to CA?. Sections with obvious sedimentary textures alternate with dense, massive, homogeneous, fine grained, featureless sections, which may be - at least partially - flows. Presence of mafic flows is suggested by sub round, up to several mm sized textures, that may be interpreted as amygdules, for example at 341.07 m. Locally with very minor, dusty - cloudy pyrite and minor pyrite aggregates on fracture planes, accessoric overall. Non - moderately magnetic (mostly moderately magnetic) with non - weakly magnetic patches and sections. Lower contact: Marked by increasingly broken core, no



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Interval (m)

From

Description

Sample No.

То From (m)

(m)

Interval (m)

g/t

g/t

Cu Pb Zn % % %

plane.

341.75 359.36 Fault Zone:

То

Interval comprises pervasively shattered rock: 80 % of core pieces < 10 cm, > 40 % of core pieces < 5 cm. No distinct signs of alteration or faulting (slickensides, fault gauge). Lithologically this interval is assumed to be part of the overlying unit, at least no indication of a change in lithology could be observed. From upper contact magnetism appears to be gradually decreasing downwards to non - very weakly magnetic. From 348.40 - 349.35 m bleached and intensively chloritic altered zone with a green brown beige cream mottled appearance and a very crude foliation @ 20 - 40 deg to CA. This zone displays sharp contact (upper alteration? contact: Sharp, @ 50 deg to CA, lower alteration? contact @ 40 deg to CA). Sections with recognizable sedimentary textures: Occasionally bedding can be detected @ 35 and 50? deg to CA. At 355.0 m a sharp contact @ 45 deg to CA between VSD and mafic intrusive. Several cm downwards (width of dike not accurately to determine because of broken core) sharp contact between mafic intrusive and VSD @ 60 deg to CA. Another 8 cm downwards (at approx 355.20 m) sharp lithological contact @ 40 deg to CA between VSD and mafic intrusive, possibly the result of bifurcating, fingering contact between overlying VSD and underlying BIN. Lower contact: Marked by decreasingly broken core, no plane. 355.19 359.36 Basalt Intrusive: Dark brown grey - dark green grey, dense, massive, non moderately magnetic (patchy, sections), fine grained, mafic intrusive.

359.36 521.63 Basalt Intrusive:

> Dark green grey - dark grey, fine grained, dense, massive, mafic intrusive. Sections with ghostly developed, subhedral, up to 3 mm sized amphibole phenocrysts, which are presumably partially chloritized. Non - moderately magnetic (patchy) near upper contact, grading into non magnetic after several m. Near upper contact interval is intensively veined, with quartz-, chlorite-, +/magnetite veins from hairline up to approx cm width, conspicuously @ steep angle to CA. From approx 362 m downwards few quartz-, chlorite-, +/- magnetite veins from hairline up to > 1 cm width @ variable angle to CA. At 402.22 - 402.90 m bleached to olive green grey - pale beige, shattered appearance, nerved with carbonate and chlorite bearing quartz-? and albite-? stringers, which grade into veins, @ shallow angle to CA, associated with fracturing of core. From 418.42 - 419.14: A green and white, carbonate bearing, approx 3.5 cm wide quartz?-, albite?-, chlorite vein @ approx 8 deg to CA. Lower part of this veined section is brecciated, with vein mineralization broken up to



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Interval (m) To

From

Description

Sample No.

From (m)

To Interval (m)

(m)

Au g/t Cu

Pb Zn %

sub angular, - sub round pieces, which are embedded in olive green grey, presumably chloritic matrix. The vein is associated with a several cm wide, olive green grey bleaching halo. From 421 -432.5 interval is pervasively fractured, in sections intensively nerved with partially carbonate bearing, up to 10 cm wide, variably orientated (conspicuously @ approx 40 deg to CA) quartz-, chlorite-, +/- magnetite veins and stringers. Slickensides on fracture planes @ 30 deg and shallow angle to CA.Trace Po. Lower contact of BIN sharp but subtle, sub parallel TCA. I am uncertain which lithology intrudes into the other, contact is extremely wavy and both units appear to inject into the other. The precence of a 1 cm chill margin in the RFL suggests the rhyolite was the later event, but it could just as easily be an alt'n halo. The prescence of basalt xenos in rhyolite is also inconclusive. However, I am leaning towards the rhyolite being the later event. Regardless, contact is wavy and sub parallel TCA.

- 384.45 387.55 Fault Zone: Fracture zone: 100 % of core pieces < 10 cm and 80 % of core pieces < 5 cm. No signs of alteration, no slickensides, no fault gauge. Conspicuous orientation of fracture planes @ steep angle to CA (coin pattern).
- 390.71 397.43 Fault Zone: Fracture zone: 60 % of core pieces < 10 cm and 40 % of core pieces < 5 cm. Similar to 384.45 - 387.55 but with an intensively chloritic altered section from approx 391.69 - approx 394 m, locally bleached to pale beige, locally displaying dusty - cloudy pyrite and with 2 types of light colored veins: 1.) Carbonate-. chlorite veins, approx 1 cm wide, @ 40 deg to CA. 2.) Minor carbonate- and chlorite bearing albite? veins @ shallow angle to CA (of unknown width and associated with a.m. pale beige alteration halo).
- 433.30 448.20 Fault Zone: Pervasively fractured core: 50 % of core pieces < 10 cm, 30 % of core pieces < 5 cm. Sections of this interval (particularly within upper 5 m) are bleached and altered to olive green grey and chocolate brown, partially with a mottled appearance, associated with some white quartz?-, chlorite-, albite? veins and stringers, which are partially highly irregular and patchy. Near the center of the interval slickensides on fracture planes @ shallow angle to CA. At 444.7 - 445.4 m highly chloritic, silty fault gauge on fracture planes sub parallel to CA, associated with irregular, up to several cm wide, white, carbonate bearing quartz-, chlorite veins @ shallow angle to CA. Near lower contact fracture planes @ steep angle to CA (coin pattern). Upper contact: Marked by increasingly broken core. Lower contact: Marked by decreasingly broken core.



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Interval	(m)	Description		Sample	From	То	Interval	Au	Ag		Pb	
From	То			No.	(m)	(m)	(m)	g/t	g/t	%	%	%

511.55 533.10 Fault Zone: Broken Core; Poker chip fractures. Core in this interval marked by varying degrees of fracturing close to perpendicular TCA. Variably spaced from 1 fracture/5 cm to several fractures per cm. I wonder if this is a precursor to the crush zones. Fractures are generally clean, perhaps slightly chl coated. Fractuing crosses lithological contacts and late qtz veining. Appears to be final event.

521.63 528.50 Rhyolite Flow:

Extremely feldspar phyric rhyolite "flow" likely a sill. Locally extremely well preserved white feldspar phenos in a v dark grey somewhat glassy, wkly chl alt'd matrix. Interval is pervassively fractured "poker chip" style. Largest unfractured piece is in the 5cm range, Fractures cut all alt'n and veining. Wk qtz-chl veining 0.5 -2cm. Minor patch saussertization towards lower contact. Lower contact complicated, perhaps interfingered or with BIN xenos. Lower contact of rhyolite marked by intense qtz-chl-mag veining, 45 degrees TCA.

527.87 528.22 Basalt Dyke: Possible BDY. No features of RFL noted however no contacts can be found.

528.50 532.20 Volcanic Sediment: Quartz Vein

Broken dark blue green VSD. Glassy, possibly a basalt flow or ash. Secondary alt'n by chl and qtz veining disrupts primary txt's the key feature that defines this interval is the massive glassy feel, ashy particles, and concoidal fracture on some surfaces. Also, poker chip fractured, moderately magnetic. Lower contact sharp, 45 degrees TCA. Conformable.

532.20 537.80 Basalt Flow: Chlorite

Basalt flow. Dark green to black fractured basalt flow. Alt'n gives pseudo breccia txt, autobreccia? Rubbley throughout but not poker chip style. CAL and CHL on fractures. Minor seams of cal+qtz+chl, possibly pillow margins. Less glassy than above VSD but no igneous txt's. Lower contact sharp, staight, intrusive 50 degrees TCA.

535.84 537.80 Basalt Flow: Shattered Basalt Flow, chl part of and intesne alt'n zone related to underlying dyke?

537.80 555.58 Basalt Intrusive: Chlorite

Basalt intrusive. Chl darkened igneous txt'd amphibole to to feldspar bearing BIN. Amphiboles



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Interval (m)	Description			Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From To				No.	(m)	(m)	(m)	g/t	g/t	%	%	%

show up in bleached intervals with distinctive xtal shape. Feldspars dominantly chl alt'd but rarely pseudolaths are present. Interval is heavily seamed or veined. Possibly related to healed flt (nested) Seams are pale green with mag and po. Lower contact defined by 20 cm of intense ep mag, po and chl alt'n, 60 degrees TCA.

538.65 539.19 Basalt Intrusive: Bleached; Quartz Vein; Bleached BIN, proximal to sugary qtz-cal vein. Vein to 3 cm thick 10 degrees TCA, fault related?

543.44 545.82 Fault: Bleached; Quartz Vein; Fuchite; Bleached healed fault. Pale grey green ser +/- fuch alt'd abundant veins breccia, no well defined slicks, possibly 10 degrees TCA.

555.58 560.83 Basalt Flow: Chlorite; Quartz Vein; Epidote

CHL and EP alt'd Qtz veined Basalt Flows. The key feature that actually gives this interval away is the rare patches of interbedded VSD. The abundant qtz-chl veining gives the intervals a brecciated look but highlights the VSD. Basalt is actually quite coarse grained, possibly recrystalized. It's thought that the VSD fills in margis between pillows or is between flows, as it is generally parallel to CHL-MAG-PY seams, 45 degrees TCA. Minor poker chip fracturing. LC marked by 20 cm of qtz-chl veining, but is likely conformable.

560.83 563.58 Volcanic Sediment: Quartz Vein; Bleached

Qtz veined volcanic sed. Varies from mudstone to sandstone throughout, grossly coarsening with depth. Interbedded fines and sand intervals locally distort bedding, flames and other soft sediment deformation. Bedding is best noted in finer material particularly when bleached by qzvns or fractures 20-65 degrees TCA. Grades conformably into underlying unit.

563.58 565.10 Basalt Lapilli Ash Tuff:

Basalt lapilli ash tuff. Interesting interval as the matrix appears to be a basalt, but the lapilli appear to be alt'd rhyolite. 2-5 cm pale grey with chl alt'd feldspars. Odd. Lapilli locally are quite densely packed, almost a disarticalated clast? Minor irregular dyking towards lower contact. LC sharp, wavy to stepped 50 degrees TCA. 564.70 564.75 Basalt Intrusive: Irregular splay off of underlying BIN.

565.10 657.03 Basalt Intrusive: Chlorite; Magnetite



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Interval (m)	Description		
From To			

CHL alt'd massive basalt intrusive. Rare mag+/-chl+/-carb seam. Dark green to blue. Rare qtz-chl vein to 8 cm. Abundant chl alt'd feldspars 2-3 mm gives the core a feathered look. Moderately to strongly magnetic. Lower contact marked by a purpleish seam, chl and mag alt'd, seam itself may be a flow top, 20 degrees TCA, stepped.

594.65 595.86 Fault: Calcite; CHL and Calcite alt'd shear or fault zone. 25 degrees TCA.

657.03 674.70 Basalt Flow: Chlorite; Cordierite

Basalt Flows. Quite variable from massive flows with rare amygdules to a chaotic mix of seds and volcanic material. Flow banding, interbedded seds and rare amygdules define the unit as a basalt flow interval. Purplish cord noted from 661.11 to 661.8 sugesting a pelagic sed. Seds locally quite gritty. Flow banding noted 20-30 degrees TCA. Local intense qtz-ep-chl and mag veined locally ep/chl veins disply breccia txts. qtz veins often torn possibly sheared or folded. More massive with subtle flow banding from 668.57 to 673.08. From 673.08 to 674.7 an odd alt'n takes place, somewhat brownish alt'n, bio? Minor poker chip fracturing and swelling, precursor to crush? Lower contact sharp, wavy, but probably conformable. 80-90 degrees TCA.

674.70 683.91 Rhyolite Lapilli Ash Tuff: Sericite; Chlorite; Jasper

Rhyolite lapilli ashy tuff. Dark grey to grey ashy with minor lapilli to 8 cm. This interval likely represents that mixing of rhyolite and basalt ashes. Minor jasper chips, Pervassive ser and chl alt'n. Ashes/fine lapilli locally quite angular. Moderately bedded 40-50 degrees TCA. Locally feldspar phyric, perhaps a xtall tuff. Rhyolite clasts/lapilli rare but quite prominent and bleached similar to an RDF clast. Lower contact sharp, straight, marked by 5 cm ofd qtz-ep veining

683.91 686.30 Rhyolite Flow Breccia: Silica

Mottled rhyolite flow breccia. Dark grey to grey blue mottled rhyolite flow breccia. Feldspar phyric locally. Appears to be variably alt'd and bleached rhyolite fragments in a locally galssy rhyolite matrix. Clasts appear to be similar in compostion to matrix. Some evidence of healed faulting in this interval, perhaps causes bleaching. Drillers report cave at 690.37. LC marked by a sharp transition to a much ashier matrix. This may be an alt'n product. Contact sharp, 25 degrees TCA.



Sample

No.

From

To Interval Au

Hole-ID: TCU04131A

Pb

Cu

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Zn

Interval (m)		Description						
From	То							
686.30	693.48	Basalt Intrusive: Chlorite						
		Dark blue green chi alt'd basalt, intrusive. Moderately magnetic. Local chi and calcite veining.						
		1 prominent chl-py-ep seam. rare bio (?) brown alt'd patch, that appears to be related to crush						
		zone. Rare seam of swelling clay and sand becoming more pronounced with depth. LC marked by increased alteration.						
693.48	699.67	Rhyolite Lapilli Ash Tuff:						
		Very ashy dull grey rhyolite lapilli ashy tuff. Unit is defined by a prominent lapilli, approx 4						
		cm rounded with an ashy chl and ser alt'd matrix. Minor late x-cutting bleaching chl veins,						
		Numerous v. small lapilli in the 0.5 to 1 cm size range, all generally rounded. LC is extremely						
		irregular and intrusive, possibly intrused into an unconsolidated material, contact sub// TCA.						
699.67	700.80	Crush Zone:						
		Sandy crush zone. I believe that this interval is a alt'n product, as patches of brown sand to 5						
		cm are contained within solid rock, no movement indicators noted. BIN is broken down to a magnetic						
		sand. Interesting that the mag is preserved. Non-oxidizing alt'n fluids? LC marked by decreased alt'n and return to solid core.						
700.80	702.24	Basalt Intrusive: Chlorite						
		Blue green BIN as above. FW contact marked by 40 cm of intense qtz-chl-mag-brown ep (?) veining.						
		Veining 55 degrees TCA, Final contact spun by drill.						
702.24	702.56	Rhyolite Lapilli Ash Tuff:						
		Rhyolite lapilli ash tuff as above interval. Dropped and redrilled core. FW razor sharp, 15						
		degrees TCA.						
702.56	705.25	Quartz-Feldspar Porphyry Dyke:						
		QFP dyke. Distinctive razor sharp contacts with dark grey/black chill margins. Also, distincive						
		coarse white feldspars and grey qtz phenos in a dark grey matrix. This chi on late fractrues. FW conatct razor sharp, 25 degrees TCA, with thin calcite coating.						
705.25	751.54	Basalt Hyaloclastite: Silica; Quartz Vein; Disseminated Pyrite						



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Interva From	al (m) To	Description	Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %
		Grey to blue grey Ashy Hyaloclastite. Lacks jasper fragments. Locally abundant cuspate fragments, in an ashy alt'd groundmass. Possibly evolved andesite. Ashy, but rarely bedded, overprinted by silicification. Possibly faints clasts. Locally well preserved cuspate fragments. Locally freckled with white qtz, patchy bleaching? Stringers of white qtz throughout. Bedding where noted is wkly developed 30-50 degrees TCA. Trace yellow to red sphal noted, <1%. Py <1% dissem throughout. FW sharp, wavy, intrusive 50 degrees TCA.									
751.54	752.67	Basalt Dyke: Quartz Vein, Chlorite									
		Chl alt'd qtz veined BDY.	10572	751.54	752.	64 1.10	0.08	0.00	0.00	0.00	0.00
			10573	752.64	754.	54 1.90	0.03	0.00	0.00	0.00	0.00
752.67	759.26	Rhyolite Lapilli Ash Tuff: Pyrite									
		Rhyolite Ash tuff? Moderately bedded locally. 1 large wkly sausseritized feldspar phyric rhyolite	10574	754.54		54 2.00	0.03	0.00	0.00	0.00	
		clasts (bomb?) in a uniform grey ash. VFG to dissem py somewhat parallel to bedding, 55 degrees	10575	756.54	759.	26 2.72	0.03	0.00	0.00	0.00	0.00
		TCA. Minor ep alt'd patches and stringers. Fines with depth. LC sharp, wavy chl alt'd and									
		rubbley 40 degrees TCA.									
750.00	700 74	Parall Flore Oblights Faid to									
759.26	768.71	Basalt Flow: Chlorite; Epidote									
		Basalt flow. blue green to dark green basalt flow. Interesting "chunky" ep alt'n. Interval is									
		somewhat glassy. Moderatly magenetic. Somewhat rubbley, 763-764m Chl on fractures with a									
		pulverized qtz vein. trace red sphal or garnet associated with ep alt'd patches, xenos???									
768.71	768.71	End of Hole:									
100.71	100.71	LIN OFFICE.									



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Assays

Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %	SG	Cu ppm	Pb ppm	Zn ppm	Au ppb	Ag ppm	As ppm	AI %	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm
10572	751.54	752.64	1.10	0.08	0.00	0.00	0.00	0.00	0.00	327	62	235	0	4.6	5	3.74	90	5	1.88	1	23
10573	752.64	754.54	1.90	0.03	0.00	0.00	0.00	0.00	0.00	35	52	178	0	4.8	30	0.66	45	5	0.22	1	5
10574	754.54	756.54	2.00	0.03	0.00	0.00	0.00	0.00	0.00	14	8	141	0	0.2	5	1.25	175	5	0.35	1	4
10575	756.54	759.26	2.72	0.03	0.00	0.00	0.00	0.00	0.00	26	10	138	0	0.2	5	1.18	90	5	0.27	1	4



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Assays ...continued

Sample No.	From (m)	To (m)	interval (m)	Cr ppm	Fe %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Sb ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W ppm	Y ppm
10572	751.54	752.64	1.10	546	3.61	10	2.90	269	1	0.06	183	950	5	20	199	0.08	10	92	10	1
10573	752.64	754.54	1.90	16	2.36	10	0.38	147	5	0.04	2	390	5	20	26	0.04	10	1	10	3
10574	754.54	756.54	2.00	17	3.57	10	0.73	324	1	0.08	1	360	5	20	42	0.08	10	1	10	1
10575	756.54	759.26	3 2.72	17	2.55	10	0.74	290	1	0.07	3	320	5	20	17	0.07	10	. 1	10	7



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Collar Coordinates

North (m): East (m) Elevation (m): 15374.00 10663.00 114.00 Azimuth (degrees):

Dip (degrees): Length (m): 167.54 -57.86

423.37

Started: Completed:

03/10/2004 07/10/2004 Date Logged: Logged By: 03/10/2004 MA.

Report Printed:

17/12/2004

Down Hole Survey Tests

							DOW	I HOIC	Survey	, 1696	•						
Depth (m)	Azimuth	n Dip	Depth (m)	Ázimuth	Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	ı Dip
0.00	167.54	-57.86	79.24	168.85	-58.02	158.49	169.89	-58.12	237.74	171,21	-58.31	316.99	171.87	-58.63	396.24	172.35	-59.02
3.04	167.62	-57.92	82.29	168.88	-58.01	161.54	170.01	-58.12	240.79	171.27	-58.31	320.04	171.86	-58.62	399.29	172.37	-59.06
6.09	167.74	-57.91	85.34	168.92	-58.01	164.59	170.05	-58.12	243.84	171.26	-58.33	323.09	171.85	-58.62	402.34	172.41	-59.08
9.14	167.72	-57.89	88.39	168.93	-58.02	167.64	170.06	-58.11	246.89	171.36	-58.33	326.13	171.77	-58.68	405.38	172.43	-59.06
12.19	167.67	-57.92	91.44	168.98	-58.01	170.69	170.11	-58.11	249.93	171.47	-58.35	329.18	171.94	-58.65	408.43	172.46	-59.09
15.24	167.77	-57.94	94.48	169.04	-57.98	173.73	170.11	-58.11	252.98	171.47	-58.35	332.23	171.95	-58.64	411.48	172.42	-59.12
18.28	167.82	-57.95	97.53	169.00	-57.98	176.78	170.19	-58.11	256.03	171.53	-58.36	335.28	172.04	-58.68			
21.33	167.92	-57.96	100.58	169.09	-57.98	179.83	170.26	-58.11	259.08	171.53	-58.38	338.33	172.07	-58.72			
24.38	167.96	-57.99	103.63	169.11	-57.98	182.88	170.28	-58.13	262.13	171.58	-58.38	341.38	172.11	-58.74			
27.43	167.92	-58.01	106.68	169.18	-57.99	185.93	170.31	-58.16	265.17	171.66	-58.40	344.42	172.10	-58.74			
30.48	167.94	-58.03	109.72	169.22	-58.00	188.97	170.37	-58.16	268.22	171.69	-58.42	347.47	172.16	-58.74			
33.52	167.94	-58.03	112.77	169.22	-58.01	192.02	170.49	-58.18	271.27	171.69	-58.41	350.52	172.22	-58.71			
36.57	168.04	-58.04	115.82	169.28	-58.01	195.07	170.48	<i>-</i> 58.21	274.32	171.79	-58.42	353.57	172.19	-58.73			
39.62	168.12	-58.08	118.87	169.37	-58.03	198.12	170.55	-58.21	277.37	171.82	-58.43	356.62	172.23	-58.76			
42.67	168.18	-58.07	121.92	169.40	-58.05	201.17	170.65	-58.20	280.41	171.82	-58.45	359.66	172.29	-58.77			
45.72	168.24	-58.08	124.96	169.38	-58.06	204.21	170.73	-58.17	283.46	171.90	-58.44	362.71	172.31	-58.77			
48.76	168.32	-58.07	128.01	169.37	-58.06	207.26	170.85	-58.13	286.51	171.90	-58.45	365.76	172.30	-58.78			
51.81	168.41	-58.07	131.06	169.44	-58.06	210.31	170.88	-58.13	289.56	171.89	-58.46	368.81	172.27	-58.79			
54.86	168.48	-58.07	134.11	169.51	-58.09	213.36	170.86	-58.15	292.61	171.89	-58.45	371.86	172.30	-58.84			
57.91	168.56	-58.06	137.16	169.49	-58.11	216.41	170.96	-58.18	295.65	172.00	-58.46	374.90	172.22	-58.84			
60.96	168.65	-58.03	140.20	169.49	-58.13	219.45	170.95	-58.21	298.70	171.98	-58.47	377.95	172.23	-58.83			
64.00	168.68	-58.01	143.25	169.57	-58.12	222.50	170.98	-58.21	301.75	172.01	-58.49	381.00	172.20	-58.83			
67.05	168.68	-58.01	146.30	169.65	-58.11	225.55	171.10	-58.25	304.80	172.00	-58.52	384.05	172.16	-58.85			
70.10	168.72	-58.02	149.35	169.66	-58.10	228.60	171.05	-58.27	307.85	171.99	-58.53	387.10	172.26	-58.91			
73.15	168.80	-58.01	152.40	169.78	-58.09	231.65	171.11	-58.28	310.89	171.91	-58.57	390.14	172.27	-58.96			
76.20	168.79	-58.02	155.44	169.81	-58.10	234.69	171.13	-58.30	313.94	171.91	-58.60	393.19	172.32	-59.00			



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Interval	(m)	Description			Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From	То		·		No.	(m)	(m)	(m)	g/t 	g/t	%	%	%
0.00	1.52	Casing:	· .										

1.52 11.04 Rhyolite Flow: Hematite; Epidote

Classic Rhyolite Flow. Coarsely feldspar phyric, purple to grey rhyolite. Feldspars are ghostly grey to pale green, perhaps weakly sausseritized? (Partial conversion of EP or Ser) Matrix is glassy, variably hematite stained. Medium grey to maroon. Interval is cut by numberous hairline ep alt'd veins. Minor mechanical rubble. Minor carbonate coatings on late fractures 20-30 degrees TCA. Lower contact is transitional, decreased hematite over about 20 cm, also lapilli are noted approx 30 cm below contact.

11.04 19.00 Rhyolite Lapilli Ash Tuff: Hematite; Chlorite

Rhyolite lapilli ash tuff, chl and hem stained patchs. interval is defined by small to medium sized rounded lapilli is a variably alt'd ashy matrix. Matrix varies between chl and hem alt'd. Minor chl veining noted, 1-5 mm. Interval is feldspar phyric, particularly in hem alt'd intervals. These may be flows within the RLAT. Lower contact is conformable, transitional, clast size increases with depth.

- 16.10 17.32 Fault: Epidote; Rubbley flt zone. 1 piece of healed gouge, approx 20 cm. Flt appears to be 20 degrees TCA, BDY at FW or FLT
- 17.32 18.35 Basalt Dyke: Chlorite; Calcite; Broken Core; Rubbley Chl alt'd Basalt Dyke. abundant carbonate mud on fractures, HW broken 70 degrees TCA, FW shattered.

19.00 41.83 Rhyolite Debris Flow: Chlorite; Calcite; Epidote

Classic Rhyolite Debris Flow. Bleached felspar phyric rhyolite clasts in a variably alt'd ashy to feldspar phyric matrix. A gross coarsening downwards sequence occurs over this interval. Upper 4m of interval, clasts are generally <6cm, but clast size increases with depth, to possibly as large as 40 cm. Chl occurs as an alt'n of the ashy matrix or as veins. Minor ep alt'n of larger clasts. Minor late carbonate coated rough irregular fractures. Lower contact of RDF is sharp, marked by a 2 cm bleached zone with a 5 mm black chl (?) seam 85 degrees TCA.

27.00 27.20 Basalt Dyke: Chlorite; CHL alt'd Basalt Dyke. HW irregular, 80 degrees TCA, FW straight, 40 degrees TCA.

27.74 37.33 Basalt Dyke: Chlorite; Epidote; Magnetite; Large CHL alt'd BDY. Relatively massive,



Interval (m)

To

From

Redfern Resources Ltd. Diamond Drill Log Lithology Description

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%

Sample From To Interval Au Ag Cu Pb Zn

(m)

(m)

No.

cut by EP+ MAG seams with minor associated QTZ. Ep al'tn also as patches. HW Fuzzy, 55 degrees TCA, FW Straight, 50 degrees TCA.

40.78 41.19 Basalt Dyke: Chlorite; Magnetite; CHL and MAG alt'd BDY. HW ragged, straight, 45 degrees TCA. FW somewhat wavy to irregular, 60 degrees TCA.

41.83 92.59 Rhyolite Flow: Chlorite; Bleached; Hematite

Description

Rhyolite Flow, feldspar phyric. Classic purple rhyolite flow, abundant feldspars in a glassy hematite stained to chl alt'd matrix. Feldspars variably sausseritized along micro fractures. Chl occurs as a pervassive alt'n of matrix locally and as crackly veins RFX?? Feldspars are locally very well preserved, and stand out, white, 0.5-4mm.

- 46.16 46.83 Rhyolite Flow Breccia: Chlorite; Abundant angular chl veins possibly Rhyolite FLow Breccia, contacts poorly developed, veining fades over 10 cm.
- 49.97 50.46 Feldspar-phyric Rhyolite Flow: Chlorite; Extremely feldspar rich, possilby a sill. HW shattered, FW transitional, 35 degrees TCA, feldspars are 1-2 mm white and vey pronounced against a chl alt'd matrix.
- 50.46 52.40 Rhyolite Flow Breccia: Bleached; Possible rhyolite flow breccia. Bleached pale green grey with abundant feldspars, throughout this interval is a network of v. fine chi veins, 1-3 mm, this may also be caused by the local basalt dyking.
- 52.40 54.49 Basalt Dyke: Chlorite; Quartz Vein; Wkly alt'd Basalt Dyke, cut by several 1-2 cm qtz-chl-py-mag veins. HW 55 degrees TCA, FW 40 degrees TCA.
- 55.57 56.28 Basalt Dyke: Chlorite; CHL alt'd basalt dyke, contacts are sharp, straight, 50 degrees TCA.
- 56.84 57.61 Rhyolite Flow Breccia: Chlorite; Abundant angular chl veins, each with a bleached
- 61.60 62.80 Basalt Dyke: Chlorite; CHL alt'd BDY, HW ragged, 50 degrees TCA, FW sharp, straight, 50 degrees TCA.

92.59 106.98 Rhyolite Debris Flow: Chlorite

Rhyolite Debris Flow. Feldspar phyric bleached rhyolite clasts (RFL1) in an ashy matrix. Clasts are pale green to blueish green, rarely with hematite staining. Clasts range from 2-25 cm with larger clasts possibly being disarticulated. Matrix is ashy and chl alt'd, Rare qtz-vein, 70-90 degrees TCA. Minor bleaching around ep and chl filled fractures. Approx 2 m of wk rubble towards



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Zn

%

Interval (m)

From

To

Description

Sample No.

From (m) (m)

Interval (m)

Au g/t

g/t

Cu Pb % %

contact. Contact is chl darkend, sharp and wavy, 80 degrees TCA.

99.82 101.74 Basalt Dyke: Chlorite; CHL alt'd BDY, HW sharp, 50 degrees TCA, straight, FW Irregular, 30 degrees TCA.

105.77 105.95 Fault: Calcite; Hematite; Thin healed flt, 55 degrees TCA.

106.98 261.36 Basalt Intrusive: Chlorite

Massive ChI alt'd BIN, rarely feldspar phyric, mostly homogenous dark green to black mafic intrusive. Variably moderately to strongly magnetic. Rare veining, chl, qtz, carb. Rare possible rhyolite xenolith noted, partially absorbed. Lower contact sharp, wavy, intrusive, 45 degrees TCA. 134.27 135.84 Fault Zone: Broken Core; Rubble or Flt zone. broken and spun by drill, broken carbonate vein material.

200.95 201.05 Fault: Muddy Flt, 55 Degrees TCA.

261.36

269.44 Sloko Rhyolite Dyke: Calcite; Feldspar

Sloko Rhyolite Dyke. Distinctive flow banding noted, particularly at contacts, but also patchy througout. Banding is 10-45 degrees TCA. Also distinctive of the SRD is a black peppering throughout, possibly tourmaline? The interval of SRD is feldspar phyric in patches and rubbley, particularly towards lower contact. Fractures are <40 degrees TCA and coated with thin calcite. Lower contact is a small pulverized fault, carbonate rich, no angle of fault preserved.

305.49 Rhyolite Debris Flow: Chlorite; Hematite; Magnetite 269.44

Rhyolite Debris flow. Feldspar phyric. Classic RDF, mottled pale and dark green with occassional purple. Matrix is a chloritized ash, with local feldspars, Clasts vary in size from 1-25 cm generally coarsening downwards. Clasts are variably bleached, from pristine purple to pale green. Rare chl+ep veins, generally <1cm but rarely to 10 cm, all with bleached margins, these generally appear to be fracture related. Upper 80 cm of the interval is rubbley, with carbonate on fracture surfaces, 1 micro fault noted, chl vein offset approximately 2.5 cm, right lateral. Flt plane is ramped but generally about 10 degrees TCA. Final metre of interval the RDF appears to be finer than usual, clasts are in the 2-5 cm range. Lower contact with massive sulphide sharp, sericite altered, 50 degrees TCA.

288.43 288.50 Basait Dyke: Chlorite; Chl alt'd Basait Dyke, razor sharp contacts, 80-90 degrees TCA.

