GT 24

Summary

Date	Depth (ft)	Temp (°C)	Remarks
Oct. 20/1980	27		
21	—		Cement 25' BW Casing
22	87		
23	197		Water loss @ 117'
24	247 (195)*	9.505	
25	Day off		
26	Day off		
27	367 (-)		Water loss @ 302'
28	547 (365)	12.272	
29	697 (-)	Bridge Broken	Major water loss @ 655
30	817 (695)	18.066	Some water loss @ 805.5
31	917 (815)	19.992	
Nov. 1	1027 (915)	21.827	
2	1117 (1025)	24.104	Washed cuttings
3	1187 (1117)	25.485	" "
			Cayley andesite: 1091.6 - 1099.7'
4	1327 (1187)	26.733	Washed cuttings
5	1365 (1327)	29.411	" "
6	1417 (-)	Broken Thermistor	
7	1457 (1417)	31.039	Washed Cuttings
8	— (1457)	31.787	End.

* Bottom of hole for temperature measurement

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MT. CAYLEY PROJECT

Introduction and Drilling : 23 October 1980

P. T. McCullough arrived at the site at approximately 1:30 p.m Wednesday, 22 October 1980. Drilling had commenced on Monday, 20 October, 1980 and proceeded to a depth of 27 feet. Repairs were completed to a hydraulic hose on the dozer blade which had broken on 20 October. Following the repairs a site was cleared for P.T.M's trailer and the trailer was set up. A few hours of additional drilling were undertaken and drilling stopped at 97 feet. The BW casing had been cemented at 25 feet on 21 October 1980. Bedrock was encountered at 13 feet. Trevor Lewis arrived at 2:30 p.m and explained the use of the temperature probe.

PTM attempted to take temperautres, but in testing for open circuit, the circuit was found to be open. P.T. McCullough travelled to Squamish for supplies and to call Trevor Lewis. Trevor recommended that the readings be taken and to call him once again if there were problems. No temperatures were obtained.

Drilling :

The drilling proceeded very well. The rock is competent, but hard; the hole progressed from 97 ft. to 197 ft. Core recovery is close to 100%. The hole is losing water at 117 ft.

Geology :

The overburden contains pebbles and cobbles of dark grey vesicular andesite porphyry, green and white granodiorite, black and white foliated quartz diorite and grey dacite porphyry (possibly welded tuff). The bedrock is a foliated hornblende biotite quartz diorite with numerous xenoliths in various stages of assimilation and aligned parallel to the foliation. The rock contains few fractures and 2 runs yielded 10 foot pieces of core. The foliation is well developed and lies at 5^{o} to 9^{o} to the core axis. A few quartz veins containing biotite resulted from silification along fractures.

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Testing indicated that the circuit was still open; subsequent discussion with Trevor Lewis indicated that this was the proper condition for an open circuit test. This and adjustment of the voltage were conducted before commencing measurement on this day and on all subsequent days.

Temperatures : Thermistor 5336

Depth	SC (Ω)	T+SC (Ω)	Time	T (Ω)	Temp. (°C)
50'	167.0	8993.0	6:43	8826.0	8.100
101'	166.5	8702.0	6:47	8535.5	8.879
150'	166.5	8609.0	7:03	8442.5	9.134
195' (Bottom)	165.5	8475.0	7:12	8309.5	9.505

Hole is reported as 197 feet.

Drilling :

Drill broke down at 247 feet; the crosshead bearing must be replaced.

Parts are in Merritt and the driller has not had any days off in more than 6 weeks, so he is going to Merritt and plans to return on Monday, 27 October 1980. The rods are stuck down the hole so no temperature can be obtained.

Geology :

Drilling is continuing in foliated hornblende biotite quartz diorite. Fractures are more common below 170 feet. These fractures are associated with varying amounts of limonite, epidote, chlorite, clay, pyrite and quartz as alteration minerals. The dip of the foliation has flattened so that it is at 12° to 30° to core axis.

27 October 1980

P.T. McCullough arrived back in camp at 5:15 p.m. Began to set up radio, but stopped the process because of darkness. Drilling had been completed to 367 ft. It had begun that morning after repairs were completed to the drill. The drillers had arrived at camp on Sunday, 26 October 1980.

Visitors from Longyear were at the site earlier. Apparently this was the closest Longyear rig to Vancouver, hence the interest.

Drilling :

Circulation was lost at 302 feet. Drilling was completed to 367 feet.

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29 October 1980

Temperatures : Thermistor 5336 :

Depth	SC(Ω)	T+ SC(Ω)	Time	T(Ω)	Temperature (°C)
51'	165.5	9095.0	6:48	8929.5	7.830
100'	165.0	8822.0	6:59	8657.0	8.020
150'	165.0	8615.0	7:04	8450.0	9.113
199'	164.5	8437.0	7:10	8272.5	9.611
251'	164.5	8186.5	7:16	8022.0	10.331
300'	164.5	7916.0	7:20	7751.5	11.140
349'	164.5	7576.5	7:25	7412.0	12.203
365' (Bottom)	164.5	7555.0	7:30	7390.5	12.272

The Bottom is reported as 367 feet.

Finished drilling at 5:45 p.m. at 547 feet.

P.T. McCullough completed setting up aerial; could not get out on telephone and only scrambled reception obtained on radio.

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29 October 1980

Tempertaures : Thermistor 5336 :

Depth	SC(Ω)	T + SC(Ω)	Time	T(Ω)	Temperature
50'	164.5	9081	6:12	8916.5	7.864
101'	164.5	8835	6:17	8670.5	8.514
150'	164.5	8630	6:23	8465.5	9.071
200'	164.5	8363	6:27	8198.5	9.820
250'	164.5	8101	6:32	7936.5	10.584
300'	164.5	Temperature Bridge Broke Down.			

P.T. McCullough travelled to Squamish and called J. Souther and T. Lewis for advice on the malfunction of the temperature bridge. J. Souther noted that the hole should be stopped until a bridge or other temperature measuring device is available.

P.T. McCullough left Squamish at 10:05 a.m to meet T. Lewis in Nanaimo. T. Lewis was not able to repair the bridge at Nanaimo, so both persons travelled to the Pacific Geoscience Centre in Victoria. While T. Lewis worked on a less accurate substitute for the bridge, another person from the centre attempted to repair it. Two loose wires were found and the bridge was repaired. P.T. McCullough returned to camp arriving at 11:00 p.m.

Drilling :

The hole was completed to 697 feet. A major circulation loss occurred at 655 feet.

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30 October 1980

Temperatures : Thermistor 5336 :

Depth	SC(Ω)	T+ SC(Ω)	Time	T(Ω)	Temperature (°C)
51'	164.5	9096.0	6:26	8904.5	7.895
100'	164.5	8865.0	6:31	8700.5	8.433
151'	164.5	8672.5	6:37	8508.0	8.954
200'	164.5	8489.0	6:41	8324.5	9.463
251'	165.0	8275.0	6:46	8110.0	10.075
300'	165.0	7975.0	6:50	7810.0	10.963
351'	165.0	7744.0	6:55	7579.0	11.673
401'	165.0	7544.0	6:58	7379.0	12.309
450'	165.0	7294.0	7:02	7129.0	13.131
501'	165.5	6972.0	7:06	6806.5	14.243
550'	165.5	6692.0	7:09	6526.5	15.257
600'	165.5	6460.0	7:13	6294.5	16.136
650'	166.0	6226.5	7:17	6060.5	17.061
695' (Bottom)	165.5	5983.0	7:23	5817.5	18.066

The bottom of the hole is reported as 697 feet. Note that the temperature gradient is increasing gradually with depth.

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P.T. McCullough logged core to 537.0 feet. The radio telephone was checked and is operable.

Drilling :

The hole was completed to 817 feet at 6:00 p.m. Some lost circulation occurred at 805.5 feet, although there has been no return since 655 feet. Water pressure returned after rods were pulled. Water is probably coming back up the hole and leaving at 117 feet which would explain the lack of rod vibration in the hole.

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31 October 1980

Temperatures : Thermistor 5336 :

Depth	SC(Ω)	T+ SC(Ω)	Time	T(Ω)	Temperature (°C)
51'	165.0	9057.5	6:30	8892.5	7.926
100'	164.5	8824.5	6:39	8660.0	8.542
151'	164.5	8646.5	6:44	8482.0	9.026
200'	164.5	8446.0	6:48	8281.5	9.584
251'	164.5	8206.0	6:53	8041.5	10.274
301'	164.5	7923.0	6:56	7758.5	11.119
351'	165.0	7692.5	7:00	7527.5	11.835
401'	165.5	7476.0	7:03	7310.5	12.531
451'	165.5	7240.0	7:09	7074.5	13.316
502'	165.5	6945.0	7:12	6779.5	14.339
552'	165.5	6704.0	7:16	6538.5	15.213
602'	165.5	6487.5	7:20	6322.0	16.030
652'	165.5	6266.0	7:24	6100.5	16.900
702'	165.5	5977.0	7:29	5811.5	18.091
752'	165.5	5733.0	7:33	5567.5	19.150
803'	166.0	5572.5	7:36	5406.5	19.879
815' (Bottom)	166.5	5548.5	7:46	5382.0	19.992

The Bottom of the hole is reported to be 817 feet.

Drilling :

Drilling was completed to 915 feet. Stopped drilling at 2:00 p.m to go to Squamish to pick up parts and bits for the drill.

Geology :

Core logging was completed to 639.0 feet.

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Mt. Cayley Project 1 November 1980

Temperature : Thermistor 5336 :

Depth	SC(Ω)	T+ SC(Ω)	Time	T(Ω)	Temperature (°C)
50'	165.5	9099.0	6:37	8933.5	7.820
100'	165.5	8846.5	6:37	8681.0	8.485
151'	165.5	8639.5	6:41	8474.0	9.047
200'	165.5	8438.0	6:44	8272.5	9.609
251'	165.5	8197.0	6:47	8031.5	10.304
302'	165.5	7909.0	6:51	7743.5	11.165
351'	165.5	7694.0	6:54	7528.5	11.832
402'	165.5	7455.5	6:57	7290.0	12.598
452'	165.5	7215.0	7:01	7049.5	13.400
501'	165.5	6946.5	7:04	6781.0	14.333
552'	165.5	6712.0	7:07	6546.5	15.183
603'	165.5	6494.0	7:10	6328.5	16.005
652'	165.5	6284.5	7:13	6119.0	16.826
702'	166.0	6013.0	7:18	5847.0	17.941
753'	166.5	5758.5	7:21	5592.0	19.041
803'	166.5	5536.0	7:24	5369.5	20.049
853'	166.5	5343.0	7:27	5176.5	20.964
903'	166.5	5183.5	7:29	5017.0	21.739
915' (Bottom)	166.5	5168.0	7:36	5001.5	21.827

The bottom of the hole is reported as 917 feet.

Drilling :

The hole was completed to 1027 feet.

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Mt. Cayley Project 2 November 1980

Temperatures : Thermistor 5336

Depth	SC(Ω)	T+ SC(Ω)	Time	T(Ω)	Temperature (°C)
51'	163.5	9058.0	6:27	8894.5	7.921
101'	163.5	8823.5	6:34	8660.0	8.542
150'	163.5	8624.5	6:38	8461.0	9.083
201'	163.5	8417.0	6:43	8253.5	9.663
251'	163.5	8182.0	6:46	8018.5	10.342
302'	163.5	7923.5	6:50	7760.0	11.114
352'	163.5	7693.0	6:53	7529.5	11.829
401'	164.0	7469.0	6:56	7305.0	12.549
452'	164.5	7218.5	6:59	7054.0	13.384
501'	164.5	6983.5	7:02	6819.0	14.199
551'	164.5	6755.0	7:04	6590.5	15.021
602'	164.5	6537.0	7:07	6372.5	15.837
652'	164.5	6352.0	7:10	6187.5	16.554
702'	164.5	6101.5	7:13	5937.0	17.566
753'	165.0	5766.0	7:16	5601.0	19.002
802'	165.5	5473.0	7:19	5307.5	20.339
852'	165.5	5261.5	7:22	5092.0	21.356
904'	165.5	5044.5	7:25	4879.0	22.452
953'	166.0	4877.5	7:28	4711.5	23.337
1004'	166.5	4757.0	7:32	4590.5	23.998
1025' (Bottom)	166.5	4738.0	7:35	4571.5	24.104

Bottom of hole reported as 1027 feet.

Some problems were encountered in taking the temperature measurements this morning :

1. The machine appeared to drift when some measurements were taken which made it difficult to duplicate readings.

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2. In one case the reading varied by 12 ohms. Trevor Lewis indicated this may be due to a leak. A light rain was falling and the pins on the cable were wet. Drying the pins appeared to solve the problem.

The hole bottom that has been indicated on the counter each day has not corresponded with the hole bottom as indicated by the driller. The driller suggested that this may be due to cuttings settling in the hole during the night. After drilling he will henceforth circulate water and wash the cuttings from the hole before shutting down.

Geology :

A fresh grey andesite dyke with a few vesicles was encountered from 1091.6 feet to 1099.7 feet. The dyke is the first one that is associated with Mount Cayley volcanism. Logging was completed to 930 feet.

Drilling :

Drilling was completed to 1117 feet.

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Mt. Cayley Project 3 November 1980

Temperatures : Thermistor 5336

Depth	SC(Ω)	T+ SC(Ω)	Time	T(Ω)	Temperature (°C)
50'	164.5	9065.0	6:12	8900.5	7.906
101'	164.5	8835.0	6:16	8670.5	8.514
150'	165.5	8619.5	6:19	8455.0	9.100
201'	164.5	8420.5	6:23	8256.0	9.656
251'	164.5	8185.0	6:26	8020.5	10.335
301'	164.5	7925.0	6:29	7760.5	11.112
351'	164.5	7704.5	6:31	7540.0	11.796
401'	164.5	7477.0	6:35	7312.5	12.524
451'	164.5	7232.5	6:37	7068.0	13.338
502'	164.5	7001.5	6:40	6837.0	14.135
551'	165.0	6781.5	6:43	6616.5	14.926
603'	165.5	6567.5	6:47	6402.0	15.724
653'	165.5	6401.5	6:50	6236.0	16.363
702'	165.5	6178.5	6:54	6013.0	17.262
753'	165.5	5832.5	6:57	5667.0	18.712
		5401.0	7:04		
802'	165.5	5394.0 (N) 5408.0 (R)		5235.5	20.685
853'	166.0	5195.5	7:08	5029.5	21.696
904'	166.5	4990.5	7:12	4824.0	22.738
953'	166.5	4815.0	7:14	4648.5	23.678
1003'	166.5	4666.0	7:17	4499.5	24.510
1054'	167.0	4582.0	7:20	4415.0	24.995
1104'	167.5	4505.0	7:24	4337.5	25.449
1117'	167.5	4501.0	7:30	4333.5	25.485

The hole depth is recorded as 1117 feet. Some difficulty was encountered in taking readings at 802 and 853 feet. The instrument was drifting markedly and the reading at 802 feet remained inconsistent, so both readings were recorded.

Drilling :

Stopped drilling at 1187 feet.

