

misc. notes on susceptibility.

The variations in susceptibility measurements within a lithologic unit appeared to be dependent on the following: clast amount and composition (for flow breccias), vesicularity (for lava flows + breccias with basaltic clasts), and matrix composition. A clast supported unit had a significantly higher susc. measurement than a matrix supported unit. In addition, if the clast were of a mafic composition, the susc. was higher as compared to clasts with a more intermediate makeup. The vesicularity played a dramatic role in causing variations within a lithologic unit, especially the 2000 feet of Olivine basalt + and basaltic andesite at bottom of hole. This particular sequence would have very dense and very vesicular flows interbedded within one foot of each other. ^{another variation is} The matrix "color", which seems to be directly proportional to susceptibility magnitude. It appeared that the lighter the matrix, (the more red/orange ash clay) the lower the susceptibility. For example, the sequence of Andesite Breccias at depths 2454' - 2478' has 2 distinct matrixes: a unit with a red orange matrix having a

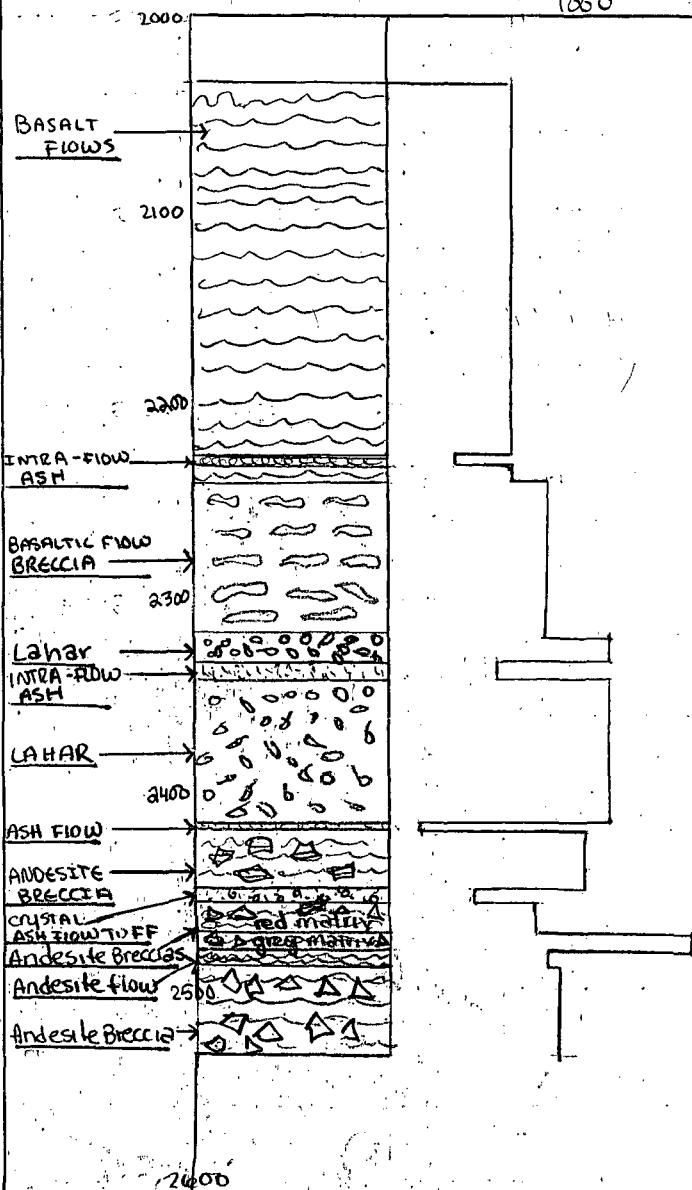
susceptibility ave. of 781.10^6 followed by a unit with a grey matrix that has an ave. susc. of $1585.2 \cdot 10^6$. Nevertheless, it was obvious that these breccias belonged to the same lithologic unit.