10369 304.50 305.49 0.99 0.03 0.00 0.00 0.00 0.00



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Interva	l (m)	Description	Sample	From	To	Interval	Au	Ag	Cu	Pb	Zn
From	То		No.	(m)	(m)	(m)	g/t	g/t	%	%	%
		289.09 289.17 Basalt Dyke: Chlorite; CHL alt'd Basalt dyke very similar to above, razor sharp contacts, 80-90 degrees TCA.									
		295.00 297.40 Rhyolite Debris Flow: Quartz-Sericite-Pyrite Alteration; Cordierite; Wk ser alt'n speckled with leucoxene. Alteration fades in and out over 10 cm. Cord porhroblasts									
		noted in this interval as well, 3-5 mm, blue.									
305.49	309.98	Zinc Facies Massive Sulphide: Massive Sulphide									
		Massive Sulphide. Sphalerite is dominant economic sulphide, minor cpy and gal. There is abundant	10371	305.49	306.4	3 0.94	4.13	90.60	1.01	1.21	8.95
		py throughout, probably greater than sphal. Sulphides are well banded, 10-50 degrees TCA. Minor	10372	306.43	307.2	2 0.79	0.72	11.10	0.22	0.13	0.46
		wormy qtz veins, perhaps folded. Sphalerite ranges from pale silvery grey to reddish brown,	10373	307.22	308.5	0 1.28	3.73	106.00	1.37	1.39	5.85
		10-15%. Py, (30%) appears to be recrystallized. VFG bedded py transformed into coarse granular.	10374	308.50	309.9	8 1.48	1.61	50.70	0.80	1.02	5.05
		Interval appears to be poor in TET and barite. Galena is a vfg accessory mineral, 1%. Cpy 5%									
		secondary, x-cuts banding and as clots. Lower contact is sharp, wavy, 65 degrees TCA.									
		306.43 307.22 Pyrite Facies Massive Sulphide: Massive Pyrite. Fine grained to granular, minor qtz, banded 10-50 degrees TCA.									
309.98	311.23	Rhyolite Flow: Disseminated Pyrite									
		Rhyolite Sill?? Appears to be similar to a rhyolite flow, however it is difficult to imagine an	10375	309.98	311.2	23 1.25	0.15	1.10	0.02	0.02	0.0
		unaltered flow in the MSSX, likely a late stage sill, possibly absorbing some of the SX giving the									
		DPY. Unit is mottled grey with white patches, abundant feldspars, matrix is glassy grey. Mottling									
		appears to be alt'n related, looks similar to bleached clasts. 1% vfg dissem py, and as fracture									
		fill. Lower contact marked by 2 cm ser alt'n wavy and sharp, 45 degrees TCA.									
311.23	313.42	Copper Facies: Pyrite; Sphalerite									
		Copper facies massive sulphide. Well banded massive sulphide with abundant cpy and sphal. CPy	10376	311.23	312.6	34 1.41	2.62	74.50	1.86	1.22	6.7
		appears to be a secondary mineral, appearing as clots that x-cut banding, 10-12%. Both py and	10377	312.64	313.4	0.78	0.95	11.30	0.89	0.02	0.2
		sphal form distinct banding or bedding 60-70 degrees TCA. Py is dominantly vfg with local									
		coarsening by replacement?? Sphal is well banded, pale brown to red, 10% of interval. Trace									
		barite as nodules. Galena noted as vfg crystals with sphal, possible sooty black tet associated									
		with barite. Abundant green to black ser. Lower contact, sharp, straight, planar, dramatic drop									
		in sulphides.									
		312.64 313.63 Basalt Dyke: Chlorite; Biotite; Basalt Dyke, patchy chl and bio (?) alt'n. HW									



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Interva From	l (m) To	Description	Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %
		sharp, planar, 75 degrees TCA, FW wavy, 80 degrees TCA.									
313.42	321.96	Quartz-Sericite-Pyrite Alteration: Rhyolite Lapilli Ash Tuff									
		Qtz-Ser-Py alt'd RLAT? Green to grey throughout. Upper metre of interval is dominated by waxy	10378	313.42	314.5	0 1.08	0.17	0.00	0.00	0.00	0.00
		sericite speckled with leucoxene grading into grey silc'd RLAT with pale brown ser and leucoxene	10379	314.50	316.5	0 2.00	0.26	0.00	0.00	0.00	0.00
		patches. Sub rounded to angular clasts are still preserved, possible wk bedding 50 degrees TCA.	10380	316.50	318.5	0 2.00	0.25	0.00	0.00	0.00	0.00
		Lower contact gradual, sericte alt'n fades and there is a possible protolith change.	10381	318.50	320.5	0 2.00	0.27	0.00	0.00	0.00	0.00
			10382	320.50	321.9	6 1.46	0.56	0.00	0.00	0.00	0.00
321.96	339.66	Stockwork: Silica									
		Stockwork mineralized zone. Prominent feature of this interval is a stockwork of sulphide veins	10383	321.96	324.0	0 2.04	0.16	0.00	0.00	0.00	0.00
		throughout the core. Sulphide veins from mm scale up to 40 cm. Granular py is dominant sulphide,	10384	324.00	326.0	0 2.00	0.47	0.00	0.00	0.00	0.00
		30-40% of interval, with lesser red sphal and cpy. Rare 1-5 cm qtz veins with sooty rims of	10385	326.00	328.0	0 2.00	0.50	11.60	0.19	0.10	1.08
		tetrahedrite. Another distinctive feature noted in this interval is qtz and py filled amygdules,	10386	328.00	330.0	0 2.00	0.45	16.10	0.13	0.06	1.54
		somewhat flattened 3-5 mm. Minor late fracturing with this calcite infill. Lower contact sharp,	10387	330.00	332.0	0 2.00	0.77	42.30	0.77	0.03	0.64
		50 degrees TCA, marked by a massive increase in sulphides, conformable???	10388	332.00	334.0	0 2.00	0.25	0.00	0.00	0.00	0.00
			10389	334.00	336.0	0 2.00	0.13	0.00	0.00	0.00	0.00
			10390	336.00	338.0	00 2.00	0.34	0.00	0.00	0.00	0.00
			10392	338.00	339.6	6 1.66	0.46	0.00	0.00	0.00	0.00
339.66	354.95	Massive Sulphide: Sphalerite									
		Massive sulphide, py rich. Well banded/bedded py rich massive sulphide. Py is dominant gaunge	10393	339.66	340.	50 0.84	2.87	74.90	2.37	0.69	12.70
		mineral, possibly 50-60 % by volume, generally vfg, banded, with secondary granular py,	10395	340.50	341.	50 1.00	2.47	62.90	2.04	0.66	15.60
		re-crystalized. Sphal is pale brown to red. Well banded, appears to be primary banding 40 degrees	10396	341.50	342.5	50 1.00	2.92	81.30	1.33	1.45	8.39
		TCA. Cpy appears as bands, nodules and clots. Clots are rarely intergrown with TET and possibly	10397	342.50	343.	50 1.00	0.96	24.20	0.58	0.12	1.08
		bornite. Interval is noticibly poor in barite banding, barite does occur interstially to	10398	343.50	344.	50 1.00	1.20	35.30	1.45	0.02	0.42
		sulphides. Abundant green to black sericite within sulphide bands. Rare clasts of possible chert	10399	344.50	345.	50 1.00	2.00	66.20	2.01	1.28	7.58
		or extremely leached rhyolite? Towards FW the sulphides become more patch or clastic, conformable	10400	345.50	346.	78 1.28	2.41	104.00	2.08	1.85	8.45
		lower contact? Several x-cutting tetrahedrite veinlets are noted towards LC, 1-2 mm with accessory	10401	346.78	348.	51 1.73	1.08	18.50	0.29	0.19	0.70
		cpy and sphal.	10402	348.51	348.8	33 0.32	10.20	168.00	4.76	2.39	14.10
		346.78 348.51 Pyrite Facies Massive Sulphide: Massive py, fine grained to granular.	10403	348.83	350.2	22 1.39	0.61	0.00	0.00	0.00	0.00
		348.83 350.95 Basalt Dyke: Chlorite; Chalcopyrite; Biotite; Cpy bearing chl alt'd BDY. CPy as	10404	350.22	350.9	95 0.73	0.03	0.00	0.00	0.00	0.00



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Interva	ıl (m)	Description	Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From	То		No.	(m)	(m)	(m)	g/t	g/t	%	%	%
		clots and within veins in the upper ~1.5 m of the dyke, chl and qtz-veins cut across	10405	350.95	352.0	00 1.05	1.82	0.00	0.00	0.00	0.00
		a green brown bio alt'd BDY. Below the vein zone dyke is realtively massive and chl	10406	352.00	353.0	00 1.00	0.48	0.00	0.00	0.00	0.00
		alt'd. HW sharp, wavy, 70 degrees TCA. LC ragged, 85 degrees TCA.	10407	353.00	354.0	00 1.00	0.45	0.00	0.00	0.00	0.00
			10408	354.00	354.9	95 0.95	1.17	34.30	0.24	0.10	6.46
354.95	365.34	Stockwork: Pyrite; Sphalerite									
		Highly Silc'd Stockwork Zone. STWK is defined by numerous curvy, disontinuous veins of strong ser	10409	354.95	356.0	00 1.05	0.72	12.60	0.06	0.08	1.17
		alt. Pale to dark grey with abundant clasts of py and sphal (DBF??) Sphal is pale yellow to	10410	356.00	358.0	00 2.00	0.37	0.00	0.00	0.00	0.00
		red-brown, dissem to nodular. Py is granular and appears in clots up to 6 cm. Clasts of highly	10411	358.00	360.	00 2.00	0.19	0.00	0.00	0.00	0.00
		ser alt'd rhyolite noted, possible that this unit is a highly alt'd DBF or RDF? Rare, qtz- chl	10413	360.00	362.	00 2.00	0.23	0.00	0.00	0.00	0.00
		veins/knots. Py grains rarely with black sooty rims, TET? Lower contact is marked by 30 cm	10414	362.00	364.	00 2.00	0.15	0.00	0.00	0.00	0.00
		bleached zone, but is generally transitional, increased sericite with depth.	10415	364.00	365.	34 1.34	0.25	0.00	0.00	0.00	0.00
365.34	392.45	Quartz-Sericite-Pyrite Alteration: Disseminated Pyrite; Sphalerite									
		Qtz-ser-py alt'd rhyolite. Distinctive characteristic of this interval is patches of waxy green to	10416	365.34	367.	00 1.66	0.24	0.00	0.00	0.00	0.00
		brown sericite speckled with leucoxene. Interval is mottled grey to green. 3-5% dissem granular	10417	367.00	368.	00 1.00	0.05	0.00	0.00	0.00	0.00
		py, 1-3 cm occasionaly with sooty coatings, definate TET observed, but rare. Sphal noted	10419	368.00	370.	00 2.00	0.18	0.00	0.00	0.00	0.00
		throughout, dissem 1-2% pale orange to red. ~383.75 ser alt'n increases, rhyolite fragments as	10420	370.00	372.0	00 2.00	0.06	0.00	0.00	0.00	0.00
		strongly alt'd/leached, almost chert. Lower contact is sharp and conformable, marked by a massive	10421	372.00	374.	00 2.00	0.12	0.00	0.00	0.00	0.00
		increase in sulphides, 55 degrees TCA.	10422	374.00	376.	00 2.00	0.19	0.00	0.00	0.00	0.00
		391.64 391.75 Basalt Dyke: Pyrite; Biotite; Py and bio alt'd Basalt Dyke. Early? HW broken,	10423	376.00	378.	00 2.00	0.13	0.00	0.00	0.00	0.00
		straight, 74 degrees TCA, FW broken straight, 65 degrees TCA.	10425	378.00	380.	00 2.00	0.04	0.00	0.00	0.00	0.00
			10426	380,00	382.	00 2.00	0.05	0.00	0.00	0.00	0.00
			10427	382.00	384.	00 2.00	0.07	0.00	0.00	0.00	0.00
			10428	384.00	386.	00 2.00	0.07	0.00	0.00	0.00	0.00
			10429	386.00	388.	01 2.01	0.06	0.00	0.00	0.00	0.00
			10430	388.01	390.	00 1.99	0.21	0.00	0.00	0.00	0.00
			10431	390.00	391.	50 1.50	0.66	0.00	0.00	0.00	0.00
			10432	391.50	392.	45 0.95	0.39	0.00	0.00	0.00	0.00
392.45	394.57	Pyrite Facies Massive Sulphide:									
		Pyrite facies mineralization. Vfg to granular pyrite with dark brown sericite. Wavy banding or	10433	392.45	393.	86 1.41	0.79	0.00	0.00	0.00	0.00



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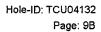
Interva From	ıl (m) To	Description	Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %
		bedding 35-60 degrees TCA. Tace red sphal as nodules, minimal barite through interval, rare small nodules. There may be significant amount of brown sphal or leucoxene in this inteval, non-metallic pale brown. Lower contact of MSSX marked by mineralized dyke.	10434	393.86	394.	57 0.71	1.02	0.00	0.00	0.00	0.00
		393.86 394.00 Basalt Dyke: Sericite; Pyrite; Biotite; Ser and Py alt'd BDY. Granular py. Unusual txt at HW, pseudo-fibreous sericite (almost like serpentine txt). Bio alt'n at core									
		of dyke. Contacts are razor sharp, straight, 70 degrees TCA. 394.35 394.57 Basalt Dyke: Sericite; Pyrite; Biotite; Unusual BDY, similar to above. Abundant (10%) coarse granular py in a ser alt'd BDY, relict bio alt'n at core of dyke. Minor chl near FW. Contact wavy 50 degrees TCA. This dyke marks FW of MSSX.									
394.57	395.19	Basalt Dyke: Chlorite									
		Chl alt'd basalt dyke? Minor ep-chl veinlets, possible 3-5 mm amygdules. HW 40 degrees TCA, FW sharp, wavy 45 degrees TCA.	10435	394.57	395.	19 0.62	0.03	0.00	0.00	0.00	0.00
395.19	401.89	Quartz-Sericite-Pyrite Alteration:									
		Qtz-Ser-Py alt'd rhyolites. Silica and py alt'n dominant with lesser sericite than earlier	10436	395.19	397.	00 1.81	0.13	0.00	0.00	0.00	0.00
		intervals. Interval is mottled grey to dark grey, with rare preserved rhyolite clasts, to 15 cm,	10437	397.00	398.	98 1.98	0.17	0.00	0.00	0.00	0.00
		RDF??. Numerous small sub angular clasts (Possible alteration artifact) give the core a pseudo	10439	398.98	399.	98 1.00	0.10	0.00	0.00	0.00	0.00
		hyaloclastite txt. Py is granular, possibly secondary, 15-20%. Minor amounts of red sphal as stringers or clots. Lower contact is marked by as transitional textural change. The core becomes more frothy, with more amygdules with depth.	10440	399.98	401.	89 1.91	0.09	0.00	0.00	0.00	0.00
401.89	423.37	Amygdaloidal Basalt: Quartz-Sericite-Pyrite Alteration; Pyrite; Silica									
		Silc'd-Bleached Amygdaloidal Basalt Flows. Unit is defined a by a frothy txt, abundand amygdules filled with py, ser and qtz. Possible two phases of amydule infill, py and ser into smaller	10441	401.89	402.	89 1.00	0.12	0.00	0.00	0.00	0.00
		amygdules while larger (>1cm) filled with white qtz. Frothiness is cyclical, flow tops? Less									
		gassy towards the centre of the flow? Minor late bullish qtz-veins									
		418.82 419.19 Basalt Dyke: Chlorite; Pyrite; CHL and PY alt'd BDY. HW ragged, 20 degrees TCA, FW sharp, planar, 40 degrees TCA.									
423.37	423.37	End of Hole:									



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Assays

Sample	From	To	Interval	Au	Ag	Cu	Pb	Zn	SG	Cu	Pb	Zn	Au	Ag	As	Al	Ва	Bi	Са	Cd	Со
No.	(m)	(m)	(m)	g/t	g/t	%	%	%		ppm	ppm	ppm	ppb	ppm	ppm	%	ppm	ppm	. %	ppm	ppm
10369	304.50	305.49	0.99	0.03	0.00	0.00	0.00	0.00	0.00	64	28	240	0	0.2	15	2.24	425	5	0.49	1	2
10371	305.49	306.43	0.94	4.13	90.60	1.01	1.21	8.95	3.13	10000	10000	10000	0	30.0	505	0.39	20	5	0.19	428	5
10372	306.43	307.22	0.79	0.72	11.10	0.22	0.13	0.46	3.00	2189	1348	4646	0	11.1	40	0.27	35	5	0.07	20	7
10373	307.22	308.50	1.28	3.73	106.00	1.37	1.39	5.85	3.40	10000	10000	10000	0	30.0	580	0.63	40	5	0.16	243	7
10374	308.50	309.98	1.48	1.61	50.70	0.80	1.02	5.05	3.08	7926	10000	10000	0	30.0	290	0.66	25	5	0.18	213	6
10375	309.98	311.23	1.25	0.15	1.10	0.02	0.02	0.07	3.00	240	200	681	0	1.1	15	1.35	90	5	0.45	2	4
10376	311.23	312.64	1.41	2.62	74.50	1.86	1.22	6.78	3.62	10000	10000	10000	0	30.0	680	1.00	45	5	0.45	288	8
10377	312.64	313.42	0.78	0.95	11.30	0.89	0.02	0.25	3.00	8854	156	2508	0	11.3	155	3.50	45	5	1.33	9	33
10378	313.42	314.50	1.08	0.17	0.00	0.00	0.00	0.00	0.00	68	62	218	0	1.3	100	0.73	15	5	0.33	1	3
10379	314.50	316.50	2.00	0.26	0.00	0.00	0.00	0.00	0.00	31	58	113	0	6.1	50	0.46	25	5	0.18	1	4
10380	316.50	318.50	2.00	0.25	0.00	0.00	0.00	0.00	0.00	26	64	177	0	8.1	110	0.40	30	5	0.16	1	5
10381	318.50	320.50	2.00	0.27	0,00	0.00	0.00	0.00	0.00	24	94	249	0	7.9	140	0.37	30	5	0.17	1	3
10382	320.50	321.96	1.46	0.56	0.00	0.00	0.00	0.00	0.00	31	146	291	0	8.5	175	0.37	25	5	0.13	1	5
10383	321.96	324.00	2.04	0.16	0.00	0.00	0.00	0.00	0.00	55	614	1104	0	3.6	130	0.28	30	5	0.19	2	2
10384	324.00			0.47	0.00	0.00	0.00	0.00	0.00	275	1062	2762	0	11.1	255	0.25	25	. 5	0.37	9	8
10385		328.00	<u>-</u>	0.50	11.60	0.19	0.10	1.08	2.94	1821	974	10000	. 0	12.8	805	0.27	30	5	0.30	39	12
10386	328.00			0.45	16.10	0.13	0.06	1.54	3.02	1206	574	10000	0	16.0	645	0.24	35	. 5	0.30	61	12
10387	330.00		-	0.77	42.30	0.77	0.03	0.64	3.70	7472	298	6253	0	30.0	2020	0.16	40	5	0.17	11	9
10388		334.00		0.25	0.00	0.00	0.00	0.00	0.00	684	268	1334	0	13.4	340	0.29	30	5	0.33	2	13
10389	334.00	336.00		0.13	0.00	0.00	0.00	0.00	0.00	93	120	1472	0	4.4	180	0.40	20	5	0.50	4	13
10390	336.00	338.00		0.34	0.00	0.00	0.00	0.00	0.00	54	86	1753	0	3.1	155	0.47	20	5	0.64	5	14
10392	338.00	339.66		0.46	0.00	0.00	0.00	0.00	0.00	198	168	1589	0	5.6	200	0.43	25	5	0.53	4	13
10393	339.66	340.50		2.87	74.90	2.37	0.69	12.70	4.17	10000	6804	10000	0	30.0	965	0.13	40	5	0.12	610	. 7
10395	340.50			2.47	62.90	2.04	0.66	15.60	4.11	10000	6350	10000	0	30.0	730	0.03	30	5	0.03	755	5
10396	341.50	342.50		2.92	81.30	1.33	1.45	8.39	3.45	10000	10000	10000	0	30.0	1070	0.33	25	5	0.15	409	10
10397	342.50			0.96	24.20	0.58	0.12	1.08	4.07	5726	1128	10000	0	23.3	655	0.18	35	5	0.08	41	8
10398		344.50		1.20	35.30	1.45	0.02	0.42	4.08	10000	156	4053	0	30.0	650	0.26	40	5	0.11	. 12	8
10399		345.50		2.00	66.20	2.01	1.28	7.58	3.93	10000	10000	10000	0	30.0	760	0.34	40	5	0.13	372	8
10400	345.50				104.00	2.08	1.85	8.45	3.34	10000	10000	10000	0	30.0	2500	0.25	30	5	0.21	435	12
10401		348.51		1.08	18.50	0.29	0.19	0.70	4.00	2916	1870	6995	0	18.5	405	0.20	40	5	0.11	22	7
10402		348.83		10.20	168.00	4.76	2.39	14.10	4.06	10000	10000	10000	0	30.0	1165	0.49	70	5	0.10	656	17
10403	348.83			0.61	0.00	0.00	0.00	0.00	0.00	3248	1082	2339	0	6.5	125	5.24	25	5	2.76	9	34
10404	350.22	350.95	0.73	0.03	0.00	0.00	0.00	0.00	0.00	144	140	297	0	0.3	185	5.27	195	5	2.33	1	36





Assays ...continued

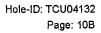
Sample	From	То	Interval	Cr	Fe	La	Mg	Mn	Мо	Na	Ni	Р	Sb	Sn	Sr	Ti	U	٧	W	Y
No.	(m)	(m)	(m)	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm
0369	304.50	305.49	0.99	30	1.82	10	1.43	355	1	0.11	1	220	10	20	87	0.12	10	1	10	1
0371	305.49	306.43	0.94	31	7.43	10	0.22	83	1	0.02	1	10	295	20	34	0.01	10	2	10	1
0372	306.43	307.22	0.79	48	10.00	10	0.04	11	9	0.01	1	10	5	20	14	0.01	10	1	10	1
0373	307.22	308.50	1.28	42	10.00	10	0.56	124	1	0.02	1	10	170	20	29	0.01	10	2	10	1
0374	308.50	309,98	3 1.48	42	7.78	10	0.60	127	1	0.02	1	10	170	20	25	0.01	10	2	10	· 1
0375	309.98	311.23	3 1.25	55	1.50	10	0.94	395	2	0.10	2	170	5	20	27	0.11	10	1	10	2
0376	311.23	312.64	1 1.41	43	10.00	10	0.87	163	1	0.02	. 1	10	15	20	18	0.02	10	9	10	1
377	312.64	313.42	2 0.78	731	10.00	10	3.58	436	10	0.03	285	550	5	20	86	0.15	10	144	10	1
378	313.42	314.50	1.08	39	2.73	10	0.35	123	5	0.02	3	140	5	20	34	0.01	10	1	10	1
0379	314.50	316.50	2.00	32	2.99	10	0.18	91	5	0.01	3	110	5	20	16	0.01	10	1	10	1
0380	316.50	318.50	2.00	31	3.33	- 10	0.13	108	4	0.01	2	290	5	20	9	0.01	10	1	10	1
0381	318.50	320.50	2.00	26	3.56	10	0.11	102	5	0.01	2	260	5	20	8	0.01	10	1	10	1
0382	320.50	321.9	1.46	38	4.05	10	0.15	129	4	0.01	3	230	5	20	1	0.01	10	1	10	1
0383	321.96	324.00	2.04	46	2.86	10	0.05	94	4	0.01	3	300	5	20	1	0.01	10	1	10	1
384	324.00	326.00	2.00	38	7.07	10	0.01	83	5	0.01	1	1000	15	20	5	0.01	10.	2	10	1
385	326.00	328.00	2.00	42	10.00	10	0.01	79	9	0.01	1	550	55	20	4	0.01	10	3	10	1
0386	328.00	330.00	2.00	40	10.00	10	0.01	89	4	0.01	1	740	5	20	3	0.01	10	3	10	1
0387	330.00	332.00	2.00	57	10.00	10	0.01	58	10	0.01	1	100	5	20	3	0.01	10	3	10	1
388	332.00	334.00	2.00	51	10.00	10	0.01	70	9	0.01	1	1230	5	20	11	0.01	10	3	10	1
0389	334.00	336.0	2.00	49	7.57	10	0.05	98	7	0.01	2	1620	5	20	12	0.01	10	5	10	1
0390	336.00	338.0	2.00	51	6.41	10	0.07	112	5	0.04	1	1130	5	20	15	0.03	10	1	10	1
0392	338.00	339.6	3 1.66	45	9.41	10	0.07	79	8	0.05	1	1150	5	20	16	0.02	10	1	10	1
0393	339.66	340.50	0.84	29	10.00	10	0.01	83	1	0.01	1	10	90	20	18	0.01	10	4	10	1
395	340.50	341.5	1.00	19	10.00	10	0.01	103	1	0.01	1	10	15	20	30	0.01	10	2	10	1
0396	341.50	342.5	1.00	46	10.00	10	0.10	94	1	0.01	1	10	135	20	12	0.01	10	3	10	1
0397	342.50	343.50	1.00	50	10.00	10	0.01	14	6	0.01	1	10	30	20	15	0.01	10	2	10	1
0398	343.50	344.5	1.00	48	10.00	10	0.11	40	9	0.01	1	10	15	20	17	0.01	10	2	10	1
399	344.50	345.50	1.00	47	10.00	10	0.18	86	1	0.01	1	10	25	20	19	0.01	10	3	10	1
0400	345.50	346.78	3 1.28	45	10.00	10	0.03	104	1	0.01	1	10	115	20	32	0.01	10	3	10	1
0401	346.78	348.5	1 1.73	47	10.00	10	0.01	13	9	0.01	1	10	5	20	19	0.01	10	3	10	1
0402	348.51	348.8	3 0.32	36	10.00	10	0.03	182	1	0.01	37	10	55	20	34	0.01	10	7	10	1
0403	348.83	350.2	2 1.39	564	5.15	. 10	3.00	482	1	0.07	251	1270	5	20	498	0.24	10	128	10	1
0404	350.22	350.9	5 0.73	834	3.95	10	3.80	451	1	0.04	386	1370	5	20	320	0.12	10	132	10	1



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Assays

Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %	SG	Cu ppm	Pb ppm:	Zn ppm	Au ppb	Ag ppm	As ppm	AI %	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm
10405	350.95	352.00	1.05	1.82	0.00	0.00	0.00	0.00	0.00	234	1780	3792	0	26.2	395	0.60	25	5	0.26	11	23
10406	352.00	353.00	1.00	0.48	0.00	0.00	0.00	0.00	0.00	380	366	1857	0	12.5	375	0.28	30	5	0.12	1	23
10407	353.00	354.00	1.00	0.45	0.00	0.00	0.00	0.00	0.00	214	332	5955	0	7.8	375	0.20	30	5	0.11	18	32
10408	354.00	354.95	0.95	1.17	34.30	0.24	0.10	6.46	2.98	2308	1044	10000	0	30.0	1555	0,17	25	5	0.05	266	20
10409	354.95	356.00	1.05	0.72	12.60	0.06	80.0	1.17	2.77	523	820	10000	0	12.6	455	0.19	20	5	0.04	44	5
10410	356.00	358.00	2.00	0.37	0.00	0.00	0.00	0.00	0.00	240	254	5712	0	5.5	225	0.16	25	5	0.02	21	4
10411	358.00	360.00	2.00	0.19	0.00	0.00	0.00	0.00	0.00	227	284	9271	0	3.1	285	0.18	25	5	0.03	35	4
10413	360.00	362.00	2.00	0.23	0.00	0.00	0.00	0.00	0.00	291	170	8944	0	3.1	340	0.17	25	5	0.03	35	7
10414	362.00	364.00	2.00	0.15	0.00	0.00	0.00	0.00	0.00	162	666	3069	0	2.7	260	0.22	25	5	0.05	10	15
10415	364.00			0.25	0.00	0.00	0.00	0.00	0.00	142	244	1900	0	3.0	355	0.22	25	5	0.09	4	34
10416		367.00		0.24	0.00	0.00	0.00	0.00	0.00	729	534	6926	0	8.3	520	0.22	15	5	0.14	24	32
10417	367.00	368.00		0.05	0.00	0.00	0.00	0.00	0.00	341	280	3451	0	2.0	235	0.20	20	5	0.14	11	8
10419	368.00	370.00		0.18	0.00	0.00	0.00	0.00	0.00	1292	610	6124	0	8.5	670	0.20	20	5	0.10	19	16
10420	370.00	372.00		0.06	0.00	0.00	0.00	0.00	0.00	943	224	4344	0	2.6	425	0.25	20	5 5	0.12	13	3 7
10421	372.00			0.12	0.00	0.00	0.00	0.00	0.00	910	582	5690	0	2.1	450 1000	0.28 0.34	15 15	5 5	0.11 0.15	18 9	7
10422		376.00		0.19	0.00	0.00	0.00	0.00	0.00	2225	838	4030	0	3.1 0.7	250	0.34	20	5	0.13	2	3
10423	- 10 TO NO.	378.00		0.13	0.00	0.00	0.00	0.00	0.00	455 171	720 638	1006 1164	0	0.7	250 95	0.30	20	5	0.16	4	3
10425		380.00		0.04	0.00	0.00	0.00	0.00	0.00	1139	770	1584	0	1.6	570	0.35	25	5	0.15	2	7
10426		382.00		0.05	0.00	0.00	0.00	0.00	0.00	630	102	1271	0	1.1	325	0.31	25	5	0.14	2	, 10
10427 10428	382.00 384.00			0.07 0.07	0.00	0.00	0.00	0.00	0.00	165	102	845	0	1.6	175	0.24	30	5	0.09	2	12
10429	386.00	388.01		0.06	0.00	0.00	0.00	0.00	0.00	29	26	222	0	0.6	90	0.23	30	5	0.08	1	. 9
10429	388.01	390.00		0.00	0.00	0.00	0.00	0.00	0.00	553	654	5381	0	10.0	425	0.21	15	5	0.08	18	4
10431	390.00			0.66	0.00	0.00	0.00	0.00	0.00	229	206	3154	0	4.6	275	0.30	15	5	0.08	10	3
10432		392.45		0.39	0.00	0.00	0.00	0.00	0.00	91	162	1293	0	3.1	255	0.55	25	5	0.18	3	7
10433		393.86		0.79	0.00	0.00	0.00	0.00	0.00	118	68	1275	0	12.6	230	0.58	35	10	0.31	2	16
10434	393.86	394.57	0.71	1.02	0.00	0.00	0.00	0.00	0.00	70	40	498	0	7.6	195	1.77	35	5	0.78	1	27
10435	394.57			0.03	0.00	0.00	0.00	0.00	0.00	30	30	137	0	0.3	130	4.22	155	5	2.18	1	21
10436	395.19	397.00	1.81	0.13	0.00	0.00	0.00	0.00	0.00	68	100	430	0	3.4	250	0.85	25	5	0.66	1	15
10437	397.00	398.98	1.98	0.17	0.00	0.00	0.00	0.00	0.00	53	44	521	0	3.6	235	0.45	15	5	0.49	1	14
10439	398.98	399.98	1.00	0.10	0.00	0.00	0.00	0.00	0.00	48	30	1445	0	3.7	165	0.37	15	5	0.47	4	12
10440	399.98	401.89	1.91	0.09	0.00	0.00	0.00	0.00	0.00	31	34	229	0	3.4	115	0.47	.10	5	0.59	1	9
10441	401.89	402.89	1.00	0.12	0.00	0.00	0.00	0.00	0.00	26	66	952	0	2.3	105	0.31	10	5	0.60	3	10





Assays ...continued

Sample No.	From (m)	To li	nterval (m)	Cr ppm	Fe %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Sb ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W ppm	Y ppm
10405	350.95	352.00	1.05	69	7.18	10	0.20	65	8	0.01	19	10	40	20	23	0.01	10	20	10	1
10406	352.00	353.00	1.00	46	10.00	10	0.01	49	13	0.01	14	10	5	20	3	0.01	10	9	10	1
10407	353.00	354.00	1.00	37	10.00	10	0.01	62	11	0.01	16	10	5	20	1	0.01	10	9	10	1
10408	354.00	354.95	0.95	58	10.00	10	0.01	91	1	0.01	1	10	170	20	1	0.01	10	6	10	1
10409	354.95	356.00	1.05	75	7.48	10	0.01	58	5	0.01	1	10	40	20	1	0.01	10	1	10	1
10410	356.00	358.00	2.00	52	6.14	10	0.01	29	13	0.01	1	10	5	20	. 1	0.01	10	1	10	1
10411	358.00	360.00	2.00	48	3.70	10	0.01	42	4	0.01	1	10	5	20	1	0.01	10	1	10	1
10413	360.00	362.00	2.00	39	6.62	10	0.01	33	5	0.01	1	10	5	20	1	0.01	. 10	1	10	1
10414	362.00	364.00	2.00	39	5.22	10	0.01	42	10	0.01	5	10	5	20	1	0.01	10	1	10	1
10415	364.00	365.34	1.34	48	10.00	10	0.01	45	. 11	0.01	13	50	5	20	2	0.01	10	1	10	1
10416	365.34	367.00	1.66	50	5.90	10	0.01	69	10	0.01	6	110	5	20	2	0.01	10	1	10	1
10417	367.00	368.00	1.00	44	7.64	10	0.01	53	5	0.01	1	140	5	20	2	0.01	10	1	10	1
10419	368.00	370.00	2.00	49	6.93	10	0.01	57	16	0.01	1	10	. 5	20	2	0.01	10	1	10	1
10420	370.00	372.00	2.00	54	2.84	10	0.03	85	2	0.01	1	130	5	20	3	0.01	10	1	10	. 1
10421	372.00	374.00	2.00	43	4.58	10	0.04	75	6	0.01	1	10	5	20	10	0.01	10	1	10	1
10422	374.00	376.00	2.00	53	5.45	10	0.06	74	4	0.01	2	10	5	20	9	0.01	10	1	10	1
10423	376.00	378.00	2.00	58	3.09	10	0.07	67	4	0.01	1	270	5	20	11	0.01	10	1	10	1,
10425	378.00	380.00	2.00	48	2.27	10	0.05	66	2	0.01	1	290	5	20	5	0.01	10	1	10	1
10426	380.00	382.00	2.00	47	4.36	10	0.07	71	3	0.01	1	270	10	20	5	0.01	10	1	10	-1 .
10427	382.00	384.00	2.00	42	6.55	10	0.04	52	5	0.01	1	340	5	20	4	0.01	10	1	10	1
10428	384.00	386.00	2.00	22	7.68	10	0.01	45	7	0.01	3	220	5	20	2	0.01	10	1	10	1
10429	386.00	388,01	2.01	20	6.05	10	0.01	37	6	0.01	1	220	5	20	1	0.01	10	1	10	1
10430	388.01	390.00	1.99	51	3.72	10	0.01	60	. 1	0.01	1	10	35	20	2	0.01	10	1	10	1
10431	390.00	391.50	1.50	42	3.35	10	0.08	56	3	0.01	1	10	5	20	4	0.01	10	1	10	1
10432	391.50	392.45	0.95	46	5.17	10	0.19	114	4	0.01	17	330	5	20	12	0.01	10	6	10	1
10433	392.45	393.86	1.41	18	10.00	10	0.15	84	8	0.02	2	590	5	20	11	0.01	10	3	10	· 1
10434	393.86	394.57	0.71	111	8.22	10	0.77	190	4	0.06	119	1230	5	20	37	0.08	10	42	10	1
10435	394.57	395.19	0.62	71	4.38	10	1.57	443	2	0.45	39	1650	5	20	257	0.33	10	98	10	1
10436	395.19	397.00	1.81	17	8.35	10	0.08	86	7	0.04	1	1170	5	20	34	0.01	10	7	10	1
10437	397.00	398.98	1.98	19	7.30	10	0.01	65	7	0.02	2	1100	5	20	28	0.01	10	4	10	1
10439	398.98	399.98	1.00	27	5.20	10	0.01	89	4	0.02	. 1	1260	5	20	56	0.01	10	4	10	1
10440	399.98	401.89	1.91	42	3.77	10	0.01	59	3	0.03	1	1210	5	20	118	0.01	10	. 3	10	1
10441	401.89	402.89	1.00	34	4.33	10	0.01	43	4	0.02	1	1280	5	20	111	0.01	10	2	10	1



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Collar Coordinates

North (m): East (m)

Elevation (m):

15186.00 10736.00

111.00

Azimuth (degrees):
Dip (degrees):

Length (m):

130.92 -49.14

197.82

Started: Completed:

08/10/2004 10/10/2004 Date Logged:

08/10/2004

Logged By: Report Printed: MA. 17/12/2004

Down Hole Survey Tests

									Juivey								
Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip
0.00	130.92	-49.14	79.23	133.95	-49.98	158.49	135.78	-50.71						•			
3.05	130.97	-49.15	82.28	134.06	-50.04	161.54	135.86	-50.76									
6.10	131.08	-49.14	85.33	134.11	-50.08	164.59	135.83	-50.76									
9.15	131.21	-49.21	88.38	134.22	-50.14	167.64	135.91	-50.74									
12.20	131.37	-49.26	91.43	134.27	-50.18	170.70	135.92	-50.77									
15.25	131.47	-49.27	94.48	134.39	-50.22	173.71	135.87	-50.79									
18.27	131.58	-49.31	97.53	134.48	-50.25	176.76	135.89	-50.78									
21.32	131.69	-49.34	100.58	134.51	-50.30	179.82	135.92	-50.76									
24.37	131.77	-49.38	103.64	134.58	-50.33	182.87	135.90	-50.73									
27.42	131.90	-49.42	106.69	134.66	-50.39	185.92	135.85	-50.69									
30.47	132.03	-49.45	109.74	134.69	-50.42												
33.52	132.12	-49.51	112.76	134.77	-50.45												
36.58	132.31	-49.56	115.81	134.89	-50.47												
39.63	132.44	-49.59	118.86	135.02	-50.47												
42.68	132.55	-49.60	121.91	135.10	-50.46												
45.73	132.66	-49.63		135.22													
48.75	132.79	-49.64	128.01	135.28	-50.50												
51.80	132.91	-49.67		135.43													
54.85	133.04	-49.69		135.56													
57.90	133.17	-49.73	137.17	135.67	-50.59												
60.95	133.30	-49.76		135.79													
64.00	133.42	-49.80	143.23	135.80	-50.65												
	133.62		146.29	135.73	-50.67												
	133.69			135.68													
	133.81			135.64													
76.21	133.90	-49.95	155.44	135.72	-50.68												



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Cu % Page: 2

Zn

. 188		Lithology Description						
Interva	ıl (m)	Description	Sample	From	То	Interval	Au	Ag
From	То		No.	(m)	(m)	(m)	g/t	g/t
0.00	1.52	Casing:						
		NW casing, no recovery.						
1.52	18.33	Basalt Intrusive: Chlorite; Magnetite						
		Chloritized Basalt Intrusive. Fine grained felted basalt intrusive pervasively chloritized.						
		Relatively massive and homogenous. Rare veins/seams of qtz-chl-mag +/- po. Variably magnetic.						
		Rare 1-8 cm qtz veins, generally >60 degrees TCA. Lower contact ep alt'd, 65 degrees TCA, somewhat						
		wavy intrusive.						
18.33	22.84	Sloko Rhyolite Dyke:		•				
		Sloko Rhyolite Dyke. Pale brown beige, with distinctive flow banding, and black peppering. 1						
		possible garnet (??) noted. Flow banding 60 degrees TCA. Unit is somewhat rubbley, fractures						
		coated with black chl and calcite, 0-50 degrees TCA. Slicks noted on 1 surface, 50 degrees TCA,						
		slicks rake 60 degrees to the face of the fracture. LC broken, intrusive, 40 degrees TCA.						
22.84	24.51	Rhyolite Lapilli Ash Tuff: Chlorite; Jasper						
		Chi darkened Rhyolite lapilli ash tuff. Lapilli are rare, small, 1-2cm, rounded to subangular.						
		Lapilli are heterolithic, with small sub angular to rounded jasper fragments and bleached rhyolite						
		lapilli noted. Poorly developed bedding 60-80 degrees TCA. Matrix is ashy, chl alt'd. Lower						
		contact is transitional, chl alt'n decreases while rhyolite clast size increases with depth.						
		Conformable.						
24.51	32.36	Rhyolite Debris Flow: Jasper; Pyrite						
		Rhyolite Debris Flow. Feldspar phyric rhyolite debris flow, large bleached ep alt'd rhyolite						
		clasts to 20 cm in a feldspar phyric ashy matrix. Clasts are variably alt'd, hem stained to ep						
		alteration noted, locally clasts boundaries are fuzzy suggesting partial digestion of clasts in a						
		hot flow. Rare large py cube noted. Lower contact sharp marked by a small qtz vein, immediately						

below contact first flow banded RFL noted, 70 degrees TCA.