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Mt. Cayley Project 4 November 1980

Temperatures : Thermistor 5336

Depth	SC(Ω)	T+ SC(Ω)	Time	T(Ω)	Temperature (°C)
51'	164.5	9054.5	6:15	8890.0	7.933
101'	166.5	8811.5	6:24	8645.0	8.582
151'	165.5	8603.0	6:27	8437.5	9.148
200'	164.5	8417.5	6:29	8253.0	9.665
252'	164.5	8178.0	6:33	8013.5	10.356
301'	164.5	7934.5	6:36	7777.0	11.084
352'	165.0	7706.0	6:38	7541.0	11.793
401'	165.5	7481.0	6:41	7315.5	12.515
451'	165.5	7233.0	6:45	7067.5	13.340
502'	165.5	7021.0	6:48	6855.5	14.070
552'	165.5	6801.0	6:50	6635.5	14.856
603'	165.5	6588.5	6:53	6423.0	15.645
653'	165.5	6424.0	6:55	6259.5	16.272
702'	165.5	6189.0	6:58	6023.5	17.211
753'	165.5	5763.0	7:01	5597.5	19.017
804'	166.0	5330.0	7:05	5164.0	21.024
853'	166.5	5114.0	7:07	4948.5	22.095
903'	166.5	4934.0	7:10	4767.5	23.037
954'	166.5	4729.0	7:13	4562.5	24.154
1005'	167.0	4611.0	7:15	4444.0	24.827
1055'	167.5	4484.0	7:18	4317.5	25.568
1104'	167.5	4376.0	7:20	4208.5	26.227
1154'	167.5	4349.5	7:23	4182.0	26.391
1187'	168.0	4295.0	7:28	4127.0	26.733

The hole bottom is reported as 1187.0 feet. The cuttings were washed out by circulating water for 10 minutes after drilling ceased.

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Some problems were encountered in taking the readings. At 101 feet there was a problem in obtaining a cable resistance (SC) suggesting there was a leak, however, a reading was eventually obtained. Similarly at that depth the instrument readings were drifting, therefore, it was difficult to get a consistent thermistor (T) reading. At 804 feet the instrument drifted again, so there was a problem obtaining a balanced reading.

Drilling :

Drilling was completed to 1327 feet.

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Mt. Cayley Project 5 November 1980

Temperatures : Thermistor 5336

Depth	SC(Ω)	T+ SC(Ω)	Time	T(Ω)	Temperature (°C)
51'	165.5	9018.0	6:15	8852.5	8.031
101'	165.5	8784.0	6:20	8618.5	8.653
150'	165.5	8568.0	6:23	8402.5	9.245
201'	165.5	8388.0	6:27	8222.5	9.751
251'	165.5	8151.5	6:29	7986.0	10.437
301'	165.5	7910.0	6:32	7744.5	11.162
351'	165.5	7698.0	6:35	7532.5	11.819
402'	165.5	7471.5	6:37	7306.0	12.546
452'	165.5	7231.5	6:39	7066.0	13.345
503'	165.5	7023.0	6:42	6857.5	14.063
552'	165.5	6815.0	6:45	6649.5	14.625
603'	165.5	6602.0	6:47	6436.5	15.594
653'	165.5	6459.0	6:50	6293.5	16.140
703'	166.0	6210.0	6:52	6045.0	17.123
753'	166.5	5794.0	6:55	5627.5	18.885
804'	166.5	5331.5	6:57	5165.0	21.034
854'	166.5	5113.0	6:59	4946.5	22.105
905'	166.5	4920.0	7:02	4753.5	23.111
954'	167.0	4703.0	7:05	4536.0	24.303
1006'	167.5	4564.0	7:07	4396.5	25.102
1056'	167.5	4401.5	7:10	4234.0	26.071
1105'	167.5	4264.0	7:13	4096.5	26.926
1155'	168.0	4120.0	7:15	3952.0	27.859
1206'	168.5	4009.0	7:18	3840.5	28.607
1256'	168.5	3918.0	7:20	3749.5	29.236
1307'	169.5	3880.5	7:24	3711.5	29.504
1327' (Bottom)	169.5	3894.0	7:34	3724.5	29.411

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The drill hole bottom is recorded as 1327 feet. Some difficulty was encountered in taking the reading at 905 feet; there was considerable drift.

The water level in the drill hole is between 35 and 40 feet as determined when lowering the probe.

In attempting to change the thermistor, both the old and new ones were broken because of a pinched section in the tube that carries the thermistor. Two calls were placed to Trevor Lewis in Victoria and charged to 666-1528. He stated that Al Jessop may come tomorrow with a new probe and thermistor.

Drilling :

Drilling proceeded slowly with only 38 feet being drilled. The hole bottom is 1365 feet.

No temperatures were taken because of the broken thermistor.

Drilling : 6 November 1980

Drilling was completed to 1417 feet. Drilling was slowed somewhat because a total of 2100 feet of rods had to be pulled because of a bit change and a deformed rod, the latter at 800 feet. Drilling is expected to be completed tomorrow. Only 1485 feet of rods are serviceable.

Trevor Lewis was called in Victoria and the call charged to 666-1528. It was verified that Al Jessop would bring the new probe and thermistor and that he would arrive late in the day. At 7:00 p.m Al Jessop arrived and replaced the probe with a new thermistor.

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Mt. Cayley Project 7 November 1980

Temperatures : Thermistor 5350

Depth	SC(Ω)	T+ SC(Ω)	Time	T(Ω)	Temperature (°C)
51'	154.5	11154.5	6:30	11000.0	7.990
		10880.0			
101'	154.5	10875(N), 10885(R)	6:40	10725.5	8.581
151'	154.5	10617.0	6:44	10462.5	9.162
202'	154.5	10358.0	6:47	10203.5	9.752
253'	154.5	10072.5(?)	6:50	9918.0	10.421
303'	154.5	9751.5	6:54	9597.0	11.200
353'	154.5	9487.0	6:57	9332.5	11.864
404'	154.5	9201.5	6:59	9047.0	12.606
454'	154.5	8916.0	7:01	8761.5	13.376
505'	154.5	8653.5	7:04	8499.0	14.118
555'	154.5	8387.5	7:06	8233.0	14.880
607'	155.0	8129.0	7:08	7974.0	15.661
656'	155.5	7952.0	7:11	7796.5	16.210
707'	155.5	7528.0	7:14	7372.5	17.587
757'	155.5	6946.0	7:17	6790.5	19.633
808'	155.5	6413.0	7:24	6257.5	21.690
859'	156.5	6212.5	7:28	6056.0	22.521
910'	156.5	6030.5	7:31	5874.0	23.298
959'	156.5	5802.0	7:34	5645.5	24.315
1010'	156.5	5651.5	7:36	5495.0	25.010
1060'	157.5	5463.5	7:38	5306.0	25.940
1112'	157.5	5320.0	7:41	5162.5	26.627
1161'	157.5	5093.5	7:44	4936.0	27.799
1212'	158.5	4926.0	7:46	4767.5	28.711
1262'	158.5	4757.0	7:48	4598.5	29.664
1313'	159.0	4659.5	7:50	4500.5	30.235
1363'	159.5	4559.0	7:53	4399.5	30.838
1413'	159.5	4525.5	7:55	4366.0	31.042
1417'	159.5	4526.0	8:00	4366.5	31.039

.../18

A number of problems were encountered in taking the temperature measurements. Firstly no open circuit (OC) reading could be obtained before obtaining the other resistances; however thermistor readings were taken anyway. It was noted in the initial test that the lights moved to the right whether the polarity of the batteries was normal or reversed. An open circuit reading was obtained without difficulty at the bottom of the hole. The readings plotted very well along the previous trend. Secondly considerable drift was encountered at 750, 801 and 851 feet and slight drift was encountered at 1150 feet.

Drilling :

Drilling was completed to 1457 feet when the bit needed replacing. The driller only had 1485 feet of useable rods and the purpose of the hole had been accomplished. Therefore he was instructed to shut it down at 2:00 p.m. He obtained 3 dip tests as follows :

500 feet - 88°
1000 feet - 86°
1440 feet - 84°

Geology :

The kaolinitic alteration which had started sporadically at 1062.6 feet and extensively at 1120.5 feet, ended substantially at 1417.3 feet with sporadic occurrences to 1436.5 feet. Preliminary logs were completed to the end of the drill hole.

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Mt. Cayley Project 8 November 1980

Temperatures : Thermistor 5350

Depth	SC (Ω)	T+ SC (Ω)	Time	T(Ω)	Temperature (°C)
52'	153.5	11176.0	6:13	11022.5	7.943
101'	153.5	10921.5	6:16	10768.0	8.488
153'	153.5	10616.0	6:19	10462.5	9.163
203'	154.0	10348.0	6:24	10194.0	9.774
253'	154.5	10054.0	6:27	9899.5	10.465
303'	154.5	9746.5	6:29	9592.0	11.212
354'	154.5	9464.0	6:32	9309.5	11.923
404'	154.5	9183.5	6:34	9029.0	12.654
455'	154.5	8882.0	6:37	8727.5	13.469
505'	154.5	8622.0	6:39	8467.5	14.199
556'	154.5	8344.0	6:42	8189.5	15.009
606'	154.5	8079.0	6:44	7924.5	15.812
657'	155.0	7894.0	6:47	7739.0	16.392
707'	155.5	7575.5	6:50	7420.0	17.429
758'	155.5	6905.0	6:52	6749.5	19.785
808'	155.5	6361.5	6:55	6206.0	21.863
858'	156.0	6183.5	6:58	6027.5	22.641
910'	156.5	5992.5	7:02	5836.0	23.464
960'	156.5	5806.5	7:06	5650.0	24.294
1010'	156.5	5651.0	7:08	5494.5	25.012
1060'	157.0	5466.0	7:13	5309.0	25.901
1112'	157.5	5333.0	7:16	5175.5	26.562
1161'	157.5	5116.0	7:18	4958.5	27.680
1212'	158.5	4942.5	7:20	4784.0	28.620
1262'	158.5	4790.0	7:22	4631.5	29.475
1313'	158.5	4694.0	7:25	4535.5	30.029
1363'	159.5	4570.0	7:27	4410.5	30.772
1414'	159.5	4458.5	7:30	4299.0	31.455
1457'	159.5	4406.0	7:35	4246.0	31.787

.../20

Problems with drift of the instrument readings ~~was~~ were encountered at 4 depths. Slight drift was found at 40~~0~~ 4 feet and substantial drift was at 85~~0~~ 8, 90~~0~~ 10 and 9~~0~~ 60 feet.

PTM/ftc :

6 January 1981

d r a f t

CORE LOGS

The fracture and alteration logging were completed in detail in order that their inter-relationship could be compared at an early stage in the program. It is believed that a few detailed holes could subsequently determine which orientations and alteration types are related to particular phases of alteration. The work by Dr. Read should prove most informative in this regard and should provide proportions of the types of alteration products in each phase.

Note that in constructing the logs the following occurred :

1. Fractures that were missed in early recording may be out of order in the log.

2. Some areas of minor iron oxide stain may be a weak montmorillonitic alteration.

3. Bleaching around fractures is commonly due to kaolinization of feldspars

4. Fault striations were noted in the log in order to indicate that movement can be readily identified.

5. Zoning occurs around many fractures as follows :

kaolinite

chlorite

Epidote + quartz-filled fracture (sometimes the quartz is cross-cutting

chlorite

kaolinite

PTM/ftc :

21 November 1980

HOLE NO. 80-2

Contractor Iron Mountain Drilling Logged by PTM

Project Mt. Cayley

Location BR700 N _____ E Core Size BQ

Hole Commenced 20 Oct. 1980

Hole Completed 8 Nov. 1980 Azimuth _____ Dip 500': -88
1000': -86
1440': -84

Elevation _____

Note: All angles in the log are relative to the core axis.

Depth (ft.)	Strat. Column	Core Recovery (%)	R.Q.D. (%)	Temp. (°C)	Description
0					Overburden: Pebbles and Cobbles of: 1. dark grey vesicular andes. porph. w/ euhedral to anhedral phen. of plag. ranging to 5mm. long, glomeroporph in part, glassy matrix, slightly to mod. magnetic. 2. green & white granodio., granitic text, chl & ep. alts of mafics, grain size approx. 4mm. 3. some clasts coarse with more mafics fresh amph. & lesser bio., minor py 4. foliated qtz. dio. 5. grey dac. porph., pass. welded tuff, euhedral to subhedral phen. of bio. & plag.
10					
17		100	100		
20		99	100		
27					
30		100	100		Bedrock: hornblende bio qtz dio, well foliated, xstals to 5mm. long, commonly 2-3mm, numerous mafic-rich xenoliths parallel foln., most mafics slightly chloritized, minor epid. in felsic portions after plag., porphyroblasts of plag. to 5mm, minor disseminated py.
40		100	99		Foliation 7° to 9° @ 20 ft.

Mafic xenoliths at: 14.3', 20.0', 20.7', 21.5'-23.0', 26.0'-28.4', 33.8', 43.0', 46.0' parallel to foliation, contain numerous porphyroblasts.

Mafic xenoliths with little evidence of assimilation; dark grey andes., chl. matics; in part, finely dissem. py., few small porphyroblasts to 1.0 mm, few irreg. felsic streaks a few mm. wide @ 15° to C.A. -34.7'-40.8

Quartz Veins:

- 21.5' - approx. 2.0" wide; lower contact @ 90°; upper contact gradational w/ bleached host rock & approx. 25% 90° to C.A.
- 34.8' - qtz-biotite vein, 0.8" wide; straight contact in xenolith, irreg. in granitic rock @ 70°-90°; vuggy w/ lt. brn. stain.
- 49.9' - qtz-biotite vein with irreg. contacts @ approx. 75° to C.A., lge. books of bio. to 0.4" long, streaks of py-& mag. through centre parallel to contact, irreg. blebs of py- as much as 5mm long.

Description (Continued)

Fractures:

Depth (ft)	Angle to Core	Healed	Alteration and Intensity
21.4	60°		
21.5	80°-90°		
21.6	60°		
27.8	85°		abund. px. & chl
33.5	20°		
38.1	90°		abund. px.
40.0	77°		abund. chl, ep., px., striations
43.7	10°		otid. of matics along fract.

HOLE NO. 80-2

Note: All angles in the log are relative to the core axis.

Depth (ft)	Strat. Column	Core Recovery (%)	R.Q.D. (%)	Temp. (°C)	Description
47					Xenoliths at: 52.5', 57.5', 63.7', 64.9', 66.0', 81.0'-81.5', 87.2', 94.2', 96.0', 106.0'
50		100	95		
57					Mafic xenolith parallel foliation little assimilation: 101.0'
60		100	99		
67					Foliation 15° @ 64'
70		100	99		
77					
80		100	99		Foliation 5° @ 82'
87					
90		100	95		
97					
100		100	95		
107					
110		100	95		Med. oxidized px. dissem. @ 111.2'

Description (Continued)

Fractures:

Depth (ft)	Angle to Core	Healed	Alteration and Intensity
63.1	20°		parallel foliation
64.9	20°		" "
70.0	15°		oxid. of mafics along fract.
86.5	85°		abund. py, minor cp
92.5	90°		Sil. altn. 1.0" wide, mod. py., minor cp, infract. para altn. zone
94.6	75°		Sil altn 1.0" wide, healed
96.8	40°		
97.1	50°		
108.3	50°		Mod. iron oxide stain
108.4	70°		Mod. iron oxide stain
109.4	70°		Mod. iron oxide stain

HOLE NO. 80-2

Note: All angles in the log are relative to the core axis.