There didn't appear to be any correlation between alteration minerals (and extent of alteration) and susceptibility.

average
susceptibility 10^{-6} cgs

1000 2000 3000

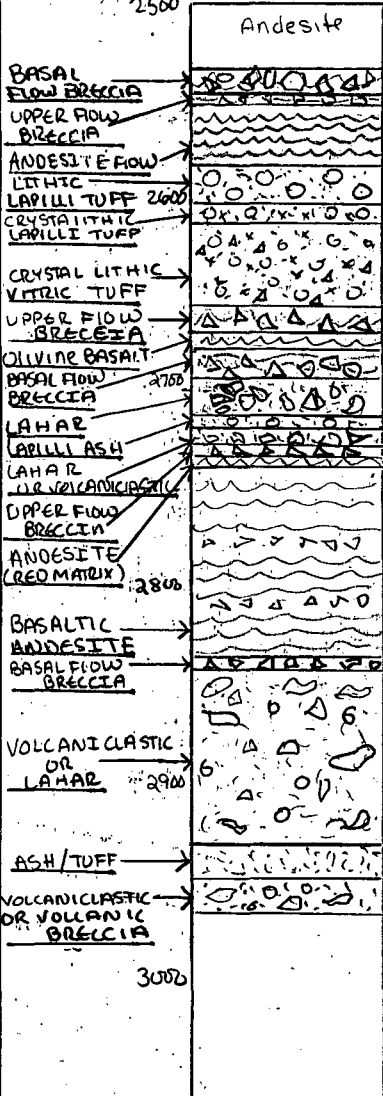
22-141 50 SHEETS
22-142 100 SHEETS
22-144 200 SHEETS



ave susceptibility 10⁻⁶

1000 2000 3000

2500



3000

3100

22-141 50 SHEETS
22-142 100 SHEETS
22-144 200 SHEETS



ave susceptibility $\cdot 10^{-6}$ cgs

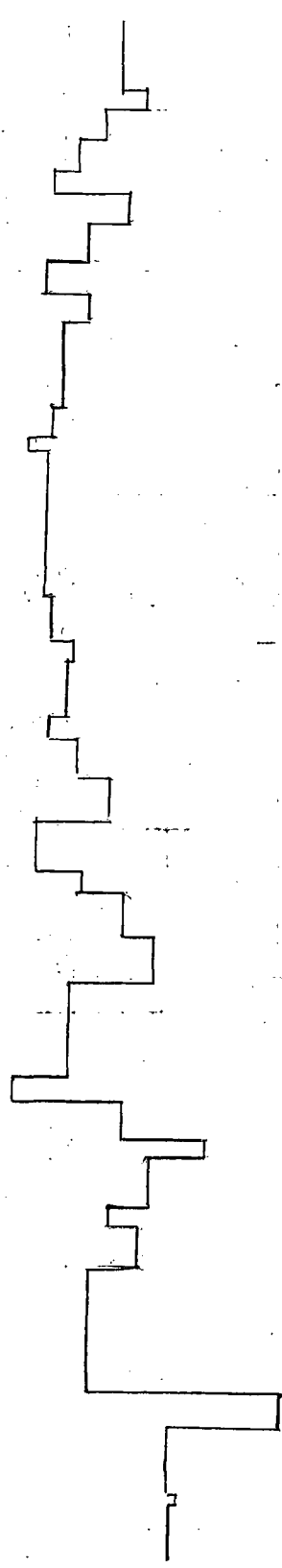
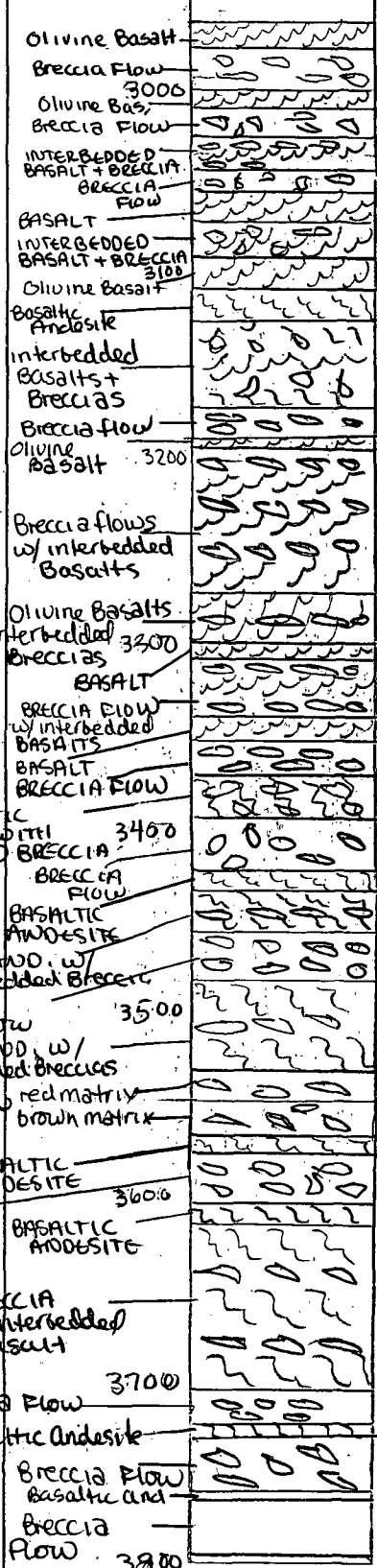
1000