TCA.

sharp, straight.

25.29 25.39 Basalt Dyke: Chlorite; Epidote; CHL and EP alt'd BDY contacts ragged, 80 degrees

25.47 25.55 Basalt Dyke: Chlorite; CHL alt'd Basalt Dyke, HW 60 degrees TCA, FW 65 degrees TCA,



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Interval (m)	Description				Sample	From	То	Intervai	Au	Ag		Pb	Zn
From	То					No.	(m)	(m)	(m)	g/t	g/t	%	%	%

31.24 31.34 Fault: Epidote; Calcite; Healed gouge, 30 degrees TCA, carb and ep alt'd/

32.36 45.11 Rhyolite Flow: Hematite; Epidote; Quartz Vein

Feldspar phyric Rhyolite Flow. Locally well developed flow banding with abundant qtz eyes, 45 degrees TCA. Most of interval however, is grey to maroon classic RFL. Feldspars 1-3 mm Localy sausseritized along fractures that also contain ep. Unusually high # of qtz stringers, white bullish with black tour or chl. Matrix is glassy grey to maroon. Lower contact is marked by intense ep veining, and transition from a glassy to an ashy matrix.

45.11 84.39 Rhyolite Debris Flow: Hematite

Rhyolite Debris Flow, Mottled grey to green to pink-purple rhyolite. Unit is characterized by various sized and shaped rhyolite clasts supported in an ashy matrix. Clasts are commonly bleached or partially absorbed and often have small grey qtz eyes. Matrix is ashy and feldspar phyric. Feldspars are locally pristine white angular fragments to laths. Minor jasper chips. Clast lithology changes with depth. Upper portion of interval clasts are rhyolite flow. Lower portion clasts are chl shattered, possibly RFX clasts. Unit is dyked out, HW of below RFL is marked by a 4 cm irregular bleached zone, 50 degrees TCA.

- 53.06 53.90 Basalt Dyke: Chlorite; Quartz Vein; Epidote; Qtz-veined Basalt dyke. Wormy irregular veins with and intense chl, ep, mag alt'n halo. HW sharp, broken 30 degrees TCA, FW intensely veined, 55 degrees TCA.
- 63.01 63.71 Basalt Dyke: Chlorite; Magnetite; CHL and MAG alt'd Basalt dyke. HW straight 30 degrees TCA, FW irregular, 60 degrees TCA.
- 73.10 79.50 Basalt Dyke: Chlorite; Epidote; Quartz Vein; Large Basalt Dyke, variably chl alt'd, unusual brown ep (?) alt'n at HW, 20 degrees TCA irregular, highly alt'd. This large BDY carries a few rhyolite xenos to 20 cm, strongly bleached. Minor DPY and possible po. Interval is pervassively moderately magnetic.
- 80.15 Basalt Dyke: Chlorite; Magnetite; Moderate to strongly magnetic chl alt'd Basalt Dyke. HW a broken plane 40 degrees TCA, FW veined, straight, 30 degrees TCA.
- 81.63 81.60 Rhyolite Debris Flow: Ashy interval? Unaltered dyke? HW 30 degrees TCA, sharp straight, FW alt'd fuzzy, 60 degrees TCA.
- 83.15 84.39 Basalt Dyke: Chlorite; Magnetite; Chl alt'd basalt dyke, locally feldspar phyric.
 Wk to strongly magnetic. Minor qtz-chl veining at HW. HW contact highly irregular,



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Interva From	al (m) To	Description	Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %
		brecciated, FW straight, 50 degrees TCA. 4 cm bleached zone below FW marks transition from RDF to RFL.									
84.39	95.29	Rhyolite Flow: Hematite Classic pale maroon to grey rhyolite flow. Variably feldspar phyric, pale feldspars particularly noticeable against a maroon matrix. Feldspars are sausseritized along fractures, chl + ep filled fractures with leached halos. Matrix is glassy, grey to maroon, possible rare grey qtz eye. 1ashy interval noted with jasper chips. RLAT xeno? Lower contact intensely qtz-veined and chl alt'd possibly intrusive> RFL sill?? Contact is defined by 3 cm chl and ep vein, 50 degrees TCA. 86.51 87.25 Basalt Dyke: Chlorite; Magnetite; Disseminated Pyrite; Pervassively Chl alt'd Basalt Dyke. Veining of chl, mag, and py noted. Minor rubble, carb coatings on fractures, HW planar 35 degrees TCA, LC carb veined, filt'd 50 degrees TCA.									
95.29	161.99	Rhyolite Debris Flow: Jasper; Chlorite Rhyolite Debris Flow with some characteristics of RLAT. Unit is defined as RDF by numerous variable bleached feldspar phyric rhyolite fragments. Clasts range from 1-10 cm. However, this interval is unusually well bedded locally, 45 degrees TCA. Also the abundance of small clasts in the 1-5 cm range is somewhat unusual. Matrix is ashy throughout, locally feldspar phyric, variably chl darkend. Rare py crystal noted, coarse, well developed cubes, deep water anoxic environment? Lower contact is transitional over the final 2 metres, alteration changes from chl to ser+leuc alt'n of matrix and the introduction of sulphide clasts marks the end of the RDF. 113.33 113.70 Basalt Dyke: Broken Core; Chlorite; Shattered chl alt'd basalt dyke, possibly amphibole phyric. Contact pulverized, but they appear to be about 70 degrees TCA.	10443	160.99	161.	99 1.00	0.03	0.00	0.00	0.00	0.00
161.99	171.26	Ore Clast Breccia: Sphalerite; Sericite; Pyrite Debris flow facies mineralization with qtz-ser-py alteration. Unit is defined by numerous subangular to rounded sulphide clasts within an ashy rhyolite debris flow. Sulphide clasts are dominantly pale honey brown sphalerite. Sulphide clasts can be up to 8 cm, but mostly in the 0.5-2cm range, rare cpy clast or clot. Py occurrs dominantly in granular form, probably related to alteration. Rhyolite clasts to 20 cm but completely alt'd/leached, they appear to be somewhat cherty (?) and generally fine downwards. Sericite alteration becomes quite strong in unmineralized zones. Galena is rare but noticable, locally abundant tet rimming sulphide clasts.	10444 10445 10446 10447 10448 10449 10450	161.99 163.00 164.00 165.00 166.00 166.90 167.80	164. 165. 166. 166.	00 1.01 00 1.00 00 1.00 00 1.00 90 0.90 80 0.90 00 1.20	0.67 0.21 0.21 0.13 2.48		0.00 0.00 1.05	0.68 0.00 0.00 0.00 0.78	0.00



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Interva	al (m)	Description	Sample	From	To Inter	val	Au	Ag	Cu	Pb	Zn
From	To		No.	(m)	(m) (n) .	g/t	g/t	%	%	%
		165.05 165.16 Basalt Dyke: Calcite; Biotite; Bio alt'd basalt dyke. Unusual x-cutting veins,	10451	169.00	169.84 0	84	1.94	80.40	0.67	0.48	6.35
		almost like tension gashes. Fe-carb, or anhydrite? Contacts straight, 50 degrees TCA.	10453	169.84	171.26 1	42	1.35	74.30	0.53	0.02	2.66
		166.90 167.80 Semi-Massive Sulphide: Extremely high concentration of sulphide clasts.									
		169.00 169.84 Semi-Massive Sulphide: Extremely high content of sphal, bar and rhyolite clasts,									
		somewhat banded sphal as well. Lower contact a small muddy flt 50 degrees TCA.									
171.26	174.35	Zinc Facies Massive Sulphide:									
		Zinc Facies Mineralization. Interval is defined by abundant honey brown to brown red sphal,	10454	171.26	172.00 0	74	1.41	46.50	1.31	0.69	4.52
		generally quite fine grained and commonly associated with dissem sooty tet? Minor clotty cpy noted	10455	172.00	173.00 1	00	2.30	72.80	1.00	0.66	5.74
		throughout interval also associated with TET. Barite noted as small nodules, locally sooty, minor	10456	173.00	174.35 1	35	3.78	120.00	1.35	3.56	10.30
		vfg galena. Variably alt'd rhyolite clasts noted throughout interval, leached to chert? Also,									
		distinct waxy sericite altertion, possibly replacing a clasts. Wavy bedding, discontinuous, 20									
		degrees TCA when noted. 174.1-174.35 Sericite clast that marks the lower contact between ZnF and									
		CuF.									
174.35	176.53	Copper Facies:									
		Spectacular Copper Facies Mineralization. Possibly 30-40 % cpy over 1 metre intervals. Cpy txt is	10457	174.35	175.50 1	15	6.64	120.00	5.56	0.18	1,38
		coarsely clotty and irregular with abundant black bands throughout, ser and tet most likely.	10458	175.50	176.53 1	03	7.26	124.00	7.45	0.03	0.48
		Bedding is preseved locally 45-65 degrees TCA. Clotty txt a result of replacement of py? Massive									
		intervals composed almost entirely of cpy and py, minor tet and rare barite nodule, rare sericite									
		mass. Lower contact is sharp, marked by a rapid decrease in cpy and increase in sphal 45 degrees									
		TCA, x-cutting or x-bedded?									
176.53	178.63	Zinc Facies Massive Sulphide: Pyrite									
		Zinc facies mineralization with abundant py. Well bedded 30 degrees TCA. Minor small barite	10459	176.53	177.50 0	97	6.84	128.00	2.11	0.44	5.31
		nodules, and interstitial to sphal. Py probably 40 % of interval, sphal 20-25%, cpy 5%. Clotty	10460	177.50	178.63 1	13	3.78	130.00	1.21	1.91	6.76
		cpy, also in x-cutting veins with tet. Py locally vfg, rare waxy to black sericite. Possibly 5%									
		gal associated with sphalerite. Towards lower contact unit becomes somewhat clastic, DBF? Contact									
		itself is marked by a dramatic drop is sulphide content.									
178.63	193.41	Quartz-Sericite-Pyrite Alteration: Sphalerite									



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Interval	(m)	Description	Sample	From		Interval	Au	Ag	Cu	Pb	Zn
From	То		No.	(m)	(m)	(m)	g/t	g/t	%	%	%
		Qtz-Ser-Py alt'd RDF? Interval is green grey and is defined by waxy sericiate and leucoxene alt'n.	10461	178.63	179.5	3 0.90	0.29	0.00	0.00	0.00	0.00
		Rare bleached clasts with extremely alt'd margins, sugesting a RDF protolith. Moderate foliation,	10462	179.53	181.0	0 1.47	0.03	0.00	0.00	0.00	0.00
		40 degrees TCA. Interval has vfg dissem py and sphal mineralization throughout, possible sooty tet	10463	181.00	183.0	0 2.00	0.03	0.00	0.00	0.00	0.00
		on x-cutting sphal stringers. Rare thin muddy slip 45 degrees TCA. Lower contact is razor sharp,	10464	183.00	185.0	0 2.00	0.03	0.00	0.00	0.00	0.00
		planar, intrusive 40 degrees TCA.	10465	185.00	187.0	0 2.00	0.47	0.00	0.00	0.00	0.00
			10466	187.00	189.0	0 2.00	0.44	0.00	0.00	0.00	0.00
			10468	189.00	191.0	0 2.00	0.71	0.00	0.00	0.00	0.00
			10469	191.00	192.0	0 1.00	0.32	0.00	0.00	0.00	0.00
			10471	192.00	193.4	1 1.41	0.19	0.00	0.00	0.00	0.00

193.41 197.82 Basalt Undifferentiated: Chlorite; Broken Core
Basalts. Possibly a BDY, or flow. Rubbley throughout, with clean rough fractures. Pervassively chl alt'd. Minor x-cutting qtz-chl veins with thin bleached halos. Wkly magnetic. No distinct amygules noted. Final 2 cm of core ser alt'd.

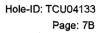
197.82 197.82 End of Hole:



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Assays

Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %	\$G	Cu ppm	Pb ppm	Zn ppm	Au ppb	Ag ppm	As ppm	AI %	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm
10443	160.99	161.99	1.00	0.03	0.00	0.00	0.00	0.00	0.00	34	52	86	0	0.2	10	1.32	175	5	0.78	1	2
10444	161.99	163.00	1.01	0.22	0.00	0.00	0.00	0.00	0.00	1703	648	5951	0	6.1	20	1.29	35	5	0.50	30	7
10445	163.00	164.00	1.00	0.67	11.30	0.18	0.68	2.36	2.81	1705	6764	10000	0	11.0	55	0.70	20	5	0.35	83	- 5
10446	164.00	165.00	1.00	0.21	0.00	0.00	0.00	0.00	0.00	828	2122	9777	0	12.0	45	0.91	30	5	0.30	43	5
10447	165.00	166.00	1.00	0.21	0.00	0.00	0.00	0.00	0.00	383	1192	4483	0	5.8	75	1.38	30	5	0.35	19	8
10448	166.00	166.90	0.90	0.13	0.00	0.00	0.00	0.00	0.00	55	178	921	0	1.7	50	0.83	45	5	0.10	3	3
10449	166.90	167.80	0.90	2.48	105.00	1.05	0.78	4.57	3.01	10000	7812	10000	0	30.0	965	0.75	55	5	0.31	180	7
10450	167.80	169.00	1.20	0.21	3.30	0.02	0.05	0.19	2.80	226	452	1890	0	3.3	60	0.51	25	5	0.12	7	4
10451	169.00	169.84	0.84	1.94	80.40	0.67	0.48	6.35	3.05	6638	4502	10000	0	30.0	515	0.43	35	5	0.14	291	7
10453	169.84	171.26	1.42	1.35	74.30	0.53	0.02	2.66	2.62	5032	222	10000	0	30.0	550	0.26	20	5	0.36	118	5
10454	171.26	172.00	0.74	1.41	46.50	1.31	0.69	4.52	2.86	10000	6684	10000	0	30.0	620	0.41	35	5	0.36	196	6
10455	172.00	173.00	1.00	2.30	72.80	1.00	0.66	5.74	2.92	10000	6422	10000	0	30.0	1135	0.75	45	5	0.35	250	8
10456	173.00	174.35	1.35	3.78	120.00	1.35	3.56	10.30	3.38	10000	10000	10000	0	30.0	1155	0.53	50	5	0.19	459	8
10457	174.35	175.50	1.15	6.64	120.00	5.56	0.18	1.38	3.96	10000	1738	10000	0	30.0	425	0.30	75	5	0.15	30	9
10458	175.50	176.53	1.03	7.26	124.00	7.45	0.03	0.48	3.91	10000	298	4593	0	30.0	400	0.26	80	5	0.07	8	9
10459	176.53	177.50	0.97	6.84	128.00	2.11	0.44	5.31	3.53	10000	4122	10000	0	30.0	995	0.45	230	, 5	0.13	204	6
10460	177.50	178.63	1.13	3.78	130.00	1.21	1.91	6.76	3.28	10000	10000	10000	0	30.0	1480	0.43	50	5	0.19	314	8
10461	178.63	179.53	0.90	0.29	0.00	0.00	0.00	0.00	0.00	151	198	426	0	3.8	105	0.66	20	5	0.19	1	8
10462	179.53	181.00	1.47	0.03	0.00	0.00	0.00	0.00	0.00	32	32	98	0	1.0	50	0.78	25	5	0.26	1	2
10463	181.00	183.00	2.00	0.03	0.00	0.00	0.00	0.00	0.00	18	20	59	0	0.7	80	0.44	20	5	0.25	1	2
10464	183.00	185.00	2.00	0.03	0.00	0.00	0.00	0.00	0.00	26	18	132	0	0.7	40	0.39	20	5	0.24	1	2
10465	185.00	187.00	2.00	0.47	0.00	0.00	0.00	0.00	0.00	78	718	3738	0	4.6	175	0.34	20	5	0.15	13	3
10466	187.00	189.00	2.00	0.44	0.00	0.00	0.00	0.00	0.00	258	658	7421	0	7.9	370	0.29	15	5	0.12	29	4
10468	189.00	191.00	2.00	0.71	0.00	0.00	0.00	0.00	0.00	152	1792	3003	0	9.7	625	0.29	25	5	0.12	5	9
10469	191.00	192.00	1.00	0.32	0.00	0.00	0.00	0.00	0.00	94	1790	5825	0	9.7	485	0.26	20	5	0.08	17	5
10471	192.00	193.41	1.41	0.19	0.00	0.00	0.00	0.00	0.00	113	792	1590	0	6.6	325	0.53	20	5	0.24	2	5





Assays ...continued

Sample No.	From (m)	To (m)	Interval (m)	Cr ppm	Fe %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Sb ppm	Sn ppm	Sr ppm	Ti %	U ppm	V	W ppm	Y ppm
10443	160.99	161.99	1.00	65	1.10	10	0.61	212	2	0.11	1	150	5	20	609	0.03	10	. 1	10	3
10444	161.99	163.00	1.01	46	4.12	10	0.91	175	3	0.08	1	50	5	20	230	0.01	10	2	10	1
10445	163.00	164.00	1.00	32	3.77	10	0.50	91	1	0.04	1	20	5	20	144	0.01	10	2	10	1
0446	164.00	165.00	1.00	49	2.77	10	0.73	121	1	0.05	1	70	5	20	102	0.01	10	2	10	1
10447	165.00	166.00	1.00	93	3.09	10	1.37	183	2	0.05	26	350	5	20	113	0.03	10	15	10	1
0448	166.00	166.90	0.90	80	1.78	10	0.82	116	2	0.03	1	110	5	20	15	0.01	10	1	10	1
10449	166.90	167.80	0.90	37	9.82	10	0.66	95	1	0.03	1	10	410	20	16	0.01	10	4	10	1
0450	167.80	169.00	1.20	52	1.79	- 10	0.50	76	2	0.01	1	80	10	20	10	0.01	10	1	10	2
0451	169.00	169.84	0.84	39	7.13	10	0.33	76	1	0.01	1	10	235	20	14	0.01	10	2	10	1
0453	169.84	171.26	1.42	61	3.38	10	0.11	49	1	0.01	1	10	335	20	18	0.01	10	2	10	1
0454	171.26	172.00	0.74	58	6.35	10	0.27	72	1	0.01	1	10	165	20	15	0.01	10	2	10	1
0455	172.00	173.00	1.00	46	9.01	10	0.54	121	1	0.02	1	10	365	20	13	0.01	10	3	10	1
0456	173.00	174.35	1.35	35	10.00	10	0.44	138	1	0.02	1	10	355	20	20	0.01	10	4	10	1
0457	174.35	175.50	1.15	42	10.00	10	0.19	73	10	0.01	. 1	10	10	20	10	0.01	10	4	10	1
0458	175.50	176.53	1.03	49	10.00	10	0.19	57	13	0.01	5	10000	5	20	9	0.01	10	5	10	1
10459	176.53	177.50	0.97	48	10.00	10	0.28	85	1	0.02	1	10	125	20	15	0.01	10	4	10	1
10460	177.50	178.63	1.13	34	10.00	10	0.23	114	1	0.02	1	10	295	20	22	0.01	10	6	10	1
0461	178.63	179.53	0.90	132	4.75	10	0.16	72	6	0.09	12	10	5	20	9	0.01	10	10	10	1
0462	179.53	181.00	1.47	43	1.96	10	0.34	113	3	0.07	2	60	5	20	20	0.01	10	1	10	1
0463	181.00	183.00	2.00	43	3.04	10	0.15	47	4	0.03	1	40	5	20	27	0.01	10	1	10	1
0464	183.00	185.00	2.00	40	2.08	10	0.08	32	7	0.02	2	380	5	20	30	0.01	10	1	10	2
0465	185.00	187.00	2.00	56	3.27	10	0.07	50	1	0.02	1	90	5	20	9	0.01	10	1	10	1
0466	187.00	189.00	2.00	57	4.02	- 10	0.03	59	3	0.02	1	10	25	20	7	0.01	10	1	10	. 1
10468	189.00	191.00	2.00	48	8.20	10	0.01	42	9	0.02	10	10	10	20	5	0.01	10	1	10	1
0469	191.00	192.00	1.00	56	4.87	10	0.01	49	3	0.02	1	10	15	20	5	0.01	10	1	10	1
0471	192.00	193.41	1.41	51	3.64	10	0.09	72	3	0.03	4	110	5	20	14	0.01	10	1	10	1



Hole-ID: TCU04134

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Collar Coordinates

North (m): East (m) Elevation (m): 15186.00 10736.00

111.00

Azimuth (degrees):

Dip (degrees): Length (m): 116.60 -76.04

264.87

Started: Completed:

11/10/2004 13/10/2004 Date Logged:

11/10/2004

Logged By: Report Printed:

16/12/2004

MA.

Down Hole Survey Tests

							DOW		Ourve	y icst	3						
Depth (m)	Azimutl	n Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	n Dip	Depth (m)	Azimuth	n Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip
0.00	116.60	-75.04	79.25	119.27	-75.77	158.50	121.22	-75.57	237.74	121.41	-74.64						
3.05	116.38	-75.13	82.30	119.47	-75.73	161.54	121.05	-75.57	240.79	121.39	-74.63						
6.10	116.40	-75.22	85.34	119.58	-75.72	164.59	121.18	-75.55	243.84	121.54	-74.62						
9.14	116.49	-75.25	88.39	119.46	-75.71	167.64	121.38	-75.55	246.89	121.60	-74.62						
12.19	116.51	-75.28	91.44	119.44	-75.69	170.69	121.28	-75.54	249.94	121.50	-74.62						
15.24	116.40	-75.29	94.49	119.67	-75.68	173.74	120.97	-75.50	252.98	121.46	-74.59						
18.29	116.38	-75.30	97.54	119.65	-75.67	176.78	121.15	-75,44	259.08	121.62	-74.52						
21.34	116.41	-75.28	100.58	119.65	-75.66	179.83	121.33	-75.40									
24.38	116.51	-75.29	103.63	119.82	-75.69	182.88	121.43	-75.39									•
27.43	116.45	-75.27	106.68	119.95	-75.66	185.93	121.48	-75.36									
30.48	116.60	-75.31	109.73	120.03	-75.67	188.98	121.51	-75.31									
33.53	116.94	-75.39	112.78	120.07	-75.66	192.02	121.50	-75.28									
36.58	117.26	-75.46	115.82	120.00	-75.65	195.07	121.36	-75.23									
39.62	117.51	-75.45	118.87	120.10	-75.66	198.12	121.51	-75.20									
42.67	117.67	-75.48	121.92	120.15	-75.67	201.17	121.82	-75.18									
45.72	117.73	-75.51	124.97	120.17	-75.70	204.22	121.89	- 75.10									
48.77	118.06	-75.56	128.02	120.30	-75.71	207.26	121.76	-74.94									
51.82	118.22	-75.64	131.06	120.51	-75.71	210.31	121.43	-74.80									
54.86	118.38	-75.63	134.11	120.47	-75.64	213.36	121.37	-74.71									
57.91	118.50	-75.64	137.16	120.41	-75,63	216.41	121.20	-74.68									
60.96	118.59	-75.69	140.21	120.56	-75.63	219.46	121.08	-74.68									
64.01	118.78	-75.72	143.26	120.73	-75.63	222.50	121.05	-74.66									
67.06	118.95	-75.73	146.30	120.80	-75.65	225.55	121.10	-74.69									
70.10	118.85	-75.73	149.35	120.75	-75.62	228.60	121.07	-74.67									
73.15	118.93	-75.73	152.40	120.85	-75.59	231.65	121.17	-74.65									
76.20	119.17	-75.73	155.45	121.01	-75.57	234.70	121.32	-74.65									



Hole-ID: TCU04134

Pb %

Cu %

To Interval Au

(m)

(m)

Sample

From

(m)

Page: 2

Zn %

Interva	l (m)	Description
From	То	
0.00	1.12	Casing:
		No core recovered, drilled NW casing.
1.12	26.61	Basalt Intrusive: Chlorite
		Chi alt'd basalt intrusive. Massive medium to fine grained intrusive textures, pervassively chi
		alt'd. Wkly magnetic throughout. Interval is broken by rare carb coated fractures and minor
		qtz-chl +/- mag veining. Minor wk ep alt'd patches. Lower contact marked by approx 15 cm zone of
		intense ep alt'n. Possibly intrusive, 30 degrees TCA.
26.61	29.60	Basalt Lapilli Tuff: Epidote; Chlorite; Broken Core
20.01	20.00	Basalt Lapilli Tuff. Variably bleached and alt'd basalt lapilli ash Tuff, Lapilli generally small,
		in the 1-2 cm range. Interval is blue green, locally green brown with ep alteration. Trace leuc
		speckling. Lapilli appear to be hetrolithic. Small rounded qtz rich fragments stand out against
		green background, also noted are dark mafic lapilli, also small and round. Minor wormy white qtz
		veins. Rubbley for final metre. Lower contact sharp, broken, 60 degrees TCA.
29.60	36.02	Sloko Rhyolite Dyke: Broken Core; Chlorite; Calcite
		Rubbley Sloko Rhyolite Dyke. Broken throughout, with chl and carb on fractures, often sub parallel
		TCA but up to 20 degrees TCA. Pale beige grey throughout. Distinctive flow banding observed
		locally, 20-30 degrees TCA. Distinctive black speckling usually noted in SRD is only rarely
		observed. Unusually coarse for SRD and qtz phenos to 5 mm. Lower contact straight, 20 degrees
		TCA.
36.02	42.37	Basalt Intrusive: Bleached
		Leached Basalt intrusive. Pinkish grey to green. Matrix has been alt'd to a pink grey, it is
		speckled with dark green chl masses perhaps relict phenos. This speckled txt makes the interval appear to be a coarse grained intrusive. Minor py and carb on fractures. Slicks noted on wavy
		fractures sub parallel TCA. Slicks rake 5 degrees on fracture plane, left lateral sense of motion.
		Drillers note cave from approx 37.8 to 38.41m, approx 50% recovery for this interval. Lower
		contact is shattered, lost in broken core, contact defined by decreased bleaching.
42.37	78.94	Fault Zone: Basalt Intrusive



Hole-ID: TCU04134

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Interval (m)	Description		Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From T	o		No.	(m)	(m)						

Fault shattered to rubbley basalt intrusive. Rough irregular fractures at various angles TCA with chl, carb, or hem coatings. Carbonate veins display open space filling textures, and range from parallel to perpendicular TCA. Localy veins show breccia txt. Hematite as blood red to brown mud on fracture surfaces, minor green chl+calcite mud. Early qtz-chl-ep veining x-cut by carbonate veins and fractures. Rare muddy zone, flt gouge, 20 degrees TCA. Interval is mostly shattered rock, mud is rare. Lower contact marked by decreased fracturing.

78.94 114.65 Basalt Intrusive: Chlorite; Magnetite

Massive basalt intrusive. Same rock type as that caught up in above fit. Pervassively chl alt'd, massive. Cut by rare qtz-chl +/- mag veins 2-5 cm, rare muddy fracture/slip 50 degrees TCA. Wk to strongly magnetic, dissem to seamy mag and minor po observed, trace sulphide. Lower contact subtle, the contact is with a chl darkened RFL. actual contact is bulbous and highly irregular, 80-90 degrees TCA.

114.65 119.81 Rhyolite Flow: Chlorite; Hematite

Grey green to maroon rhyolite "flow", possibly a sill or a xenolith spalled off by the basalt intrusive. Locally coarsely feldspar phyric, particularly in the maroon, hem stained intervals. Flow banding noted, in the grey green RFL, 40 degrees TCA. Grey green RFL the feldspars appear to be converted to CHL. Rare x-cutting 1-5 mm white qtz veins. Lower contact sharp, calcite veined with 25 cm bleaching into FW, 55 degrees TCA.

118.75 119.57 Basalt Intrusive: Chlorite; Epidote; Chl and ep alt'd BIN xeno?? HW fit'd 50 degrees TCA. FW partially absorbed? Transitional

119.81 124.13 Basalt Intrusive: Magnetite; Jasper; Chlorite

This interval seems to be a basalt intrusive/rhyolite mixing zone. Intermixed txt's were noted, the contact is highly irregular, bulbous. Minor seams of mag and wormy jasper noted. Pervassively CHL alt'd, rhyolite is quite dark. Lower contact is shattered but transition to RFL is very distinct, possibly 70 degrees TCA.

124.13 127.97 Rhyolite Flow: Hematite; Chlorite

Classic grey to maroon Rhyolite Flow. Feldspar phyric, but feldspars are partially absorbed, fuzzy. Matrix is glassy grey to maroon. Rare x-cutting chl+/-ep veins, very limited epidote.



Hole-ID: TCU04134

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Interval	(m) Description				Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From	То				No.	(m)	(m)	(m)	g/t	g/t	%	%	%

Possible flow banding noted, 55-60 degrees TCA. Lower contact is marked by a 20 cm ashy band.

127.97 133.49 Rhyolite Flow Breccia: Chlorite

Rhyolite Flow Breccia. Unit is defined by numerous lapilli sized particles pack into an ashy matrix. -Lapilli Packstone? Lapilli are 1-20 cm in size and varibly alt'd and bleached, fuzzy ser alt'd margins to 8mm. Lapilli and matrix are feldspar phyric, feldspars stand out very well on a chl darkened ashy matrix. Minor late x-cutting qtz-chl +/-ep +/-mag veins. Lower conact wavy, irregular, bulbous, 50 degrees TCA.

129.86 130.10 Basalt Dyke: Chlorite; CHL alt'd BDY, HW wavy, 70 degrees TCA, FW wavy 60 degrees TCA.

133.49 140.75 Basalt Intrusive: Chlorite; Magnetite; Chalcopyrite

Massive basalt intrusive. Pervassively chl alt'd, Rare qtz-chl-mag-+/-cpy veins, mag stringers noted. Very similar to above BIN intervals. Lower contact zone is shattered, however, contact itself is preserved, wavy to fuzzy contact, 70 degrees TCA.

140.75 161.24 Rhyolite Debris Flow: Chlorite; Jasper

Rhyolite Debris Flow, Mottled blue green to grey rhyolite debris flow, featuring clasts that are variably alt'd and bleached. Bleached clasts show fine grey qtz-eyes. Both clasts and matrix can be feldspar phyric. Trace hem stain and jasper fragments. Minor late chl veins. Rare bedding, or banding 30-40 degrees TCA.

157.00 158.40 Basalt Intrusive: Bleached; Fault; FLT'd and bleached Basalt intrusive/Basalt dyke. appear to be a coarse intrusive, groundmass bleached to creamy white, phenos alt'd to chl. HW sharp, FW shattered, lost. Fit slicks 30 degrees TCA, slicks rake 25 degrees TCA. Bellow dyke RDF is bleached Pale green beige, lower contact is marked by increased rubble.

161.24 164.95 Fault Zone: Bleached; Calcite; Fuchite

Rubbley fit zone, pale creamy bleaching of RDF in HW of main fit. Hard carbonate and chl on rough irregular fractures. Spectacular fuchsite bearing FLT Breccia 164.69-164.95, 40 degrees TCA, marks FW of fitting and bleaching.