Depth (ft)	Strat. Column	Core Recovery (%)	R.Q.D. (%)	Temp. (°C)	Description
					Xenoliths at: 114.7', 116.5' parallel to foliation
117		Hole losing water at 117'			
120		100	100		
127					Foliation 5° @ 127'
130		100	100		
137					Discont. sil.-py. streak in mafic xenolith (≤1.0" wide): 137.8', 138.0'
140		100	100		
147					Thin streaky xenoliths: 147.6', 148.0', 149.5', 152.0', 163.0', 166.2'
150		100	100		
157					
160		100	98		
167					
170		100	98		
177					

Description (Continued)

Fractures:

Depth(ft.)	Angle to Core	Healed	Alteration and Intensity
157.3	70°		Mod. iron oxide staining.
157.4	75°		Mod. iron oxide staining.
168.2	70°		Mod. chl.
176.7	75°		Intense iron oxide staining.
177.0	70°		Intense iron oxide staining.
177.3	65°		" " " "

HOLE NO. 80-2

Note: All angles in the log are relative to the core axis.

Depth (ft)	Strat. Column	Core Recovery (%)	R.Q.D. (%)	Temp. (°C)	Description
180		100	98		Thin streaky xenoliths: 182.7', 200.8', 203.5', 204.0', 206.6', 230.0'
187					Foliation 20° @ 187'
190		100	100		Xenoliths at 187.1', 189.6', 201.8', 205.0', 217.6', 242.1'-243.0' parallel to foliation.
197				197' - 9.505	Sil. zones:
200		100	95		0.5" @ 198.7' - 70°
					0.5" @ 200.6' - 80°
					1.5" @ 203.8' - 86° w/py in healed fract.
207					0.5" @ 200.8' - 75° discont.
210		100	95		1.0" @ 222.4' - 80° - w/dissem. py
					3.0" @ 220.9 - 86° - felsic pod w/biot amph, irreg. contacts.
217					1.0" @ 234.1' - 70°
220		100	95		1.2" @ 236.7' - 70°
					0.4" @ 235.1 - 90° - weak zone
227					Foliation 12° @ 227'
230		100	95		
237					Foliation 18° @ 237'
240		100	98		

Description (Continued)

Fractures:

Depth (ft)	Angle to Core	Healed	Alteration and Intensity
182.3	80°		Intense iron oxide staining
183.4	70°		" " " "
187.0	68°		Ep. & chl.
188.9	70°		Minor ep. & chl.
189.0	60°		Minor ep. & chl.
198.3	70°		Healed fract. w/ epi & chl. & qtz
191.8	75°		Minor ep.
197.2	35°		Minor ep. & chl.
201.3	60°		Mod. iron oxide stain
203.3	60°		
204.4	70°		Mod. iron oxide stain
207.7	40°-45°		Mod. iron oxide stain & minor py. (2 fracts)
207.8	45°		Mod. iron oxide stain & minor py
208.6	50°		Mod minor py & clay
208.7	40°		Mod. clay and iron oxide stain
209.3	55°		Minor clay alth
211.1	45°		
213.0	15°		Parallel foln., minor iron oxide & clay alth.
217.0	45°		
217.1	67°		Mod. iron oxide stain & clay alth.
217.8	82°		Intense iron oxide stain w/ py
224.8	82°		Mod. iron oxide stain, py, ep, minor clay alth.
235.0	45°		
227.0	70°		Mod. chl minor iron oxide stain
232.1	17°		Mod. chl, clay, py
232.2	17°		Minor chl, clay, py
233.5	11°		Mod. clay & py
236.7	67°		Minor chl.
238.3	65°		
238.4	75°		
239.3	70°	✓	chl. fract, healed w/ bleached zone 0.1" wide
240.8	38°	✓	" " " " " " 0.1" " & epid

HOLE NO. 80-2

Note: All angles in the log are relative to the core axis.

Depth (ft)	Strat. Column	Core Recovery (%)	R.Q.D. (%)	Temp. (°C)	Description
247					Sil. zones:
250		93	92		0.5" @ 244.7' - 65° cut by chl-ep. fract. 0.5" @ 244.8' - 80° 1.0" @ 253.8' - 55° irreg. contacts 0.1" @ 255.6' - 10° " "
257					
260		100	100		
267					Finer grained and more mafic beginning at approx. 260'
270		100	92		
277					Xenol. thsat: 245.9', 254.0', 257.4'-258.8', 259.4', 263.4', 267.5', 271.5', 275.1'-279.9', 297.1'-299.1', 304.4', 305.5'-306.6', 309.2' partly resorbed, minor epid., chl. mafics, py. throughout.
280		100	100		
287					Broken core for 2.0", chloritized 272.7'.
290		100	97		
297					Dk. gy andes. dyke w/ small perph. of plag. (<1.0mm); upper contact sharp & at 80°
300		Hole losing water at 302'. 100	97		Less mafics in groundmass from 305.0'
307					Foliation 30° @ 308'.
310					

Description (Continued)

Fractures:

Depth (ft)	Angle to Core	Healed	Alteration and Intensity
244.8	65°		Mod. py. w/epid., chl., & clay minor.
245.2	45°		
246.1	35°		Mod. py., some mag., clay, iron oxide, chl.
246.5	50°		Mod. " chl.
247.3	27°		Chl.
252.8	47°		Chl.
255.3	27°		
255.8	33°		
256.1	30°		
256.8	75°		Chl.
257.5	42°		
262.1	85°		Chl.
266.8	75°		Minor chl.
267.7	15°		
267.8	20°		
271.0	50°		Chl.
272.0	25°		Qtz. " chl.
272.2	27°		" " "
272.4	33°		" chl.
272.3	55°	✓	Mainly epid. w/some chl & bleaching around fract. in inclusion.
272.3	65°	✓	" " " " " " " "
272.6	37°		Chl, some broken rock.
272.7	45°		Chl.
272.7	25°		Chl.
272.7	35°	✓	Chl.
273.5	43°		
277.2	85°		Minor chl.
278.3	30°		Minor chl.
280.2	40°		Bleached, w/ chl.
287.7	77°		Chl., qtz.
291.0	60°		Chl.
291.9	75°	✓	Qtz.
292.0	65°	✓	Chl.
292.3	65°	✓	Chl.
293.0	68°	✓	Chl.
297.5	75°	✓	Chl.
299.0	70°	✓	Chl.
299.1	70°	✓	Chl.
299.2	70°	✓	Chl.
299.3	80°		
299.6	65°	✓	Chl.

Description (Continued)

Fractures:

Depth (ft)	Angle to Core	Healed	Alteration and Intensity
299.7	60°	✓	Chl.
299.8	60°	✓	Chl.
300.2	60°	✓	Chl.
300.6	65°	✓	Qtz?
300.7	48°		Subparallel foliation
301.3	68°		Chl.
301.7	58°	✓	Epid. & chl, thin, w/clay, from fel&mafics
302.3	60°	✓	Chl.
303.0	23°		Chl.
303.0	60°	✓	Chl.
304.0	70°	✓	Epid zone, thin
308.0	40°		Iron oxide stain
308.2	22°		
309.0	30°		
309.4	40°		Minor iron oxide stain

HOLE NO. 80-2

Note: All angles in the log are relative to the core axis.

Depth (ft)	Strat. Column	Core Recovery (%)	R.Q.D. (%)	Temp. (°C)	Description
310		100	96		Dk gy andes approx 90° to CA - 314.2'-318.1'; 319.7' (0.2' and 0.5" thick; 325.3'-325.5' @ 80°.
317					
320		100	93		Partly resorbed xenoliths at: 352.0', 354.0'-354.8', 356.0', 362.5", 371.5'
327					
330		100	100		Mafics more abundant from 360' to approx 400'
337					Sil. zones: 364.1'-364.4' - w/ thin streak of mag, @ 90°
340		100	98		
347					
350		100	100		
357					
360		100	100		
367				365'-12.272	
370		100	100		Foliation 30° @ 369'.

Description (Continued)

Fractures:

Depth (ft)	Angle to Core	Healed	Alteration and Intensity
314.5	55°		Minor iron oxide stain
315.0	10°		
315.7	50°		
316.0	70°	✓	Chl. & epid.
317.0	65°		
317.1	75°		Iron oxide stain
317.5	40°		
319.0	32° & 55°	✓	Conjugate fracts w/ chl. & epid.; one w/ qtz, w/ bleached (0.2") margin on 32° fract.
319.3	36°	✓	Chl. & epid (0.4")
323.3	8°		2 parallel fracts, minor iron oxide stain
336.3	23°		Iron oxide stain
339.1	11°		Minor clay altn
354.2	35°		
354.8	35°		Minor clay altn.
357.3	35°		
360.3	65°	✓	Chl. & clay
360.6	65°	✓	" " "
360.7	65°	✓	" " "
361.1	70°	✓	" " " w/ epid. (0.5" wide)
361.2	70°	✓	" " " w/ epid.
363.5	87°		Epid & chl w/ py smeared along fract
365.0	42°		Iron oxide stain
365.1	67°		" " "

HOLE NO. 80-2

Note: All angles in the log are relative to the core axis.

Depth (ft)	Strat. Column	Core Recovery (%)	R.Q.D. (%)	Temp. (°C)	Description
380		100	90		
387					
390		100	97		Qtz. Veins: -382.5'-77°-1.2" wide, replaced country rk., chl, sh'd lower contact. -423.0-50°-0.4" wide, few small blebs of py along margin.
397					
400		100	88		
407					Foliation: 10° @ 396'
410		100	97		
417					
420		100	90		Xenoliths w/ plag. porphyroblasts: 425.8'
427					
430		100	100		
436					
440		100	92		

Description (Continued)

Fractures:

Depth (ft)	Angle to Core	Healed	Alteration and Intensity
378.3	42°		Sub parallel foliation
378.6	20°		" "
380.4	40°		
381.5	55°		
382.6	60°		Chl shear w/ striations
382.8	48°		Mod. chl.
384.4	43°		Minor iron oxide stain
384.7	40°		Minor iron oxide stain
385.2	53°		
386.6	70°		Chl w/ minor adjacent bleaching
392.4	75°	✓	Chl w/ minor epid.
392.2	70°	✓	" " " "
392.8	75°	✓	" " " "
393.1	70°	✓	" " " "
394.2	40°		
395.2	52°		
397.9	65°		
399.8	50°		
400.1	70°		
400.4	60°		
401.0	60°		
401.7	50°		
402.3	65°	✓	Chl
402.5	60°		
404.0	16°		Mod. clay
407.5	72°	✓	Chl
409.9	70°	✓	Chl & possibly epid. (0.2")
410.0	83°		Chl, py. & minor epid. smeared along fract.
413.6	14°		
413.7	60°		
414.5	55°		
414.7	35°	✓	Chl w/ possible epid. (0.3")
415.5	62°		
415.8	67°		
415.8	40°	✓	Chl and possibly epid.
416.5	72°		
416.9	35°		Chl shear w/ striae
420.7	50°		
421.7	38°		
422.0	45°		
422.3	50°	✓	3 chl fracts and possibly epid.
422.7	35°	✓	Chl. fract and possibly epid.

Description (Continued)

Fractures:

Depth (ft)	Angle to Core	Healed	Alteration and Intensity
422.8	42°		Chl. fract. w/ striations
423.0	47°		" " w/ "
424.5	36°		
425.0	44°		
425.7	40°		
426.0	60°		
428.5	34°		
429.3	40°	✓	Chl fract. (0.3" wide)
429.8	83°		Chl. shear w/ striations
430.0	40°	✓	Chl. fracture (w/ altn 0.6" wide)
430.3	55°	✓	Irreg. chl. fratf.
436.1	60°		
436.2	60°	✓	Chl fracture
438.1	45°		Minor iron oxide stain
439.8	55°		Intense iron oxide stain
439.9	60°		Minor " " "
440.0	55°		Intense " " "
442.4	58°		

HOLE NO. 80-2

Note: All angles in the log are relative to the core axis.

Depth (ft)	Strat. Column	Core Recovery (%)	R.Q.D. (%)	Temp. (°C)	Description
446					
450		100	98		Small mafic xenolith: 462.3'
456					
460		100	88		Foliation 15° @ 462'
466					
470		100	97		Qtz veins: 490.9 - w/irreg. contact, 3" wide (@ 50°) 491.3 - w/irreg. contacts 7" wide, upper contact 25° lower contact 80° to 65°; offset approx. 0.5" by fract. @ 57°; chl. and iron oxide along contact. 495.8 - irreg. bleb 0.25" to 0.5" thick
477					
480		100	99		
487					
490		100	87		
497					
500		100	100		
507					
510					

Description (Continued)

Fractures:

Depth (ft)	Angle to Core	Healed	Alteration and Intensity
445.1	45°		
448.2	48°		
449.2	73°	✓	Chl
450.2	70°		Chl
451.2	80°	✓	Chl w/ bleaching (0.4" wide)
453.8	80°		Chl fract. w/ bleached margin
455.6	40°		Chl parallel foliation
461.2	44°	✓	2 parallel fracts; one is healed w/ chl and minor iron oxide stain
461.2	50°		Minor iron oxide, crosses 2 fractures above
462.5	38°		Vuggy qtz w/ chl and iron oxide at margin (0.1" wide)
462.7	50°		Chl w/ striations, Str. fract.
463.7	18°		Mod. iron oxide
463.4	47°		Chl minor iron oxide stain
463.4	70°	✓	chl
464.0	66°		Minor chl
465.0	45°		Minor iron oxide stain
466.4	40°		
472.9	35°		Qtz vein bordered by chl shears (0.25" wide)
472.9	45°		Subparallel foliation
478.5	90°		Minor chl
480.4	70°		Qtz vein bordered by chl shears (0.25" wide)
482.9	60°	✓	Chl-epid shear w/ qtz vein (<0.1" wide) @ 50° vein cut by fract
483.1	50°	✓	Chl-epid. shear (0.4" wide)
483.7	50°	✓	" " " (0.2" ")
484.2	70°	✓	" " "
485.6	40°		Chl shear w/ striations
487.1	65°	✓	Chl
487.9	40°	✓	
488.1	50°		
490.7	70°		
492.8	40°		Minor iron oxide stain
495.9	80°, 70°, 55°	✓	Small chl shears
497.0	60°		Chl & qtz
483.8	42°		

HOLE NO. 80-2

Note: All angles in the log are relative to the core axis.