2000

3000

2900

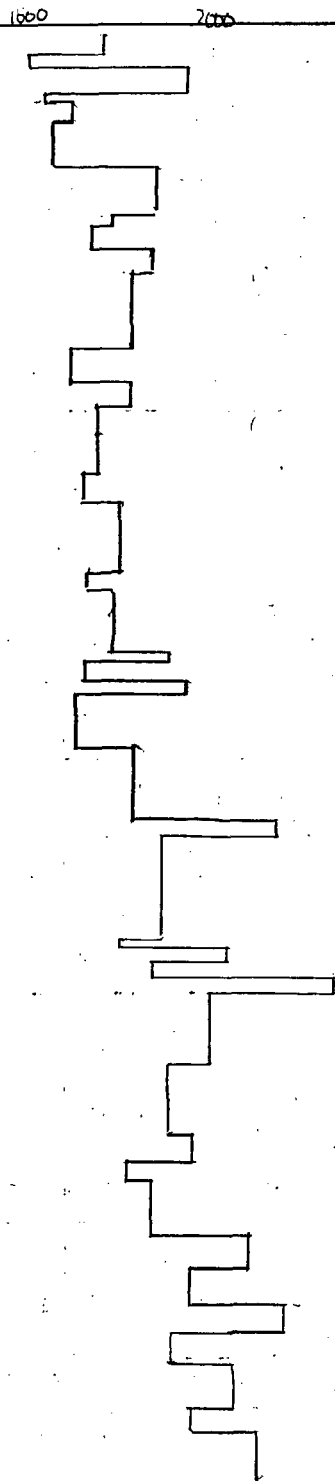
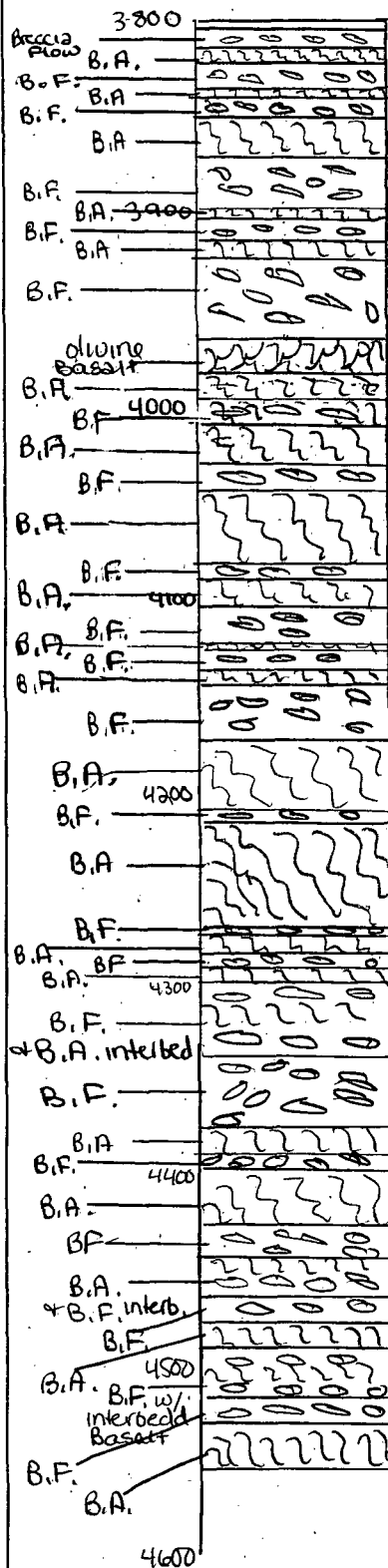
22-141 50 SHEETS
22-142 100 SHEETS
22-144 200 SHEETS