Hole-ID: TCU04134 Page: 5

Interva	al (m)	Description	Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From	То		No.	(m)	(m)	(m)	g/t	g/t	%	%	%
164.95	181.12	Rhyolite Debris Flow: Chlorite; Sericite									
		Rhyolite Debris Flow, feldspar phyric rhyolite debris flow. Locally bedded, algined clasts, 45									
		degrees TCA. Clasts appear to be hetrolithic. Abundant chl fracturing of clasts in upper 9 metres									
		of zone, possibly RFX, (possibly flt related??) with depth clasts become more rounded, variably									
		alt'd, some strongly hem stained. Minor late x-cutting ep+/- garnet veins, Minor ashy intervals,									
		rare hem on fracture surfaces. Lower contact razor sharp, wavy, 30 degrees TCA.									
181.12	182.45	Quartz-Feldspar Porphyry Dyke: Chlorite									
		Qtz-Feldspar Porphyry dyke. Very rare phenos, probably less than 20 grey qtz-eyes to 5mm and v									
		rare white feldspars. Matrix is a dark green chloritized groundmass. 2 cm chill margins at									
		contacts, FW razor sharp, 15 degrees TCA.									
182.45	211.94	Rhyolite Debris Flow: Chlorite; Jasper									
		Classic rhyolite debris flow. Chl darkened, as above. Large clasts, 2-30 cm, variably alt'd, chl			,						
		darkened ashy matrix, rare jasper chip. Lower contact bleached and broken, 20 degrees TCA,									
		possibly intrusive.									
211.94	217.35	Rhyolite Flow: Hematite									
		Classic maroon rhyolite "flow", possibly an intrusive. Feldspar phyric, rhyolite with a maroon									
		glassy groundmass. Minor stringers of qtz-chl and ep, v. wk sausseritization of feldspars locally.									
		Minor wormy to chippy jasper/hem. Bleached lower contact zone, lower contact marked by 2 cm									
		qtz-chl vein 40 degrees TCA.									
217.35	219.90	Rhyolite Debris Flow: Chlorite; Sericite									
		Rhyolite debris flow. Mottled blue green with grey to beige clasts. Alt'n changes from CHL	10472	218.90	219.	90 1.00	0.04	0.00	0.00	0.00	0.00
		dominant to SER dominant with depth. Clast frequency increases with depth but size decreases.									
		Lower contact sharp, marked by CHL and barite veining.									
219.90	222.82	Massive Sulphide:									
		Mixed well banded massive sulphide. Mostly dominant sulphide is py , with locally abundant sphal	10473	219.90	220	30 O.70	4.36	63.00	1.03	0.96	3.36
		and minor cpy. Py and sphal appears to be intergrown or syndepositional. There seems to be a	10474	220.60		30 1.00	1.19	40.40	0.54	0.81	4.68
		barite/sericite transition at about 220.6. Abundant sooty tet (?) or gal (?) in barite zone, as	10475			32 1.22		30.00			



Hole-ID: TCU04134

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Interv	al (m)	Description	Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From	То		No.	(m)	(m)	(m)	g/t	g/t	%	%	%
	, 10 1/- 10 1/-	large as 2 cm, 60 degrees TCA. Thin mud slip at 220.55, possibly cuts off barite zone, 70 degrees TCA. Py vfg to granular possibly recrystallized. Cpy is clotty, secondary. Lower 60 cm massive Sericite, zone is cut off by a BDY, 55 degrees TCA.									
222.82	223.33	Basalt Dyke: Chlorite; Disseminated Pyrite CHL alt'd Basalt dyke. Minor stringers of py. Lower contact marked by bleached zone of chl-ep-py veining, 70 degrees TCA.	10476	222.82	223.	33 0.51	0.11	0.00	0.00	0.00	0.00
223.33	230.24	Quartz-Sericite-Pyrite Alteration: Disseminated Pyrite Qtz-Ser-Py alt'd rhyolite. Beige grey silc'd rhyolites with minor dissem py. Possibly an alt'd RDF or RFL. Bellow 225.25 intense qtz-ep-gar-chl veining occurs, this appears to be a bleaching event as the rhyolites become massive, grey purple. Lower contact is marked by first flow banding, 10 degrees TCA.	10477	223.33	224.	50 1.17	0.20	0.00	0.00	0.00	0.00
230.24	264.87	Basalt Undifferentiated: Silica Pale grey to blue green Basalt? Evolved Andesite? Interval is characterized by numerous chloritized flecks, 1-3 mm interpretted to be squashed frothy vesicles. Local flow banding 10-45 degrees TCA, rare intervals of clastics, lapilli packstone. Bleached/silc'd to 240.5, decreasing with depth.									
264.87	264.87	End of Hole:									



Hole-ID: TCU04134 Page: 7A

Assays

Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %	sG	Cu ppm	Pb ppm	Zn ppm	Au ppb	Ag ppm	As ppm	AI %	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm
10472	218.90	219.90	1.00	0.04	0.00	0.00	0.00	0.00	0.00	88	52	176	0	1.5	15	0.99	210	5	0.49	9	2
10473	219.90	220.60	0.70	4.36	63.00	1.03	0.96	3.36	2.82	10000	9252	10000	0	30.0	50	0.68	15	5	0.93	124	5
10474	220.60	221.60	1.00	1.19	40.40	0.54	0.81	4.68	3.05	5346	8140	10000	0	30.0	170	0.55	20	5	0.35	194	6
10475	221.60	222.82	1.22	0.81	30.00	0.80	0.63	6.37	3.20	7901	6352	10000	0	29.1	155	0.57	30	5	0.42	302	7
10476	222.82	223.33	0.51	0.11	0.00	0.00	0.00	0.00	0.00	78	290	1577	0	1.8	60	3.40	110	5	2.28	5	14
10477	223.33	224.50	1.17	0.20	0.00	0.00	0.00	0.00	0.00	67	278	1402	0	1.8	55	1.18	100	5	0.93	5	1



Hole-ID: TCU04134 Page: 7B

Assays ...continued

Sample No.	From (m)	To (m)	interval (m)	Cr ppm	Fe %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Sb ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W ppm	Y ppm	
10472	218.90	219.90	1.00	41	1.56	10	0.62	261	2	0.07	3	270	5	20	31	0.03	10	8	10	10	
10473	219.90	220.60	0.70	28	3.66	10	0.66	260	1	0.01	1	10	70	20	45	0.01	10	1	10	1	
10474	220.60	221.60	1.00	36	9.32	10	0.41	125	1	0.01	1	120	75	20	38	0.01	10	1	10	1	
10475	221.60	222.82	2 1.22	43	10.00	10	0.18	82	1	0.04	1	30	5	20	41	0.01	10	1	10	1	
10476	222.82	223.33	3 0.51	53	4.43	10	0.79	506	2	0.19	4	1310	5	20	54	0.10	10	22	10	2	
10477	223.33	224.50	1.17	73	1.24	10	0.17	186	30	0.11	2	40	5	20	23	0.02	10	1	10	1	



Hole-ID: TCU04135

Page: 1

Collar Coordinates

North (m): East (m)

Elevation (m):

15186.00 10736.00

111.00

Azimuth (degrees):

Dip (degrees): Length (m): 108.00 -65.50 292.30 Started:

Completed:

13/10/2004 18/10/2004 Date Logged: Logged By: 13/10/2004

MA.

Report Printed:

16/12/2004

Down Hole Survey Tests

Dip Dept (m)	Depth Azimut (m)	h Dip	Depth /	Azimuth	Dip	Depth Azimuth (m)	Dip	Depth (m)	Azimuth	Dip
5.50			_							
5.30										
5.10										
5.40										
5.40										
5.30										
5.30										
5.10										
5.30										



Sample From

(m)

To Interval Au

(m)

(m)

Hole-ID: TCU04135

Pb Zn

Page: 2

Interva	ıl (m)	Description
From	То	
0.00	0.75	Casing: No Recovery No Recovery, case NW
0.75	24.94	Basalt Intrusive: Chlorite; Magnetite Massive Basalt Intrusive. Pervassively Chl alt'd. Local preservation of primary felted or feathery intrusive txt's. Pervassively wk-mod magnetic with minor seams of mag+qtz+chl, locally v. strongly magnetic. Rare late x-cutting chl and carb fractures. Late bullish white qtz-chl+/- mag veins to 2 cm. Lower contact sharp, intensely veined 55 degrees TCA.
24.94	26.75	Rhyolite Lapilli Ash Tuff: Bleached; Chlorite Rhyolite Lapilli Ash Tuff. Upper 60 cm of interval bleached beige with abundant chl-carb-qtz veining, probably contact metamorphism, but perhaps fit related. Bellow the bleached zone a chl alt'd hetrolithic lapilli tuff develops. Lapilli small, 1-3cm. Both rhyolite and mafic fragments noted, variably chl alt'd, rarely as large as 8 cm. Vague bedding, 20-30 degrees TCA, matrix highly alt'd. LC sharp, straight, broken, 70 degrees TCA.
26.75	28.25	Sloko Rhyolite Dyke: Broken Core; Calcite; Chlorite Sloko Rhyolite Dyke, broken throughout, with carbonate and chl on rough irregular fractures. Characteristic beige brown with green. Local very well developed flow banding, particularly at HW, 65 degrees TCA. Lower contact sharp, 55 degrees TCA.
28.25	29.87	Rhyolite Lapilli Ash Tuff: Chlorite; Epidote; Jasper Rhyolite Lapilli Ash Tuff, Similar to above, but more chl darkened. Angular mafic lapilli note to 2.5 cm. Interval is disrupted by late x-cutting ep-qtz-chl veining, v minor, wormy jasper.
		Towards FW approx 20 cm of leucoxene speckling noted. Lower contact is marked by a broken 20 cm qtz-chl vein, irregular contacts, 45 degrees TCA.
29.87	46.20	Rhyolite Debris Flow: Bleached; Chlorite; Hematite Feldspar phyric rhyolite debris flow. Upper 10 m of this interval is bleached pale grey, gradually darker with depth as chl and hem staining becomes stronger. Interval is charactereized by 2-15 cm feldspar phyric rounded rhyolite clasts, in a variably phyric ashy matrix. Clast margins somehat fuzzy and altered, suggesting a hot debris flow? Partial absorbtion of clasts? Minor



Hole-ID: TCU04135 Page: 3

		Littlology Description									
Interva	al (m)	Description	Sample	From	То	Interval	Au	Ag	Cu	Pb	Źn
From	То		No.	(m)	(m)	(m)	g/t	g/t	%	%	%
		sausseritization. Lower contact is sharp and conformable, 45 degrees TCA.				٠.					
		32.60 32.86 Basalt Dyke: Chlorite; Quartz Vein; Epidote; CHL alt'd qtz veined BDY. HW ep									
		veined, 70 degrees TCA, FW broken, 60 degrees TCA.									
46.20	46.44	Ore Clast Breccia: Pyrite									
		Debris flow facies mineralization. Unusual stratigraphic position. Distal expression of the "I"	10478	46.20	46.	44 0.24	0.06	0.00	0.00	0.00	0.00
		zone? Mixed clasts of sulphide, (py) and angular chl alt'd mafic (?) fragments is a brown ser +									
		py matrix. Rock clasts to 4 cm, py clasts to 1.5 cm. Lower contact v wavy, v sharp, 40-60 degrees TCA.									
46.44	61.20	Rhyolite Debris Flow: Chlorite; Jasper									
		Quite strongly chl darkened Rhyolite debris flow. Ashy intervals with 2-5 cm lapilli with									
		interlocking surfaces, thought to be disarticualted clasts. Clear blocks to 40 cm noted but mostly									
		in the 5-10 cm range. Matrix is a chl darkened ash, local ash beds to 2m. Minor jasp as alt'n in									
		ashy matrix. Poorly developed bedding 50 degrees TCA. Minor late bleached x-cutting chl veins									
		towards FW. Lower contact marked by a 3 cm chl vein with a textural change, FW matrix is more									
		glassy, 55 degrees TCA.									
61.20	66.24	Rhyolite Flow: Chlorite; Hematite									
		Rhyolite "Flow". Maroon glassy feldspar phyric rhyolite with variably sausseritized feldspars.									
		1-2 mm with patch bleaching related to chl +/-ep veins. Distincitve bleached contacts, perhaps									
		suggesting an intrusive. Lower contat is sharp, defined by a chl vein 75 degrees TCA.									
66.24	70.05	Rhyolite Lapilli Ash Tuff: Chlorite									
		Rhyolite Lapilli Ash Tuff. Similar to above RDF with smaller lithic fragments. 1-2 cm dominant									
		size fraction with clear sharp margins. Rare possible clasts to 10 cm but margins are alt'd-fuzzy,									
		possibly more of an alteration effect. Lower contact subtle, transitonal, matrix more glassy and									
		phyric with depth. Contact marked by a 10 cm bleached zone.									
70.05	102.02	Rhyolite Flow Breccia: Chlorite; Magnetite									
		Very feldspar phyric rhyolite flow breccia. Well preserved feldspars throughout, 0.5-3mm, lathy to									
		angular. Local wk hem stain and ep alt'n. Abundant angular chl+mag veins. Distinctive									



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Zn

Interval (m) To

From

Description

Sample

From (m)

Interval (m) (m)

Τo

Au g/t

g/t

Pb Cu

characteristic of this interval are numerous lapilli sized fragments, variably bleached. However, fragments are rounded and it appears that the matrix is the same material as the "lapilli" this suggests an autobreccia. Secondary bleaching occurs in association with chl fractures giving an increase to the mottled appearance of this interval. Lower contact is transitional, rhyolite becomes more glassy and hem stained with depth, suggesting a conformable transfer from the flow breccia to the main flow.

- 76.43 76.64 Basalt Dyke: Chlorite; Magnetite; CHL and MAG alt'd BDY. HW wavy 35 degrees TCA, FW irregular, wavy, 35 degrees TCA.
- 77.04 77.12 Basalt Dyke: Chlorite; Calcite; Highly chl alt'd BDY. 10 cm of intense chl alt'n into FW. HW irregular, 75 degrees TCA, FW broken, planar, 70 degrees TCA.
- 78.35 79.51 Basalt Dyke: Chlorite; Magnetite; Chl and mag alt'd Basalt dyke. Extreme chl darkening in HW. Rare patch of wk ep alt'n. Trace po. FW contact extremely chl alt'd and veined 50 degrees TCA, HW sharp, queined, 40 degrees TCA.
- 82.36 83.33 Basalt Dyke: Chlorite; Magnetite; Possible amphibole phyric BDY. CHL alt'd, HW sharp and straight, 50 degrees TCA, FW straight, 35 degrees TCA.
- 97.44 98.18 Basalt Dyke: Chlorite; Epidote; Possible amphiilbole bearing Basalt dyke. pervassively chl and ep alt'd, minor chl fractures, HW marked by qtz-mag-vein, 70 degrees TCA.
- 98.65 98.87 Basalt Dyke: Chlorite; CHL alt'd BDY, HW 70 degrees TCA, rough, FW broken losts, 30 degrees TCA???

102.02 109.65 Rhyolite Flow: Hematite: Epidote

Rhyolite Flow. Classic grey to maroon glassy rhyolite flow. Minor sausseritization of feldspars along fractures, minor jaspery stringers. Interval locally feldspar phyric, with pink hem stained feldspars to 3 mm. Rare qtz eye to 3 mm. Possible wk flow banding in the final metre above the footwall, 50 degrees TCA. Lower contact is marked where the matrix becomes more ashy and distinct jasper chips are first noted. Marked by a 1 cm chl+mag vein, 50 degrees TCA.

109.65 136.93 Rhyolite Debris Flow: Chlorite; Jasper

Rhyolite Debris Flow, feldspar phryic. This RDF features distinct clasts of varying lithologies in an ashy feldspar phyric matrix. Clasts are dominantly rhyolite, rarely still hematite stained. 1 large block of py bearing amygdulodial basalt, absolutely pristine, suggesting a cool debris flow,



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Interval (m)	Description			Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From To				No.	(m)	(m)	(m)	g/t	g/t	%	%	%

several smaller angular mafic fragments noted. Pervassive chl alt'n of matrix, and minor late chl veining. Lower contact razor sharp, 12 degrees TCA.

133.03 134.15 Basalt Dyke: Chlorite; Broken Core; Calcite; Rubbley coarse grained BDY, amphibole bearing? Slicks noted on 1 fracture 35 degrees TCA, slicks rake 55 to the fracture surface, left lateral sense of motion.

136.93 140.05 Quartz-Feldspar Porphyry Dyke: Chlorite

Qtz-Feldspar-Porphyry Dyke. Distinctive razor sharp HW contact with 1-2 cm chill margin, minor carb alt'n and brecciation. Distinct cubic feldspar phenos in a mealy chl matrix, minor grey qtz crystals. Magnetic, trace po? Minor py blebs. Lower contact pulverized.

140.05 141.45 Rhyolite Debris Flow:

Feldspar phyric rhyolite debris flow, similar to that found above QFP dyke. Lower contact Razor sharp, stepped, 20 degrees TCA, intrusive.

141.45 141.48 Quartz-Feldspar Porphyry Dyke:

Thin QFP dyke. Characteristic square phenos in a chilled chl matrix. LC razor sharp, stepped, 15 degrees TCA.

141.48 176.72 Rhyolite Debris Flow:

Rhyolite Debris Flow. Pale green mottled throughout. Abundant lithic fragments locally to 20 cm, in an ashy matrix. Clasts are hetrolithic, dominantly rhyolite flow material especially the larger clasts. However small, 2-3 cm angular mafic fragments are also entrained in the debris flow. Rhyolite clasts are bleached, ser to ep alt'd. Matrix is a chi alt'd ash.

158.62 159.22 Basalt Undifferentiated: Chlorite; Possible amygdaloidal basalt? Possibly alt'd feldspars. Small blue vesicles. CHl alt'd throughout, HW sharp, irregular, 50 degrees TCA, FW ragged, 10 degrees TCA.

176.72 182.49 Rhyolite Flow:

Classic Maroon to dark grey rhyolite flow. Extremely glassy and coarsely feldspar phyric to 8 mm. Local wk pervassive ep alteration -saussertization, giving the core a mottled appearance. @180.15 an extremely well developed flow banding develops, almost SRD-like, however the interval is too



Hole-ID: TCU04135 Page: 6

Interva	al (m)	Description	Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From	То		No.	(m)	(m)	(m)	g/t	g/t	%	%	%
		coarse. Lower contact marked by a dramatic increase in alt'n over 20 cm.	-								
182.49	188.17	Rhyolite Flow: Bleached; Disseminated Pyrite									
		Extremely Bleached and alt'd rhyolite flow, porous. Matrix groundmass has been completely alt'd to									
		a white material, perhaps kaolinite? However, qtz-phenocrysts, 1-2 mm, remain and are abundant.									
		Also, chl veins are perserved throughout. Only groundmass and feldspar obliterated.									
		Interestingly, possibly secondary py formed throughout bleached zone, perfect cubes to 3mm. Also,									
		of interest, relict alt'd clasts are still visible, 2-3 cm, slightly less alt'd than main body.									
		Lower contact marked by alt'n fading out over 40 cm. A similar alteration was found in hole TCU92-49, from 215.85 to 219.15. In 92-49 it looks to be an ankerite alt'n with rusting on									
		weathered surfaces, not as porous, and no py.									
		weathered surfaces, not as polous, and no py.									
188.17	189.70	Rhyolite Debris Flow: Broken Core; Calcite									
		Rubbley Rhyolite Debris Flow. Rough Irregular calcite coated fractures. Similar to RDF above the									
		bleached zone and RFL, Lapilli packstone locally with possibly a slight ser alt'n giving an overall									
		glassy beige appearance. LC Razor sharp, 20 degrees TCA.									
189.70	190.14	Quartz-Feldspar Porphyry Dyke: Chlorite									
100.70	150.14	Unusual QFP dyke. Abundant grey qtz in a transitional matrix. HW is interfingered with country									
		rock so a transitional chill margin develops. Towards FW matrix much more chloritic, but with									
		rarer phenos, almost looks like a BDY but no contact, (lost core?) FW razor sharp, marked by									
		qtz-chl vein 25 degrees TCA.									
190.14	190.90	Rhyolite Debris Flow: Bleached									
		Bleached Rhyolite Debris flow. Similar alt'n to above bleached zone, except weaker. Alteration									
		fades out over 20 cm.									
400.00	400.00	Plants Public Plants Plants Plants									
190.90	192,86	Rhyolite Debris Flow: Chlorite; Sericite									
		Rhyolite Debris Flow. Similar to above RDF's with abundant angular lapilli sized fragments with	10479	191.86	192	.86 1.00	0.07	0.00	0.00	0.00	0.00
		rare clasts to 10 cm plus. Matrix is feldspar phyric, as are mosts clasts. Variable alteration									
		between chi and ser alt'n of groundmass, and clasts. Some V small sulphide clasts noted, <1cm, <1%									
		of total volume is py. Rare late calcite coated fractures, 1-2 mm hard calcite coating. Lower									



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Interval (m) From To		Description	Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %
		contact is sharp, mechanically broken, marked by massive increase in sulphides.									
192.86	193.40	Pyrite Facies Massive Sulphide: Sericite; Barite									
		Pyrite Facies Mineralization. VFG to granular in a dominantly sericite matrix. Rare purplish	10480	192.86	193.4	40 0.54	0.19	0.00	0.00	0.00	0.00
		nodules of barite to 5 mm, locally as matrix. Granular txt's appear to be at the expense of vfg									
		material, suggesting a py recrystallization. No other sulphides noted. Py 80-90% of interval.									
		Lower contact irregular, bulbous, somewhat transitional to Debris Flow Facies.									
93.40	195.27	Ore Clast Breccia:									
		Debris Flow Facies Mineralization. Abundant py clasts @ HW of interval likely a result of	10481	193.40	194.	77 1.37	0.05	0.00	0.00	0.00	0.00
		expanding sulphide pile. Below that is a unit more like RDF, with abundant large rhyolite clasts,	10482	194.77	195.2	27 0.50	1.35	22.00	1.06	0.19	1.58
		perhaps too high of an energy environment for MSSX to be preserved? Rare unusual dark py clast,									
		sooty. Towards FW a rubbley zone with muddy calcite fractures forms, 50 degrees TCA, 194.77m.									
		Sooty tet and cpy noted in bands, thickest tet band, approx 2.5 cm @ FW contact. FW is intrusive,									
		late BDY cuts in 60 degrees TCA.									
95.27	199.76	Rhyolite Debris Flow: Silica									
		Rhyolite Debris Flow. Silic'd grey. Rare large clast of rhyolite flow material is a grey silc'd	10483	195.27	196.	27 1.00	0.18	0.00	0.00	0.00	0.00
		matrix. Clasts may be up to 15 cm but very rare. Minor fragments in the 2-5cm range. Lower									
		contact marked by increased alt'n over 15 cm.									
		195.27 195.70 Basalt Dyke: Chlorite; Chlorite and mag alt'd BDY. Dark green to black - clips off									
		ore zone. Some minor bleaching at HW. FW marked by 1.5cm CHL vein 60deg TCA, sharp,									
		wavy.									
		197.93 198.36 Basalt Dyke: Broken Core; Chlorite; Glassy Chl alt'd rubbley basalt dyke. Contacts									
		are parallel, straight, 60 degrees TCA.									
99.76	200.45	Rhyolite Undifferentiated: Bleached; Quartz Vein									
		Bleached rhyolite similar to above with obliderated groundmass and preserved chl and qtz eyes.									
		Lower contact gradual, alt'n decreases over 15 cm.									
00.45	210.59	Rhyolite Ash Tuff: Chlorite; Sericite									
		Rhyolite Ash Tuff. Variably ser and chl alt'n, chl alt'n becoming stronger with depth. Minor									



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Interval	(m)
From	То

Description

Sample

From (m)

То (m) (m)

Zn

fragments in the 0.5-1cm range, rarely to 3 cm, angular, some possible larger fragments but thought to be alt'n veining artifacts. Lower contact is subtle, rhyolite becomes feldspar phyric, 55

201.26 202.08 Basalt Dyke: Chlorite; Chl alt'd BDY with rhyolite xenos to 15 cm. HW shattered, lost. FW marked by chl and py veining, 65 degrees TCA.

202.60 203.73 Basalt Dyke: Chlorite; As above, chl alt'd Basalt dyke with rhyolite xenos. HW planar, 35 degrees TCA. FW chl veined, 45 degrees TCA. xenos to 8 cm.

206.46 209.70 Basalt Dyke: Chlorite; CHL alt'd BDY. 5 cm chl veins at HW, 30 degrees TCA. FW 30 degrees TCA, contacts are sharp, straight.

210.59 227.24 Rhyolite Flow Breccia: Chlorite

Rhyolite Flow Breccia. Feldspar phyric throughout, with well preserved creamy white laths to 2 mm. Defining characteristic of this interval is numerous subangular to cuspate clasts embedded within a rhyolite matrix, perhaps an autobreccia? Mottled grey green, extremely rare jasper chip. Lower contact of rhyolite flow breccia marked by 4 cm cal and chl veins, 60 degrees TCA.

212.18 213.46 Rhyolite Ash Tuff: Chlorite; Extremely CHL darkened interval, perhaps an ash bed. HW gradational, FW sharp.

221.18 221.40 Basalt Dyke: Chlorite; CHL darkened Basalt dyke. HW qtz-veined, 60 degrees TCA, FW 40 degrees TCA, straight.

222.80 222.90 Basalt Dyke: Chlorite; CHL alt'd Basalt Dyke, rubbley contacts.

222.97 223.08 Basalt Dyke: Chlorite; CHL alt'd basalt dyke, contacts 60 degrees TCA.

227.24 233.02 Rhyolite Lapilli Ash Tuff: Jasper, Chlorite

Chlorite darkened rhyolite lapilli ash tuff. Subrounded to subangular lapilli. Rare jasper chips. Rare phyric patch alt'n. Rare phyric patch, probably alteration. No bedding to speak of. Lower contact marked by textural change, increase in feldspar phenos.

233.02 235.90 Rhyolite Flow Breccia: Chlorite

Rhyolite Flow Breccia. Similar to above. Angular to cuspate rhyolite fragments in a rhyolite matrix. Hyaloclastite? Pervassively chlorite darkened, coarsely feldspar phyric. Unusual in that the cuspate fragments give a hyaloclastite appearance. Lower contact marked by qtz-chl veins 5 degrees TCA.



Sample

No.

Τo

(m)

(m)

Interval Au

(m)

Hole-ID: TCU04135

Pb %

Zn

%

Cu %

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Interva	al (m)	Description
From	То	
-		
235.90	241.15	Rhyolite Lapilli Ash Tuff: Chlorite Extremely Chl darkend Rhyolite Lapilli Ash Tuff. Similar to above. Lapilli are quite samll, 2 cm angular to cuspate, possible bedding 60 degrees TCA. Lower contact marked by increase in feldspar phenos.
241.15	243.03	Rhyolite Flow Breccia: Chlorite Chlorite darkened Rhyolite flow breccia, similar to above. Rhyolite frags in a rhyolite matrix. Coarse feldspars throughout. Fragments more rounded, less cuspate than earlier intervals. Lower contact is transitional, clast become embedded in an ashy matrix.
243.03	248.13	Rhyolite Ash Tuff: Chlorite; Jasper Dark Charcoal grey rhyolite ash tuff. Well bedded 50-60 degrees TCA. Abundant jasper chips throughout. Ashier than earlier intervals, lapilli are very rare. Numerous parallel x-cutting chl veins, and stringers, 40 degrees TCA. Rare feldspar phenos. Lower contact irregular, 20 degrees TCA, conformable.
248.13	252.54	Rhyolite Flow: Pyrite; Stockwork Some what Stockworky silc'd rhyolite flow. Pale creamy beige to grey. Somewhat feldspar phyric but they are obliderated with depth. Stwk alt'n look somewhat similar to pillows in basalt, extremely glassy beige groundmass separated by grey curvy veins with py cores -alt'n around veins? Py also as fracture fill and dissem, 1%. Lower contact marked by a dyke, sharp, straight, 50 degrees TCA.
252.54	254.00	Basalt Dyke: Chlorite; Calcite CHL alt'd Basalt Dyke. Minor carb on fracutres. Final 20 cm extremely chl and carb alt'd. Lower contact veined, 55 degrees TCA.
254.00	266.45	Rhyolite Flow: Silica; Pyrite; Sericite Rhyolite Flow, somewhat unusual in that it's massive glassy grey, probably silc'd. Abundant (3%) py in a pseudo stockwork mineralization. Also abundant late qtz veining, bullish, not related to

py mineralization. Local wk ser alt'n, possibly a QSP? Minor calcite covered rubble. Lower



292.30 292.30 End of Hole:

Redfern Resources Ltd. Diamond Drill Log Lithology Description

Hole-ID: TCU04135

Pb Zn

0.04 0.01 1.12

Cu

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Interva From	ll (m) To	Description	Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t
		contact marked by increased sulphides.						
266.45	266.80	Semi-Massive Sulphide: Pyrite						
		Small possibly stratiform Semi massive sulphide, possibly 20-30% py throughout, no other sulphides noted. Interval may be sh'd or folded, Py bands 40 degrees TCA. Lower contact cut by BDY 25 degrees TCA.	10484	266.45	266.8	80 0.35	0.25	3.00
266.80	270.38	Basalt Dyke: Chlorite; Disseminated Pyrite; Quartz Vein						
		CHL alt'd BDY. CUt by late qtz-veins with breccia txt's and chl rims. LC wavy, 60 degrees TCA.						
270.38	281.16	Rhyolite Flow: Pyrite; Silica						
		Rhyolite Flows. Massive silc'd to pale grey, moderate qtz-veining. Very glassy. A wk stwk style						
		mineralization occurs, 1-2% py throughout. More feldspar phyric and flow banded towards FW, 40 degrees TCA. WK ep alt'n, saussertization.						
		278.43 279.15 Basalt Dyke: Chlorite; Disseminated Pyrite; Calcite; Calcite alt'd Basalt Dyke. HW						
		muddy, calcite veins + py, 80 degrees TCA. FW intense CHL alt'n, sharp, 50 degrees TCA, broken.						
281.16	292.30	Basalt Flow: Chlorite; Calcite						
201.10	202.00	CHL alt'd basalt flows. Rubbley, calcite coated, rough fractures. Minor flow banding 55 degrees						
		TCA. Rare zones of intense chl+cal+/-mag alt'n. Possible pillow margins. Looks related to above BDY.						



Hole-ID: TCU04135 Page: 11A

Assays

Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %	SG	Cu ppm	Pb ppm	Zn ppm	Au ppb	Ag ppm	As ppm	AI %	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm
10478	46.20	46.44	0.24	0.06	0.00	0.00	0.00	0.00	0.00	197	86	251	0	2.0	15	2.31	60	5	0.46	1	23
10479	191.86	192.86	1.00	0.07	0.00	0.00	0.00	0.00	0.00	64	28	279	0	1.3	15	1.39	60	5	0.75	1	5
10480	192.86	193.40	0.54	0.19	0.00	0.00	0.00	0.00	0.00	85	100	121	0	3.6	5	0.37	35	10	0.15	1	8
10481	193.40	194.77	1.37	0.05	0.00	0.00	0.00	0.00	0.00	47	34	263	0	1.1	15	1.37	25	5	0.45	1	8
10482	194.77	195.27	0.50	1.35	22.00	1.06	0.19	1.58	0.00	10000	1898	10000	0	22.8	80	1.63	35	5	0.47	65	9
10483	195.27	196.27	1.00	0.18	0.00	0.00	0.00	0.00	0.00	639	764	1297	0	4.5	35	1.70	60	5	0.68	5	12
10484	266.45	266.80	0.35	0.25	3.00	0.04	0.01	1.12	0.00	353	178	10000	0	3.6	60	0.69	25	5	1.19	49	16



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Assays ...continued

Sample No.	From (m)	To (m)	Interval (m)	Cr ppm	Fe %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Sb ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W ppm	Y ppm
10478	46.20	46.44	0.24	78	5.58	10	1.62	434	3	0.16	24	560	5	20	21	0.09	10	102	10	1
10479	191.86	192.86	3 1.00	38	2.48	10	0.76	401	7	0.12	3	220	5	20	117	0.02	10	1	10	1
10480	192.86	193.40	0.54	44	10.00	10	0.09	58	24	0.02	1	10	5	20	17	0.01	10	1	10	1
10481	193.40	194.77	7 1.37	76	3.57	10	1.04	350	9	0.08	19	400	5	20	60	0.03	10	1	10	1
10482	194.77	195.27	7 0.50	68	4.15	10	1.49	392	1	0.05	15	80	15	20	45	0.05	10	6	10	1
10483	195.27	196.27	7 1.00	51	3.47	10	1.29	492	2	0.08	3	800	5	20	52	0.06	10	76	10	1
10484	266.45	266.80	0.35	54	8.86	10	0.35	319	3	0.01	31	770	5	20	27	0.01	10	4	10	1



Hole-ID: TCU04136

Page: 1

Collar Coordinates

North (m): East (m)

Elevation (m):

15186.00 10736.00

111.00

Azimuth (degrees):

Dip (degrees): Length (m): 109.00 -53.89 200.86 Started:

Completed:

16/10/2004 18/10/2004 Date Logged:

16/10/2004

Logged By: Report Printed: MA. 16/12/2004

Down Hole Survey Tests

Depth (m)	Azimuth	n Dip		pth m)	Azimuth	Dip	Depth (m)	Azimutł	n Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip
0.00	109.00	-53.89	74	.44	110.99	-54.37	148.89	112.65	-54.74					·	-			
2.86	109.09	-53.93	77	30	111.08	-54.38	151.75	112.70	-54.70									
5.72	109.25	-53.90			111.12		154.61	112.74	-54.67									
8.58	109.45	-53.93	83	3.03	111.21	-54.45	157.48	112.82	-54.65									
11.45	109.58	-53.92	. 85	.89	111.25	-54.48	160.34	112.89	-54.60									
14.31	109.56	-53.92	88	3.76	111.33	-54.53	163.20	112.99	-54.56									
17.17	109.61	-53.94	91	.62	111.47	- 54.54	166.07	113.11	-54.55									
20.04	109.66	-53.98	94	1.48	111.58	-54.59	168.93	113.17	-54.59									
22.90	109.70	-53.98	97	7.35	111.59	-54.61	171.79	113.31	-54.60									
25.76	109.83	-54.02	100).21	111.65	-54.63	174.66	113.43	-54.58									
28.63	109.86	-54.04	103	3.07	111.74	-54.65	177.52	113.44	-54.57									
31.49	110.01	-54.07	105	5.94	111.78	-54.68	180.38	113.51	-54.53									
34.35	110.06	-54.09	108	3.80	111.77	-54.69	183.25	113.57	-54.45									
37.22	110.12	-54.09	111	.66	111.86	-54.70	186.11	113.55	-54.39									
40.08	110.27	-54.10			111.96		188.97	113.53	-54.38									
42.94	110.29	-54.14	117	7.39	112.02	-54.72												
45.81	110.33	-54.15	120).25	112.10	-54.71												
48.67	110.41	-54.18	123	3.12	112.21	-54.69												
51.53	110.48	-54.18	125	5.98	112.27	-54.70												
	110.50				112.28													
	110.61				112.31													
	110.68				112.37													
	110.68				112.40													
	110.77				112.50													
	110.86				112.53							•						
71.58	110.90	-54.35	146	3.02	112.61	-54.75												



Hole-ID: TCU04136

Pb Zn % %

Cu %

From

(m)

No.

To Interval Au

(m)

g/t

(m)

Page: 2

Interva	l (m)	Description
From	То	
0.00	0.93	Casing: No Recovery NW casing no recovery.
0.93	22.43	Basalt Intrusive: Chlorite; Magnetite CHL alt'd Basalt Intrusive. Moderately magnetic. Locally showing fine to medium grained intrusive txt's. Somewhat felted looking with chl alt'n. Overall, massive dark green, cut by rare qtz-chl veins, 1-3 cm. Lower contact wavy to brecciated, somwhat obscured by chl darkening and hem staining. 35 degrees TCA.
22.43	27.03	Sloko Rhyolite Dyke: Chlorite Sloko Rhyolite Dyke. Distinct flow banding at contacts. Some what coarser phenos and chl masses than usual. Pale green to pale salmon colored. Trace dpy. Flow banding 25-55 degrees TCA. Thin chl on fractures. Lower contact sharp, 70 degrees TCA. 20 cm of chl alt'n into FW.
27.03	31.14	Rhyolite Crystal Lapilli Tuff: Jasper Crystaline Ash Tuff. Abundant feldspar phenos in an ashy matrix. Possible rare, highly alt'd lapilli. Trace DPY, rarely replaced by mag. Minor jasper chips to 3 mm. Possible v wk bedding 30-40 degrees TCA. Feldspar phenos partially absorbed, rounded. Homogenous grey green. Rare x-cutting chl veins with bleached halos. Lower contact marked by an increase in mottling, likely conformable.
31.14	41.74	Rhyolite Flow Breccia: Chlorite; Epidote Rhyolite Flow Breccia. Mottled pale cream to dark green. Contains abundant feldspar phenos, both in matrix and breccia fragment. Frags likely an alt'n feature or an autobreccia, rhyolite in rhyolite. Minor bleached, sausseritized zones. Rare py cubes replaced by mag. Lower contact marked by transition from CHL alt'n to hem alt'n in groundmass.
41.74	47.37	Rhyolite Flow: Hematite Classic Maroon Rhyolite. Coarsely feldspar phyric, locally stained pink. Minor ep stringers x-cut core and consume feldspars, -saussertization. Minor wormy jasper/hem. Rare flow banding, 40 degrees TCA. Minor white x-cutting qtz-chl veins. Groundmass extremely glassy, pink. Lower contact marked by a change in groundmass, from hem stained to chl alt'd.