Depth (ft)	Strat. Column	Core Recovery (%)	R.Q.D. (%)	Temp. (°C)	Description
510		100	100		Mafic xenoliths: 539.1', 544.7', 554.6', 555.1'-555.8' (w/irreg qtz-dio. interspersed), 560.2, part'l
517					
520		100	100		Dk. gy andes dyke - NO assimilation. Upper contact @ 65°, lower contact @ 82°
527					Qtz Veins:
530		100	81		529.0'-532.1' - w/ few megacrysts of hblde. to 0.75" long & bio. to 0.5" long. Upper contact chloritized & @ 50°, Lower contact lt. brn, some qtz-chl-ser zones.
537					Foliation 40° @ 537'
540		100	100		Contains portion w/ graphic inter?
547					Sil. zones:
550		100	98		532.9'-0.2" wide, irreg. @ approx. 55°
557					535.0'-535.5' - remnants of andes. dyke in Sil. zone sharp contacts w/ frags, grad. contacts w/ qtz dio & Vein @ 30°
560		100	98		543.6 - 3.5" wide, irreg., more ep. & chl. than other zones, healed @ 80°
567					
570		100	91		More mafic and finer grained from 571.0

Description (Continued)

Fractures:

Depth(ft)	Angle to Core	Healed	Alteration and Intensity
514.7	20°		Parallel foliation
515.3	40°		Intense chl. over 5.0" wide w/qtz+calcite
518.1	62°		Chl
519.5	75°		
522.9	70°		
524.0	65°		Chl (0.1" wide)
526.4	68°		chl w/striations
527.8	64°		chl-qtz w/striations
528.2	50°		Mod chl
526.8	40°	✓	Chl
527.5	72°	✓	Chl-epid.?
533.0	70°	✓	chl (1.2" Wide)
532.7	—		Irreg chl zone
533.9	50°	✓	chl
535.2	65°	✓	Chl assoc. w/ bleached zone in andes, dyke also cuts qtz vein w/bleached zone
536.3	70°		Chl (0.5" wide)
537.5	—		Irreg chl zone
538.3	55°	✓	Chl w/some epid?
539.1	—		Irreg chl zone
541.0	40°	✓	Chl w/minor epid?
541.1	40°		Irreg chl-epid
542.3	35°		Chl-clay-epid (0.2" wide)
542.4	60°	✓	Chl w/epid
542.5	55°	✓	" " "
542.6	20°	✓	" " "
542.9	—		Irreg chl-epid
543.3	—		" " — "
545.1	40°, 58°, 75°	✓(part)	Intense qtz-chl-epid zone (0.4" fract. w/ altered zone over 4.0")
546.6	67°		
547.2	67°		Str. chl w/striations
547.3	65°		Str. chl w/ "
547.4	65°		" " " "
548.1	35°		Subparallel foliation
548.6	50°		" "
549.0	50°		" " , chl w/striations
550.6	43°		Str. chl w/striations
551.0	38°	✓	chl w/minor epid.
551.5	42°	✓	" " " "
552.1	45°	✓	chl

Description (Continued)

Fractures:

Depth (ft)	Angle to Core	Healed	Alteration and Intensity
552.5	43°		Str. chl. fract.
553.9	70°	✓	Chl. fract. margins bleached
554.1	43°	✓	Chl. fract (0.2" wide)
554.9	48°		
555.5	75°	✓	Chl. fract, margins bleached
556.3	45°		
556.8	43°	✓	Chl. fract. margins bleached
557.3	52°	✓	Chl fract. " "
557.7	62°		Chl fract.
558.0	29°		Chl. fract. bordered by 0.1" wide chl. zone
558.1	45°	✓	Chl. fract.
559.7	40°	✓	2 Chl. fracts, one healed.
560.6	75°	✓	chl. fract. w/ bleached zone.
562.0	50°		
563.1	60°		Siliceous zone
563.3	48°	✓	chl
564.6	70°	✓	"
565.3	65°		Chl
565.9	35°	✓	chl
566.0	40°	✓	chl
566.3	50°, 60°, 70°	✓	3 Chl
566.4	75°		
566.6	70°	✓	2 Chl
567.5	40°	✓	Chl (0.2" wide)
567.7	40°	✓	Qtz-chl (0.5" wide)
568.0	60°	✓	Chl-epid.
568.2	42°	✓	Chl-epid.
569.5	65°	✓	Chl
570.5	20°		Parallel foliation
571.0	35°	✓	Chl
571.2	75°	✓	Chl
571.5	60°		Chl
571.9	70°	✓	chl
572.0	60°		
572.1	35°, 60°		Chl
572.4	33°		Chl w/ iron oxide stain
572.6	48°		Chl w/ smeared py
573.1	52°	✓	2 Chl fracts, one healed
574.0	78°		Chl
574.8	35°		

HOLE NO. 80-2

Note: All angles in the log are relative to the core axis.

Depth (ft)	Strat. Column	Core Recovery (%)	R.Q.D. (%)	Temp. (°C)	Description
577					Abundant mafics to 609'
580		100	92		Partly resorbed inclusions: 607.8'-608.2', 618.0'-618.8', 619.9'-620.7', 621.7', 622.0', 624.0', 626.3'-628.8' (mafic zone w/inclusions), 637.0', 637.3', 640.7'-641.3'
587					
590		100	100		
597					Dk gy andes dyke @ 30° parallel to foliation, 5.0" wide @ 629.2'
600		100	93		
607					Felsic zones parallel to foliation: 624.3'-625.1', 630.1'-633.1' (well foliated)
608		100	100		
610		100	98		
617					Foliation 30° @ 637.0'
620		100	100		Broken core: 635.0'-635.5'
627					
630		100	87		
637					
640					

Description (Continued)

Fractures:

Depth (ft)	Angle to Core	Healed	Alteration and Intensity
576.7	55°		
577.5	50°		
578.0	37°	✓	Chl (0.2" wide)
578.1	30°	✓	Chl
579.1	57°		Chl (0.3" wide)
579.3	60°		Chl
579.6	70°		Chl
580.1	37°		Chl zone 0.75" wide, vuggy in part; iron oxide stain
580.5	68°		Fract. w/ iron oxide stain
582.6	62°		
582.7	26°		Chl
583.1	60°		
584.3	60°		
587.1	56°		
588.0	75°	✓	Chl
588.1	83°	✓	Chl
589.3	87°		Chl
589.4	87°?	✓	Chl
598.0	30°		Chl-qtz-clay alteration and bleached margin (0.4" wide)
602.9	67°, 80°		Chl on 80° fract.
603.2	55°		
603.3	55°		
606.7	40°	✓	Chl
607.4	82°		Chl
608.0	50°, 60°	Partly	Chl w/ partly bleached zone (0.2" wide)
608.2	48°	✓	Chl
608.3	63°		
608.9	50°	✓	Chl
609.1	70°		
609.2	70°		
609.3	70°		
609.7	80°	✓	Silicified and bleached
609.9	60°	✓	Chl w/ bleached zone (0.2" wide)
610.1	75°	✓	Chl
611.9	65°	✓	Chl w/ bleached zone
612.0	60°	✓	" " " "
612.5	65°	✓	" " " " (0.4" wide)
612.6	36°		
613.0	50°	✓	Chl w/ bleached zone (0.3" wide)
615.0	58°	✓	Chl w/ bleached zone

Description (Continued)

Fractures:

Depth (ft)	Angle to Core	Healed	Alteration and Intensity
615.6	60°	✓	chl w/bleached zone
618.4	65°	✓	chl
618.7	55°		
629.0	60°		chl
629.6	28°		chl
632.6	60°		chl w/striations
633.7	40°		
634.1	52°		
634.2	44°		Minor chl
634.3	45°		Chl w/striations
634.6	50°		Mindr chl
635.8	75°	✓	chl w/bleached margin

HOLE NO. 80-2

Note: All angles in the log are relative to the core axis.

Depth (ft)	Strat. Column	Core Recovery (%)	R.Q.D. (%)	Temp. (°C)	Description
		100	96		Partly resorbed inclusions: 643.0', 649.4', 661.0', 662.1', 691.4', 692.0', 695.6'-696.5" (fine-grained), 706.8'
647					
650		Major water loss at 655' (approx.) 100	92		Felsic zone @ 10°, 0.1" wide @ 645.0'.
657					
660		100	96		Foliation 35° @ 645.0'
667					Abundant mafics from 681.0'± 686.6', 692.1'-696.5'-714.3' (w/few pods containing less mafics)
669		100	46		
670		100	100		Broken core: 655.0' (2") 695.9'-696.1'- w/chl-epid.
677					
680		100	82		Qtz veins: 659.8'- 1.0" wide w/chl+ epid. @ centre @ 80°. 669.3- 0.5" wide @ 75°.
687					
690		100	83		Foliation 30° @ 702.0'
697				695'-18.066	
700		100	83		
707					

Description (Continued)

Fractures:

Depth (ft)	Angle to Core	Healed	Alteration and Intensity
644.5	60°		Minor py & cp
645.3	65°		
646.9	82°		Mod. chl and iron oxide stain
647.6	70°		Minor iron oxide
647.1	75°		
649.8	63°		Mod. chl w/ striations
651.3	65°		
651.6	65°	✓	Chl w/ minor bleaching
651.7	65°		
652.7	74°		
653.1	55°	✓	Chl w/ minor bleaching
653.2	55°		
653.4	60°		
653.5	60°		Minor iron oxide stain
654.0	51°		
654.2	53°		
654.3	50°		
655.0	60°		
655.1	55°		
655.3	65°	✓	Chl zone w/ bleached margin (0.75" wide)
655.6	70°	✓	" " " " " (0.75" wide)
655.7	37°		
655.8	67°	✓	Chl zone w/ bleached margin (0.3" wide)
656.2	50°	✓	" " " " " (0.2" wide)
656.6	45°	✓	Chl
657.0	50°	✓	Chl
657.1	45°	✓	chl
657.2	60°	✓	chl
657.3	70°	✓	Chl
657.4	70°	✓	Chl
657.9	45°	✓	Chl w/ bleached margin (minor)
658.1	70°		Chl w/ minor bleaching at margin
659.3	10°		
659.7	70°	✓	Chl
660.1	64°	✓	Chl zone (3.6" wide) w/ some epid
660.9	62°	✓	Chl zone (5.0" wide) w/ some epid.
661.3	40°	✓	chl
661.6	50°	✓	chl
662.2	70°		Minor cp
662.3	70°		
663.3	30°		Str. chloritic fract. w/ striations
663.9	83°		Mod. chl. & epid

Description (Continued)

Fractures:

Depth (ft)	Angle to Core	Healed	Alteration and Intensity
664.0	45°		
664.1	27°		
664.2	65°	✓	Chl
664.3	45°	✓	Chl w/ narrow bleached margin
665.1	65°	✓	Chl
666.3	65°	✓	Chl
666.6	65°		2 fracts.
667.2	40°		
667.6	65°		
667.7	90°		Iron oxide stain
667.8	70°		Intense vuggy chl over 1.5"
667.8	70°		
668.1	85°		
668.2	82°		Abund. px + chl cuts off qtz vein 0.1-0.3 wide @ 20°
668.3	70°		
668.4	55°		Iron oxide stain
670.4	82°		Iron oxide stain
671.5	70°	✓	Chl (0.5" wide)
672.1	70°	✓	Chl
672.2	70°	✓	Chl
672.3	68°		Minor chl
672.9	72°	✓	Chl w/ minor bleaching
673.1	60°	✓	" " " "
673.9	50°	✓	Chl w/ bleached margins (0.2" wide)
674.2	80°		
676.5	60°	✓	Chl w/ bleached margins (0.2" wide)
676.6	75°	✓	" " " " (0.1" wide)
677.3	75°	✓	" w/ minor bleaching
677.6	82°		
677.9	90°		Chl
678.2	72°		Chl w/ striations
678.3	75°	✓	Irreg chl
678.4	70°		Chl
678.5	80°	✓	Chl w/ bleached zone (0.6" wide), irreg, vuggy
678.9	70°	✓	Chl w/ bleached zone (0.2" wide)
679.1	30°		
680.6	72°	✓	Chl w/ bleaching of adjacent matrix
681.3	55°	✓	Chl
681.4	65°	✓	Chl
681.5	65°	✓	Chl
681.6	65°	✓	Chl

Description (Continued)

Fractures:

Depth(ft)	Angle to Core	Healed	Alteration and Intensity
682.0	60°	✓	Chl (2.0" wide)
682.3	60°	✓	Chl
682.5	60°	✓	Chl w/minor bleaching
682.8	75°		
683.2	80°		
683.4	70°		
683.5	70°		
683.8	70°	✓	Chl
683.9	72°		
684.0	72°		
684.1	75°		
684.2	72°		
684.3	70°		
685.1	55°	✓	Chl zone (0.3" wide)
686.0	70°		
686.4	45°	✓	2 parallel chl fracts
687.0	45°	✓	Chl w/bleached zone (0.3" wide)
688.5	10°		Subparallel foliation
689.0	80°		
694.1	75°	✓	Chl w/bleached zone (0.1" wide)
694.8	70°	✓	" " " " (0.2" wide)
695.4	70°	✓	chl " " " (narrow)
695.6	10°		Subparallel foliation
696.1	40°		Chl w/broken core, sheared (4.0" wide)
697.7	65°	✓	Chl w/bleached zone (0.1" wide)
698.8	85°		Chl
698.9	80°	✓	Chl w/minor bleaching
699.0	55°	✓	chl
699.1	65°		
699.3	80°	✓	Chl
699.5	47°	✓	Chl
699.8	60°	✓	Chl w/minor bleaching (0.6" wide)
700.0	75°		
700.5	60°, 75°	✓	2 vuggy fracts w/chl & bleached margins (1.0" wi
700.7	65°	✓	Chl
701.0	72°		Chl
701.4	60°	✓	Vuggy, Chl w/bleached margins (0.5" wide)
703.0	85°		Bleached zone
704.3	70°		Chl w/minor bleaching
704.7	80°		Chl
705.5	30°		Chl
705.6	40°		Chl

Description (Continued)

Fractures:

Depth(ft)	Angle to Core	Healed	Alteration and Intensity
705.8	40°		chl
706.5	90°		
706.6	65°		
707.0	50°		Vuggy Siliceous & chl zone (5.0" wide)
707.6	50°		chl

HOLE NO. 80-2

Note: All angles in the log are relative to the core axis.

Depth (ft)	Strat. Column	Core Recovery (%)	R.Q.D. (%)	Temp. (°C)	Description
710		100	92	?	Mafic inclusions: 711.0', 712.0', 724.9', 730.5', 731.1-733.0', 755.9-757.7', 760.9-762.2', 771.2'-772.1'
717					
720		100	97		Broken Core: 753.2-753.4'
727					
730		100	86		Siliceous Zones: 712.1 - Streaked, 0.8" wide, @ 8°. 738.3 - 0.7" wide, lower contact irreg., upper contact chloritic @ 65°.
737					
740		100	96		752.0 - 1.0" wide chloritic shear @ upper contact, contacts @ 67°.
747					
750		100	70		756.4 - 4.0" wide, upper contact irreg., chloritic shear @ lower contact @ 65°
757					770.0 - 0.75" wide irreg. upper and lower contacts approx. 65°
760		100	100		Fine-grained felsic zone @ 85°, fine mafics - 770.5-771.0
767					
770		100	100		

Description (Continued)

Fractures:

Depth(ft)	Angle to Core	Healed	Alteration and Intensity
708.1	62°	✓	Chl
708.5	50°	✓	2 Chl fracts
708.9	35°		Minor chl
711.7	30°		
711.9	45°		
712.1	64°		
712.8	70°	✓	Chl w/ bleached zone
714.2	70°		
714.7	85°		Vuggy (4.0" wide)
715.2	68°		
715.7	50°	✓	Chl
716.1	30°		Vuggy, chloritic
- 716.6			
717.7	27°		
717.8	38°	✓	Chl
718.1	80°		
718.2	42°		Chl (0.2" wide)
718.4	55°	✓	Chl
718.8	20°		Subparallel foliation
719.3	90°		Chl (0.9" wide), vuggy
720.1	87°		
720.6	55°		
722.4	87°		
723.7	45°	✓	Chl (0.2" wide)
726.3	70°		
726.5	70°	✓	Chl w/ bleached margins
727.0	Irregular	✓	Hairline chloritic
727.3	"	✓	" "
727.9	55°	✓	Chl. fracture w/ bleached zone
728.7	53°	✓	Narrow chl. fracture w/ bleached zone
729.0	47°		
730.7	87°		Chl w/ striations
731.1	60°		Vuggy, chloritic
731.3	40°		Chl zone (0.6" wide) w/ parallel hairline chl. fracts (heal
731.5	Irregular		Chl
731.7	60°		Vuggy qtz-chl-epid (3.0" wide)
732.2	65°		2 chl fracts
732.6	60°		
733.9	55°	✓	Chl
734.0	45°	✓	Chl. fract (0.3" wide)
734.9	65°	✓	Chl.
735.0	65°	✓	Chl. fract w/ bleached margins