B. F. = Breccia Fluo
 B. A. = Basaltic Andesite

ave susceptibility 10^{-6} cgs

22-141 50 SHEETS
 22-142 100 SHEETS
 22-144 200 SHEETS



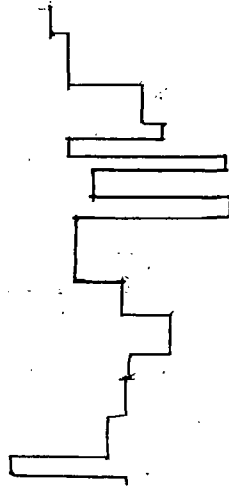
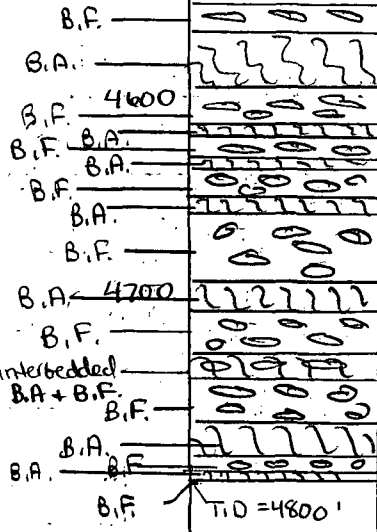
W

ave susceptibility 10^{-6} cgs

4500

1000

2000



22-141 50 SHEETS
22-142 100 SHEETS
22-144 200 SHEETS



T.D. = 4800'

| Lithology | Depth interval | ave susceptibility 10^{-6} cgs |
|--------------------------------------|-----------------|----------------------------------|
| Basalt + flows | 2037' - 2240' | 652.7 |
| intra-flow ash | 2225' - 2229' ↗ | 351.4 |
| Basaltic flow breccia | 2240' - 2318' | 838.6 |
| Lahar | 2318' - 2417' | 1155.9 |
| INTRA FLOW ASH | 2331' - 2341' ↗ | 562.6 |
| ASH FLOW | 2417 - 2419 | 181.8 |
| Andesite Breccia | 2419 - 2448 | 1012 |
| crystal-ash flow tuff | 2448 - 2454 | 251.8 |
| Andesite Breccia with red ash matrix | 2454 - 2469 | 781.5 |
| Andesite Breccia with grey matrix | 2469' - 2478' | 1585.2 |
| Andesite flow | 2478' - 2486' | 815.7 |
| Andesite Breccia flow | 2486' - 2535' | 884.4 |