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Interval (m)	Description		Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From To			No.	(m)	(m)	(m)	g/t	g/t	%	%	%

47.37 54.46 Rhyolite Flow Breccia: Chlorite; Hematite

Rhyolite Flow Breccia. Very well preserved angular feldspar phenos. Mottled with small differently alt'd patches/fragments giving a breccia texture. Breccia fragments appear to be same composition as groundmass, autobreccia? In addition, a strong network of crackly angular chl veins is developed crackle breccia texture, especially in final metre above FW. FW marked by first ashy interval, 30 degrees TCA, with 5 cm of bleaching into HW.

54.46 60.47 Rhyolite Debris Flow: Chlorite; Hematite

Rhyolite Debris Flow. Wkly feldspar phyric, ashy with rare coarse phyric blocks of rhyolite flow material. Blocks to 40 cm with sharp contacts, locally alt'd rims with bleached cores. Variably hem stained. Wk bedding 45 degrees TCA. Lower contact subtle, matrix changes to a more glassy material, 40 degrees TCA.

60.47 73.23 Rhyolite Flow Breccia: Chlorite

Rhyolite Flow Brecia. Angular rhyolite clasts or lapilli in a rhyolite matrix -autobreccia. Feldspar phyric throughout. Minor ashy intervals/interbeds. 1 80 cm bleached zone, possibly a flow. Minor bullish white qtz-chl veins. Rare mag+py vein. Towards lower contact a crackly chl vein system develops, crackle breccia.

60.85 61.05 Basalt Dyke: Chlorite; Magnetite; CHL and MAG alt'd BDY. Contacts 60 degrees TCA.
 63.90 64.18 Basalt Dyke: Chlorite; Magnetite; HW Stepped, 20 degrees TCA, FW straight 40 degrees TCA.

64.52 65.24 Basalt Dyke: Chlorite; Quartz Vein; Magnetite; CHL alt'd qtz-veined basalt dyke. Contacts 50 degrees TCA, HW extremely chi alt'd.

73.23 100.35 Rhyolite Debris Flow: Chlorite; Hematite

Rhyolite Debris Flow. Hem stained to bleached rhyolite clasts as blocks in an ashy matrix. Matrix is pervasively chl alt'd, local intervals of rhyolite flow breccia up to 2 metres, interbedded or perhaps a large block. Most clasts from 2-40 cm. Rare jasper chip in matrix. Lower contact marked by matrix becoming glassy.

75.29 77.85 Rhyolite Flow Breccia: Rhyolite flow breccia. Interflow or mega block?? 90.33 92.26 Basalt Dyke: Chlorite; Calcite; Biotite; Amphibole bearing chl alt'd basalt dyke.



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Interval	(m)
From	То

Description

Sample From No. (m)

То

Interval

Pb Zn Cu

Minor bio relict zones, trace dpy. Minor calcite veining, locally developing vein breccia. HW broken, calcite veined, 60 degrees TCA. HW wavy, irregular, 45 degrees TCA.

100.35 107.95 Rhyolite Flow: Silica

Glassy Grey rhyolite flow. Upper 5 m very few feldspars preserved. Unit appears to be bleached or alt'd grey, silc'd? With depth unit becomes more phyric, massive, rarely with autobreccia look over small intervals. Lower contact defined by the matrix returning to ash.

107.95 144.86 Rhyolite Debris Flow:

Rhyolite Debris Flow. First 12 m of interval extremely chl darkened or bleached likely due to basalt intrusion activity. Hetrolithic rhyolite debris flow dominantly rhyolite flow clasts that are up to 40 cm in an ashy matrix to phyric matrix. extremely rare chl alt'd angular mafic clasts, vesicular basalt. Clasts are generally evenly spaced, sporadic, but locally develops into a lapilli packstone, numerous small rounded fragments, matrix supported. *There should be a QFP around here somewhere but it's nowhere to be found ... * Locally rubbley due to BDY intrusions. Lower contact marked by stratiform sulphides in the matrix and as clasts, conformable.

- 111.22 111.97 Basalt Dyke: Chlorite; Magnetite; CHL and mag alt'd basalt dyke, HW sharp, 40 degrees TCA, FW straight, 20 degrees TCA.
- 114.25 114.65 Basalt Dyke: Chlorite; Magnetite; CHL alt'd black BDY with pseudo hyaloclastite txt's due to veining.
- 115.52 115.92 Basalt Dyke: Chlorite: Contacts losts.
- 116.15 117.08 Basalt Dyke: Chlorite; Calcite; CHL and calcite alt'd basalt dyke, trace dissem cpy. HW brecciated, 85 degrees TCA, FW cal veined 60 degrees TCA.
- 117.70 118.00 Basalt Dyke: Broken Core; Broken BDY
- 118.80 120.39 Basalt Dyke: Chlorite; Magnetite; HW veined 60 degrees TCA, FW brecciated, xenos of rhyolite noted.
- 137.38 143.60 Basalt Dyke: Epidote; Chlorite; Quartz Vein; Large BDY with prominent ep alt'd around a sugary quein. Vein approx 5 cm ep halo 30 cm. HW sharp, straight, 60 degrees TCA. Minor highly alt'd rhyolite xenos. FW 65 degrees TCA.



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Interval (m) From T	Description	Sample No	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %
	Py supported debris flow. Locally 20-25% py, with 1-2% silvery sphalerite, v pale. 1 2cm py clasts noted. Sulphides locally banded or bedded, 40 degrees TCA. Interesting that the sulphides locally fill in the space between the rhyolite clasts. Sulphides are generally quite fine, although last 20 cm of interval py becomes quite granular, with rare 6 sided x-talls noted. minor jasper. Unit is clipped off by a BDY, ragged contact, 35 degrees TCA.	10485	144.86	146.	04 1.18	0.22	0.00	0.00	0.00	0.00
146.04 147	Basalt Dyke: Glassy black basalt dyke, with 1 20cm xenolith of rhyolite at centre. Lower contact 65 degrees TCA, sharp chl alt'd.									
147.21 171	Rhyolite Debris Flow: Chlorite; Epidote; Jasper Rhyolite Debris Flow. CHL and EP alt'd RDF. Defining characteristic is large variably bleached, rarely flow banded clasts, possibly >20cm, maybe as large as 2m. Variably feldspar phyric, clasts almost always contain feldspars, matrix varies from phyric to ashy. V rare angular mafic frags, generally small 1-2 cm. Somewhat fining downwards, jasper chips increase with depth and no clasts >10cm in final 3 metres. Lower contact marked by a transition from strongly chl darkened ashy groundmass to ser alt'd and highlighted by sulphide clasts. Contact wavy 70 degrees TCA. 161.17 161.54 Dyke: Epidote; Pyrite; Oddly alt'd dyke, brown ep alt'n with 1 1.5 cm py clast.	10486	170.95	171.	95 1.00	0.03	0.00	0.00	0.00	0.00
171.95 173	Ore Clast Breccia: Pyrite; Sphalerite; Sericite Sericite altered Ore Clast Breccia. Py and silvery pale sphalerite clasts to 2cm. Sooty rims noted on sphal clasts, -tet? 2-3% dissem py. Sulphide clasts are rare, mostly highly altered rhyolite clasts to 5 cm with waxy green sericite matrix, somewhat banded matrix, ser/chl banding 45 degrees TCA. Sulphide content increases with depth, but still abundant green to brown sericite gangue. Sulphide clast size increases to 2.5 cm, py partially replaced by cpy. Sulphides becoming wkly banded. Minor barite noted towards FW of interval, generally associated with sphalerite bands and clasts. Lower contact marked by a change to massive sulphides, sharp, wavy contact, likely conformable. 60 degrees TCA.	10487 10488	171.95 172.65		65 0.70 45 0.80		0.00 24.00		0.00 0.58	0.00
173.45 174	5 Zinc Facies Massive Sulphide: Pyrite; Chalcopyrite Zinc Facies Mineralization with abundant cpy. Well banded, 55 degrees TCA. Most common sulphide is sphal, pale silvery sphal possibley 30-40 % with gange of barite and sericite. 2 distinct	10489 10490	173.45 174.16		16 0.71 95 0.79		72.00 158.00			



Hole-ID: TCU04136 Page: 6

Interva From	al (m) To	Description	Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %
TION		bands of py+cpy mineralization. 10-15cm long, 55 degrees TCA, cpy some what clotty, replaces py? Cpy also as irregular clotty masses throughout interval. Cpy may be as high as 10% of interval. Possible sooty tet as part of the sphal/barite mixture. Lower contact is Razor Sharp, cpy veined, 50 degrees TCA.									
174.95	175.66	Basalt Dyke: Broken Core; Chlorite Rubbley Basalt Dyke. Chl alt'd somewhat flow banded, 40 degrees TCA. LC shattered, lost.	10492	174.95	175.	95 1.00	0.10	0.00	0.00	0.00	0.00
175.66	184.45	Rhyolite Debris Flow: Jasper; Chlorite Rhyolite Debris Flow. Feldspar phyric rounded rhyolite clasts in an ashy matric. Locally abundant jasper as fracture fill or a matrix. Minor late chl veins and qtz veins x-cut DBF. Fines downwards. Jasper increases with depth. Unit is truncated at FW by a BDY, contact mechanically shattered.									
184.45	185.64	Basalt Dyke: Chlorite CHL alt'd Basalt dyke. Possilbe v-small feldspars, 0.5mm. LC irregular, wavy, 65 degrees TCA.									
185.64	197.96	Stockwork: Silica; Pyrite Silc'd Stockworked mineralized rhyolite? rare feldspar phenos. Pale to dark grey rhyolite with cuvy-wavy VFG py veins. Py almost a brown color. Protolith appears to be rhyolite debris flow, rare possible clasts noted, 1 ep alt'd clasts noted, possible mafic frag? Local strong foliation/flow banding???, particularly at HW. 50 degrees TCA. Post mineralization there appear to ba a minor crackly qtz-veining event with cm scale offsets. Textural change at approx 194.35m. V small chl flecks rarely with py cores, alt'n or protolith change? Py stockwork becomes more angular too. LC sharp, 35 degrees TCA, minor rubble.									
197.96	200.86	Rhyolite Ash Tuff: Chlorite; Disseminated Pyrite Rhyolite Ash Tuff? A dark green/charcoal grey ashy interval. Some what chl alt'd or darkened, with seconday x-cutting chl veins, rarely with py. Trace. moderately developed bedding, 30 degrees TCA. Possibly a basalt ashy, but looks to be "rhyolite C".									
200.86	200.86	End of Hole:									



Hole-ID: TCU04136 Page: 7A

Assays

Sample No.	From (m)	To (m)	interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %	SG	Cu ppm	Pb ppm	Zn ppm	Au ppb	Ag ppm	As ppm	AI %	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm
10485	144.86	146.04	1.18	0.22	0.00	0.00	0.00	0.00	0.00	521	964	2392	0	3.9	20	0.74	25	5	0.15	12	6
10486	170.95	171.95	1.00	0.03	0.00	0.00	0.00	0.00	0.00	86	24	262	0	0.3	5	1.90	390	5	0.69	1	2
10487	171.95	172.65	0.70	0.09	0.00	0.00	0.00	0.00	0.00	398	222	3318	0	1.9	5	0.66	25	5	0.33	16	4
10488	172.65	173.45	0.80	1.28	24.00	0.51	0.58	3.38	2.85	5008	5360	10000	0	22.5	65	0.38	25	5	0.26	125	7
10489	173.45	174.16	0.71	3.22	72.00	2.15	0.98	4.94	3.81	10000	9702	10000	0	30.0	315	0.31	45	5	0.32	200	7
10490	174.16	174.95	0.79	4.73	158.00	1.96	2.36	10.40	3.63	10000	10000	10000	0	30.0	615	0.41	50	5	0.12	440	7
10492	174.95	175.95	1.00	0.10	0.00	0.00	0.00	0.00	0.00	859	48	294	0	2.5	15	1.52	465	5	0.46	1	3



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Assays ...continued

Sample No.	From (m)	To (m)	Interval (m)	Cr ppm	Fe %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Sb ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	- W ppm	Y ppm
10485	144.86	146.04	1.18	58	4.87	10	0.60	207	3	0.04	2	60	5	20	7	0.03	10	1	10	1
10486	170.95	171.95	1.00	40	1.78	10	1.10	356	1	0.15	3	230	5	20	46	0.04	10	1	10	5
10487	171.95	172.65	0.70	37	1.86	10	0.54	127	1	0.03	1	170	5	20	17	0.01	10	2	10	6
10488	172.65	173.45	0.80	73	6.50	10	0.17	49	1	0.01	1	10	10	20	24	0.01	10	2	10	. 1
10489	173.45	174.16	0.71	30	10.00	10	0.21	61	1	0.01	1	10	75	20	34	0.01	20	3	10	1
10490	174.16	174.95	0.79	62	10.00	10	0.22	94	6	0.02	1	10	250	20	23	0.01	10	9	10	1
10492	174.95	175.95	1.00	59	3.87	10	1.00	261	1	0.07	3	320	5	20	43	0.05	10	6	10	8



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Collar Coordinates

North (m): East (m) Elevation (m): 15186.00 10736.00

111.00

Azimuth (degrees): Dip (degrees):

Length (m):

104.43 -39.57 193.24 Started: Completed: 18/10/2004 20/10/2004 Date Logged: Logged By: 18/10/2004 TS./ MA.

Report Printed:

16/12/2004

Down Hole Survey Tests

											,							
	Depth (m)	Azimutl	n Dip	Depth (m)	Azimuth	n Dip	Depth (m)	Azimuth	n Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip
*****	0.00	104.43	-39.57	67.91	108.33	-40.31	144.68	112.88	-40.24									
	2.95	104.48	-39.61	70.86	108.58	-40.32	147.63	112.99	-40.14									
	5.90	104.63	-39.66	73.81	108.79	-40.33	150.59	113.16	-40.09									
	8.85	104.68	-39.73	76.77	109.01	-40.34	153.54	113.30	-40.04									
	11.81	104.75	-39.81	79.72	109.25	-40.30	156.49	113.47	-39.95									
	11.89	104.60	-39.70	82.67	109.43	-40.33	159.45	113.72	-39.88									
	14.76	104.83	-39.85	85.63	109.59	-40.37	162.40	113.89	-39.80									
	17.71	105.00	-39.91	88.58	109.78	-40.41	165.35	114.06	-39.73									
	20.66	105.14	-39.98	91.53	109.99	-40.43	168.30	114.29	-39.66									
	23.62	105.33	-40.02	94.48	110.16	-40.42	171.26	114.52	-39.57									
	26.57	105.56	-40.09	97.44	110.34	-40.41	174.21	114.67	-39.53									
	29.52	105.76	-40.15	100.39	110.51	-40.40	177.16	114.83	-39.50									
	30.18	105.70	-40.00	103.34	110.72	-40.42	180.11	114.97	-39.42									
	32.48	106.01	-40.17	106.30	110.91	-40.46	183.07	115.08	-39.32									
	35.43	106.13	-40.22	109.25	111.10	-40.48	186.02	115.23	-39.17									
	38.38	106.28	-40.25	112.20	111.21	-40.48	188.97	115.44	-39.01									
	41.33	106.48	-40.26	115.15	111.37	-40.49												
	44.29	106.66	-40.28	118.11	111.46	-40.52												
	47.24	106.87	-40.29	121.06	111.56	-40.53												
		107.06		124.01	111.70	-40.55												
		107.28			111.84													
		107.51			111.97													
		107.73			112.14													
		107.40			112.36													
		107.95			112.57													
	64.96	108.16	-40.28	141.73	112.75	-40.35												



Hole-ID: TCU04137 Page: 2

Pb

Zn %

Cu %

From To Interval Au

(m)

Interva	ıl (m)	Description
From	То	
0.00	1.31	Casing:
		Casing, no recovery.
1.31	18.90	Basalt Intrusive:
		Dark green grey - dark grey, very fine grained - fine grained, weakly - moderately magnetic, dense,
		massive, featureless, monotonous, mafic rock. Amphibole phyric sections. Lower contact: Sharp, broken core, no plane.
18.90	20.46	Rhyolite Undifferentiated:
		Light green grey - dark green grey - cream green, locally feldspar phyric rhyolite, presumably a rhyolite debris flow or a rhyolite flow breccia. Few distinct fragments up to approx several cm
		size can be recognized and not well defined fragments, up to approx dm size, with blurry outlines.
		Locally fragments and/ or sections with up to several mm sized, irregular jasper specks grading into small scale mottled hematitic stain. The interval is chlorite and epidote bearing and non -
		very weakly magnetic throughout. Lower contact: Sharp, @ 45 deg to CA.
20.46	24.00	Sloko Rhyolite Dyke:
		Beige - pale green - cream colored, dense, massive sloko rhyolite dike with dark grey - brown -
		green brown (chlorite) sub mm up to > cm sized, sub round - irregular spots of unknown origin, but at least partially chloritic altered. Variably foliated (sections with foliation entirely lacking,
		faintly foliated sections, foliated sections particularly near lower contact) @ 45 - 50 deg to CA. Lower contact: Sharp, distinct, @ 45 deg to CA.
24.00	28.67	Rhyolite Debris Flow:
		Dark green grey - light green grey - grey, locally slightly hematite stained, variably feldspar
		phyric rhyolite debris flow. Well defined fragments, partially with hematite stained seams and cream - light green centers of rhyolitic composition. Possibly polylith: Few, dark brown
		(hematite?) - grey, very fine grained, featureless fragments, up to approx 2 cm size. Interval is
		chlorite, epidote and hematite bearing, non magnetic. Lower contact: Gradational, no plane.
28.67	36.68	Rhyolite Flow Breccia:
		Light green grey - light grey, variably hematite stained, variably feldspar phyric rhyolite flow



Hole-ID: TCU04137

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Interval (ı	m)	Description		Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From	То			No.	(m)	(m)	(m)	g/t	g/t	%	%	%

breccia. Fragments are more or less absorbed, mostly with ghostly, faint appearance, partially with signs of flow brecciation (feathery margins) and partially aligned to a very crude foliation @ 30 - 40 deg to CA. The last 0.5 m above lower contact with an ashy appearance and a rather obvious developed foliation. Lower contact: Sharp, conformable, @ approx 55 deg to CA.

36.68 44.48 Rhyolite Flow:

Light green grey - pink grey, dense, massive variably feldspar phyric rhyolite flow. Possibly few fragmental, flow brecciated inclusions near upper contact: Very weakly - weakly magnetic, with magnetism increasing within darker colored (grey) sections. Interval is variably intense nerved with hairline up to several mm wide veins (+/- quartz, epidote, +/- chlorite, +/- magnetite, +/- garnet), which are partially associated with bleaching and/ or alteration halos, resulting in a somewhat mottled - patchy appearance within some sections. (Possibly the patches are partially the result of a fragmental texture, i.e. there is possibly RFX sections near the upper contact. Lower contact: Color change over a few cm from pinkish grey - green grey.

44.48 74.14 Rhyolite Flow Breccia:

Green grey - dark green grey - locally slightly pinkish, locally slightly hematite stained rhyolite flow breccia with locally very few, up to several cm sized well defined fragments (light green - cream colored rhyolite) and similar sized, ghostly - indistinct fragments, which are more or less absorbed, broken up and display feathery margins as a result of flow brecciation. Sections with sub cm up to several cm sized hematite stained patches, that may grade into a pervasive hematite stain. Non magnetic with minor weakly magnetic patches and sections near lower contact. Interval is feldspar phyric throughout with subhedral, bright white feldspar phenocrysts up to approx 5 mm size. Locally with a foliation @ 35 deg - 45 deg to CA. Lower contact: Very sharp, @ 12 deg to CA, irregular.

- 62.06 64.05 Basalt Dyke: Chlorite; CHL alt'd BDY, HW irregular 20 degrees TCA, FW calcite veined 55 degrees TCA.
- 69.15 72.19 Basalt Dyke: Chlorite; Epidote; Magnetite; Feldspar phyric basalt dyke. 1-2 mm feldspars. HW brecciated, 50 degrees TCA, FW intensely chl and ep + mag alt'n over final 1.5 m. FW sharp, somewhat irregular, 75 degrees TCA.
- 73.21 74.14 Basalt Dyke: Chlorite; Broken Core; Broken chl atl'd BDY. HW ragged, 70 degrees TCA, FW highly irregular 80 degrees TCA. This dyke marks FW of RFX.



Hole-ID: TCU04137 Page: 4

Interva From	ıl (m) To	Description	Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %
-											
74.14	112.78	Rhyolite Debris Flow: Chlorite									
		Bleached clasts of flow banded rhyolite within an ashy to glassy chl darkened matrix. Larger	10493	111.78	112.7	78 1.00	0.03	0.00	0.00	0.00	0.00
		clasts maintain a faint purplish hue, hematite. Clasts range to 20 cm, matrix varies from glassy									
		feldspar phyric to ashy. Clasts range from angular to rounded, possibly as large as 60 cm. Rare									
		small mafic fragments noted. Occassional perfectly formed py cube. Towards FW contact sericite									
		alt'n noted. Lower contact transitional, marked by first py clast.									
		79.50 79.70 Basalt Dyke: Chlorite; Calcite; CHL alt'd BDY. Calcite veins @ contacts HW 70 degrees TCA, FW 80 degrees TCA.									
		80.45 80.72 Basalt Dyke: Chlorite; Chl alt'd BDY, contacts sharp, 60 degrees TCA.									
112.78	116.60	Ore Clast Breccia: Pyrite; Sericite									
		Ore Clast Breccia. Dominantly py clasts in a rhyolite debris flow. Py clasts to 10 cm. Py is	10495	112.78	113.7	78 1.00	0.05	0.00	0.00	0.00	0.00
		somewhat granular, 1 cpy clot noted. Some of the py appears as matrix material between rhyolite	10496	113.78	114.9	1.13	0.10	0.00	0.00	0.00	0.00
		clasts, synsedimentation. Interval is more sericite alt'd than above RDF, rhyolite clasts somewhat	10497	114.91	116.6	0 1.69	0.09	0.00	0.00	0.00	0.00
		finer, 8 cm max. Overall 5-8 % py, trace cpy. LC marked by first banded sulphides, 55 degrees									
		TCA. 445 F2 446 42 Bushan Cause Bushan arrayand dearganed culphides									
		115.52 116.43 Broken Core: Broken ground, decreased sulphides.									
116.60	122.58	Zinc Facies Massive Sulphide: Chalcopyrite; Sericite									
		Massive sulphide, dominantly a very pale blonde sphalerite, with abundant cpy. Barite as	10498	116.60	117.6	30 1.00	0.67	16.20	0.25	0.39	2.28
		intersitial material often with VFG sooty to purple gal +/- tetrahedrite. Minor py, mixed with	10499	117.60	118.5	7 0.97	1.10	30.00	0.55	0.49	2.68
		spal and ser, rarely as massive bands to 5 cm mixed with cpy. Banding from 20-50 degrees TCA,	10500	118.57	119.5	0.93	4.86	154.00	4.14	1.61	9.47
		paleotopo or folding? Main gaunge minerals ser and barite. Possible broad folding within	10501	119.50	120.5	50 1.00	5.35	142.00	3.15	2.09	9.68
		sulphides, soft sediment deformation? 1 muddy slip noted at 121.71m 50 degrees TCA. Lower contact	10502	120.50	121.5	50 1.00	3.31	99.00	0.79	1.94	6.21
		marked by final banded sulphides, discontinuous over final 1 metre.	10503	121.50	122.5	58 1.08	6.36	100.00	0.90	1.27	4.05
122.58	126.75	Rhyolite Ash Tuff: Chlorite; Sericite									
		Rhyolite Ash Tuff. Chl and Ser alt'd ashy rhyolite with minor lapilli sized fragments, max size, 2 cm. Generally rounded lapilli. Matrix is poorly bedded, 45 degrees TCA. Lapilli more ser alt'd	10504	122.58	123.5	58 1.00	0.05	0.00	0.00	0.00	0.00
		than matrix. Minor dissem py, 2-3%. Lower contact marked my increased clasts, sharp, irregular. 125.97 125.38 Basalt Dyke: Subtle BDY HW veined, 55 degrees TCA, FW wavy, 35 degrees TCA, trace DPY.									



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Interva From	l (m) To	Description	Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %
126.75	136.10	Rhyolite Flow Breccia: Silica; Disseminated Pyrite; Magnetite									
120.75	150.10	Pale green grey silc'd rhyolite flow breccia. Defined by angular rhyolite fragments in a rhyolite									
		matrix. Locally framents are cuspate, perhaps suggesting a hyaloclastite. Variably feldspar									
		phyric, Loacally with py as fracture infill of breccia, rare dissem. Minor mag veins and									
		fractures. LC transitional to a more massive, glassy rhyolite.									
136.10	144.02	Rhyolite Flow: Sericite									
		Rhyolite Flow. Massive glassy grey rhyolite. Locally coarsely feldspar phyric, 2-3 mm well									
		preserved laths. Matrix is grey green glass, that appears to be partially devitrified, or									
		converted to an ash? Trace mottled hematie staining. Rare ep patch, late mag veins. Local									
		bleaching, ser and leucoxene alteration above mafic dyke, possible flow banding also above dyke,									
		40-60 degrees TCA. The unit is truncated by a BDY 60 degrees TCA.									
144.02	145.54	Basalt Dyke:									
		Basait dyke. Somewhat glassy black 8 cm of bleaching at FW of dyke. Brecciated lower contact dissem py, 60 degrees TCA.									
145.54	146.65	Stockwork: Silica; Sericite									
		Silc'd stockwork zone. Minor ser and luecoxene alteration. Distingishing characteristic is vfg py	10505	145.54	146.	65 1.11	1.06	0.00	0.00	0.00	0.00
		with a pseudo breccia texture of bleached pale green sericite veins. Py is brownish masses									
		somewhat associated with sericite veins. Grey to pale green. Ser veins some what wormy towards									
		Lower contact. Lower contact is marked by a change in alt'n.									
146.65	150.22	Stockwork: Bleached; Pyrite; Chlorite									
		Externely bleached stockwork zone. Similar to what was found in TCU04135. Abundant silvery to	10506	146.65	147.	22 0.57	0.25	0.00	0.00	0.00	0.00
		sooty py, 10-15 degrees, possibly banded 50 degrees TCA. Py varies from fine grained to coarsely	10507	147.22	148.	52 1.30	0.42	0.00	0.00	0.00	0.00
		granular. Matrix is an extremely bleached/leached rhyolite. Matrix is a porous white, kaolinite?	10508	148.52	150.	22 1.70	0.88	0.00	0.00	0.00	0.00
		Extremely soft, qtz phenos not as prominent as 135 perhaps suggesting a different protolith. CHI									
		veining relatively unaffected by this alt'n. Rare patch of pale green swelling clay. Is this									
		alt'n related to underlying basalt intrusion? Locally vein network gives suggestion of an RFX									
		protolith. Alteration intensity fades over final 60 cm. Lower contact sharp, stepped, 40 degrees									



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Interval (m)	Description	Sample	From	To I	nterval	Au.	Ag	Cu	Pb	Zn	
From To		No.	(m)	(m)	(m)	g/t	g/t	%	%	%	
	TCA.										-
150.22 193.24	Basalt Intrusive: Epidote; Chlorite; Feldspar										
	Locally feldspar phyric basalt intrusive. Contact zone to 158.19, abundant bleaching or possible brown ep alt'n, abundant calcite on fracture surfaces. The contact margin has abundant finer grained/glassy sections. W depth the BIN becomes increasingly coarse, with abundant feldspar phenocrysts, well preserved white laths. Minor chl+cal+mag veining.	10509	150.22	151.22	2 1.00	0.06	0.00	0.00	0.00	0.00	
193.24 193.24											



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Assays

Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %	SG	Cu ppm	Pb ppm	Zn ppm	Au ppb	Ag ppm	As ppm	AI %	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm
10493	111.78	112.78	1.00	0.03	0.00	0.00	0.00	0.00	0.00	319	64	276	0	1.3	5	0.44	55	5	1.03	2	3
10495	112.78	113.78	1.00	0.05	0.00	0.00	0.00	0.00	0.00	276	236	972	0	1.6	5	0.91	60	5	1.02	5	3
10496	113.78	114.91	1.13	0.10	0.00	0.00	0.00	0.00	0.00	512	132	767	0	3.4	5	0.87	25	5	0.48	3	6
10497	114.91	116.60	1.69	0.09	0.00	0.00	0.00	0.00	0.00	196	196	754	0	1.8	5	1.06	20	5	0.42	3	5
10498	116.60	117.60	1.00	0.67	16.20	0.25	0.39	2.28	2.85	2445	3836	10000	0	15.1	15	0.87	20	5	0.59	94	5
10499	117.60	118.57	0.97	1.10	30.00	0.55	0.49	2.68	2.83	5204	4760	10000	0	29.0	225	0.61	15	5	0.47	105	5
10500	118.57	119.50	0.93	4.86	154.00	4.14	1.61	9.47	3.94	10000	10000	10000	0	30.0	455	0.15	40	5	0.08	375	6
10501	119.50	120.50	1.00	5.35	142.00	3.15	2.09	9.68	3.62	10000	10000	10000	0	30.0	1030	0.27	30	5	0.19	417	5
10502	120.50	121.50	1.00	3.31	99.00	0.79	1.94	6.21	3.18	7526	10000	10000	0	30.0	670	0.40	20	5	0.48	261	4
10503	121.50	122.58	1.08	6.36	100.00	0.90	1.27	4.05	3.04	8962	10000	10000	0	30.0	300	0.56	35	5	0.58	167	6
10504	122.58	123.58	1.00	0.05	0.00	0.00	0.00	0.00	0.00	184	66	283	0	1.4	15	1.45	50	5	0.25	1	8
10505	145.54	146.65	1.11	1.06	0.00	0.00	0.00	0.00	0.00	68	130	1024	0	6.4	20	0.16	15	5	0.20	4	4
10506	146.65	147.22	0.57	0.25	0.00	0.00	0.00	0.00	0.00	517	462	1475	0	2.7	40	0.50	25	5	1.60	11	7
10507	147.22	148.52	1.30	0.42	0.00	0.00	0.00	0.00	0.00	807	148	456	0	1.9	40	0.92	25	5	1.93	2	7
10508	148.52	150.22	1.70	0.88	0.00	0.00	0.00	0.00	0.00	359	58	97	0	1.3	130	0.61	30	5	1.62	1	7
10509	150.22	151.22	1.00	0.06	0.00	0.00	0.00	0.00	0.00	300	58	327	. 0	1.2	35	1.63	40	5	2.06	1	21



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Assays ...continued

Sample No.	From (m)	To (m)	Interval (m)	Cr ppm	Fe %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Sb ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W ppm	Y ppm
0493	111.78	112.78	3 1.00	93	1.89	10	0.47	235	3	0.03	3	160	5	20	98	0.01	10	3	10	3
0495	112.78	113.78	3 1.00	63	1.91	10	0.74	318	1	0.05	2	170	5	20	139	0.01	10	4	10	3
0496	113.78	114.9	1.13	56	4.50	10	0.64	193	5	0.04	2	100	5	20	37	0.01	10	3	10	1
10497	114.91	116.60	1.69	39	4.87	10	0.84	214	3	0.05	1	140	5	20	39	0.01	10	3	10	1
0498	116.60	117.60	1.00	53	4.22	10	0.61	161	2	0.05	1	80	5	20	57	0.01	10	4	10	1
0499	117.60	118.57	0.97	49	4.99	10	0.54	134	1	0.02	1	10	85	20	51	0.01	10	3	10	.1
0500	118.57	119.50	0.93	24	10.00	10	0.05	44	1	0.01	1	10	125	20	27	0.01	20	3	10	1
0501	119.50	120.50	1.00	17	8.21	10	0.25	75	1	0.01	1	10	190	20	29	0.01	10	4	10	1
0502	120.50	121.50	1.00	11	2.86	10	0.33	99	1	0.01	1	10	280	20	69	0.01	10	4	10	1
0503	121.50	122.58	3 1.08	36	5.09	10	0.41	119	5	0.02	1	10	165	20	68	0.01	10	7	10	1
0504	122.58	123.58	3 1.00	50	2.94	10	1.05	234	6	0.08	3	380	5	20	21	0.04	10	6	10	1
0505	145.54	146.65	5 1.11	43	2.85	10	0.01	40	4	0.01	3	10	5	20	38	0.01	10	1	10	1
0506	146.65	147.22	0.57	34	5.50	10	0.29	368	5	0.02	6	290	5	20	39	0.01	10	12	10	1
0507	147.22	148.52	2 1.30	20	6.86	10	0.36	398	6	0.04	. 2	10	5	20	59	0.01	10	20	10	1
0508	148.52	150.22	1.70	19	6.88	10	0.33	332	5	0.04	4	50	5	20	50	0.01	10	36	. 10	1
0509	150.22	151.22	2 1.00	34	5.51	10	0.91	479	6	0.11	20	910	5	20	248	0.01	10	72	10	3



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Collar Coordinates

North (m): East (m)

Elevation (m):

15190.00 10735.00

111.00

Azimuth (degrees):

Dip (degrees): Length (m):

93.48 -72.97 277.06

Started: Completed:

20/10/2004 23/10/2004

Date Logged:

10/10/2004

Logged By: Report Printed:

MA. 16/12/2004

Down Hole Survey Tests

							DUW	11 11016	Suive	y icala	•						
Depth (m)	Azimut	h Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	n Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip
0.00	93.48	-72.97	79.15	94.56	-73.96	158.31	98.05	-74.32	237.46	100.53	-74.31					***************************************	
3.04	92.87	-73.37	82.20	94.68	-73.95	161.35	98.33	-74.31	240.51	100.51	-74.36						
6.09	92.60	-73.43	85.24	94.85	-73.96	164.40	98.38	-74.31	243.55	100.60	-74.36						
9.13	92.46	-73.49	88.29	95.00	-73.95	167.44	98.36	-74.29	246.60	100.63	-74.36						
12.18	92.52	-73.54	91.33	95.08	-73.94	170.49	98.42	-74.29	249.64	100.59	-74.37						
15.22	92.54	-73.59	94.38	95.29	-73.97	173.53	98.48	-74.29	252.69	100.67	-74.38						
18.27	92.58	-73.61	97.42	95.44	-73.97	176.58	98.49	-74.28	255.73	100.78	-74.39						
21.31	92.69	-73.61	100.47	95.57	-73.98	179.62	98.44	-74.27	258.77	100.85	-74.41						
24.36	92.89	-73.63	103.51	95.60	-74.01	182.66	98.51	-74.28	261.82	100.93	-74.41						
27.40	92.88	-73.59	106.55	95.81	-74.02	185.71	98.80	-74.29	264.86	100.98	-74.43						
30.44	92.98	-73.61	109.60	95.77	-74.04	188.75	99.03	-74.28	267.91	101.03	-74.43						
33.49	93.07	-73.63	112.64	95.84	-74.07	191.80	99.18	-74.26	270.95	101.11	-74.44						
36.53	93.14	-73.65	115.69	96.09	-74.09	194.84	99.21	-74.27	277.06	101.15	-74.40						
39.58	93.43	-73.65	118.73	96.18	-74.12	197.89	99.35	-74.25									
42.62	93.34	-73.74	121.78	96.17	-74,14	200.93	99.56	-74.24									
45.67	93.36	-73.81	124.82	96.36	-74.18	203.97	99.57	-74.23									
48.71	93.58	-73.84	127.86	96.67	-74.19	207.02	99.70	-74.24									
51.75	93.56	-73.82	130.91	96.78	-74.18	210.06	99.82	-74.20									
54.80	93.71	-73.84	133.95	96.86	-74.24	213.11	99.88	-74.19									
57.84	93.95	-73.85	137.00	97.21	-74.23	216.15	99.87	-74.23									
60.89	94.04	-73.90	140.04	97.50	-74.25	219.20	99.89	-74.22									
63.93	94.16	-73.90	143.09	97.67	-74.23	222.24	99.98	-74.22									
66.98	94.20	-73.93	146.13	97.83	-74.26	225.29	100.00	-74.24									
70.02	94.35	-73.95	149.18	97.93	-74.27	228.33	100.14	-74.25									
73.07	94.49	-73.93	152.22	97.97	-74.24	231.37	100.16	-74.28									
76.11	94.51	-73.96	155.26	97.92	-74.28	234.42	100.28	-74.28									



Sample

From

(m)

То

Interval Au

(m)

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Ζ'n

Interva	al (m)	Description
From	То	
0.00	1.04	Casing: No Recovery
		No recovery, NW casing.
1.04	30,09	Basalt Intrusive: Chlorite; Magnetite Moderately to strongly magnetic basalt intrusive. Fine glassy to medium grained intrusive textures. Locally felted. Pervassive chl alt'n local ep alt'd patches/seams. Relatively massive, rarely broken by thin qtz+mag veins. Lower contact bleached, broken sharp contact 50 degrees TCA.
30.09	36.27	Rhyolite Lapilli Ash Tuff: Chlorite; Sericite; Hematite CHL and SER alt'd rhyolite lapilli ash tuff. Hetrololithic lapill, dominantly rhyolites in the 2-3 cm range with jasper and mafic fragments. Chl darkening assoicated with BIN. Rare 4 cm and rhyolite clasts, becoming more frequent with depth, coarsening downwards. Lower contact is transitional, arbritary.
36.27	47.76	Rhyolite Debris Flow: Chlorite; Magnetite; Feldspar Broken rhyolite debris flow. Characterized by variably bleached and alt'd large rhyolite clasts in an ashy dark green ashy matrix. Locally weakly magnetic. Abundant late fractureing, cal and hem stain of srufaces, rough and irregular. Locally feldspar phyric but most feldspars have been alt'd to chl. Drillers note cave at 43.8m. Lower contact broken, faulted, 20 degrees TCA, slicks rake 45 degrees TCA. 42.00 44.30 Basalt Dyke: Broken Core; Rubbley BDY, shattered throughout, contacts lost.
47.76	63.09	Fault Zone: Chlorite; Calcite; Hematite FLT rubble. Likely a BIN protolith. Highly fractured and broken BIN with CHL, CAL and HEM stain/mud on fracture surfaces. CHL and CAL alt'n locally destroys all primary txt's. Rare well developed clacite vein, 20-30 degrees TCA, perhaps mimicing fit plane, slicks rake 45 to 50 degrees in face of veins. Final 2 metres of interval is extremely muddy, chl hem and cal mud. FW contact marked by 40 cm muddy gouge, spun and broken so difficulat to get a flt plane.
63.09	71.10	Basalt Intrusive: Chlorite; Magnetite Fine grained chl alt'd Basalt Intrusive. Quite massive and homogenous. Pervasively magnetic and chl alt'd. Rare chl seam, and also x-cutting calcite vein. Lower contact pulverized by drill,



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Interval (m)	Description				Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From To					No.	(m)	(m)	(m)	g/t	g/t	%	%	%

minor CHL and CAL mud with rare hem on fractures.