Description (Continued)

Fractures:

Depth (ft)	Angle to Core	Healed	Alteration and Intensity
735.2	75°	✓	Chl. fract. w/ bleached margins
738.5	65°	✓	Chl.
738.6	70°	✓	Chl.
738.7	60°	✓	2 chl. fracts.
739.1	70°	✓	Chl
739.6	70°	✓	Chl
739.7	80°	✓	Chl
741.3	80°	✓	Chl fract w/ bleached margins (0.3" wide)
741.5	75°	✓	" " " " " (0.6" wide)
741.6	80°	✓	" " " " " (0.1" wide)
741.6	75°	✓	" " " " "
741.7	75°	✓	" " " " " (0.6" wide)
742.3	74°	✓	Chl
742.5	77°	✓	Chl fract. w/ bleached margins (0.2" wide)
742.6	77°	✓	" " " " " (0.4" wide)
742.7	70°	✓	" " " " " (0.1" wide)
743.0	75°	✓	Chl
743.1	75°	✓	Chl
743.4	75°	✓	Chl fract. w/ bleached margins (0.4" wide)
743.6	70°	✓	" " " " " (0.1" wide)
743.9	70°		Chl
744.0	75°	✓	3 parallel chl. fracts.
744.2	12°		
744.3	70°		Chl
744.7	80°	✓	Chl fract. w/ bleached margins.
745.4	75°		Chl fract. w/ striations
745.5	55°	✓	Chl.
745.7	37°		Minor iron oxide stain
751.7	65°	✓	Chl fract. w/ bleached margins (0.4" wide)
752.2	35°	✓	Chl fract.
754.3	50°		Chl
754.7	50°		Chl. fract. w/ bleached margins (0.5" wide), iron oxide stained.
755.8	45°		Chl. fract. w/ bleached margins
753.2	75°		Subhedral to euhedral qtz along fracts
757.1	55°	✓	Chl. fract. w/ bleached margins
759.0	27°		Subparallel foliation, some bleaching
759.5	75°		Chl - epid. - qtz (2.0" wide)
761.6	78°		Qtz-chl. (2.0" wide)
762.0	50°	✓	Chl.
766.5	40°		Sheared qtz
770.7	55°	✓	Chl. fract. w/ bleached margins

Description (Continued)

Fractures:

Depth (ft)	Angle to Core	Healed	Alteration and Intensity
772.0	60°	✓	Chl
772.1	55°	✓	Chl
772.4	65°	✓	Chl
773.3	57°		Chl. fract. w/striations
774.0	50°		Chl. fract. w/bleached zone (0.5" wide)

HOLE NO. 80-2

Note: All angles in the log are relative to the core axis.

Depth (ft)	Strat. Column	Core Recovery (%)	R.Q.D. (%)	Temp. (°C)	Description
777					Mafic inclusions: 779.0'-780.4', 778.2', 782.0', 784.3'-785.1', 790.6', 800.7', 820.3', 822.0', 815.0'
780		100	100		
787					Dark gy. andes. w/felsic streaks and some porphyroblasts, siliceous margins w/contacts @ 15° crosscutting foln ~ 844.0'-850.5'.
790		100	100		
797					Dark gy. andes. incl. @ 80° 808.2'-812.0'
800		Some water loss at 805.5' 100	98		Siliceous zone: 0.4" wide @ 82°, dissem. mafics.
807					Foliation 35° @ 799'
810		100	96		Foliation 17° @ 818'
817				815'-19.992	
820		100	98		
827					
830		100	100		
837					
840					

(W)

Description (Continued)

Fractures:

Depth (ft)	Angle to Core	Healed	Alteration and Intensity
777.1	37°	✓	Chl
777.7	45°	✓	Chl
778.3	65°	✓	Chl
778.7	50°	✓	Chl
778.9	55°	✓	Chl
779.1	60°	✓	Qtz-chl.
779.2	45°	✓	" "
779.3	60°	✓	" "
779.4	35°	✓	" " (0.6" wide)
779.7	70°	✓	" "
779.8	45°	✓	Qtz-chl.
780.0	40°	✓	Qtz-chl (0.2" wide)
780.6	60°	✓	" "
780.8	26°		Bleached zone (0.5" wide)
785.0	35°	✓	Chl
785.2	60°	✓	Chl
789.7	90°	✓	Chl w/ minor bleaching
792.4	40°	✓	Chl
795.5	87°		
796.4	87°		
802.8	85°		Chl & py smeared on fract.
804.0	87°	✓	Several chl fracts., all but one healed
804.9	35° top, 81° bottom		Vuggy chl. zone
-805.5			
806.4	84°		Minor chl.
807.9	85°		Minor chl.
808.5	68°		Chl
808.8	68°		Chl
810.0	65°	✓	Chl
810.1	65°	✓	Chl w/ bleached zone
810.2	60°		" " " "
810.6	50°	✓	Chl
810.8	50°		Chl
811.1	70°	✓	Chl w/ bleached zone (0.3" wide)
811.2	45°		Chl
811.4	17°		Chl
811.6	60°		Chl
813.2	85°		Chl fract. w/ striations
813.4	65°	✓	Chl
815.6	86°	✓	Qtz.-chl.
815.7	45°		Chl.
816.0	50°	✓	Chl. w/ minor bleaching

Description (Continued)

Fractures:

Depth (ft)	Angle to Core	Healed	Alteration and Intensity
816.1	23°	✓	Hairline chl. fract.
816.4	60°, 75°		Chl fracts w/some epid. (zone 2.3" wide)
816.7	70°		Chl.
817.6	18°		Minor iron oxide
817.7	40°	✓	2 hairline chl. fracts
818.9	32°		Subparallel foliation
819.2	87°	✓	Chl.
819.5	25°		Subparallel foliation
820.6	70°	✓	3 chl. fracts w/bleached margins (one @ 0.5" wide
821.3	70°	✓	2 chl. fracts w/bleached zone (0.6" wide)
822.0	80°	✓	Chl. fract. w/bleached margins
822.8	85°	✓	Chl. " " " "
823.0	75°	✓	" " " " "
823.1	75°		" " " " "
823.2	80°	✓	" " " " " (0.4" wide)
823.6	50°	✓	Hairline chl fract.
823.7	56°	✓	" " "
823.8	55°	✓	Chl. fract. zone (0.2" wide in part)
824.0	70°		Chl.-qtz fract. zone (0.2" wide), bleached zone to 0.5" wide
824.1	55°	✓	Chl-qtz fract. zone w/bleached margins (0.1" wide
824.2	50°	✓	Chl
824.4	65°	✓	Chl fract. w/bleached margins
824.6	30°	✓	Chl
825.0	80°	✓	Qtz
825.3	65°	✓	Hairline Chl
825.5	80°	✓	Chl fract. w/bleached margins (0.4" wide)
825.7	80°	✓	" " " " "
825.9	80°	✓	" " " " "
826.2	75°	✓	" " " " "
826.9	75°		Chl
831.4	60°	✓	Chl. fract. zone (0.2" wide)
831.7	65°		Hairline chl. fract.
835.9	85°	✓	Chl. fract. w/bleached zone (0.2" wide)

HOLE NO. 80-2

Note: All angles in the log are relative to the core axis.

Depth (ft)	Strat. Column	Core Recovery (%)	R.Q.D. (%)	Temp. (°C)	Description
840					
		100	100		Dk. gy andes. inclusions: 887.0', 889.8'-890.2' (Contact @ 30°, parallel to foliation),
847					
850		100	98		Partly assimilated mafic inclusions: 887.4'-888.2', 890.2'-892.0', 892.2'-896.3', 897.4'-897.7', 898.3'-898.7', 899.1',
857					
860		100	98		
867					
870		100	94		
877					
880		100	100		
887					
890		100	100		
891					
900		100	98		

Description (Continued)

Fractures:

Depth(ft)	Angle to Core	Healed	Alteration and Intensity
840.2	67°	✓	Chl fract w/bleached margins
841.6	80°	✓	Siliceous zone (0.1" wide)
842.2	60°		
842.3	75°	✓	Chl. fract w/bleached zone (0.2" wide)
842.5	80°	✓	" " " " " (1.0" wide)
842.6	80°	✓	" " " " " (0.5" wide)
842.7	80°	✓	2 " " " " (0.3" wide)
843.1	80°	✓	" " " " " (0.2" wide)
843.4	80°	✓	" " " " "
851.8	61°		Chl & py smeared along fract.
853.8	45°		Minor iron oxide stain
854.4 - 854.8	Irregular		Intense epid.-chl. alteration zone, vuggy, contacts approx @ 90°
855.5	80°	✓	Hairline chl fract.
855.7	72°	✓	" " "
856.0	65°	✓	" " "
856.1	75°		Chl fract. w/bleached margin
856.2	65°		" " " " "
865.2	45°		Chl. fract. w/striations
869.5	85°		Minor epid. along bleached fract.
871.5	75°	✓	Chl. fract w/bleached zone (0.4" wide)
872.7	40°		Bleached zone
874.5	84°		chl fract. w/ striations
876.8	15°		
877.3 - 877.5	65°	✓	Chl. fract. zone w/bleached margin
877.6	75°	✓	" " " " " " (0.3" wide)
877.7	85°	✓	" " " " " " (0.2" wide)
877.8	80°	✓	" " " " " " (0.2" wide)
878.0	70°	✓	" " " " " " (0.1" wide)
878.2	70°	✓	" " " " " " (0.5" wide)
880.6	15°		Minor iron oxide
880.7	70°	✓	Chl fract w/small bleached zone
885.1	60°		Chl
885.2	60°		Chl
880.9	10°	✓	Chl fract w/small bleached zone
886.3	90°		Chl fract w/ striations & smeared pyrite
889.9	90°	✓	Hairline chl. fract.
890.0	85°	✓	" " "
890.3	75°	✓	2 " " "
892.6	85°		Chl fract w/striations (zone 3.0" wide)
893.4	60°	✓	Hairline chl. fract.

Description (Continued)

Fractures:

Depth (ft)	Angle to Core	Healed	Alteration and Intensity
893.5	60°	✓	Hairline chl. fract.
895.6	65°	✓	9 hairline chl. fracts may not extend from inclusion into qtz. dio.
896.3			
897.1	75°	✓	chl.
897.3	75°	✓	Hairline chl fract.
897.7	45°	✓	" " "
897.9	65°	✓	" " "
898.6	60°	✓	3 " " "

HOLE NO. 80-2

Note: All angles in the log are relative to the core axis.

Depth (ft)	Strat. Column	Core Recovery (%)	R.Q.D. (%)	Temp. (°C)	Description
907					Partly assimilated mafic inclusions 910.0'-910.2' (equigranular, and fine-grained) 925.5, 939.5', 942.4', 942.9', 944.3', 949.6'-951.2', 953.0', 959.7'
910		100	100		
917				915'-21.827	
920		100	95		Dk. gy. andes. inclusion: 922.0-922.7': 2 zones 0.5" wide @ 80°, 6.5" wide @ 45°, sharp contacts. 924.2"-924.5': few coarse grains. 957.7'
927					Siliceous zones: 928.3'-928.5' - small pod to 0.25", irreg. qtz. vein 1.25" & w/ a mafic inclusion @ 42°, bordered in part by px. 932.5' - 0.25" of qtz & gy andes. inclusion bordered by chl @ 60°.
930		100	100		
937					
940		100	93		
947					Dk. gy. andes. inclusion; little evidence of assimilation: 963.7'-971.1' - upper contact @ 10° & parallel foliation, lower contact irreg., few felsic streaks.
950		100	98		
957					
960		100	100		Foliation 45° @ 902': foliation poorly defined.
967					
970					

(1)

Description (Continued)

Fractures:

Depth(ft)	Angle to Core	Healed	Alteration and Intensity
902.0	75°		
905.1	85°	✓	Chl fract. w/bleached margin (0.1" wide)
907.8	85°		" " " " " (0.1" wide)
910.6	78°		Qtz-chl fract. w/striations
915.0	35°	✓	Hairline chl fract
918.8	65°		Chl fract. w/striations
922.4	45°		
922.9	75°		Chl zone (0.7" wide)
923.6	35°	✓	Hairline chl zone
923.7	78°	✓	" " "
923.9	75°	✓	" " "
925.7	70°	3 healed	4 chl fract w/qtz, bleached margins, possibly ep
925.9	70°		Epid.? on fract
926.0	70°	✓	3 chl. fract. w/bleached margins
926.2-927.0	75°	✓	7 chl. fract. w/bleached margins (largest 3.0" wid
927.6	85°	✓	Chl. fract. w/bleached margins
927.7	70°	✓	Chl. fract. " " "
928.0	85°	✓	Chl " " " " (0.3" wide)
928.7	75°	✓	2 Chl " " " "
929.1	70°		Chl fract. w/smeared py
929.2	80°	✓	" " w/bleached margins
929.9	80°	✓	" " " " "
930.5	75°	✓	" " " " "
930.8	72°	✓	Hairline chl. fract.
933.1	70°	✓	Qtz-chl filled fract.
934.4	75°	✓	Hairline chl. fract w/bleached margins
934.7	55°		Chl. & calcite w/striations
935.5	55°	✓	Chl
935.9	15°		Qtz. vein cut off by fract above (<0.1" wide
936.8	80°	✓	Chl fract w/bleached margins
937.5	75°		Chl fract. w/abund. py.
937.6	65°	✓	Chl fract. w/bleached margins (0.1" wide)
937.8	75°	✓	" " " " " (0.5" wide)
937.9	75°	✓	" " " " "
939.3	80°	✓	Irreg. qtz vein (0.2" wide)
939.4	75°	✓	Hairline chl fract., irreg.
942.8	85°		Chl fract w/striations, mod. py.
943.6	70°		Chl. fract w/striations
944.0	71°	✓	Chl-qtz fract. w/py (0.2" wide)
946.4	75°	✓	Chl fract w/bleached zone
946.7	77°	✓	Qtz vein (approx. 0.1" wide)

Description (Continued)

Fractures:

Depth (ft)	Angle to Core	Healed	Alteration and Intensity
946.8-947.1	45° to 70°	✓	Chl fracts. w/ bleached zone @ 80°; fracts @ various orientations
947.2	70°	✓	Chl fract w/ bleached margins
947.3	80°	✓	" " " " "
947.4	80°	✓	" " " " "
947.7	80°	✓	3 " " " " "
947.8	75°	✓	" " " " "
948.4	75°	✓	" " " " "
948.6	80°	✓	Hairline chl fract
948.7-948.9	75°	✓	3 Chl. fracts. w/ bleached margins
949.1-949.2	75°	✓	" " " " "
949.3	75°	✓	" " " " " (0.7" wide) w/ chl-py fract @ 75° but dips in opp. direction
949.5	80°	✓	Chl fracts w/ bleached margins
949.9	20°	✓	Qtz vein (0.2" wide)
950.4	45°		Qtz-chl fract w/ striations; some iron oxide stain
951.6	75°	✓	Chl. fract. w/ bleached margins
951.7	70°	✓	" " " " "
951.8	25°	✓	Bleached zone
952.1	60°	✓	Chl-py-qtz zone
954.7	60°	✓	Hairline chl fract
955.6	75°	✓	" " "
956.5	50°		Chl & Siliceous zone (1.5" wide)
958.3-958.4	60°	✓	Several hairline chl. fracts
959.7	33°	✓	Chl fract w/ bleached zone w/ several other iron fracts
961.1	35°		Iron oxide stain
967.3	38°		
970.6	75°		Chl zone (0.4" wide)
972.0	40°	✓	Chl fracts w/ bleached zone (0.7" wide)

HOLE NO. 80-2

Note: All angles in the log are relative to the core axis.