71.10 87.28 Rhyolite Debris Flow: Chlorite; Sericite; Jasper

Finer grained rhyolite debris flow, almost RLAT. Dominantly a chl to ser alt'd ashy matrix with rare bleached rhyolite clasts to 8 cm. Generally clasts are bleached pale green. Minor jasper chips, worms. Wk possible bedding 40-50 degrees TCA. Locally speckled with leucoxene in ser alt;d intervals. Minor secondary chl veins with bleached halos. Lower contact marked by 10 cm of intense chl and mag veining, intrusive contact, 40 degrees TCA.

85.18 86.04 Basalt Dyke: Chlorite; Magnetite; Intensely chl and mag veined BDY, possible CHL overprint into HW. HW ragged, 85 degrees TCA, intense veining, FW marked by 3 mm chl vein, 35 degrees TCA.

87.28 119.39 Basalt Intrusive: Chlorite; Magnetite

Blue green massive basalt intrusive. Local fine grained feathery/felted textures. Moderately to strongly magnetic. Rare chl and mag alt'n zone -veining. Trace dissem py. Minor qtz-chl-mag veining, particularly towards lower contact. Lower contact wavy, intrusive, 80 degrees TCA. 98.70 98.77 Fault: Calcite; Pyrite; Small bleached/calcite veined fit or slip, 30 degrees TCA. Coarse py bleb, 1 cm noted.

119.39 138.28 Rhyolite Flow Breccia: Chlorite; Hematite

Wildly Feldspar phyric rhyolite flow breccia. Extremely well preserved feldspars, white, with clear laths throughout. Unit is defined by numerous angular rhyolite "fragments" within a rhyolite matrix. No significant difference between matrix and clast material. Interval varies from mottled green to grey to maroon. Interesting that the maroon "classic RFL" color also locally displays flow breccia textures. Locally a network of x-cutting chl veins adds to breccia txt. Wk saussertization, feldspars to ep alt'n. Lower contact irregular, ragged, intrusive, brecciated, 60-70 degrees TCA.

129.30 130.76 Basalt Dyke: Chlorite; CHL alt'd feldspar phyric basalt dyke. HW brecciated, 60 degrees TCA, FW mechanically shattered, 75 degrees TCA.

131.05 131.40 Basalt Dyke: Chlorite; Somewhat glassy chl alt'd Basalt dyke. HW lost shattered, FW razor sharp, straight, 60 degrees TCA.

131.40 133.95 Rhyolite Flow: Hematite; Generally massive maroon rhyolite flow.



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Interva From	ll (m) To	Description	Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %
138.28	156.06	Basalt Intrusive: Chlorite; Magnetite Massive dark blue green basalt intrusive. Locally possible relict feldspars, 2-3 mm, feathery. Somewhat coarser than earlier interval. Local felted text. Almost entirely homogenous except for whispy chl veining, and rare calcite on fracture surfaces. Lower contact somewhat subtle, marked by a change to breccia texture.									
156.06	213.66	Rhyolite Debris Flow: Rhyolite Debris Flow. Interval is defined by large >5cm, bleached rhyolite clasts in an ashy rhyolite matrix. Matrix locally coarsely feldspar phyric. This interval is different than an RFX by having hetrolithic fragments sparsely distributed throughout. Mafic fragments are clearly preserved, small and angular throughout the interval. Final 50 cm above lower contact a wk ser and leucoxene alteration forms, no fining downwards noted. Lower contact is razor sharp, possibly erosive? 164.25 164.50 Fault: Calcite; Fuchite; Fuchsite bearing healed fault, 40 degrees TCA. 165.82 166.51 Rhyolite Debris Flow: Bleached; Strongly bleached zone, somewhat porous with py cubes, similar to what was found in TCU04135	10513	212.66	213.	66 1.00	0.03	0.00	0.00	0.00	0.00
213.66	218.10	Massive Sulphide: Pyrite; Chalcopyrite Massive sulphides. Dominantly py by volume with significant cpy. PY is vfg to granular, possibly 60% of interval. Locally very splashy cpy, clotty, secondary? Cpy also dissem within py. Sphal somewhat limited through this interval, appears to be inversely related to py. Gal rare, well developed cubes noted at core of a tetrahedrite mass. A 5 cm band of massive tet +/- gal noted, 214.58-214.63m. Tet also as an an accessory within massive py intervals. Interval is irregularly banded, wavy, 5-10 degrees TCA, paleo surface or some sort of deformation?? Gangue minerals noted qtz-ser-barite. Final 2 m above footwall almost entirely massive py with accessory cpy and brown ser, possible minor tet, banded 5-10 degrees TCA. Banding changes to 40 degrees TCA over final 40 cm. Lower contact marked by a conformable decrease in sulphides.	10514 10515 10516 10517 10519	213.66 214.50 215.00 216.00 217.00	215. 216. 217.	50 0.84 00 0.50 00 1.00 00 1.00 10 1.10	1.36 0.61 1.34	41.00 52.00	0.78 0.97 0.86	0.66 0.39 0.34	1.45 6.55 2.75 3.66 5.76
218.10	219.81	Semi-Massive Sulphide: Quartz Vein; Pyrite; Chalcopyrite Semi massive sulphides featuring abundant qtz-chl veining with possible extremely alt'd rhyolite clasts. Interesting interval in that py and cpy are banded 60 degrees TCA, but bands are locally	10520 10521	218.10 219.00		00 0.90 81 0.81	0.54 1.26	13.00 14.00	0.64 0.82	0.43 0.42	2.27 1.86



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Interva	al (m) To	Description	Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %
		disrupted by the veins. Veins have sulphides as fracture fill often perpendicular to vein margin. (PY and CPY). I'm hopeful for a gold number out of this interval. Vein structure is somewhat reminicent of what is seen in veined BDY, chl is bluish. Minor vfg galena at FW, interesting to note that a ser vein changes to cpy at the contact, fluid interacts with country rock to ppt different minerals? Lower contact marked by a return to massive sulphide.			-						
219.81	221.63	Zinc Facies Massive Sulphide: Chalcopyrite									
		Zinc facies massive sulphide with abundant py and cpy banding. Sphalerite is v pale, silvery,	10522	219.81	221.	00 1.19	2.17	72.00	1.51	2.71	16.40
		banded to 40 degrees TCA. Sphal often intermixed with dark bands of gal and possibly tet. Py and cpy increase with depth possible metal zonation? Py is vfg to granular, bedded. Cpy is clotty to bedded, associated with py. Gangue minerals sericite, white qtz (bleached rhyolite clasts?) Barite noted in sphal rich zones particularly at top of interval. Lower contact conformable, sulphides fade out over 15cm.	10523	221.00	221.	63 0.63	3.68	52.00	1.95	1.84	6.75
221.63	223.75	Rhyolite Ash Tuff: Chlorite; Disseminated Pyrite									
		CHL darkened rhyolite ash tuff. Dark grey green rhyolite, weakly bedded 60 degrees TCA. Rare x-cutting chl veins with bleached halos. V rare possible lapilli sized fragments RLAT? Trace DPY throughout. Interval is truncated by a BDY at FW, 40 degrees TCA.	10525	221.63	222.	63 1.00	0.11	0.00	0.00	0.00	0.00
223.75	224.22	Basalt Dyke: Chlorite; Magnetite									
		Highly magnetic, chl alt'd BDY FW qveined, 65 degrees TCA.									
224.22	277.06	Rhyolite Flow Breccia: Chlorite; Hematite									
		Coarsely feldspar phyric rhyolite flow breccia with some characteristics of a rhyolite debris flow.									
		Blue grey green throughout, rarely purple, hem stained. Minor ashy fragmental units. CHL and HEM									
		stained, rare chl and ep veining. Interesting that even ashy intervals somewhat brecciated, slumping? Pushed by flow?									
277.06	277.06	End of Hole:									



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Assays

Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %	SG	Cu ppm	Pb ppm	Zn ppm	Au ppb	Ag ppm	As ppm	AI %	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm
10513	212.66	213.66	1.00	0.03	0.00	0.00	0.00	0.00	0.00	79	20	178	0	0.4	15	1.05	160	5	0.41	1	3
10514	213.66	214.50	0.84	1.80	47.00	2.22	0.21	1.45	3,18	10000	2068	10000	0	30.0	570	1.49	40	5	0.31	53	10
10515	214.50	215.00	0.50	1.36	46.00	0.78	0.66	6.55	3.12	7767	6620	10000	0	30.0	185	0.55	30	5	0.26	274	5
10516	215.00	216.00	1.00	0.61	41.00	0.97	0.39	2.75	3.35	9615	3822	10000	0	30.0	5	0.49	35	5	0.13	107	9
10517	216.00	217.00	1.00	1.34	52.00	0.86	0.34	3.66	3.81	8669	3478	10000	0	30.0	5	0.49	45	5	0.15	154	8
10519	217.00	218.10	1.10	1.52	34.20	0.79	0.11	5.76	3.83	7736	1034	10000	0	30.0	5	0.49	40	5	0.14	267	7
10520	218.10	219.00	0.90	0.54	13.00	0.64	0.43	2.27	2.92	6212	4514	10000	0	14.1	25	1.14	55	5	0.76	94	12
10521	219.00	219.81	0.81	1.26	14.00	0.82	0.42	1.86	2.83	8187	4302	10000	0	15.8	20	0.85	35	5	0.53	80	9
10522	219.81	221.00	1.19	2.17	72.00	1.51	2.71	16.40	3.68	10000	10000	10000	0	30.0	40	0.10	15	5	0.07	724	2
10523	221.00	221.63	0.63	3.68	52.00	1.95	1.84	6.75	3.27	10000	10000	10000	0	30.0	25	0.39	45	5	0.30	320	9
10525	221.63	222.63	1.00	0.11	0.00	0.00	0.00	0.00	0.00	110	84	166	0	0.4	20	1.29	55	5	0.86	1	4



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Assays ...continued

Sample No.	From (m)	To (m)	Interval (m)	Cr ppm	Fe %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Sb ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W ppm	Y ppm
10513	212.66	213.66	1.00	69	1.55	10	0.55	262	2	0.10	3	220	5	20	23	0.03	10	1	10	9
10514	213.66	214.50	0.84	41	10.00	10	1.83	256	17	0.02	6	10	10	20	12	0.01	10	8	10	1
10515	214.50	215.00	0.50	41	6.68	10	0.43	100	1	0.02	1	180	85	20	32	0.01	10	3	10	1
10516	215.00	216.00	1.00	33	10.00	10	0.38	108	10	0.02	1	30	5	20	11	0.01	30	5	10	1
10517	216.00	217.00	1.00	39	10.00	10	0.43	129	13	0.02	1	10	5	20	13	0.02	30	7	10	1
10519	217.00	218.10	1.10	37	10.00	10	0.44	137	5	0.01	1	30	5	20	6	0.03	20	10	10	1
10520	218.10	219.00	0.90	85	7.67	10	0.62	273	4	0.04	1	10	5	20	23	0.04	10	1	10	1
10521	219.00	219.81	0.81	80	4.35	10	0.39	209	4	0.05	1	320	5	20	44	0.04	10	4	10	1
10522	219.81	221.00	1.19	23	4.20	10	0.05	67	9	0.01	1	10	10	20	34	0.01	10	7	10	1
10523	221.00	221.63	0.63	45	10.00	10	0.07	86	14	0.02	1	10	5	20	33	0.01	10	3	10	1
10525	221.63	222.63	1.00	77	2.18	10	0.27	180	2	0.16	3	290	5	20	53	0.02	10	1	10	6



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Collar Coordinates

North (m): East (m) 15190.00 10735.00 Azimuth (degrees):
Dip (degrees):

86.16 -48.00

Depth Azimuth Dip

Started:

23/10/2004

Date Logged:

23/10/2004

Elevation (m):

111.00

(m)

Depth Azimuth Dip

Length (m): 179.27

Completed:

Depth Azimuth Dip

25/10/2004 Logged By: Report Printed:

Depth Azimuth Dip

MA. 16/12/2**004**

Depth Azimuth Dip

(m)

Down Hole Survey Tests

Depth (m)	Azimut	h Dip
0.00	86.16	-48.00
8.84	84.20	-47.60
30.18	86.40	-47.80
60.66	91.00	<i>-</i> 47.80
91.14	90.60	-47.90
121.62	89.30	-47.80
152.10	87.80	-48.00



Sample

From

(m)

To Interval Au

(m)

(m)

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Zn

Cu %

Interv	al (m)	Description
From	Ťo	
0.00	0.41	Casing: No Recovery NW casing, no recovery.
0.41	27.49	Basalt Intrusive: Chlorite; Magnetite; Epidote Homogenous dark green basalt intrusive. Moderately to strongly magnetic. Local felted to feathery txt. Rare chl seam and qtz-chl+/-mag vein. 70 cm of intense ep alt'n around several bullish qtz-veins 26.5-27.2m. FW shattered, lost.
27.49	31.86	Sloko Rhyolite Dyke: Sloko Rhyolite Dyke. Creamy beige color with locally well defined flow banding, 50 degrees TCA. Unit is defined by creamy beige color, flow banding and black peppering. Lower contact is sharp, 40 degrees TCA.
31.86	34.28	Rhyolite Debris Flow: Chlorite; Jasper Chl darkened rhyolite debris flow. Interval is defined by rhyolite flow clasts within an ashy matrix. Clasts range from 2-15 cm, bleached white to hematitic purple. Clasts generally sparse but more common as depth increases, basal congolmerate? Matrix is very dark green ashy local jasper fragment. Lower contact marked by a change to a more massive txt.
34.28	48.20	Rhyolite Flow Breccia: Chlorite; Epidote Rhyolite Flow Breccia. Chl darkened to glassy locally, interval is quite feldspar rich, 2-3 mm with locally well defined laths. Interval is defined by bleached pseudo-fragments of rhyole in a rhyolite matrix, -autobreccia. Local flow banding, 30 degrees TCA. Abundant saussertization towards FW, ep veins and stringers, locally consuming feldspars. LC defined by end of breccia txt, contact defined by 2 cm qtz-mag vein 60 degrees TCA. 37.05 37.36 Basalt Dyke: Glassy BDY, contacts 30 degrees TCA. 37.82 39.30 Basalt Dyke: Glassy BDY, HW veined, 35 degrees TCA, FW Razor sharp, 40.
48.20	56.53	Rhyolite Flow: Greyish rhyolite flow. Wkly feldspar phyric, 2-3 mm. Interval is massive and largely homogenous, broken by rare wormy qtz-chl vein, Minor chl stringers. Local v wk saussertization -fractures where feldspars are converted to EP. Lower contact is marked by txt changes and chl darkening.



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Interval	(m)	Description						Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From	То							No.	(m)	(m)	(m)	g/t	g/t	%	%	%

Contact is highly irregular, perhaps overlying flow presses down into underlying soft ash? 70 degrees TCA.

56.53 65.29 Rhyolite Flow Breccia: Hematite

Rhyolite flow breccia. Abundant feldspar phenos, quite coarse to 8 mm, possibly twinned? Rare perfectly formed py cube to 4mm. Local saussertization in realtion to late x-cutting chl veins. Txt and color is mottled, rhyolite in rhyolite, pale grey green pseudo-clasts in a grey to purple glassy matrix. Rare jasper vein. Minor late qtz-chl veining. Lower contact sharp and straight, marked by a 20 cm ash band, 50 degrees TCA. Likely conformable.

59.90 60.50 Rhyolite Flow Breccia: Unusual glassy shear zone? qtz veined, Foliation 55 degrees TCA.

65.29 75.14 Rhyolite Debris Flow:

Rhyolite debris flow. Defined by coarse fragments of rhyolite "flow material" within an ashy matrix. Matrix locally feldspar phyric, generally chl alt'd rarely hem stained. Clasts up to 40 cm but generally 5-10 cm. Local lapilli packstone develops, 2-5 cm clasts packed together, clast supported. Generally finer with depth and clasts frequency decreases. Minor chl+/-ep+/- mag seams to 1 cm with bleached halos. Lower contact marked by a 30 cm glassy black interval contact related? Contact itself is spun, lost.

68.32 68.38 Fault: Calcite; Carbonate slip, 65 degrees TCA, no slicks.

75.14 89.37 Rhyolite Flow:

Feldspar phyric rhyolite flow. Wildly feldspar phyric, 1-2mm feldspar x-talls within a glassy grey matrix. Pretty massive and homogenous, broken by rare chl stringers, minor carbonate on late fractures. Bleached for final 2 m above contact. Marked by a change from massive flow to more ashy material.

83.08 83.75 Basalt Dyke: Chlorite; Epidote; CHL and EP alt'd basalt dyke. HW 40 degrees TCA, FW 40 degrees TCA, sharp straight.

84.49 85.76 Basalt Dyke: Chlorite; Epidote; Magnetite; CHL-EP-MAG alt'd BDY. HW irregular, 65 degrees TCA, FW veined 40 degrees TCA.

89.37 102.05 Rhyolite Debris Flow: Chlorite; Jasper



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Interval (m) From To	Description	Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %
	Rhyolite Debris Flow. Upper 5 m of interval looks very similar to a RFX, but there are small mafic	10526	101.05	102.0	5 1.00	0.03	0.00	0.00	0.00	0.00
	clasts suggesting a debris flow. Below approx 94.4m more of a classic RDF with bleached rhyolite									
	clasts in an ashy matrix. Matrix is locally feldspar phyric, cl alt'd througout. Clasts are									
	subangular to rounded from 2 to possibly 40 cm. Minor x-cutting chl seams, rare jasper chip.									
	Final 60 cm ashy with one 5cm rhyolite clast. Fines downwards? RAT? LC marked by sulphide and									
	ser alt'n of matrix, likely confromable, 55 degrees TCA.									
	99.00 99.77 Basalt Dyke: Chlorite; Quartz Vein; CHL alt'd BDY with large qtz-chl chl vein, HW 60 broken, FW irregular, 65 degrees TCA.									
02.05 117.20	Ore Clast Breccia: Chlorite; Sericite									
	Ore clast breccia. Highly mineralized or clast breccia. Clast of py, cpy, and sphal +/- gal, and	10527	102.05	103.0	0 0.95	0.89	28.50	0.41	0.31	1.93
	gal are noted., Possibly the most lead rich hole so far. Sulphide clasts range from 0.5 to 40 cm.	10528	103.00	103.6	67 0.67	1.80	44.10	0.67	0.62	3.3
	Rhyolite clasts possibly to 2m. Some secondary cpy noted as well. Below cord interval ser and	10529	103.67	104.9	3 1.26	0.36	3.10	0.04	0.03	0.4
	leuc alt'n increases. Some of the strongly ser alt'd rhyolite clasts appear to be flattened.	10530	104.93	105.5	3 0.60	1.98	144.00	0.52	1.28	19.3
	Sulphide content increase with depth becoming semi massive, locally primary bedding with alt'd	10531	105.53	106.3	8 0.85	0.14	0.00	0.00	0.00	0.0
	rhyolite clasts. Gangue: rhyolite clasts, ser, qtz, barite -often in associated with sphal, and	10532	106.38	107.7	5 1.37	0.08	0.00	0.00	0.00	0.0
	minor py. Sulphide clasts often have sooty rims, possibly tet. Lower contact irregular, sulphide	10533	107.75	109.0	0 1.25	2.50	30.50	0.57	0.73	4.9
	clasts decrease over 30 cm but may be incorporated into underlying dyke. Contact 60 degrees TCA,	10534	109.00	110.0	00 1.00	1.59	70.30	0.77	0.98	6.1
	masked by alt'n.	10535	110.00	111.0	00 1.00	2.91	202.00	1.35	2.99	9.8
	103.67 104.93 Rhyolite Debris Flow: Rhyolite interval.	10536	111.00	112.0	00 1.00	2.66	66.20	0.64	0.91	4.9
	104.93 105.23 Sphalerite: Galena; Sphal and galena clast?	10537	112.00	113.0	00 1.00	1.49	72.60	0.89	0.88	5.1
	105.53 107.75 Ore Clast Breccia: Cordierite; Cordierite rich, sulphide poor interval. Cord to	10539	113.00	114.0	00 1.00	1.22	24.30	0.44	0.48	2.4
	10mm in a dark matrix appears to be conformable, pelagic interval?	10540	114.00	115.0	00 1.00	0.75	36.10	0.31	0.27	1.5
		10541	115.00	116.0	00 1.00	0.98	53.00	0.60	0.71	3.4
		10543	116.00	117.2	0 1.20	0.58	26.60	0.58	0.37	2.8
7.20 118.94	Basalt Dyke: Magnetite									
	Unusual BDY, chl-mag crackle veins, local pervassive possible flow banding, 60 degrees TCA. Creame	10544	117.20	118.9	4 1.74	0.03	0.00	0.00	0.00	0.0
	grey color, bleached? 1 possible ep cored amydule? v odd interval, highly magnetic. LC razor									
	sharp, chl veined 80 degrees TCA.									
18.94 125.10	Rhyolite Lapilli Ash Tuff: Epidote; Bleached									



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interval (n From	n) To	Description	Sample No.	From (m)	To Interva (m) (m)	al Au g/t	Ag g/t	Cu %	Pb %	Zn %
		Bleached Rhyolite lapilli ash tuff? Unusual v patchy ep alt'n that is discontinuous giving the	10545	118.94	121.00 2.00	3 0.17	0.00	0.00	0.00	0.00
		core a mottled appearance white-blue-green. Blue, "unaltered" intervals appear to be RLAT. Ashy	10546	121.00	123.00 2.00	0.18	0.00	0.00	0.00	0.00
		unaltered intervals define ash tuff, rare possible rounded rhyolite lapilli and angular mafics	10547	123.00	125.10 2.10	0.06	0.00	0.00	0.00	0.00
		define this as an RLAT. Alt'n obscures primary txt's but rare relict intevals remain. Rare 5 cm								
		beds of sulphides conformable, 50 degrees TCA. Interesting that a 0.5-1cm dyke runs approx 5-10								
		degrees TCA for most of this interval, perhaps causing the alt'n? Lower contact defined by first								
		sulphide clast.								
v é 40 - 40	20.00									
5.10 12	26.38	Ore Clast Breccia: Sericite								
		Ore clast breccia. Sulphide clasts to 8cm, rounded to angular. Py and sphal mostly, cpy	10548	125.10	126.38 1.28	3.09	68.30	1.06	0.62	2.95
		secondary, clots and rare clasts. Py varies from vfg to granular within same clast. Spahl pale								
		blonde to red, clotty cpy, minor barite veins? 1 unusual rhyolite clast noted with sulphide								
		fracture infill which changes from cpy to gal to py within same fracture moving towards center of the clast. Matrix is dominantly ser alt'd. Possible tet as rim of sphal clasts and barite								
		nodules. possible flame structure at LC. Lower contact is marked by transition fo massive								
		sulphide, 50 degrees TCA, conformable.								
6.38 13	34.06	Massive Sulphide:								
		Wild massive sulphide interval. Features ZnF, CuF and Exhalite facies mineralization. Also quite	10549	126.38	127.61 1.23	3.42	91.20	1.29	1.85	16.10
		lead rich. 127.61-128.86 exhalite facies, discontinuous cherty with well developed bedding,	10550	127.61	128.86 1.25	4.95	50.10	2.48	0.19	1.24
		generally less than 40 cm chert in any one stretch. Very similar looking to SRD except for	9951	128.86	130.00 1.14	9.04	151.00	2.37	2.41	22.50
		interbedded sulphides, bedding 55 degrees TCA, locally wavy. Sulphides themselves are very well	9953	130.00	131.00 1.00	1.97	150.00	1.12	4.47	28.10
		bedded, particularly py, sphal and galena, cpy somehat distorted but still bedded. Sulphides vfg,	9954	131.00	132.00 1.00	6.16	161.00	2.36	2.11	10.60
		py rarely granular. Banded galena noted @ 128.9-129.13m with barite and granular py. Sphal is	9955	132.00	133.07 1.07	3.97	99.20	0.60	1.18	4.25
		honey brown throughout, probably dominant sulphide, 40-50% of interval, locally 70%. Becomes pale	9956	133.07	134.06 0.99	12.40	435.00	0.99	6.01	11.90
		silvery with depth. Sooty infill between sphal x-tals, tetrahedrite?? From 131.5 to 133.1, quite								
		sericitic. 133.07 to 134.06m appears to be barite and galena phase of mineralization, not								
		particularly well banded, surprisingly heavy. Lower contact mechanically shattered, sulphides drop dramatically over 5 cm, likely conformable.								
4.06 13	37.39	Rhyolite Lapilli Ash Tuff: Chlorite; Jasper								
		Chi darkened, rhyolite lapilli ashy tuff. Lapilli are rare, subrounded, 1-2 cm. Minor jasper	9957	134.06	135.50 1.44	0.58	0.00	0.00	0.00	0.00



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Interval	(m)	Description	Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From	То		No.	(m)	(m)	(m)	g/t	g/t	%	%	%
		chips. Blue green throughout. Interesting txt, a wavy discontinuous chl banding. Not consistent in orientation over 10 cm and not planar so likely not bedding, a metamorphic alignment of chl? Locally well developed dissem py cubes, rare thin py bands. Lower contact is sharp, broken, transition to ser alt'd. Likely not conformable, possible slip.	9958	135.50	137.	39 1.89	0.03	0.00	0.00	0.00	0.00
137.39	150.45	Quartz-Sericite-Pyrite Alteration: Sphalerite QSP alt'd RDF. Mottled pale to dark green waxy sericite. Somewhat wispy, speckled with leucoxene. Rare large feldspar phyric clasts suggesting an RDF protolith. Minor red dissem sphal. 148.52 150.45 Semi-Massive Sulphide: Pyrite; PY and Ser become somewhat banded, possibly primary? Banding 45 degrees TCA.	9988	148.52	150.	45 1.93	0.75	0.00	0.00	0.00	0.00
150.45	179.27	Basalt Flow: Broken Core; Epidote; Chlorite Dark green faulted basalt flows. Locally amygdaloidal. Stongly magnetic, Rubbley for first 20 m of interval, thin hard calcite on fractures. Local patches of ep alt'n somwhat associated with qtz-veins. Local chl+/-py+/-mag seams possibly pillow margins. Local chl filled amydules, 176.5 to 179.27m 152.18 154.20 Fault: Bleached; Quartz Vein; Bleached Fault? Open space filled qtz veins noted, no									

179.27 179.27 End of Hole:

slicks. HW sharp, wavy 60 degrees TCA, FW broken, lost.

158.72 159.45 Basalt Intrusive: Chalcopyrite; Feldspar phyric phase basalts, contacts sharp, dyke? HW mag veined, 35 degrees TCA, FW 45 degrees TCA, qveined, straight.