Depth (ft)	Strat. Column	Core Recovery (%)	R.Q.D. (%)	Temp. (°C)	Description
		100	98		Mafic inclusions, partly assimilated; 977.7', 994.3', 994.9'
977					
980		100	96		
987					Dk. gy andes w/ little evidence of assimilation; 973.5' (epid-altn), 974.5-975.0' (few felsic streaks) 975.9' 992.1' 1004.2'-1019.5' (few felsic streaks, upper 1.0" of felsic portion foliated @ 40°), 1024.4', 1038.0'
990		100	98		
991					
1000		100	96		Pod of kaolinitic feldspars - 975.0'
1007					Fine-grained weakly foliated gy qtz dio. w/ upper contact @ 30°, lower contact and andes inclusion bordered by chl. fract. @ 85°
1010		100	100		
1017					Foliation 35° @ 958'
1020		100	100		Foliation poorly defined throughout most of interval.
1027				1027-24.104	
1030		100	100		
1037					

Description (Continued)

Fractures:

Depth	Angle to Core	Healed	Alteration and Intensity
973.6	25°		Chl fract w/bleached margins (0.2" wide), chl-epid inclusion
974.2	75°	✓	Chl. (0.2" wide)
974.7	23°		Parallel foliation
975.3	65°	✓	Irreg. hairline chl. fract.
975.6	80°	✓	Chl. fract. w/ bleached margins
975.7	80°	✓	" " " " "
975.8	85°	✓	" " " " "
975.9	20°		
976.1	85°		
976.2	90°	✓	Chl. fract. w/bleached margins (0.2" wide)
976.3	38°	✓	Qtz-py-chl
977.6	20°		3 subparallel fracts, minor silicification
977.7	75°	✓	Chl fract w/bleached margins
978.0	85°	✓	" " " " " (0.3" wide)
978.5	75°	✓	" " " " " (0.5" wide)
979.0	82°		Chl-py-qtz
980.3	87°, 45°	One (87°) healed	2 chl fract w/bleached margins (87° fract-0.5" w
980.5	55°	✓	Chl. fract. w/ bleached margins (0.4" wide)
980.8	50°	✓	" " " " " (0.4" wide)
980.9	90°	✓	" " " " " (0.8" wide)
981.0	75°		Chl fract w/py smeared along fract
982.5	50° (vuggy zone)		Chl zone w/ vuggy fract (4.5" wide)
982.9	78° (chl-ep fract)	✓	
987.3	20°	✓	Chl. fract. w/bleached margins
987.7	70°	✓	Hairline chl fract.
988.0	25°	✓	Chl. fract. w/bleached zone (0.5" wide)
988.7	50°	✓	Hairline chl fract.
989.1	80°	✓	" " "
989.3	70°	✓	" " "
989.9	75°	✓	Chl fract w/bleached zone
990.4	75°	✓	" " " " "
990.7	75°	✓	" " " " "
990.9	42°		2 parallel chl. fracts.
991.8	35°		
992.0	35°		
992.2	85°	✓	Chl. zone (0.2" wide)
992.5	55°	✓	2 hairline chl. fracts
993.7	15°	✓	Minor iron oxide stain
996.0	80°	✓	Chl. fract. w/ bleached zone
996.8	70°	✓	" " " " "
997.1	35°		Minor iron oxide stain

Description (Continued)

Fractures:

Depth	Angle to Core	Healed	Alteration and Intensity
998.2	23°		
998.7	20°		
998.8	50°		
999.6	85°		Chl.
999.9	80°	✓	Chl. fract. w/ bleached margins (0.4" wide
1000.7	30°		
1020.0	43°		Chl.
1020.5	65°	✓	Chl. fract. w/bleached margins (0.2" wide)
1021.0	30°		Chl. fract. w/striations
1021.6	72°	✓	Hairline chl. fract.
1021.8	60°	✓	Chl. fract. w/bleached margins
1024.1	67°	✓	" " " " "
1025.0	60°		Chl
1025.7	15°	✓	Boundary of inclusion w/chl. fracts
1025.6	70°	✓	2 Hairline chl. fracts.
1026.1	75°	✓	Chl fract. w/bleached margins
1027.1	60°	✓	2 Hairline chl. fracts.
1027.2	75°	✓	Chl fract. w/bleached margins
1027.6	45°	✓	Chl. Fract. (0.1" wide)
1027.8	45°	✓	Pod of qtz (0.3" wide) bordered by fract. & beale chl. fract.
1029.5	75°	✓	2 chl. fracts.
1030.0	75°	✓	2 " "
1030.1	72°		Chl. fract. w/ mod. py.
1030.2	65°	✓	8 chl. fracts, largest altered over 03".
1030.6			
1031.0	85°		Chl. fract. w/ abund. py.
1031.6	40°		
1031.7	72°	✓	Chl.
1031.8	77°	✓	Qtz-chl-py filled fract. w/bleached zone (0.1" wide)
1031.9	68°	✓	3 hairline chl. fracts
1032.0	60°	✓	Hairline chl. fract.
1032.2	42°	✓	" " "
1032.3	52°	✓	" " "
1032.7	75°	✓	" " "
1033.0	75°	✓	" " "
1033.1	60°	✓	Qtz
1034.1	20°	✓	Chl. fract. w/bleached zone
1034.2	75°	✓	" " " " "
1035.1	73°		chl. fract. w/striations
1036.6	63°	✓	2 chl. fract. w/bleached margins

See next page →

Description (Continued)

Fractures:

Depth	Angle to Core	Healed	Alteration and Intensity
1037.4	37°	✓(partly)	Chl sheared zone (0.3" wide)
1038.0	75°	✓	Hairline chl. fract.
1004.2-	—	✓	Numerous hairline chl. fracts with few havin
1019.5			dips as low as 32° to core axis
1006.1	25°		Minor iron oxide stain
1004.3	80°		
1008.4	45°		
1011.9	80°		Chl.
1012.?	27°		
1013.5	30°		
1018.5	30°		Parallel to felsic streaks

HOLE NO. 80-2

Note: All angles in the log are relative to the core axis.

Depth (ft)	Strat. Column	Core Recovery (%)	R.Q.D. (%)	Temp. (°C)	Description
1040		100	93		Small andesite inclusions: 1047.5', 1051.0', 1054.8', 1057.3', 1058.5', 1059.0', 1062.0'-1063.0', 1067.0', 1077.8'
1047					
1050		98	100		Mafic zones due to partial assimilation: 1081.9'-1086.6'. Dk gy andes. with little evidence of assimilation: 1078.5'-1081.9' - Upper contact @ 70° & irreg., lower contact w/ chl. & epid. @ 82°
1057					
1060		99	100		Med. gy. andes. dyke (Mt. Cayley) w/ chilled margins & some epid. @ margins, contains few spherical and ellipsoidal vesicles, and some amygdules containing calcite and possibly a zeolite?, Upper contact 25° @ 1091.6' Lower contact 23° @ 1099.7
1067					
1070	1069	100	63		
		99	100		
1077					
1080		100	98		Numerous partly kaolinized feld. 1062.6-1068.6; beginning of zone marked by 5.0" zone of chl.-epid. in mafic inclusion @ 75°.
1087					
1090		100	93		Broken rock: 1062.6'-1068.6'
1097					
1100		100	88		

Description (Continued)

Fractures:

Depth	Angle to Core	Healed	Alteration and Intensity
1039.1	67°	✓	2 chl. fracts w/ minor epid.
1039.2	30°		Chl.
1039.3	44°	✓	Chl. fract. w/bleached margins
1039.6	50°		Chl. fract. w/mod py
1039.8	75°	✓	Chl. fract. w/bleached margins
1040.7	40°		
1040.8	60°		
1043.4	48°		
1043.5+	52°, 68°	68° healed	Chl. fract. mainly healed (in zone)
1044.3			
1043.8	55°	✓	Chl. fract. w/bleached margins
1045.1	60°		Small bleached zone
1045.2	75°	✓	2 chl fracts. w/bleached zone
1045.4	35°	✓	Chl
1045.8	80°	✓	Chl-epid. w/bleached zone (0.6" wide)
1046.0	80°	✓	Chl. fract. w/bleached zone
1046.1	70°	✓	Chl
1046.2	75°	✓	Chl-epid. (0.3" wide)
1046.3	70°		Irreg. epid. zone
1046.5	75°	✓	Chl-epid.
1047.7	22°	✓	" "
1048.0	65°	✓	Chl w/bleached margins (0.3" wide)
1048.2	70°	✓	Chl. fract. w/bleached margins
1048.4	80°	✓	" " " "
1048.8	75°	✓	2 chl.-epid. fracts; one is 0.2" wide.
1048.8	50°	✓	Chl. epid.
1048.9	70°	✓	Hairline chl. fract.
1049.4	70°	✓	Chl. fract. w/bleached margins + other clay altn (0.3" wide)
1050.1	85°		
1050.1	85°	✓	Hairline chl. fract.
1050.5	72°	✓	Chl. fract (0.2" wide)
1050.9	60°	✓	Hairline chl. fract.
1051.7	55°		Chl. fract. w/bleached margins
1052.3	70°	✓	3 " " " " " (one is 0.3" wide
1052.4	65°	✓	" " " " " (0.3" wide)
1053.1	68°	✓	Hairline chl. fract.
1053.3	18°	✓	Chl.
1053.5	40°		
1054.2	50°		Chl. fract. w/bleached margins
1054.7	90°		Chl. (over 2.5"), botryoidal carbonate, qtz.
1055.5	62°	✓	Calcite
1055.7	70°		Chl. w/ striations

Description (Continued)

Fractures:

Depth	Angle to Core	Healed	Alteration and Intensity
1055.8	80°	✓	Chl w/minor epid (0.7" wide)
1056.2	75°	✓	Chl. fract w/bleached margins
1057.3	75°	✓	Chl. fract. " " "
1058.8	75°	✓	2 " " " "
1058.9	20°, 60°, 86°	✓	3 hairline chl. fracts
1059.8	30°, 80°		2 chl zones
1060.6	55°	✓	Epid.-chl
1060.7	25°	✓	" "
1061.2	75°		Chl. fract w/bleached margins
1061.4	75°		" " " " " (0.1" wide)
1062.4	75°		Chl.-epid. zone (3.5" wide)
1063.5	65°		
1063.0	70°, 80°, 50°, 65°	✓	6 chl fracts w/some bleached margins
1063.4			
1064.7	35°		
1065.1	70°	✓	Chl. zone (0.2" wide)
1065.5	75°	✓	Chl. fract. w/bleached margins
1065.8	65°	✓	Epid-chl zone (0.7" wide)
1066.5	75°	✓	Bleached zone
1066.6	84°	✓	Hairline chl. fracts
1066.8	84°	✓	" " "
1067.2	80°	✓	4 chl. fracts w/ bleached margins
1067.4			
1067.9	25°		Chl.
1068.2	40°		Chl. zone (1.0" wide)
1068.6	36°		
1068.8	70°	✓	Chl.
1069.0	34°		Chl
1069.1	44°	✓	Hairline chl. fracts
1069.2	50°	✓	" " "
1069.5	90°		Chl. fract. w/bleached margins
1069.6	90°	✓	2 chl " " " "
1070.0	90°	✓	3 " " " " "
1070.6	90°	✓	3 " " " " "
1070.7	80°	✓	2 " " " " "
1071.0	80°	✓	2 " " " " "
1071.6	80°	✓	2 " " " " "
1071.7	80°	✓	2 " " " " " (0.6" wide + 0.3" wide)
1073.0	30°		
1073.3	80°	✓	Chl-epid. w/bleached margins (0.9" wide)
1074.0	80°	✓	Chl. fract. w/ " "
1075.3	45°	✓	Chl.

Description (Continued)

Fractures:

Depth	Angle to Core	Healed	Alteration and Intensity
1075.3	45°		
1076.5	55°		Chl fract. w/striations
1077.0	80°		
1077.3	35°	✓	Chl. fract.
1078.9	62°		
1078.5-1082.0	50°	✓	Numerous chl. zones
1081.0	54°		Chl. fract. w/striations
1081.6	78°		Chl. " " "
1081.9	82°		" " " "
1082.1	80°	✓	Chl. fract. w/bleached margins
1082.6	65°	✓	Chl-epid.
1082.8	20°	✓	" "
1083.1	85°	✓	chl. fract. w/bleached margins
1083.3	70°	✓	" " " " "
1083.6	75°	✓	" " " " "
1084.9	50°	✓	Chl-epid.
1085.1	60°	✓	" "
1085.7	80°	✓	" " (1.0" wide) w/dissem. py
1086.5	80°	✓	5 hairline chl. fracts
1086.6	90°	✓	Chl-siliceous zone, lower boundary w/ healed chl-epid.
1087.2	85°	✓	Chl fract w/bleached margins
1087.5	85°	✓	" " " " "
1087.8	65°	✓	" " " " "
1088.0	85°	✓	Hairline chl fract
1088.2	25°	✓	" " "
1088.5	35°	✓	Chl
1088.9	87°		Chl. fract w/striations, py
1089.0	25°	✓	Chl. fract. w/bleached margins (0.4" wide)
1089.1	82°		Chl. fract. w/striations
1089.6	80°	✓	Hairline chl fract.
1089.8	80°	✓	chl. fract. w/bleached margins
1090.0	80°	✓	" " " " "
1090.1	90°		Chl
1090.8	30°		Mod. iron oxide
1091.6	42°	✓	Hairline chl. fract.
1091.8	35°		Epid.
1092.9	55°		Epid.
1098.0	40°		
1098.3	68°		
1100.2	62°	✓	Chl.-epid. (0.2" wide

Description (Continued)

Fractures:

Depth	Angle to Core	Healed	Alteration and Intensity
1100.5	67°	✓	Chl-epid. (0.2" wide)
1101.5	70°	✓	Hairline chl. fract.
1101.6	50°	✓	" " " w/ calcite
1101.7	55°	✓	Irreg. qtz. filled fract.
1102.3	10°-15°		Irreg. qtz-epid-clay-chl filled fract, parallels foliation

HOLE NO. 80-2

Note: All angles in the log are relative to the core axis.

Depth (ft)	Strat. Column	Core Recovery (%)	R.Q.D. (%)	Temp. (°C)	Description
1107					Dk. gy. andes. inclusions w/ little evidence of assimilation: 1123.5'-1125.1'- epid. chl. altn, upper contact @ 60°, lower contact irreg. 1127.3'-1130.0'- upper contact @ 65°, lower contact @ 85° (chloritic shear)
1110		100	94		
1117		100	89	1117'-25.485	Foliation 30° @ 1118'- poorly defined Mafic zones due to partial assimilation: 1107.4', 1110.3', 1113.3', 1119.5'-1120.5', 1121.5', 1132.0', 1141.0', 1152.0'-1154.0', 1154.5', 1157.9', 1158.8', 1160.2'-1163.0', 1164.5'-1166.6'
1120					
1125		100	63		
1130					
1135		77 Lost Core @ 1140.0'	49		Dense chl-sil.-epid. zone after andes (ie greenstone) 1114.8'-1115.1' @ 70° 1118.2-1118.4' @ 70° 1139.7'-1140.4' @ 80°
1140					
1148					
1150		100	95		Wte. kaolinized feld. dotting qtz. dio. 1130.5'-1135.5': upper contact w/ abund. chl.-epid. altn 1138.5'-1148.5', 1168.0-1168.5' Broken rock: 1106.1'-1106.3', 1123.1', 1125.0', 1134.5'-1135.2', 1139.8'-1140.2', 1155.0' Siliceous Zone: 1144.9'-1158.9' Upper contact @ 60° w/ chl. zone 0.9" wide, lower contact irreg.
1157					
1160		100	95		
1167					
1169		100	96		
1170					

Description (Continued)

Fractures:

Depth	Angle to Core	Healed	Alteration and Intensity
1106.0	30°		Chl
1108.0	85°		"
1108.5	85°	✓	Hairline chl-calcite fracts
1110.4	80°	✓	2 Hairline chl. fracts
1110.8	80°	✓	Hairline chl. fract.
1110.8	90°	✓	Chl. fract. w/bleached margins
1111.1	80°	✓	" " " " "
1111.4	85°	✓	Chl-epid. fract. w/bleached margins
1111.8	85°	✓	" " " " " " (0.3" wide)
1112.4	77°	✓	Chl. fract. w/bleached margins
1112.6	77°	✓	" " " " "
1112.7	70°	✓	Hairline chl. fract.
1113.0	72°	✓	Chl fract w/bleached margins
1114.0	78°	✓	" " " " "
1114.1	68°	✓	" " " " "
1115.4	45°	✓	Hairline chl. fract
1115.9	60°		Chl.
1116.3	48°		Chl.
1116.4	68°		"
1117.2	65°	✓	Hairline chl. fract
1117.6	60°		Epid.-chl w/adjacent pod of qtz
1117.7	60°	✓	Hairline chl. fract
1117.9	45°		Minor iron oxide stain
1118.1	62°		chl.
1118.1	35°		chl
1118.4	25°		
1120.7	80°	✓	2 chl. fracts w/bleached margins (2.5" wide)
1120.8	85°	✓	" " " " "
1121.0	65°	✓	Chl-epid
1121.1	85°	✓	" "
1121.2	85°	✓	Chl fract. w/bleached margins
1121.3	85°	✓	" " " "
1123.0	20°		Chl, irreg. fract.
1123.8-1123.5	Upper 60°, Lower 37°		Chl zone
1124.0	33°		Chl.
1124.9	80°		Small, irreg. vuggy zone
1125.1 -1125.5			Chl. zone w/ irreg. vuggy zone containing euhedral to subhedral qtz and epid. partly filling vug (0.1" wide)
1125.4	70°	✓	Epid-chl fract. w/minor vugs
1125.6	60°	✓	Epid-chl fract. (0.5" wide)

Description (Continued)

Fractures:

Depth	Angle to Core	Healed	Alteration and Intensity
1125.8	20°	✓	Epid.
1125.8	80°		Epid.
1126.1	70°	✓	Epid. - qtz. - chl., vuggy in part
1126.2	72°		Qtz - chl, partly bleached (1.0" wide)
1126.8	70°	✓	Qtz - chl (3.0" wide), irreg.
1127.2	65°		Chl - epid.
1127.3 -	65° to 85°	✓	Numerous chl - epid. bleached zones in andes.
1130.0			inclusions.
1128.5	67°		Chl
1130.1	60°	✓	Chl fract. bordered by qtz. & epid.
1130.5	50°		
1130.9	55°		chl.
1131.3	55°		
1131.8	43°	✓	Chl.
1132.5	62°		
1132.8	65°		
1133.0	65°	✓	chl. fract. w/bleached margins
1133.9	35°		
1134.3	5°		Chl
1133.2	33°	✓	Hairline chl. fract.
1135.4	70°		
1136.5	70°		Chl - epid. fract w/bleached margins
1136.7	70°	✓	" " " " " "
1136.8	70°		" " " " " "
1137.6	70°	✓	Chl. fract. w/bleached margins
1137.7	77°	✓	Hairline chl. fract.
1138.0	25° to 10°	✓	Irreg., iron oxide stained, vuggy in part
1138.7	65°	✓	2 bleached zones
1138.9	80°	✓	2 chl. fracts w/py
1138.9	40°		Chl. - epid.
1139.0	70°		chl. fract. w/py
1139.1	70°	✓	Qtz - epid - chl - py fract. w/4 parallel bleached
			zones
1143.4	70°	✓	Intense epid - chl. altn
1143.5	85°	✓	Siliceous zone (0.1" wide)
1143.8	20°	✓	" " (0.1" wide)
1139.9	—	✓	Hairline chl. fracts @ various angles
-1140.0			
1144.1	22°		
1144.6	60°		Chl
1144.7	70°		"
1145.7	10°		

Description (Continued)

Fractures:

Depth	Angle to Core	Healed	Alteration and Intensity
1146.1	70°	✓	Chl. fract. w/bleached margins (0.4" wide)
1147.4	75°	✓	Chl
1148.3	60°		chl. fract. w/bleached margins
1148.8	70°	✓	Hairline chl. fract.
1148.8	65°	✓	Chl-epid fract
1149.1	65°	✓	Hairline chl. fract.
1149.4	60°	✓	Epid-chl. fract. w/bleached margins
1149.6	75°	✓	2 chl. fracts w/ bleached margins
1149.9	80°, 35°	✓	2 " " " " " "
1150.3	75°, 65°	✓	2 fract " " " " " "@75°, hairline chl w/py
1151.0	90°		Minor iron oxide @65°
1151.8	60°	✓	Hairline chl. fract w/py
1153.0	80°	✓	" " "
1154.4	80°		Epid.
1154.7	75°	✓	Iron oxide stained? w/epid. (0.3" wide)
1155.8	80°	✓	Chl. fract. w/bleached margins
1157.3	60°	✓	" " " " " " (0.5" wide)
1159.3	50°	✓	" " " " " " (0.4" wide)
1159.7	50°	✓	" " " " " " (0.3" wide)
1160.9	82°		
1161.6	35°		
1162.2	70°		
1163.5	60°	✓	3 chl. fract. w/bleached margins
1163.8	80°	✓	5 " " " " " "
1164.1	75°	✓	Epid-chl w/bleached margins
1164.3	75°	✓	Epid.
1164.4	85°		4 small chl. fracts w/bleached zone
1164.5	75°		3 chl-epid-qtz. alt'n zone to 0.5" wide
1164.6	~90°		1 irreg. qtz. filled (0.5" wide)
1165.6	80°	✓	5 chl-epid. fracts
1165.6	80°		2 chl fracts
1165.7	60°		Chl
1167.5	70°	✓	Chl fract. w/bleached margins; chl zone to 1168.0'
1168.0	80°		Chl-epid-qtz zone (0.4" wide)
1168.5	60°	✓	Siliceous zone (0.5" wide)
1168.0-1168.5	75°	✓	Small chl. fracts w/bleached zones, are numerous
1168.7	80°	✓	2 bleached zones
1168.8	55° & 65°	✓	2 chl. fracts w/bleached margins
1168.9	75°	✓	" " " " " "
1171.0	80°		Intense chl-epid (1.75" wide)
1169.1-1169.3	55°, 66°, 82°	✓	Chl. fract. w/bleached margins
1169.7	50°	✓	Chl fract. and several hairline chl. fract.

HOLE NO. 80-2

Note: All angles in the log are relative to the core axis.

Depth	Strat. Column	Core Recovery (%)	R.Q.D. (%)	Temp. (°C)	Description
1170					
1171		100	100		
		99	92		Andes. inclusions w/ little assimilation: 1229.4-1231.8': upper contact w/ 1.0" chl-epid-qtz @ 75°, lower contact @ 80°
1177					
1180		100	97		1179.5'-1180.2': upper contact @ 75°, lower contact w/ qtz @ 45° (0.5" wide)
1187				1187'-26.733	
1190		100	98		Partly granitized inclusions: 1190.0-1192.0: upper contact @ 45° and gradational, lower contact @ 82° along chl-epid. fract. 1192.8', 1194.7', 1195.5', 1197.0', 1203.3', 1205.6', 1213.3', 1222.5', 1227.0', 1232.2', 1232.5',
1197					
1200		100	98		
1207					wte. kaolinized feld. in qtz. dio.: 1170.1'-1173.5', 1180.8'-1184.5', 1185.9'-1190.0', 1207.0'-1210.0', 1217.8'-1222.0', 1232.5'-1238.5',
1210		100	96		
1217					
1220		100	100		
1227					
1230		100	100		

Description (Continued)

Fractures:

Depth	Angle to Core	Healed	Alteration and Intensity
1170.1	50°	✓	2 chl fracts w/ bleached margins (0.2" wide)
1170.4	50°, 65°	✓	2 " " " " " " (one is 0.2" wide
1170.6	18°		
1170.6-	80°-85°	✓	Chl. and bleached zone w/ epid, py.
1171.0			
1171.3	70°	✓	Chl. fract w/ parallel bleached zones
1171.4	72°	✓	" " " " " " "
1171.9	68°	✓	" " " " " " "
1172.1	70°	✓	Chl-epid fract. w/ bleached margins (2.5" wide
1172.4	75°		Chl-epid.
1172.5-	70°	✓	5 chl fracts w/ bleached margins (0.1"-05" wide
1173.9			
1177.3	20°		
1178.2	67°	✓	Siliceous zone (< 0.1" wide)
1178.5	75°	✓	Chl. Fract. w/ bleached margins (0.2" wide)
1178.6	80°		
1179.9	75°	✓	Faint chl fract w/ bleached margins
1180.4	75°		3 fracts w/ narrow zones of epid & chl
1180.3	80°	✓	Hairline chl fract.
1180.5-	30°-35°		Chl-qtz-epid and some broken rk. (0.4")
1181.1	70°	✓	Chl fract w/ bleached zone
1181.3	72°	✓	" " " " " "
1181.6-	High angle	✓	Intense chl-epid-qtz-py w/ gradational contacts
1182.3			
1182.5	65°, 70°	✓	Bleached zones w/ epid.
1183.5	70°	✓	Chl fract w/ bleached zone
1183.9	72°	✓	" " " " " "
1185.0	70°		Mod chl & py smeared along fract.
1187.0	25°	✓	Mod. chl-epid (0.4" wide)
1187.7	68°	✓	Bleached zone w/ minor epid
1187.9	82°	✓	Chl
1188.0	65°	✓	Weak epid zone (0.3" wide)
1188.1	75°	✓	" " " (0.1" wide)
1188.2	68°		Bleached zone
1188.3	65°		Weak " "
1188.4	85°		" " "
1188.9	70°	✓	Weak epid-chl zone (0.4" wide)
1189.4	65°	✓	Bleached zone w/ weak epid (0.2" wide)
1189.6	70°	✓	Chl
1191.3	82°	✓	Chl-py
1192.0	82°		chl w/ striations
1192.6	80°	✓	Chl

Description (Continued)

Fractures:

Depth	Angle to Core	Healed	Alteration and Intensity
1193.5	25°		Calcite-chl-epid
1193.2	45°		
1193.9			
1194.3	50°		Chl-py
1195.7	85°		" "
1198.7	68°		
1199.7	85°	✓	Chl fract. w/ bleached margin
1201.6	85°	✓	" " " " " (0.3" wide)
1203.9	68°	✓	" " " " " (0.4" wide) w/ iron oxide stain and epid.
1204.1	65°		Minor iron oxide stain + clay
1205.2	62°		Minor clay alt^{n}
1205.3	65°, 70°	✓	Clay-epid?, minor bleaching
1205.8	77°	✓	4 bleached fracts
1205.9	80°	✓	4 chl. fracts w/ epid, some hairline fracts
1206.1	60°		
1206.2	80°	✓	2 chl fracts w/ bleached zones (each 0.2" wide)
1206.6	80°	✓	Chl. fract w/ epid + bleached (1.0")
1207.0	70°	✓	Chl-epid (0.5" wide)
1208.5	80°	✓	chl-epid-py (2.5" wide)
1207.4	55°	✓	chl
1207.5	55°	✓	"
1207.5	85°	✓	Hairline chl. fract. w/ bleached zone
1207.6	85°	✓	" " " " " "
1209.9	85°	✓	" " " " " "
1210.2	80°	✓	" " " " " " (0.3" wide
1210.3	85°	✓	" " " " " " (0.4" wide
1210.7	90°		Extensive kaolin felds. (2.0" wide)
1211.5	70°		chl fract w/ striations
1211.6	87°	✓	chl fract. w/ bleached margins (0.5" wide)
1212.7	87°	✓	Epid-chl zone w/ epid, qtz-py fract
1212.8	60°, 55°, 75°, 80°		Chl fracts w/ bleached margins except for 55° frac
1213.5	82°		
1213.5	82°	✓	2 Chl fract w/ bleached margins (0.2" wide)
1214.9	80°	✓	" " " " " " (0.2" wide)
1215.0	80°	✓	2 " " " " " " (0.3" wide eac
1215.1	85°	✓	chl fract w/ " "
1218.4	82°		Hairline chl fract.
1219.1	75°-80°		Chl-epid w/ euhedral epid, calcite (chalky), qtz, vuggy
1220.0	60°		
1222.4	~90°	✓	Chl-epid fract (0.7" wide)
1222.5	32°	✓	Bleached zone w/ vk. iron oxide stain

Description (Continued)

Fractures:

Depth	Angle to Core	Healed	Alteration and Intensity
1222.9	55°	✓	2 Hairline chl fracts
1229.6	70°	✓	3 epid-chl fracts w/ some bleaching
1229.8	70°	✓	" " " " " "
1229.9	70°	✓	2 " " " " " "
1230.2	70°	✓	" " " " " "
1230.3	60°		
1230.4	60°	✓	2 epid-chl fracts w/ some bleaching
1230.7	60°	✓	2 " " " " " " (0.1" and 0.2" wide
1230.8	70°	✓	" " " " " "
1230.9	70°	✓	" " " " " "
1231.1	70°	✓	" " " " " "
1231.2	70°	✓	2 " " " " " " (0.2" and 0.2" wide
1231.3	60°	✓	Epid-chl altn (0.3" wide)
1231.4	65°	✓	4 hairline chl fracts
1231.6	82°	✓	Discontinuous qtz. vein (≤0.1" wide) bordered by epid-chl zone (0.7" wide)
1231.8	80°	✓	Hairline chl fract.

HOLE NO. 80-2

Note: All angles in the log are relative to the core axis.