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Assays

Sample No.	From (m)	To (m)	interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %	SG	Cu ppm	Pb ppm	Zn ppm	Au ppb	Ag ppm	As ppm	AI %	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm
10526	101.05	102.05	1.00	0.03	0.00	0.00	0.00	0.00	0.00	55	32	397	0	0.4	10	1.83	480	5	0.78	1	2
10527	102.05	103.00	0.95	0.89	28.50	0.41	0.31	1.93	2.76	4015	2964	10000	0	27.1	25	0.93	35	5	0.50	76	5
10528	103.00	103.67	0.67	1.80	44.10	0.67	0.62	3.31	2.87	6688	6108	10000	0	30.0	35	0.53	35	5	0.32	133	5
10529	103.67	104.93	1.26	0.36	3.10	0.04	0.03	0.41	2.60	414	252	4080	0	3.1	25	0.66	45	5	0.36	19	3
10530	104.93	105.53	0.60	1.98	144.00	0.52	1.28	19.30	3.31	3010	10000	10000	0	30.0	320	0.37	15	5	0.16	723	2
10531	105.53	106.38	0.85	0.14	0.00	0.00	0.00	0.00	0.00	471	178	1809	0	3.4	35	1.86	100	5	0.23	7	5
10532	106.38	107.75	1.37	80.0	0.00	0.00	0.00	0.00	0.00	153	138	894	0	1.5	30	1.94	210	5	0.38	3	3
10533	107.75	109.00	1.25	2.50	30.50	0.57	0.73	4.97	2.92	5632	7152	10000	0	30.0	145	0.81	25	5	0.37	209	6
10534	109.00	110.00	1.00	1.59	70.30	0.77	0.98	6.16	2.96	7514	9730	10000	0	30.0	410	0.67	20	5	0.35	245	6
10535	110.00	111.00	1.00	2.91	202.00	1.35	2.99	9.85	3.21	10000	10000	10000	0	30.0	1870	0.47	25	5	0.32	356	6
10536	111.00	112.00	1.00	2.66	66.20	0.64	0.91	4.96	2.90	6405	7272	10000	0	30.0	630	0.70	20	5	0.26	194	5
10537	112.00	113.00	1.00	1.49	72.60	0.89	0.88	5.18	2.85	8857	8968	10000	0	30.0	590	0.59	35	5	0.33	212	6
10539	113.00	114.00	1.00	1.22	24.30	0.44	0.48	2.47	2.83	4284	4672	10000	0	24.4	145	0.58	30	5	0.28	99	6
10540	114.00	115.00	1.00	0.75	36.10	0.31	0.27	1.57	2.83	3093	2642	10000	O	30.0	155	0.37	20	5	0.19	57	6
10541	115.00	116.00	1.00	0.98	53.00	0.60	0.71	3.46	2.99	5901	6974	10000	0	30.0	305	0.43	30	5	0.25	141	6
10543	116.00	117.20	1.20	0.58	26.60	0.58	0.37	2.85	2.82	5656	3686	10000	0	23.6	105	1.51	35	5	1.14	120	6
10544	117.20	118.94	1.74	0.03	0.00	0.00	0.00	0.00	0.00	34	144	167	0	0.5	20	4.03	110	5	2.58	1	2
10545	118.94	121.00	2.06	0.17	0.00	0.00	0.00	0.00	0.00	255	136	367	0	2.2	15	1.31	95	5	0.94	2	4
10546	121.00	123.00	2.00	0.18	0.00	0.00	0.00	0.00	0.00	81	466	1495	0	1.4	15	2.00	110	5	1.51	8	2
10547	123.00	125.10	2.10	0.06	0.00	0.00	0.00	0.00	0.00	209	138	633	0	1.6	15	1.33	130	5	1.05	3	3
10548	125.10	126.38	1.28	3.09	68.30	1.06	0.62	2.95	2.98	10000	5938	10000	0	30.0	215	0.94	75	5	1.37	120	9
10549	126.38	127.61	1.23	3.42	91.20	1.29	1.85	16.10	3.92	10000	10000	10000	0	30.0	190	0.12	75	5	0.23	747	7
10550	127.61	128.86	1.25	4.95	50.10	2.48	0.19	1.24	2.82		1888	10000	0	30.0	40	0.79	65	5	1.89	51	4
9951	128.86	130.00	1.14	9.04	151.00	2.37	2.41	22.50	3.82	10000	10000	10000	0	30.0	810	0.24	60	5	0.16	937	7
9953	130.00	131.00	1.00	1.97	150.00	1.12	4.47	28.10	3.85	5813	10000	10000	0	30.0	1120	0.15	25	5	0.12	1000	2
9954		132.00		6.16	161.00	2.36	2.11	10.60	3.39	10000	10000	10000	0	30.0	860	0.37	60	5	0.16	459	10
9955	132.00	133.07	1.07	3.97		0.60	1.18	4.25	3.04	5776	10000	10000	0	30.0	630	0.31	40	5	0.22	166	7
9956	133.07	134.06		12.40	435.00	0.99	6.01	11.90	3.36	9733	10000	10000	0	30.0	1385	0.13	10	5	0.25	468	3
9957		135.50		0.58	0.00	0.00	0.00	0.00	0.00	213	2084	4642	0	10.0	15	1.68	90	5	0.75	32	5
9958	135.50		1.89	0.03	0.00	0.00	0.00	0.00	0.00	28	80	128	0	1.0	15	1.05	110	5	0.56	1	5
9988	148.52	150.45	1.93	0.75	0.00	0.00	0.00	0.00	0.00	449	368	1197	0	3.8	55	0.37	20	5	0.39	5	8





Assays ...continued

Sample No.	From (m)	To (m)	Interval (m)	Cr ppm	Fe %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Sb ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W ppm	Y ppm
0526	101.05	102.05	5 1.00	44	1.70	10	0.63	171	1	0.22	2	230	5	20	100	0.05	10	1	10	3
0527	102.05	103.00	0.95	29	4.03	10	0.35	97	1	0.07	1	80	5	20	79	0.01	10	1	10	1,
0528	103.00	103.67	7 0.67	27	5.77	10	0.26	81	1	0.04	1	10	5	20	48	0.01	10	1	10	1
0529	103.67	104.93	3 1.26	46	1.18	10	0.45	129	1	0.04	. 1	170	5	20	131	0.02	10	1	10	3
0530	104.93	105.53	3 0.60	18	1.79	10	0.21	62	1	0.01	1	10	120	20	30	0.01	10	1	10	1
0531	105.53	106.38	3 0.85	65	1.97	10	1.46	208	1	0.07	1	320	15	20	31	0.05	10	1	10	1
0532	106.38	107.75	1.37	35	1.48	10	1.46	229	1	0.09	2	270	25	20	48	0.04	10	1	10	1
0533	107.75	109.00	1.25	33	5.16	10	0.65	133	1	0.02	1	10	45	20	33	0.01	10	1	10	1
0534	109.00	110.00	1.00	. 19	6.00	10	0.53	103	1	0.02	1	10	280	20	32	0.01	10	1	10	1
0535	110.00	111.00	1.00	23	5.92	10	0.30	83	1	0.02	1	10	1065	20	23	0.01	10	1	10	1
0536	111.00	112.00	1.00	20	4.34	10	0.57	116	1	0.02	. 1	10	420	20	27	0.01	10	1	10	1
0537	112.00	113.00	1.00	30	6.63	10	0.47	116	1	0.02	1	10	360	20	25	0.01	10	1	10	1
0539	113.00	114.00	1.00	57	5.11	10	0.42	102	1	0.02	1	10	40	20	25	0.01	10	1	10	1
0540	114.00	115.00	1.00	42	4.37	10	0.22	63	1	0.01	1	. 10	75	20	20	0.01	10	1	10	1
0541	115.00	116.00	1.00	68	7.63	10	0.29	79	1	0.01	1	10	240	20	25	0.01	10	2	10	1
0543	116.00	117.20	1.20	83	5.06	10	0.29	161	1	0.12	1	10	65	20	29	0.01	10	3	10	1
0544	117.20	118.94	1.74	99	2.36	10	0.37	307	2	0.55	2	90	5	20	36	0.01	10	1	10	13
0545	118.94	121.00	2.06	99	1.64	10	0.22	205	4	0.17	2	290	5	20	18	0.03	10	7	10	4
0546	121.00	123.00	2.00	111	1.42	10	0.29	241	10	0.19	2	180	- 5	20	21	0.04	10	4	10	5
0547	123.00	125.10	2.10	101	1.44	10	0.29	206	2	0.17	3	210	5	20	26	0.03	10	3	10	5
0548	125.10	126.38	3 1.28	67	9.13	10	0.14	159	3	0.09	1	10	230	20	30	0.01	10	9	10	1
0549	126.38	127.61	1.23	27	10.00	10	0.01	56	1	0.01	. 1	10	15	20	22	0.01	30	3	10	1
0550	127.61	128.86	3 1.25	31	5.71	10	0.37	348	18	0.04	1	10	10	20	45	0.01	10	2	10	2
951	128.86	130.00	1.14	37	10.00	10	0.13	117	1	0.01	1	10	120	20	15	0.01	10	4	10	1
953	130.00	131.00	1.00	20	8.99	10	0.06	118	1	0.01	1	10	20	20	21	0.01	30	. 3	10	1
954	131.00	132.00	1.00	38	10.00	10	0.27	97	1	0.01	1	10	310	20	18	0.01	20	3	10	1
955	132.00	133.07	1.07	25	6.13	10	0.15	55	1	0.01	1	10	345	20	32	0.01	10	2	10	1
956	133.07	134.06	0.99	50	1.17	10	0.05	68	1	0.01	, 1	10	2265	20	28	0.01	10	1	10	1
957	134.06	135.50	1.44	24	2.38	10	0.76	276	1	0.07	1	200	5	20	70	0.03	10	1	10	3
958	135.50	137.39	1.89	21	1.88	10	0.47	151	1	0.03	4	270	5	20	30	0.05	10	1	10	3
988	148.52	150.45	1.93	56	6.13	10	0.14	181	8	0.01	9	60	5	20	15	0.01	10	5	10	1



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Collar Coordinates

North (m): East (m) 15190.00

Azimuth (degrees): Dip (degrees):

Length (m):

81.10

Started:

25/10/2004

Date Logged:

25/10/2004

Elevation (m):

10735.00 111.00 -58.25 225.25 Completed:

27/10/2004 Logged By:

MA.

Report Printed:

16/12/2004

Down Hole Survey Tests

									- Gai 10)									
Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip	
0.00	81.10	-5 8.25														• .		
30:00	81,16	-59.25																
60.00	81.42	-59.25																
90.00	80.53	-59.50		100														
120.00	84.27	-59.75																
150.00	85.95	-59.75								-1								
180.00	86.21	-59.50																
210.00	86.34	-58.50																
220.00	86.02	-58.50																



Sample From

(m)

To Interval Au

(m)

(m)

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Pb %

Cu % Page: 2

Zn

Interva	ıl (m)	Description
From	То	
0.00	0.61	Casing: No Recovery No recovery, NW casing
0.61	29.38	Basalt Intrusive: Chlorite; Magnetite Homogenous to massive dark green basalt intrusive. Felted txt throughout, pervassive chl alt'n. Moderately magnetic. Minor qtz+/-mag veins. Lower contact sharp, somewhat curved, 45 degrees TCA
29.38	42.71	Rhyolite Debris Flow: Chlorite; Hematite; Magnetite Rhyolite Debris Flow. Extremely mottled from pale to dark green to purple. Interval is defined by 5-40 cm rhyolite clasts that are either ser, hem or ep alt'd in a chl or ser alt'd ashy matrix. Clasts are commonly 8-10 cm in size, often packed quite densely. Lower contact gradual, matrix becomes less ashy, more glassy and feldspar phyric, more of an autobx. 31.52 32.40 Basalt Dyke: Chlorite; Quartz Vein; Epidote; Intensely alt'd BDY. Torn qtz-veins, patch ep and chl alt'n, HW 65 degrees TCA, FW 50 degrees. 33.06 33.87 Basalt Dyke: Chlorite; Dark green chl alt'd BDY, HW 50 degrees TCA, FW sharp, straight, 50 degrees TCA.
42.71	49.81	Rhyolite Flow Breccia: Sericite; Hematite Mottled Feldspar phyric rhyolite flow breccia. Mottled pale to green to purple, very splotchy. Pseudoclasts appear to be similar in compostion to matrix. Autobx? Feldspars 2-3 mm lathy, minor bullish qtz veining. Lower contact is marked by first flow banding. Likely conformable. 48.70 49.02 Basalt Dyke: Chlorite; CHL darkened BDY. HW qtz veined, 40 degrees TCA, FW subtle, 60 degrees TCA.
49.81	58.95	Rhyolite Flow: Pale grey massive to feldspar phyric rhyolite flow. Local flow banding develops, particularly at HW, 50 degrees TCA. Trace dpy, rare clotty mag. Minor late chl stringers, irregular. Lower contact marked by 1cm queins, curved, intrusive, 60 degrees TCA. 53.96 54.10 Basalt Dyke: Chlorite; CHL alt'd BDY, wavy HW 20 degrees TCA, FW stepped 20. 56.70 57.00 Basalt Dyke: Chlorite; Chl alt'd BDY, HW irregular, 70 degrees TCA, FW broken, straight, 75 degrees TCA.



Sample From

(m)

(m)

(m)

No.

Hole-ID: TCU04140

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Zn

Interva	al (m)	Description
From	То	
58.95	64.80	
		Sloko Rhyolite dyke. Pale grey flow banded dyke, distict black peppering, in this specimen black
		needles are noted, tourmaline? Locally feldspar phyric, but generally glassy. Flow banding 5-35 degrees TCA, FW sharp, 35 degrees TCA.
		degrees TCA, FW sharp, 33 degrees TCA.
64.80	65.30	Basalt Dyke: Chlorite
		Chl alt'd BDY, FW sharp, highly irregular, 50 degrees TCA.
65.30	70.00	Rhyolite Flow:
		Massive grey rhyolite flow. Glassy matrix locally wkly feldspar phyric. Wk late bleaching, chl
		veining, v similar to above RFL. Lower contact marked by txt changed and increased feldspars,
		marked by 4 cm qtz-chl vein. 69.10 69.10 Fault: Bleached Slip 55 degrees TCA.
		09.10 09.10 Fault. Bleached Slip 33 degrees TOA.
70.00	80.92	Rhyolite Flow Breccia:
		Rhyolite Flow Breccia. Mottled grey blue. Abundant grey green rhyolite fragments in a glassy blue
		to green rhyolite matrix. Auto breccia. Fragments often have fuzzy margins suggesting that the
		unit was hot when it moved, reabsorption. Lower contact of RFX marked by first ashy interval,
		likely conformable.
		76.94 78.40 Basalt Dyke: Chlorite; Calcite; Disseminated Pyrite; Calcite veined BDY, chl alt'd.
		HW spun FW sharp, 60 degrees TCA.
80.92	86.40	Rhyolite Debris Flow: Chlorite; Jasper
		Blue green feldspar phyric rhyolite debris flow. Differentiated from above RFX by the ashy
		intervals with bleached clasts, however there is abundant feldspar phyric rhyolite flow to flow
		breccia material interbedded with the ashy/clast material suggesting a certain degree of
		interbedding. Minor jasper in with ashy intervals. Lower contact sharp, intrusive, 60 degrees
		TCA.
86.40	92.12	Basalt Dyke: Chlorite
		Glassy green to black basalt dyke with rhyolite xenos to 60 cm. FW 60 degrees TCA, straight.



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Interval (m)	Description			Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From To				No.	(m)	(m)	(m)	g/t	g/t	%	%	%

92.12 95.65 Rhyolite Debris Flow:

Dark maroon grey-grey cream-grey mottled rhyolite debris flow. Cream-green grey-maroon grey felsic fragments in maroon grey predominantly feldspar phyric or ashy wkly magnetic matrix. Several 10's of cm wide sections of rhyolite lapilli ash tuff resembling rocks and a 30 cm wide section of feldspar crystal rhyolite lapilli ashy tuff, possibly fragments. Lower contact sharp, 87 degrees TCA.

95.65 96.13 Basalt Dyke:

Dark green grey-dark brown grey fine grained massive aphanitic mafic intrusive, lower contact is sharp, irregular, no plane.

96.13 105.70 Rhyolite Flow:

Light green grey-cream grey massive grey feldspar phyric weakly magnetic dense slightly mottled rhyolite flow, possibly grading into a flow breccia in sections, particularly near lower contact.

Lower 1.5 m decreasingly feldspar phyric. Lower contact sharp, 55 degrees TCA.

96.69 96.87 Basalt Dyke: Dark green grey, dark brown grey fine grained non to moderately magenetic massive, aphanitic mafic intrusive. Upper contact sharp, 30 degrees TCA, FW sharp broken 55.

97.81 97.96 Basalt Dyke: Dark brown grey, dark grey fine grained dense, aphanitic, moderately magnetic mafic intrusive. HW sharp, 50 degrees TCA, FW sharp 40.

105.70 123.39 Rhyolite Flow Breccia:

Green grey-mauve grey rhyolite debris flow, sections with obvious fragemental textrure (creame colored felsic fragments partially with dark green mm sized dark spots, frayed margins more or less blurry contacts embedded in a brown grey-maroon grey partially feldspar phyric partially ashy matrix) alternated with dense mottle mostly feldspar phyric sections. Transitions are abrupt and or gradual, for example 106.23-106.68m, dark grey feldspar phyric RLAT with up to cm sized cream colored subrounded -subangular lapilli with sharp upper and lower contact @ steep angle TCA, fragment? Interbed? Non to moderately magnetic, patchy. Locally fine dusty leucoxene.

Chl+/-qtz+/-epidote+/- mag veins up to 1 cm with stringers, locally grading into a fine meshed intervals, variable angle TCA. From 121 to 122m up to 5 mm wide with carbonate bearing gypsum



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Interval (n From	m) To	Description	Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %
		veins and stringers @ shallow angle TCA, associate with several cm wide bleached zones. Lower			-						
		contact, sharp, distinct, broken, possilby 60 degrees TCA.									
23.39 18	85.3 8	Rhyolite Debris Flow: Chlorite									
		Rhyolite debris flow. Quite an ashy interval, clasts are quite rare, RLAT? Blue green throughout, chi alt'n likely caused by abundant BDY's. Interval is defined by variably bleached and alt'd	9959	184.38	185.	38 1.00	0.03	0.00	0.00	0.00	0.00
		rhyolite clasts in an ashy matrix. Clasts range from relatively pristine feldspar phyric to quite									
		bleached with feldspars converted to chl. Clast size to at least 15 cm, with possible larger									
		disarticulated fragments. Local x-cutting bleaching chl veins. Matrix of RDF locally feldspar									
		phyric, glassy, possibly a local magmatic debris? Bellow 150.32 the interval becomes more of a									
		classic ashy RDF, with subrounded bleached fragments. Local feldspar phyric phases, with clasts									
		and chill margins, suggesting at least locally there was hot RDF material, however, most is ashy									
		matrix. Lower contact is marked by increased sulphides, no fining downwards noted in this hole.									
		126.20 126.99 Basalt Dyke: Chlorite; CHL alt'd BDY HW shattered 80 degrees TCA, FW 40 degrees TCA, straight.									
		128.55 132.02 Basalt Dyke: Chlorite; CHL alt'd BDY, rhyolite xenos to 15 cm, HW 80 degrees TCA, FW									
		brecciated, 70 degrees TCA.									
		132.69 132.95 Basalt Dyke: Chlorite; CHL alt'd BDY, HW wavy 55 degrees TCA, FW brecciated, 60									
		degrees TCA.									
		136.50 139.82 Basalt Dyke: Fault; Chlorite; Disseminated Pyrite; Faulted BDY. Abundant calcite									
		and bleaching at HW, 60 degrees TCA, no slicks. Trace DPY, Rhyolite xenos to 40 cm,									
		FW brecciated, 40 degrees TCA.									
		143.07 143.77 Fault: Hematite; Calcite; Calcite and hem on slicked fault surfaces. FLT planes 20									
		degrees TCA, slicks rake 50 degrees to face, right lateral sense of motion. 147.37 148.95 Bleached: Bleached zone, creamy green healed fit?									
		148.95 150.32 Basalt Dyke: Fault; Calcite; Fit'd basalt dyke, abundant calcite veins. HW lost, FW									
		50 degrees TCA. Fit plane 50 degrees TCA.									
185.38 18	86.62	Semi-Massive Sulphide: Sphalerite									
		Semi massive sulphides. Somewhat banded to foliated sphal +gal+tet in a rhyolite rich debris flow.	9960	185.38	186.	62 1.24	2.35	47.60	0.16	0.51	2.55

compressed/flattened. Banding or foliation 50-60 degrees TCA. 1 gal+/- tet filled fracture noted



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Interva From	al (m) To	Description	Sample No.	From (m)	To (m)	interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %
		sub // TCA. LC wavy, intrusive 60 degrees TCA.									
186.62	187.62	Basalt Dyke: Chlorite									
		CHL alt'd BDY, separates SMS from MSSX, LC razor sharp, 80 degrees TCA.	9961	186.62	187.6	2 1.00	0.03	0.90	0.03	0.01	0.03
187.62	190.44	Zinc Facies Massive Sulphide:									
		Zinc Facies Massive Sulphide. Well banded sphal and py rich massive sulphide. Sphal ranges from	9962	187.62	189.0	0 1.38	0.31	16.00	0.47	0.24	1.15
		silvery to honey brown, py vfg to granular. Clotty cpy throughout, vfg dissem gal as an acessory within massive sphal. Blackish fracutre fill associated with granualr py, possibly tet or black ser. Banding in this interval is 50-60 degrees TCA. Towards FW cpy more dissem or intermixed with sphal. Gangue ser, rhyolite frags and barite. Final 30 cm is a strong ser alt'd OCB. Transitional alt'n and also change in depositional facies, likely not a conformable contact, 60 degrees TCA.	9963	189.00	190.4	4 1.44	9.58	161.00	1.65	2.55	14.30
100.44	400.00	Outside Carrielle Durite Alternations									
190.44	192.32	Quartz-Sericite-Pyrite Alteration: QSP-SER-PY alt'd RDF. Recognizable rhyolite debris flow with a strong ser overprint, locally	9964	190.44	192 (0 1.56	0.37	0.00	0.00	0.00	0.00
		completely replaceing the rock, however, usually a faint pale green ser alt'n. Possible barite, py and tet veining. Py is relatively minor through this interval, <5%.	9965	192.00		0 2.00		0.00	0.00	0.00	0.00
192.32	195.22	Basalt Dyke: Broken Core; Calcite; Disseminated Pyrite Broken BDY, minor calcite and py FW, 50 degrees TCA, HW ragged, 80 degrees TCA.	9966	194.00	196.0	0 2.00	0.22	0.00	0.00	0.00	0.00
195.22	196.40	Quartz-Sericite-Pyrite Alteration:									
		Continuation of QSP from above dyke.	9968	196.00	198.0	0 2.00	0.20	0.00	0.00	0.00	0.00
196.40	198.18	Basalt Dyke: Chlorite CHL alt'd BDY. HW ragged 50 degrees TCA, FW sharp, chl veined 80 degrees TCA.	9969	198.00	200.0	0 2.00	0.47	0.00	0.00	0.00	0.00
198.18	202.95	Quartz-Sericite-Pyrite Alteration: Continuation of QSP from above dyke. Lower contact is quite sharp, 45 degrees TCA, parallel to underlying bedding so likely is conformable, possibly erosive though.	9971 9972	200.00 202.00		00 2.00 05 0.95		0.00			0.00 0.38



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Interva From	al (m) To	Description	Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %
202.95	204.88	Zinc Facies Massive Sulphide:									
		Zinc facies massive sulphide. Moderately banded sphal+bar+gal mineralization, locally abundant py	9973	202.95	203.	50 0.55	2.76	442.00	0.69	7.68	18.60
		as well. Banding is 35 degrees TCA, wavy. Interval is extremely barite rich, remarkably heavy	9974	203.50	204.	31 0.81	4.85	428.00	0.97	6.43	12.80
		even for MSSX. Barite is as bands or nodules throughout and may be associated with sooty tet and	9975	204.31	205.	27 0.96	3.60	220.00	0.24	4.53	9.89
		gal. 204.31-204.88 v high barite with sphal, gal and tet. LC somewhat truncated by BDY, but it									
		likely conformable with underlying SMS, 35 degrees TCA.									
204.88	205.27	Basalt Dyke: Chlorite; Quartz Vein									
		CHL alt'd queined BDY, appears to split the contact between massive and semi massive sulphide. FW									
		25 degrees TCA.									
205.27	208.08	Semi-Massive Sulphide:									
		This interval is likely the bottom of the topographic low that the massive sulphides sit in.	9976	205.27	206.	00 0.73	4.02	184.00	0.70	3.77	7.11
		Through this interval there are small bands of massive sulphide interbedded with rhyolite ash tuff	9977	206.00	207.	00 1.00	1.06	15.60	0.04	0.46	0.12
		suggesting they are syndepositional but from 2 distinct sources. Massive sulphide intervals are	9978	207.00	208.	08 1.08	1.30	95.70	0.10	0.85	1.25
		about 20 cm this with sphal barite and tet, locally quite significant quantities. These intervals									
		are interlain with QSP alt'd RAT. LC represents a change from a quiet gentle deposition to a									
		chaotic so is likely non conformable. Contact is somewhat obscured by alt'n but is marked by first clast of RDF, 30 degrees TCA.									
80.80	225.25										
		QSP alt'd rhyolite debris flow. Interval is defined by wispy to waxy sericite and leucoxene alt'd.	9979	208.08		01 1.93		6.90			0.22
		Underliying protlith appears to be RDF, with large bleached feldspar phyric fragments visible	9980	210.01		00 1.99	0.08				0.03
		through alteration. Ser alt'n appears to preferentially attack matrix, perhaps porosity or surface	9981	212.00		00 2.00		26.00		0.41	
		are related. Local fractures with black rims or overprint, possibly tet, particularly noticeable	9982	214.00		00 2.00		95.80	0.06	0.21	
		at 214.6m. It's easy to imagine this unit having mineralizing fluids being forced up through it,	9983	216.00		00 2.00					0.00
		creating the alteration. Interval becomes rubbley with depth, crushed gravel (not THE CRUSH) from	9984	218.00		00 2.00		46.90			0.63
		221.3 to EOH. @ 224.6 the rock becomes much darker and bio alt'd possibley with amygdules, possible	9985	220.00		00 2.00		0.00			0.00
		protolith change.	9986	222.00			0.34	0.00	0.00		0.00
		212.54 213.06 Semi-Massive Sulphide: Possible SMS appears to be minor barite suggesting exhalative sulphides.	9987	223.30	225.	25 1.95	0.27	0.00	0.00	0.00	0.00



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Interval (m) Description То From

Sample From

(m)

(m)

To Interval Au Ag g/t (m)

g/t

Cu % Pb % Zn



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Assays

Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %	SG	Cu ppm	Pb ppm	Zn ppm	Au ppb	Ag ppm	As ppm	AI %	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm
9959	184.38	185.38	1.00	0.03	0.00	0.00	0.00	0.00	0.00	37	50	139	0	0.5	5	0.90	150	5	0.88	1	2
9960	185.38	186.62	1.24	2.35	47.60	0.16	0.51	2.55	2.71	1558	5334	10000	0	30.0	5	0.67	30	5	0.40	114	7
9961	186.62	187.62	1.00	0.03	0.90	0.03	0.01	0.03	2.80	287	88	337	0	0.9	20	2.53	155	5	0.57	1	27
9962	187.62	189.00	1.38	0.31	16.00	0.47	0.24	1.15	3.07	4691	2156	10000	0	16.8	10	0.93	45	5	0.59	44	6
9963	189.00	190.44	1.44	9.58	161.00	1.65	2.55	14.30	3.52	10000	10000	10000	0	30.0	805	0.34	30	5	0.29	767	4
9964	190.44	192.00	1.56	0.37	0.00	0.00	0.00	0.00	0.00	262	444	1884	0	4.4	45	1.19	45	5	0.43	8	5
9965	192.00	194.00	2.00	0.10	0.00	0.00	0.00	0.00	0.00	200	166	546	. 0	2.6	60	2.67	75	5	0.93	2	26
9966	194.00	196.00	2.00	0.22	0.00	0.00	0.00	0.00	0.00	57	56	98	0	1.6	55	2.04	55	5	0.79	1	19
9968	196.00	198.00	2.00	0.20	0.00	0.00	0.00	0.00	0.00	60	62	210	Ó	2.0	50	2.70	105	5	0.77	1	21
9969	198.00	200.00	2.00	0.47	0.00	0.00	0.00	0.00	0.00	224	828	3527	0	15.5	70	0.43	30	5	0.30	12	6
9971	200.00	202.00	2.00	0.42	0.00	0.00	0.00	0.00	0.00	351	1528	2908	0	17.9	170	0.41	20	5	0.24	9	5
9972	202.00	202.95	0.95	9.81	132.00	0.14	0.57	0.38	2.79	1394	5400	3458	0	30.0	545	0.52	30	5	0.47	9	6
9973	202.95	203.50	0.55	2.76	442.00	0.69	7.68	18.60	4.21	6870	10000	10000	0	30.0	1025	0.05	15	5	0.16	720	1
9974	203.50	204.31	0.81	4.85	428.00	0.97	6.43	12.80	4.25	9614	10000	10000	0	30.0	2485	0.02	35	5	0.11	490	4
9975	204.31	205.27	0.96	3.60	220.00	0.24	4.53	9.89	3.44	2477	10000	10000	0	30.0	535	0.44	35	5	0.28	323	5
9976	205.27	206.00	0.73	4.02	184.00	0.70	3.77	7.11	3.27	7162	10000	10000	0	30.0	1270	0.31	25	5	0.27	157	8
9977	206.00	207.00	1.00	1.06	15.60	0.04	0.46	0.12	2.70	435	4628	1221	. 0	15.6	235	1.19	45	5	0.69	2	7
9978	207.00	208.08	1.08	1.30	95.70	0.10	0.85	1.25	2.89	857	8180	10000	0	30.0	405	0.62	- 20	5	0.56	51	6
9979	208.08	210.01	1.93	0.52	6.90	0.02	0.06	0.22	2.60	179	644	2216	0	6.9	135	0.33	20	5	0.20	7	5
9980	210.01	212.00	1.99	0.08	2.60	0.00	0.00	0.03	2.60	37	.98	347	0	2.6	95	0.27	15	5	0.25	1	6
9981	212.00	214.00	2.00	0.03	26.00	0.01	0.41	1.05	3.01	118	3546	8578	0	22.7	240	0.39	30	5	0.24	26	8
9982	214.00	216.00	2.00	1.53	95.80	0.06	0.21	0.19	2.62	485	1970	1556	0	30.0	235	0.32	20	5	0.36	15	7
9983	216.00	218.00	2.00	0.36	0.00	0.00	0.00	0.00	0.00	455	1456	2688	0	21.1	220	0.27	15	5	0.27	26	9
9984	218.00	220.00	2.00	1.29	46.90	0.10	0.24	0.63	2.75	929	2338	6195	0	30.0	390	0.25	20	5	0.34	24	9
9985	220.00	222.00	2.00	0.26	0.00	0.00	0.00	0.00	0.00	151	226	541	0	2.1	190	0.29	20	5	0.17	. 1	5
9986	222.00	223.30	1.30	0.34	0.00	0.00	0.00	0.00	0.00	221	78	610	0	1.8	80	0.43	25	5	0.29	1	7
9987	223.30	225.25	1.95	0.27	0.00	0.00	0.00	0.00	0.00	574	36	298	0	2.3	160	1.58	50	5	0.47	1	14



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Assays ... continued

Sample No.	From (m)	To (m)	Interval (m)	Cr ppm	Fe %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Sb ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W ppm	Y ppm
9959	184.38	185.38	3 1.00	97	1.34	10	0.35	221	1	0.12	2	200	5	20	82	0.04	10	1	10	4
9960	185.38	186.62	2 1.24	66	3.48	10	0.24	155	3	0.07	1	10	5	20	33	0.01	10	6	10	1
9961	186.62	187.62	2 1.00	.70	5.72	10	2.22	528	1	0.18	38	710	5	20	39	0.13	10	324	10	1
9962	187.62	189.00	1.38	80	8.67	10	0.38	158	3	0.09	1	10	5	20	32	0.02	10	1	10	1
9963	189.00	190.4	4 1.44	17	6.81	10	0.19	117	1	0.02	1	10	410	20	43	0.01	10	3	10	1
9964	190.44	192.00	1.56	26	2.28	10	0.92	310	3	0.05	2	260	5	20	46	0.06	10	1.	10	8
9965	192.00	194.0	2.00	121	5.74	10	2.23	484	2	0.18	43	590	5	20	64	0.12	10	186	10	1
9966	194.00	196.0	2.00	123	4.64	10	1.64	383	3	0.18	34	490	5	20	44	80.0	10	145	10	1
9968	196.00	198.0	2.00	127	4.89	10	2.06	441	1	0.21	44	650	5	20	52	0.08	10	208	10	• 1
9969	198.00	200.0	2.00	46	2.07	10	0.10	60	2	0.04	5	90	35	20	58	0.01	10	1	10	1
9971	200.00	202.0	2.00	19	2.88	10	0.14	73	2	0.04	4	160	75	20	40	0.01	10	1	10	1
9972	202.00	202.9	5 0.95	32	2.94	10	0.11	76	1	0.04	5	60	755	20	55	0.01	10	1	10	1
9973	202.95	203.5	0.55	9	3.37	10	0.02	81	1	0.01	1	10	1150	20	35	0.01	10	1	10	1
9974	203.50	204.3	1 0.81	24	10.00	10	0.01	140	1	0.01	1	10	1915	20	34	0.01	20	1	10	1
9975	204.31	205.2	7 0.96	32	1.95	10	0.26	126	1	0.01	1	50	530	20	64	0.05	10	15	10	1
9976	205.27	206.0	0.73	38	2.71	10	0.13	69	1	0.01	1	10	505	20	51	0.01	10	20	10	1
9977	206.00	207.0	1.00	28	2.30	10	0.38	104	1.	0.06	5	290	40	20	32	0.09	10	1	10	4
9978	207.00	208.0	3 1.08	43	3.31	10	0.16	84	1	0.07	5	80	170	20	65	0.02	10	5	10	1
9979	208.08	210.0	1 1.93	24	4.03	10	0.07	51	5	0.03	14	10	15	20	20	0.01	10	1	10	1
9980	210.01	212.0	1.99	68	3.41	10	0.05	51	3	0.05	3	230	5	20	29	0.01	10	1	10	1
9981	212.00	214.0	2.00	22	8.58	10	0.08	78	2	0.04	2	10	5	20	31	0.01	10	4	10	1
9982	214.00	216.0	2.00	92	1.91	10	0.06	75	2	0.05	7	250	100	20	76	0.01	10	1	10	5
9983	216.00	218.0	2.00	57	1.97	10	0.06	60	5	0.04	8	230	90	20	68	0.01	10	1	10	6
9984	218.00	220.0	2.00	53	4.02	10	0.04	70	1	0.02	6	70	165	20	45	0.01	10	3	10	1
9985	220.00	222.0	0 2.00	36	4.50	10	0.09	82	6	0.01	7	20	5	. 20	5	0.01	10	4	10	1
9986	222.00			50	5.32	10	0.22	159	4	0.01	2	730	5	20	3	0.01	10	7	10	1
9987	223.30	225.2	5 1.95	27	7.29	10	1.22	788	5	0.01	3	840	5	20	.5	0.05	10	39	10	1



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Collar Coordinates

North (m): East (m)

Elevation (m):

15190.00 10735.00

111.00

Azimuth (degrees):

Dip (degrees): -66.50 Length (m): 252.68

75.60 Started:

Completed:

27/10/2004 29/10/2004 Date Logged: Logged By: 27/10/2004

Report Printed:

TS. 17/12/2004

Down Hole Survey Tests

Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip	Depth (m)	Azimuth	Dip
0.00	75.60	-66.50															
30.00	75.77	-66.50															
60.00	73.36	-65.75															
90.00	74.24	-65.50															
120.00	79.54	-65.75															
150.00	78.06	-65.25															
180.00	77.86	-65.25															
210.00	78.78	-65.50															
240.00	78.79	-65.50															
244.00	78.83	-65.25															



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Interval (m)	Description				Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From To					No.	(m)	(m)	(m)	g/t	g/t	%	%	%

0.00 0.13 Casing:

Casing, no recovery.

0.13 33.82 Basalt Intrusive:

Dark green grey - dark grey, fine grained, dense, massive, aphanitic, featureless, homogeneous, non - weakly magnetic (moderately magnetic patches near lower contact) mafic intrusive. Very minor veining (propylitic mineral assembly: quartz, chlorite, magnetite). The lower part of this interval displays increasingly larger inclusions (up to several dm) of the underlying rhyolite interval and is more or less pervasively fractured, indicating xenoliths, bifurcating and/ or fingering contacts, or a mixing zone. Few fracture planes within this section display a hematite bearing carbonate-, chlorite-, coating and slickensides, associated with very minor, sandy fault gauge. Also within this section white, carbonate bearing, veins, up to several mm width, orientation not able to determine. Lower contact: Chosen at the end of mixing and bifurcation zone, sharp, @ 55 deg to CA.

33.82 35.46 Rhyolite Lapilli Ash Tuff:

Dark green grey - dark brown grey - mauve maroon grey rhyolite lapilli ash tuff. Green grey - cream and partially hematite stained clasts, generally with very blurry contacts, not well defined, difficult to detect, mostly up to approx cm size, partially elongated and aligned to a crude foliation @ approx 40 deg to CA. Interval displays grading, with up to several cm sized, cream - brown, felsic fragments near lower contact. Also abundance of approx mm sized jasper specks increasing downwards from very rare to rare near lower contact. Few feldspar phenocrysts (approx mm sized, subhedral within 1 m above lower contact. Interval is non magnetic throughout, chlorite altered. Lower contact: Arbitrarily chosen with incipient color change from mauve - maroon grey to olive green grey, no plane.

35.46 43.40 Rhyolite Debris Flow:

Variably green grey - brown grey - blue green grey - maroon grey, locally cream colored (with few hematite stained patches) rhyolite debris flow? rhyolite flow breccia? Interval begins (at the top) as a typical debris flow: Abundant (section is partially clast supported) sub rounded - irregular shaped fragments, polylith (typical cream colored rhyolite fragments with its green spots, highly siliceous light grey fragments and variably green grey, chlorite and/ or epidote altered fragments,



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Interval (m)

To

From

Description

Sample No.

From (m)

To (m)

Interval (m) g/t Cu

Pb Zn %

sometimes partially hematite stained) embedded in a dark green grey matrix. At 37.17 m a sharp, somewhat irregular contact to a green grey - dark grey - cream grey, locally brown grey, dense, partially feldspar phyric rhyolite debris flow? undifferentiated rhyolite? with a dirty - dirty mottled appearance. Scattered throughout are sub rounded, ghostly, not well defined, up to several cm sized, mostly indistinct (rarely distinct based on color difference), variably colored and more or less absorbed. The existence of up to several dm sized fragments can not be excluded. Ashy (with a crude foliation @ 40 deg to CA) sections, more or less dense sections, feldspar phyric sections. Primary lithology is overprinted by chloritic and epidotic alteration. From approx 40.5 m downwards intensively fractured sections. Lower contact: No plane.

45.67 Rhyolite Flow Breccia: 43,40

Dark green grey - dark brown grey, feldspar phyric rhyolite flow? or rhyolite flow breccia? Sub mm - approx 3 mm sized, subhedral - anhedral feldspar phenocrysts enclosed by a very fine grained, aphanitic and/ or glassy, dark green grey - dark brown grey matrix. Interval displays throughout up to several cm sized, ghostly appearing, pale grey - cream grey, irregular shaped patches (possibly fragments as a result of auto brecciation, which are differently altered than the matrix?). Near lower contact increasingly chloritic and epidotic altered. Lower 0.5 m above lower contact is pervasively fractured, with slickensides on fracture planes @ 30 deg to CA. Lower contact: Sharp, broken core, no plane.

45.67 52.06 Rhyolite Undifferentiated: Feldspar

Olive green grey - pale beige grey - dark brown grey rhyolite, with variable appearance: Locally the interval displays a fragmental texture, with up to bomb sized (approx 7 cm), felsic fragments (irregular shaped, green beige grey, partially more or less broken up, with frayed margins, partially and variably intense absorbed), which are embedded in an ashy and/ or dense, feldspar phyric matrix. The better part of this interval comprises sections with a dense, partially feldspar phyric, partially massive, partially mottled appearance. It is assumed, that the primary lithology of this interval is overprinted by contact metamorphism resulting from the dike swarm, which crosscuts this interval. The interval is pervasively fractured, with slickensides on fracture planes @ approx 15 deg to CA. Few of these fracture planes with a carbonate-, chlorite coating, also apparent as white stringers, which locally grade into breccia veins. Lower contact: Sharp, @ steep angle to CA.



Hole-ID: TCU04141 Page: 4

interval (m)	Description					Sample	From	То	Interval	Au	Ag	Cu	Pb	Zn
From To						No.	(m)	(m)	(m)	g/t	g/t	%	%	%
	45.67 46.24 Bas	salt Duke: Dark green grey	- dark grey fine	arained dense ma	esive anhanitic									

- 45.67 46.24 Basalt Dyke: Dark green grey dark grey, fine grained, dense, massive, aphanitic strongly magnetic, mafic intrusive. Pervasively fractured. Lower contact: Sharp, somewhat irregular, @ approx 50 deg to CA.
- 47.70 47.78 Basalt Dyke: Dark green grey dark grey, fine grained, dense, massive, aphanitic, weakly magnetic mafic intrusive. Upper contact: Sharp, @ steep angle to CA. Lower contact: Sharp, irregular, @ steep angle to CA.
- 48.05 48.13 Basalt Dyke: Dark green grey dark grey, fine grained, dense, massive, aphanitic, moderately magnetic, mafic intrusive. Upper contact: Broken core, no plane, presumably sharp, @ steep angle to CA. Lower contact: Broken core, no plane, presumably sharp, @ steep angle to CA.
- 48.15 49.33 Basalt Dyke: Dark green grey dark grey, fine grained, dense, massive, aphanitic, moderately magnetic, mafic intrusive. Interval displays up to 2 mm wide, white, highly carbonate bearing veins @ approx 20 deg to CA. Fracture planes with hematitic, chloritic and carbonate bearing coating and slickensides @ approx 50; 35 and 10 deg to CA. Upper contact: Sharp, @ steep angle to CA. Lower contact: Sharp, @ 40 deg to CA.

52.06 58.98 Rhyolite Undifferentiated: Rhyolite Lapilli Tuff; Debris Flow

Variably grey - dark grey - beige grey undifferentiated rhyolite. Variably dense, or with a fragmental texture (sections resembling a rhyolite lapilli ash tuff, with pale cream, mostly < 1 cm, rarely up to several cm sized lapilli? in a dark mauve grey, fine grained matrix; also sections resembling a rhyolite debris flow with ghostly, more or less absorbed, irregular, up to approx 6 cm sized, pale cream colored fragments in a dark maroon grey matrix). Locally a very variable foliation (flow foliation?, bedding?) can be detected @ 25 - 50 deg to CA. The interval is pervasively fractured: > 50 % of core pieces < 10 cm.

58.50 58.98 Basalt Dyke: Dark green grey - dark grey, very fine grained, dense, massive, aphanitic, non - very weakly magnetic, mafic intrusive. Upper contact: Sharp, @ 40 deg to CA. Lower contact: Sharp, @ 55 deg to CA.

58.98 79.53 Rhyolite Undifferentiated: Rhyolite Flow Breccia; Feldspar; Chlorite

Green grey - maroon grey - mauve grey, cream mottled, variably feldspar phyric - dense, undifferentiated rhyolite with an intensively mottled appearance. Locally a fragmental texture with



Sample

No.

From

(m)

То

(m)

Interval

(m)

Au

g/t

Hole-ID: TCU04141

Pb

Page: 5

Zn

Interval (m)	
--------------	--

From

То

Description

variable sized, pale cream - green grey, not well defined, ghostly, mostly irregular shaped fragments with frayed margins in a mostly feldspar phyric matrix. Large sections with irregular, up to 5 mm wide magnetite-, chlorite-, +/- epidote veins, which branch out into stringers and create a shattered appearance (crackle veins), with variable orientation to CA. The interval is variably magnetic, from non - moderately magnetic, patchy, sections. The interval is chloritic and epidotic altered. The lower section (within approx 1 m above lower contact) is intensively bleached to pale olive green grey - cream grey. Presumably the majority of this interval is comprised of rhyolite flow breccia or a sequence of differently colored rhyolite flow breccias, possibly with interbedded volcaniclastics. Lower contact: Sharp, broken core, no plane.

82.06 Quartz-Feldspar Porphyry Dyke: 79.53

Light grey - grey, fine - medium grained, dense, massive, homogeneous, weakly magnetic, felsic intrusive, presumably a quartz feldspar porphyry dike. The interval is reminiscent to the groundmass of a QFP without displaying the phenocrysts. The interval is carbonate bearing. The interval is intensively fractured throughout: Approx 90 % of core pieces < 10 cm, > 50 % of core pieces < 5 cm. Fracture planes (variable orientation from sub parallel to CA - approx 20 deg to CA) are partially associated with up to > 7 mm wide carbonate-, chlorite-, pyrite-, +/- quartz? mineralization and display slickensides. Lower contact: Broken core.

82.06 85.66 Rhyolite Undifferentiated: Calcite Vein; Chlorite

Dark green grey - mauve grey - olive green grey - pale cream, undifferentiated rhyolite: Near the upper contact the interval is intensively bleached to pale cream grey and green grey mottled, grading into a green grey - dark grey, feldspar phyric section, generally dense, locally possibly with a faint, fragmental texture and faintly developed cream colored (alteration) patches, grading into an increasingly bleached section, olive green grey - pale cream, with primary textures more or less completely overprinted. The interval is pervasively fractured throughout, with carbonate- and chlorite stringers @ variable angle to CA, conspicuously @ approx 60 deg to CA. At 85.1 m a clayey, ductile fault gauge, associated with a fracture plane @ 30 deg to CA. Fracture planes with slickensides and carbonate-, chlorite-, hematite coating (veins, stringers) @ steep angle and 15 deg to CA. Lower contact: Broken core, no plane.

85.66 88.09 Quartz-Feldspar Porphyry Dyke: Calcite



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Interval (m) Description Cu Pb Zn Sample From То Interval % No. (m) (m) (m) То From

Dark grey - grey, fine - medium grained dense, massive, homogeneous, moderately magnetic, felsic intrusive. Few small (approx 3 mm sized) quartz eyes suggest a quartz feldspar porphyry dike. The entire interval is carbonate bearing. Very similar to "79.53 - 82.06 m", but slightly darker colored and less fractured. Lower contact: Broken core.

88.09 98.41 Rhyolite Flow Breccia:

Pale green grey - mauve maroon grey - cream grey, dirty mottled rhyolite flow breccia. The interval is generally feldspar phyric (white, mm - 4 mm sized, anhedral - subhedral feldspar phenocrysts in a fine grained, dense, aphanitic, presumably glassy matrix). The matrix particularly the darker colored sections, is weakly - moderately magnetic. Cream colored patches, which create the mottled appearance of the interval, locally grade into a faintly developed fragmental texture, with not well defined, variably irregular shaped, ghostly developed, cream - maroon cream fragments, with green - dark brown magnetite- and chlorite bearing stringers and crackle veins with variable orientation to CA. The fragments are assumed to be the result of auto brecciation. Lower contact: Gradational, no plane.

98.41 99.93 Rhyolite Debris Flow:

Green grey - grey, cream - maroon grey mottled, rhyolite debris flow? Overall similar to the overlying interval, but with relatively distinct fragments (sub round - irregular shaped, cream grey - maroon grey, up to approx 10 cm sized, possibly up to several dm sized) in a dark grey, locally and weakly feldspar phyric, weakly magnetic, dense, ashy - glassy matrix. The fragments are assumed to be reworked rhyolite rather than the result of auto brecciation. In comparison to the overlying unit the interval with a decreasing degree of flow brecciation with less dark green - dark brown chlorite and magnetite bearing stringers and crackle veins. This interval is assumed to be genetically related and result of the same event as the overlying interval. Lower contact: Sharp, @ approx 35 deg to CA.

99.93 101.67 Rhyolite Ash Tuff:

Green grey - dark grey - maroon grey - mauve grey, dense, +/- massive, partially feldspar phyric rhyolite ash tuff. Locally the interval with a very faintly developed foliation @ approx 40 deg to CA. Very few, only sub mm sized jasper specks and up to several cm sized, weakly hematite stained patches, very weakly - weakly magnetic. Locally minor dusty leucoxene, indicating sericite. Few,



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Pb

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Interval (m) From To Description

Sample No. From (m)

To Interval

Au

Ag

Cu

Zn %

irregular, patchy quartz-, chlorite-, +- magnetite veins @ approx 10 - 15 deg to CA, grading near lower contact (0.5 m) into an intensively, irregular veined and pervasively bleached (olive, beige, grey) section, with its primary lithology completely overprinted. Lower contact: Sharp, @ 45 deg to CA.

101.67 118.36 Basalt Intrusive:

Dark green grey - dark grey, very fine grained, dense, massive, aphanitic, mafic intrusive. Interval is variably magnetic: Mostly non magnetic with weakly and moderately - strongly magnetic patches and sections. Locally with irregular, swirly - wavy, rarely planar quartz-, chlorite-, +/- magnetite, +/- albite veining, partially associated with irregular, patchy bleaching pattern, reminiscent to xenoliths. Near lower contact with patchy, dusty enrichments of a pistachio green, soft, very fine mineral (presumably leucoxene associated with sericite). Lower contact: Sharp, @ 40 deg to CA.

118.36 120.45 Rhyolite Undifferentiated: Bleached; Chlorite; Epidote

Pale green grey - pale cream grey, dirty appearing, dense, slightly mottled, undifferentiated rhyolite. Interval is pervasively bleached and chloritic/ epidotic altered. Sections are intensively nerved with dark, chlorite bearing stringers, which grade into veins, with variable orientation, conspicuously @ approx 25 deg to CA. Primary textures are more or less completely overprinted by bleaching/ alteration. Lower contact: Gradational, no plane.

118.60 119.13 Basalt Dyke: Dark green grey - dark grey, very fine grained, dense, massive, aphanitic, non - moderately magnetic (patchy) mafic intrusive. Near the center a several cm wide zoned chlorite, magnetite, pyrite vein zone @ 40 deg to CA. Upper contact: Sharp, @ 45 deg to CA. Lower contact: Sharp, @ 35 deg to CA.

120.45 127.57 Rhyolite Flow Breccia:

Pale green grey - pale cream grey - dark maroon grey, dirty mottled rhyolite flow breccia.

Partially with sub round, irregular shaped, pale cream colored, variably feldspar phyric (very rarely, particularly near upper contact, with few green spots, which are assumed to be chloritized feldspar), up to approx 6 cm sized, felsic fragments. Fragments are enclosed in a maroon grey, feldspar phyric, weakly - moderately magnetic matrix with an aphanitic, presumably glassy matrix, which grades into variably feldspar phyric - dense, pale cream grey sections. Few chlorite



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interval (m)	Description		•			Interval					Zn
From To			No.	(m)	(m)	(m)	g/t	g/ť	%	%	%

magnetite crackle veins and stringers, up to several mm wide, with variable orientation. Lower contact: Chosen with the upper contact of a 4 cm wide, chlorite magnetite vein @ 60 deg to CA.

127.57 129.25 Rhyolite Debris Flow:

Small interval of a rhyolite debris flow, with up to > 10 cm, partially with blurry contacts, but well defined (based on color change) cream - very light green - maroon cream colored, felsic fragments in a maroon grey - green grey, weakly - moderately magnetic, feldspar phyric groundmass (up to 4 mm sized, white, subhedral - anhedral feldspar phenocrysts in an aphanitic, presumably glassy matrix). Lower contact: Sharp, somewhat irregular, @ approx 40 deg to CA.

129.25 132.32 Rhyolite Flow:

Maroon - maroon grey - green grey - dark grey, dense, homogeneous, weakly - moderately magnetic, feldspar phyric (up to 4 mm sized, subhedral - anhedral, white feldspar phenocrysts, which amount to approx 15 %, in an aphanitic, presumably glassy groundmass) rhyolite flow. Within 1 m from upper and lower contact the interval is increasingly flow brecciated (autobreccia), with up to several cm sized, more or less well defined, mostly bleached to cream - maroon cream, feldspar phyric, sub rounded fragments, separated by a dark brown grey, partially feldspar phyric magnetite and chlorite bearing matrix, which locally displays magnetite and chlorite bearing stringers and veins (crackle veins). Lower contact: Sharp, @ approx 50 deg to CA.

132.32 138.68 Rhyolite Debris Flow:

Dark brown grey - green grey - mauve maroon grey - cream, dirty mottled rhyolite debris flow. Green cream - maroon cream, variably well defined, sub round - irregular shaped, mostly feldspar phyric, partially irregularly hematite stained, approx cm to > 20 cm sized, felsic (rhyolite) fragments, which are partially chloritic and epidotic altered. Fragments are enclosed in a dark green grey - dark maroon grey, mostly feldspar phyric (up to 2 mm sized, distinctly smaller than in the fragments, subhedral, rarely euhedral, white plagioclase), weakly - moderately magnetic matrix. Size and abundance of hematite patches increases near lower contact. Lower contact: Sharp, @ 40 deg to CA.

138.68 144.54 Rhyolite Lapilli Ash Tuff:

Maroon grey - green grey - dark brown grey rhyolite lapilli ash tuff. Interval comprises ashy



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Pb

%

Си

Zn

%

Interval (m)

From To

Description

Sample From To Interval Au No. (m) (m) (m) g/t

sections, which grade into partially feldspar phyric sections and/ or partially dense, mottled sections and sections with a fragmental texture. Very rarely sub round - irregular shaped, cream grey - green grey, up to 8 cm sized felsic fragments can be noted. The majority of the interval comprises ashes with variably abundant (in sections entirely lacking) lapilli (mostly < 1 cm, rarely up to several cm sized, variably cream - green grey colored) and crystal fragments (up to several mm sized). Very few of the fragments are partially hematite stained. Locally the ashy sections display a foliation (bedding) @ 20 deg - (most conspicuously) 35 deg to CA. Interval is non magnetic throughout. Abundance and size of lapilli is increasing near lower contact, the

144.54 201.87 Rhyolite Debris Flow:

cm up to > 8 cm, sharp, @ 35 deg to CA.

Rhyolite debris flow, with variably sized (approx cm sized to > 15 cm sized), variably colored (cream, mauve grey, maroon grey, pale green grey, rarely hematite stained) variably intense chloritic and/ or epidotic altered, variably shaped (frequently sub rounded - partially irregular shaped, partially with frayed margins), generally well defined, to a minor extend variably brecciated (chlorite and magnetite bearing crackle veins and stringers, irregular frayed margins), felsic fragments of somewhat variable composition. Fragments are enclosed in dark green grey - dark grey - dark maroon grey, mostly ashy, rarely dense and feldspar phyric, mostly non magnetic, rarely weakly magnetic (particularly within feldspar phyric sections) matrix. Abundance of fragments is variable: Within sections almost fragment supported and sections with fragments almost entirely lacking. Overall a classic rhyolite debris flow without sorting. Lower contact: Relatively sharp color change from dark maroon grey to pale grey, somewhat irregular, @ steep angle to CA.

148.74 155.05 Basalt Dyke: Dark green grey - dark grey, fine grained, aphanitic, dense, massive, featureless, homogeneous, weakly - moderately magnetic mafic intrusive. Upper contact: Sharp, associated with a zoned, 3 cm wide, quartz-, chlorite-, magnetite

comparison to the matrix. Lower contact: Chosen with incipient abundance of fragments from several

majority of these fragments are indistinct, mostly as a result of minor color difference in

162.43 165.20 Fault Zone: Pervasively fractured core: > 90 % of core pieces < 10 cm, approx 50 % of core pieces < 5 cm. Fracture planes with slickensides @ 30 deg to CA and sub parallel to CA. From 164.3 m downwards interval is intensively bleached to olive green grey with white, up to approx 3 mm wide, carbonate bearing stringers and

vein, @ 40 deg to CA. Lower contact: Sharp, @ 40 deg to CA.

9989 200.37 201.87 1.50 0.03 0.00 0.00 0.00 0.00



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То

From

Description

Sample No.

From (m)

То Interval (m) (m)

g/t

Cu

%

Pb Zn %

veinlets @ 40 deg to CA. At 164.75 - 165.0 m an approx 20 cm wide, white, bright green and black carbonate bearing quartz?-, albite-, gypsum vein with bright green up to approx cm sized patches, presumably fuchsite, possibly malachite and/ or azurite. The vein is associated with ductile, clayey fault gauge and slickensides. Upper contact: Increasingly broken core. Lower contact: Lower contact of a.m. vein, @ 55 deg to CA.

205.17 Ore Clast Breccia: 201.87

Light grey - brown grey - grey - dirty cream colored, dirty mottled, QSP altered rhyolite with few. sub rounded - irregular shaped, up to > 6 cm sized massive sulfide (sphalerite, pyrite, chalcopyrite bearing) fragments. Also disseminated - dusty pyrite, grading into specks and small patches, which are frequently +/- elongated and crudely aligned to a variably weakly developed foliation @ 40 - 50 deg to CA and locally grade into a highly sulfide bearing matrix, which encloses +/- siliceous clasts and/ or fragments. Disseminated leucoxene indicates disseminated sericite, which grades into sericite specks, patches and bands (+/- aligned to foliation) and several, up to several cm wide, waxy, olive green - beige grey sericite layers, which highlight the foliation. Siliceous sections and patches (clasts?, fragments?). Lower contact: Sharp, conformable @ 55 deg to CA.

0.14 5.24 9990 201.87 202.97 1.10 1.00 44,00 0.68 9992 0.88 22.00 0.55 0.07 3.65 9993 205.17 1.10 0.22 7.00 0.23 0.09 1.47

212.80 Massive Sulphide: Pyrite Facies Massive Sulphide 205.17

Massive sulfides with 2 QSP (altered rhyolite) interbeds, which are 30 - 40 cm wide and several similar smaller QSP sections (up to approx dm width). The interval appears to be relatively tetrahedrite rich near the upper contact, with downwards increasing pyrite content and decreasing tetrahedrite content. No distinct sphalerite, possibly disseminated sphalerite. In detail the interval begins with approx 40 cm MSSX (pyrite- and chalcopyrite facies) with disseminated tetrahedrite resulting in a somewhat brown color. Foliation is orientated @ 50 - 60 deg to CA. Downwards it grades into dense, almost massive, faintly foliated (@ 40 deg to CA) mauve brown section, presumably with a high tetrahedrite and barite content, possibly some sphalerite. This section ends at 206.40 m with a sharp, conformable contact @ 60 deg to CA, and is underlain by 30 cm intensively QSP altered, sericite rich, altered rhyolite, which itself is underlain by an 80 cm wide, dense, mauve brown MSSX section. This section is similar to the above described MSSX, but with a somewhat mottled appearance (chalcopyrite/ pyrite patches and bands, sub parallel to CA) and

3.58 105.00 2.57 1.93 14.40 9995 206.17 1.00 207.17 1.00 3.56 120.00 3.59 2.38 11.70 9996 2.04 1.01 4.75 9997 207.85 0.68 3.60 62.00 9998 207.85 208.85 1.00 7.62 184.00 5.06 1.30 6.36 22.00 0.56 0.33 1.46 9999 208.85 209.85 1.00 1.16 0.00 0.00 0.00 0.00 10000 209.85 210.85 1.00 0.73 0.00 0.00 0.00 10565 210.85 211.85 1.00 1.02 0.00 0.00 0.00 0.00 0.00 10566 211.85 212.80 0.95 0.99



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Interval (m) From To	Description	Sample No.	From (m)	To (m)	nterval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %
	up to > 15 cm wide, sericite rich sections. Foliation is crude and @ 55 deg to CA (conformable with									
	foliation in overlying MSSX section). The lower contact of this section at 207.5 m is sharp, @ 25									
	deg to CA and is underlain by a second, approx 40 cm wide altered rhyolite. At 207.87 m a sharp									
	contact (@ steep angle to CA) with a MSSX section. It begins with an approx 25 cm wide, presumably									
	chalcopyrite and tetrahedrite bearing, dense, massive, highly pyritic section, which is underlain									
	by a mauve brown mottled, presumably tetrahedrite rich section, with a downwards increasing pyrite									
	content and several, approx dm wide, sericite rich sections and patches. This section is approx 2 m wide and ends at 210.07 m with a sharp contact @ 20 deg to CA. From 210.07 to lower contact a									
	homogeneous, crudely foliated (@ 40 deg to CA), dense, pyrite rich, possibly chalcopyrite and									
	tetrahedrite bearing MSSX. Lower contact: Sharp, conformable, @ approx 45 deg to CA.									
	garpen to angle of									
2.80 214.88	Ore Clast Breccia:									
	Dark grey - green grey - mauve grey, undifferentiated rhyolite with few, sub rounded, up to approx	10568	212.80	213.8	0 1.00	0.36	6.00	0.18	0.14	1.3
	2 cm sized, massive sulfide fragments (pyrite), which are embedded in a very fine grained, possibly	10569	213.80	214.8	8 1.08	0.03	0.00	0.00	0.00	0.0
	glassy groundmass. Possibly an altered rhyolite flow breccia with chlorite-, magnetite crackle									
	veins and stringers near lower contact, associated with pervasive bleaching to light green grey -									
	cream grey. Non - moderately magnetic, patchy, sections. Lower contact: Sharp, @ 40 deg to CA.									
14.88 219.49	Rhyolite Undifferentiated:									
	Green grey - dark grey - mauve cream grey, mottled, undifferentiated rhyolite, which is somewhat	10571	214.88	216.3	8 1.50	0.05	0.00	0.00	0.00	0.0
	similar to the overlying interval. Locally with a fragmental texture (sub rounded fragments, mostly									
	< 1 cm, rarely up to several cm, embedded in a very fine grained, green grey matrix). Few									
	chlorite-, magnetite crackle veins and stringers, associated with bleaching halos, which camouflage									
	primary textures. Sections with dense, dirty mottled appearance, faintly feldspar phyric sections									
	and a very fine grained, ashy section (foliation @ approx 35 deg to CA) near lower contact. Small									
	section with mostly sub mm sized pyrite specks and possibly few, up to several mm sized sulfide									
	fragments. Fracture planes with slickensides @ 40 deg to CA. This interval is possibly an altered									
	rhyolite debris flow with an ashy matrix or an alternating sequence of rhyolite flow breccia and									
	lapilli bearing ash tuff. Non - moderately magnetic, patchy, sections. Lower contact: Gradational, no plane.									
	πο ριατίε.									
9.49 251.90	Quartz-Sericite-Pyrite Alteration:									



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Interval (m) From To Description

Sample From No. (m)

n To (m)

interval (m) Au Ag g/t g/t Cu Pb Zn % % %

Variably textured QSP. Based on texture the interval can be divided into 5 different sections: See Nested.

- 219.49 224.20 Quartz-Sericite-Pyrite Alteration: Silica; 1.) Green grey cream grey grey cream mottled section. Primary textures appear to be more or less entirely overprinted. The majority of this interval appears to be siliceous, with up to several cm sized, beige olive green grey, irregular, variably well defined sericite patches, which are associated with disseminated, dusty leucoxene. Also minor disseminated leucoxene, possibly indicating disseminated sericite. Section is variably intense nerved with chlorite-, magnetite-, +/- epidote, +/- pyrite bearing, very dark colored stringers and crackle veins with variable orientation. Locally the mottled texture grades into a fragmental and/ or pseudo fragmental texture, in one case associated with patchy crudely banded (@ 25 deg to CA) pyrite, reminiscent to a fragmental textured rock with a highly sulfide bearing matrix. Pyrite within this section (223.15 224.20) amounts to approx 15 20 %. Gradational change to following section.
- 224.20 232.70 Quartz-Sericite-Pyrite Alteration: Rhyolite Debris Flow; 2.) Olive green grey light mauve grey cream green grey, locally dark grey, intensively foliated (@ 30 50 deg to CA, conspicuously @ 40 deg to CA) QSP. Irregular shaped and up to cm sized fragments and few sub rounded, up to several cm sized felsic fragments are easily recognized. Up to several dm sized, mauve grey cream grey green grey sections, which interrupt the foliation, are interpreted as large fragments of relatively unaltered rhyolite within a QSP altered rhyolite debris flow. Foliated sections with high content of olive green grey dark grey beige grey sericite, more or less grade into bands and/ or laminae, which are aligned to foliation. Locally and in sections associated with dusty, banded and/ or laminated pyrite, +/-aligned to foliation. Lower contact to this section at 232.70 with a sharp, conformable contact @ 45 deg to CA.
- 226.37 229.75 Basalt Dyke: Dark green grey dark grey, very fine grained, aphanitic, dense, massive, homogeneous, featureless, moderately strongly magnetic, mafic intrusive. Upper contact: Sharp, @ approx 50 deg to CA. Lower contact: Sharp, irregular, @ shallow angle to CA.
- 232.70 243.68 Quartz-Sericite-Pyrite Alteration: 3.) Light grey beige grey olive green grey,



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Interval (m)

Description

From To

_...

variably foliated and or mottled QSP. The foliation is very variable and inconsistent, from approx 30 deg to sub parallel to CA. Laminae, bands and patches (light beige - cream, partially green grey sericite, associated with leucoxene, beige brown pyrite and variably grey - green - cream colored, siliceous material) appear to be very well defined and clean within the upper part of the interval. Central and lower part with an increasingly dirty appearance and foliation repeatedly cut by several dm wide, variably colored (light green grey, light mauve grey, cream - brown grey mottled), dense, massive rhyolite sections (possibly large fragments within a flow) and up to several dm wide, massive and/ or foliated (@ 30 deg to CA) sericite sections. Few, rounded, up to approx 5 cm sized, cream colored rhyolite fragments with mm sized dark spots can be recognized. Patchy, dusty, laminated pyrite within this section amounts to approx 15 - 20 %. Locally up to several mm sized sphalerite specks and small, minor tetrahedrite stringers. Lower contact of this section at 243.68 m, sharp, @ steep angle to CA, underlain by

- 243.68 246.58 Quartz-Sericite-Pyrite Alteration: Sericite; 4.) Brown grey grey, dense, +/massive, fine grained QSP, locally finely mottled and foliated @ shallow angle to CA
 (approx 15 deg to CA) with an approx cm wide, inconsistent sphalerite- and
 tetrahedrite bearing band aligned to foliation. Waxy appearance, dusty leucoxene and
 softness of material indicate high sericite content. Dusty cloudy, rarely grading
 into patchy, very fine grained pyrite amounts to approx 10 %. The lower contact of
 this section at 246.58 is based on color change.
- 246.58 251.90 Quartz-Sericite-Pyrite Alteration: 5.) Brown grey grey light grey, variably mottled and/ or foliated (@ approx 40 deg to CA) section with variably faintly developed very distinct, siliceous (light-colored), sericitic (beige grey) patches (fragments?) and up to approx 6 cm sized, rounded ore clasts (pyrite) embedded in a possibly barite bearing, highly pyrite bearing and sericitic, fine grained matrix. Dusty, cloudy and patchy pyrite, which is locally laminated and aligned to foliation amounts to approx 10 15 %. The section is pervasively fractured and displays up to several mm wide, white, carbonate bearing veins (conspicuously @ 40 deg to CA) and quartz-, chlorite-, +/- pyrite veins, which are up to several cm wide. Overall this interval is very similar to the footwall in hole tcu04-140, which has been extensively sampled. No samples outside the actual ore body



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Interval (m) Description

Sample From To Interval Au Ag Cu Pb Zn No. (m) (m) (m) g/t g/t % % %

are agreed upon for this hole. Lower contact: Sharp, conformable, @ 40 deg to CA.

251.90 252.68 Basalt Flow:

Dark green grey - grey, intensively mottled (pale - cream -light grey), aphanitic, weakly - moderately magnetic, presumably mafic rock. Interval is intensively nerved with chlorite stringers and partially pyrite bearing chlorite veinlets, which are up to several mm wide. Stringers and veins are associated with highly irregular, pale green - cream colored alteration/ bleaching halos, resulting in a completely chaotic appearance, which overprints primary textures.

252.68 252.68 End of Hole:



Hole-ID: TCU04141 Page: 15A

Assays

Sample No.	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %	SG	Cu ppm	Pb ppm	Zn ppm	Au ppb	Ag ppm	As ppm	Al %	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm
10000	209.85	210.85	1.00	0.73	0.00	0.00	0.00	0.00	0.00	1544	84	397	0	5.3	170	0.62	40	5	0.13	1	9
10565	210.85	211.85	1.00	1.02	0.00	0.00	0.00	0.00	0.00	4273	50	165	0	9.1	155	0.54	45	5	0.19	1	8
10566	211.85	212.80	0.95	0.99	0.00	0.00	0.00	0.00	0.00	1122	226	358	0	9.7	10	0.76	40	5	0.11	1	9
10568	212.80	213.80	1.00	0.36	6.00	0.18	0.14	1.31	2.58	1667	1528	10000	0	6.8	25	0.79	10	5	0.20	62	4
10569	213.80	214.88	1.08	0.03	0.00	0.00	0.00	0.00	0.00	100	250	468	0	0.9	10	0.70	35	5	0.65	2	2
10571	214.88	216.38	1.50	0.05	0.00	0.00	0.00	0.00	0.00	56	268	257	0	0.9	10	0.73	180	5	0.37	1	4
9989	200.37	201.87	1.50	0.03	0.00	0.00	0.00	0.00	0.00	85	40	169	0	0.2	10	0.74	155	5	0.55	1	2
9990	201.87	202.97	1.10	1.00	44.00	0.68	0.14	5.24	2.90	6695	1814	10000	0	30.0	10	0.23	5	5	0.56	318	8
9992	202.97	204.07	1.10	0.88	22.00	0.55	0.07	3.65	2.80	5394	916	10000	0	23.9	10	0.16	5	5	0.49	217	6
9993	204.07	205.17	1.10	0.22	7.00	0.23	0.09	1.47	2.60	2101	1258	10000	0	8.4	15	0.42	15	5	0.63	83	4
9995	205.17	206.17	1.00	3.58	105.00	2.57	1.93	14.40	3.86	10000	10000	10000	0	30.0	125	0.23	30	5	0.27	739	13
9996	206.17	207.17	1.00	3.56	120.00	3.59	2.38	11.70	3.43	10000	10000	10000	0	30.0	865	0.43	25	5	0.23	520	5
9997	207.17	207.85	0.68	3.60	62.00	2.04	1.01	4.75	3.17	10000	10000	10000	0	30.0	670	0.65	45	5	0.42	240	6
9998	207.85	208.85	1.00	7.62	184.00	5.06	1.30	6.36	3.49	10000	10000	10000	0	30.0	1875	0.53	90	5	0.35	264	8
9999	208.85	209.85	1.00	1.16	22.00	0.56	0.33	1.46	3.09	5620	3330	10000	0	20.8	310	0.92	35	5	0.23	70	10 .



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Assays ...continued

Sample No.	From (m)	To (m)	Interval (m)	Cr ppm	Fe %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni . ppm	P ppm	Sb ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W ppm	Y ppm
10000	209.85	210.85	1.00	28	10.00	10	0.79	113	13	0.01	1	10000	5	20	3	0.01	10	4	10	1
10565	210.85	211.85	1.00	35	10.00	10	0.66	112	12	0.01	1	10000	5	20	4	0.01	10	4	10	1
10566	211.85	212.80	0.95	24	10.00	10	0.99	141	12	0.01	1	10000	5	20	1	0.01	10	5	10	1
10568	212.80	213.80	1.00	41	4.57	10	0.81	300	7	0.05	1	160	5	20	10	0.01	10	6	10	1
10569	213.80	214.88	1.08	70	2.67	. 10	0.57	530	16	0.07	1	100	5	20	34	0.02	10	2	10	9
10571	214.88	216.38	1.50	55	1.92	10	0.58	276	3	0.05	3	270	5	20	23	0.05	10	3	10	6
9989	200.37	201.87	1.50	37	1.41	10	0.46	271	1	0.05	1	230	5	20	20	0.04	10	1	10	2
9990	201.87	202.97	1.10	45	2.97	10	0.16	120	1	0.01	10	220	5	20	29	0.01	10	4	10	1
9992	202.97	204.07	1.10	56	3.94	10	0.09	86	1	0.01	3	130	5	20	26	0.01	10	2	10	1
9993	204.07	205.17	1.10	36	2.02	10	0.29	106	1	0.01	1	170	5	20	32	0.01	10	6	10	1
9995	205.17	206.17	1.00	31	10.00	10	0.06	105	1	0.01	1	140	5	20	5	0.04	10	14	10	1
9996	206.17	207.17	1.00	12	6.90	10	0.51	113	1	0.01	1	10000	240	20	20	0.01	10	3	10	1
9997	207.17	207.85	0.68	30	8.21	10	0.72	128	1	0.01	1	30	50	20	17	0.01	10	7	10	1
9998	207.85	208.85	1.00	20	10.00	10	0.57	144	1	0.01	1	10000	160	20	15	0.01	10	6	10	1
9999	208.85	209.85	1.00	23	10.00	10	1.21	184	8	0.01	1	10000	5	20	4	0.01	10	4	10	1