Depth (ft)	Strat. Column	Core Recovery (%)	R.Q.D. (%)	Temp. (°C)	Description
1237					
1240		100	100		White kaolinized feld. in diorite: 1240.0'-1244.1', 1249.6'-1251.0', 1252.8'-1254.3', 1265.3' (3.0" wide), 1266.1'-1267.0', 1272.0'-1273.3', 1277.0' (8.0" wide), 1278.0'-1279.2" (contact @ 85°), 1279.8'-1280.5', 1282.0'-1292.7', 1293.6'-1304.2', 1247.8' (0.5" wide @ 55° w/chl)
1241					
		100	100		
1247					
1250		100	100		Amphibales coarser from approx. 1250'
1257					
1260		100	100		Siliceous zones: 1241.3: 3.0" wide @ 70° 1242.5: 0.1" wide @ 70° 1297.3: 0.1" wide @ 45° qtz vein 1295.6 @ 45° qtz vein
1267					Foliation 30° @ 1243.0'
1270		100	100		
1277					Felsic interval @ 1243.0' w/ distinct upper contact @ 30° lower contact indistinct
1280		100	100		
1287					Mafic inclusions without evidence of assimilation: 1275.5'-1276.4' upper contact irregular @ 30° lower contact @ 82° w/chl, epid. qtz altn
1290		100	98		Partly assimilated inclusions: 1247.0', 1248.5', 1249.2', 1262.0', 1295.8' - pegmatitic qtz-amph pod 3.0" long w/amph 0.2" long.
1297					
1300		100	98		

Description (Continued)

Fractures:

Depth	Angle to Core	Healed	Alteration and Intensity
1237.3	37°	✓	Qtz-chl-epid
1243.4	85°		Chl fract. w/bleached zone (1.0" wide)
1249.6	52°		Smeared chl-clay-py.
1249.9	20°	✓	Epid.-chl (0.2" wide)
1250.7	70°, 75°, 75°, 60°	✓	4 chl fracts w/ Bleached zones (largest 0.2" wide
1252.1	85°	✓	Qtz-epid-chl
1252.1	60°	✓	Chl w/bleached margins
1252.1	75°	✓	Chl-epid
1252.4	75°	✓	py-qtz-epid-chl
1252.8	50°		Hairline chl fract
1253.0	45°		Minor iron stain
1253.1	80°	✓	Irreg chl fract
1253.9	70°	✓	2 bleached zones
1254.0	70°	✓	" "
1254.0	70°	✓	Hairline chl fract.
1255.0	73°		Smeared py-chl
1256.6	50°		Chl w/striations
1257.3	55°	✓	Hairline chl fract.
1257.5	55°	✓	Bleached zone
1257.6	62°		
1258.1	71°	✓	Hairline chl fract.
1258.8	37°	✓	" " "
1259.4	45°	✓	2 " " "
1259.7	40°	✓	" " " w/qtz, chl and minor iron oxide
1259.9			
1260.2	75°		chl w/mod. py.
1260.2	40°	✓	Qtz vein (<0.1" wide)
1260.8	45°	✓	Qtz vein (0.1" wide) w/bleached margin over 1.7" wide, minor iron oxide, hairline chl fract
1262.2	82°		Chl w/minor py.
1262.6	85°	✓	Chl.
1262.7	80°		chl w/striations
1263.5	78°		chl
1265.5	Irreg.		Chl fract w/ bleached margins, minor iron oxide, epid.
1266.0	82°	✓	2 narrow bleached zones
1266.3	80°, 80°		2 bleached zones (dip in opposite directions)
1266.4	35°	✓	Chl-epid (0.3" wide)
1266.4	Irreg.		Chl-epid
1266.8			
1266.8	85°	✓	chl-epid-qtz-py
1266.8	62°		Chl

Description (Continued)

Fractures:

Depth	Angle to Core	Healed	Alteration and Intensity
1272.1	80°	✓	Narrow bleached zone w/ hairline chl fract.
1272.3	75°		Epid
1272.4	82°	✓	Chl-epid w/ bleached zone (0.5" wide)
1272.6	84°		Epid-chl w/ some bleaching (1.6" wide)
1272.8	75°	✓	Chl. fract. w/ bleached margin @ approx 90° (0.9" wide
1273.0	80°	✓	Chl fract.
1273.2	68°	✓	Hairline chl fract w/ bleached margin (0.6" wi
1273.3	75°		Chl fract. w/ mod. py. (offsets fract. above)
1273.5	75°	✓	Chl-epid fract w/ bleached margins (1.5" wide)
1273.7	36	✓	" " fract. w/ bleached margins (0.7" wide)
1274.2	87°	✓	Hairline chl fract w/ bleached margins
1274.4	77°	✓	" " " " " "
1274.5	80°	✓	" " " " " "
1275.6	35° to 60°	✓	4 hairline chl fracts in andes. w/ bleached margins in qtz. dia
1275.8	45°	✓	Hairline chl fract
1276.0	75°	✓	Hairline chl fract in andes w/ bleached margins
1276.1	58°	✓	Narrow irreg. py zone
1276.2	80°		Qtz-chl-epid w/ mod py
1276.8	75°	✓	Minor bleached fold
1276.9	75°		Epid, minor chl
1277.0	70°		Chl
1277.3	85°	✓	Narrow bleached zone
1278.1	90°	✓	Chl-epid zone w/ bleached margins (0.2" wi
1278.4	80°	✓	" " " " " " (1.8" wide
1279.0	70° (fract.)	✓	" " " " " " (1.6" wide
			bleached margins @ 90°
1279.5	70°	✓	chl-epid zone w/ " " (0.2" wide
1280.1	75° (fract.)	✓	" " " " " " (1.0" wide
			bleached margins @ 90°
1280.3	75°	✓	Qtz-epid-chl
1282.8	80°		Epid-chl w/ abund. py.
1285.1	75°	✓	Chl fract w/ bleached margins (1.6" wide)
1288.0	65°	✓	chl fract.
1289.9	75°	✓	Chl fract w/ bleached margins (0.5" wide)
1291.2	70°	✓	" " " " " (0.4" wide)
1282.3	30°	✓	Chl fract.
1282.2	85°	✓	Qtz-py-chl
1282.2	55°	✓	Chl fract w/ bleached margins (0.5" wide)

Description (Continued)

Fractures:

Depth	Angle to Core	Healed	Alteration and Intensity
1292.3	32°	✓	Qtz-chl
1295.0	30°		Intense chl-epid-clay-qtz altn.
1295.6	55°	✓	Qtz vein discontinuous
1296.1	50°	✓	Qtz-kaolinized feld-chl
1300.7	75°		Epid-chl-py w/bleached feld zone over 1.0" wide

HOLE NO. 80-2

Note: All angles in the log are relative to the core axis.

Depth	Strat. Column	Core Recovery (%)	R.Q.D. (%)	Temp. (°C)	Description
1307					White kaolinized feld. in diorite 1305.5' (6.0" wide) 1307.9'-1324.5', 1325.6', 1326.1'-1345.0', ~~1326.1'-1345.0'~~, 1346.2'-1349.6', 1351.9'-1367.8'.
1310		100	100		
1317					Mafic inclusions partly assimilated: 1302.6', 1324.2', 1397.4'-1399.4', 1420.0, 1421.0', 1423.8'-1426.2'
1320		100	91		Andes. inclusion: 1352.6'; upper contact @ 25°, lower contact @ 13°, partly faulted on chl fract (healed) @ 55°; inclusion 5.0" wide.
1327				1327'-29.411	Mafic inclusions: 1427.0-1427.4', 1429.0',
1330		100	100		Felsic zones: 1336.8'-4.0" wide @ 25°, foliated parallel contact. 1329.8'-0.2" wide. 1366.2'-1367.0' 1399.3'-1400.4'-Upper contact @ 60°, Lower contact @ 90° gradational. 1403.5' (2" zone @ 60°), 1404.8' (@ 40°, 0.1") 1407.3' (20" zone @ 40°), 1407.7' (@ 30°) 1412.3' (@ 20°), 1418.4' (irreg), 1421.9' (irreg)
1337					
1340		89	100		
1345					
1350		100	97		Pegmatitic Zones - 1367.0'
1355					
1360		100	96		Felsic zones: 1427.4' (12°, parallel foliation), 1390.1' (Siliceous & felsic zone).
1365					

Description (Continued)

Fractures:

Depth	Angle to Core	Healed	Alteration and Intensity
1302.4	75°		Irreg. chl. fract.
1302.6	80°	✓	Qtz-py-chl fract. offset by fract. below.
1302.5	10°	✓	Vuggy fract. w/ Iron oxide stain
1303.7	70°		chl
1306.3	78°		Chl fract w/striations
1313.5	78°	✓	Chl fract.
1315.4	83°	✓	Qtz-chl w/minor py & Iron oxide stain } zone 2.5"
1315.4	45°	✓	" " " " " " " " " } wide @ 90°
1315.6	70°	✓	Chl fract w/bleached margins (0.2" wide)
1315.7	70°	✓	" " " " " (0.4" wide)
1316.3	65°	✓	" " " " " (0.7" wide).
1316.9	18°		Broken rk. w/abund. clay altn
1320.4	74°		Chl w/striations
1324.5	50°		Chl fract w/0.25" qtz vein
1326.4	65°	✓	Hairline chl. fract. w/bleached zone (0.1" wide)
1327.1	28°	✓	Py-chl vein
1331.7-1332.5	50°	✓	Intense epid-qtz-py zone (6.5" wide) bordered by chl-clay altn w/gradational boundaries.
1332.9	80°	✓	Qtz-clay altn.
1337.0	77°		Intense py w/qtz. vein (0.4" wide)
1338.8	68°	✓	Qtz-py zone (0.1" wide)
1340.1	75°	✓	Hairline chl fract w/py
1340.2	70°	✓	" " " " "
1343.0	45°		Chl-epid fract (0.5" wide)
1346.1	75°		Chl
1346.3	77°		Hairline chl fract.
1354.3	85°		Chl-clay altn.
1358.5	35°	✓	2 fracts in inclusion w/numerous parallel
1359.4	50°		hairline fracts subparallel boundary
			Chl-clay altn
1360.3	80°		chl
1360.4	75°	✓	Irreg chl fract.
1360.5	70°	✓	Chl-epid-qtz fract.
1360.6	52°	✓	" " " "
1360.7	70°	✓	2 " " " " (irreg.)
1360.9	78°		With numerous other chl hairline fracts.
1361.2	3°	✓	Vuggy qtz filled fract (<0.1" wide)
1363.3	11°	✓	" " " " (<0.1" wide)
1363.9	70°		Epid.-calcite fracts.
1365.1	83°		Epid
1365.3	75°	✓	Qtz-chl?

HOLE NO. 80-2

Note: All angles in the log are relative to the core axis.

Depth	Strat. Column	Core Recovery (%)	R.Q.D. (%)	Temp. (°C)	Description
1370		100	96		Pegmatitic zones: 1378.1', 1378.4' (amph to 0.5"), 1380.2', 1380.2', 1381.3'
1375					
1380		100	100		More felsic zones: 1368.3-1369.6 (ill-defined lower contact, upper contact @ 60° w/ pegmatite. 1381.7-1382.2' (upper and lower contacts gradational @ 20°, upper contact pegmatite w/ amph. to 0.25". 1376.5'-small pod. 1381.5'-Upper contact @ 35° and parallel foliation. Lower contact @ 60° w/ qtz-epid-chl. 1384.0'-Upper contact @ Lower contact parallel poorly defined foliation @ 15°. 1382.8'-1383.1'-contacts gradational Upper contact @ 90° Lower contact @ 35°. 1386.3-1386.9-Lower Contact 90° Upper Cont. 20°
1381					
1387					
1390		100	100		
1397					
1400		100	100		
1407					
1410		100	100		
1417				1417'-31.039	Siliceous Zones: 1377.3' @ 60°-1" wide w/ c-g amph to 0.2", minor kaolinized feld. 1376.4' @ 80°-0.2" wide qtz. vein. 1377.8' @ 75°-1.0" wide irreg contact 1382.5' @ 70°-1.7" qtz. vein w/ lower contact on Epid-chl schist. Kaolinitic zones: 1369.6-1384.1', 1388.3'-1399.3', 1400.5'-1407?'
1420		100	100		
1427					
1430		100	99		

Description (Continued)

Fractures:

Depth	Angle to Core	Healed	Alteration and Intensity
1370.8	78°	✓	Qtz-chl?
1374.0	20°		Qtz-chlorite-calcite
1374.6	55°		Chl-calcite
1375.7	85°		Mod. epid.
1383.5	70°		Epid w/chl (1.5" wide)
1384.3	65°	✓	Chl fract. w/ bleached zone (0.2" wide)
1386.1	65°	✓	" " " " " (0.2" wide)
1386.3	75°	✓	" " " " " (0.3" wide)
1389.9	75°	✓	Hairline chl fract.
1394.7	62°	✓	" " "
1406.6	67°		Chl
1409.8	28°-48°	✓	Hairline chl fracts
1410.3	82°		Chl fract w/ bleached margin
1414.2	55°-75°	✓	10 irreg. chl. fracts
1414.8			
1415.3	75°		Chl-calcite fracts
1417.7	75°	✓	Irreg. chl. fract.
1423.3	75°		Chl fract w/ striations
1425.3	40°	✓	Hairline chl fract, irreg.
1425.4	85°	✓	" " "
1425.7	53°	✓	" " "
1425.8	38°	✓	" " "
1426.7	75°	✓	Chl fract w/ bleached zone (0.1" wide), irreg
1427.0	20°	✓	" " " " " (0.2" wide)
1427.0	80°		Chl
1427.2	60°	✓	Hairline chl fract
1427.4	65°	✓	Chl fract w/ bleached zone (0.2" wide), irreg
1427.8	75°	✓	" " " " " (0.2" wide), "
1429.3	80°		Irreg w/ intense py
1429.7	68°		chl fract w/ py
1429.8	78°	✓	Irreg. chl fract w/ py
1430.1	75°	✓	Chl fract. w/ weak bleached margins
1431.6	58°	✓	Hairline chl fract w/ py
1431.9	85°		Irreg fract w/ mod py, minor chl
1432.2	63°	✓	Chl zone (0.6" wide)
1432.6	40°	✓	Chl fract w/ weak bleached margins (0.3" wide
1418.6	50°		Intense sheared zone w/ clay, qtz and bleached zone (0.5" wide)
	45°		
1395.3	45°	✓	Chl shear, cuts off qtz vein @ same depth
1421.7	70°	✓	Chl-epid (0.75" wide)

HOLE NO. 80-2

Note: All angles in the log are relative to the core axis.

Depth	Strat. Column	Core Recovery (%)	R.Q.D. (%)	Temp. (°C)	Description
1437					Kaolinitic zones: 1436.5'
1440		100	100		Felsic zones:
1447					
1450		100	100		
END 1457					Mafic inclusions: 1452.8'
					Silicified Zones & Qtz. Veins:
					1395.3: To 0.25" @ 50°, healed
					1399.3: 0.8" irreg. @ 75° healed
					1400.0: 0.7"-0.1" irreg. @ 55°, " w/coarse amph.
					1407.3: 4.0" wide @ 20°
					1415.0: 0.7" wide @ 50°, healed
					1423.3: <0.1" wide @ 20°, healed
					1433.7: 0.1" wide @ 23°, " w/chl margin
					1453.5: qtz w/chl @ upper contact qtz vein ~ 43°; upper contact ~50°.

Description (Continued)

Fractures:

Depth	Angle to Core	Healed	Alteration and Intensity
1435.9	32°	✓	Chl fract w/bleached margins, epid.
1438.7	60°	✓	Epid-chl (0.4" wide)
1439.0	27°	✓	Hairline chl-qtz. fract. w/py.
1440.6	50°		Chl
1443.5	72°		Chl fract. w/striations
1444.2	50°		Chl-epid (1.5" wide)
1449.2	70°		chl fract w/striations
1450.0	75°		" " " "
1450.7	70°	✓	Hairline chl fract.
1450.8	50°	✓	" " "
1451.1	50°	✓	" " "
1451.8	50°	✓	" " "
1452.0	55°	✓	" " "
1451.9	55°		Chl. fract w/striations
1457.0	65°		Chl