| lithology | Depth interval | ave suscept. 10^{-6} cgs |
|-----------------------------|----------------|----------------------------|
| basal flow Breccia | 2535 - 2546' | 514.4 |
| upper flow Breccia | 2546' - 2553' | 1698 |
| Andesite flow | 2553' - 2586' | 3685.9 |
| Lithic Lapilli Tuff | 2586' - 2603' | 901 |
| Crystal lithic lapilli tuff | 2603 - 2616 | 1566.4 |
| Crystal lithic vitric tuff | 2616 - 2657 | 1276 |
| UPPER FLOW BRECCIA | 2657' - 2668' | 2083.4 |
| Andesite(?) Olivine basal | 2668' - 2678' | 1888.9 |
| Basal Flow Breccia | 2678' - 2694' | 1661.6 |
| Lahar | 2694' - 2713' | 1061 |
| Lapilli ash | 2713' - 2719' | 1439.4 |
| Lahar / volcanoclast. | 2719' - 2726' | 11061 |
| upper flow breccia | 2726' - 2733' | 991.2 |
| andesite (red matrix) | 2733 - 2740 | 259.6 |
| Basaltic Andesite | 2740' - 2837' | 1471.8 |
| Basal Flow breccia | 2837' - 2842' | 511.3 |
| volcanic ash / tuff | 2842' - 2935' | 1086.3 |
| volcanic ash / tuff | 2935' - 2952' | 784.3 |
| volcanic breccia | 2952' - 2966' | 1075.9 |

| Lithology | Depth Interval | ave suscept. | |
|---|----------------|--------------|---|
| - Olivine Basalt | 2966 - 2979 | 1370 | |
| - Breccia flow | 2979 - 3001' | 1399 | |
| - Olivine Basalt | 3001' - 3013' | 1460.8 | |
| - Breccia flow | 3013' - 3028' | 1246.3 | |
| - interbedded Olivine basalts & breccia flows | 3028' - 3044' | 1110.2 | |
| - Breccia flow | 3044' - 3058' | 989.4 | |
| - Basalt | 3058' - 3067 | 1374.8 | |
| - interbedded Breccia & Olivine basalts | 3067 - 3093 | 1159.8 | |
| - Olivine Basalt | 3093 - 3109 | 962.5 | |
| - Basaltic Andesite | 3109 - 3127 | 1166.4 | |
| - Interbedded Basalts & Breccias | 3127 - 3175 | 1005.3 | Olivine Basalts & Olivine Breccia Flows |
| - Breccia flow | 3175 - 3191 | 945.5 | |
| - Olivine basalt | 3191 - 3197 | 848.8 | |
| - Breccia flow w/ interbedded Basalts | 3197 - 3274' | 938.3 | ave = 1066.6 2966' - 3292' |
| - Olivine Basalts w/ interbedded Breccias | 3274' - 3300' | 968.6 | |
| - Basalt | 3300 - 3308' | 1084.5 | |
| - Breccia flow with interbedded basalt | 3308' - 3340' | 1014 | Basaltic Andesite + Breccia flows |
| - Basalt | 3340' - 3352' | 962.1 | |
| - Breccia flow | 3352' - 3372 | 1084.6 | |
| - Basaltic Andesite w/ interbedded Breccias | 3372' - 3396' | 1242 | ave = 1572.5 S dev = 5.8 3292 - 4800 TD |
| - Breccia Flow | 3396' - 3421' | 873.8 | |
| - Basaltic Andesite | 3421' - 3434' | 1036.1 | |
| - Bas. Andes. w/ interb. Breccias | 3434' - 3459' | 1318.3 | |
| - Breccia Flow | 3459' - 3481' | 1502.7 | |
| - Basaltic And. w/ interbedded breccias | 3481' - 3531' | 1079.5 | |
| - Breccia flows red brown | 3531' - 3546' | 765.9 | |
| | 3546' - 3571' | 1344.8 | |
| - Basaltic And. | 3571' - 3575' | 1803.5 | |
| - Breccia Flow | 3575' - 3601' | 1460.4 | |
| - Basaltic And. | 3601' - 3616 | 1286 | |
| - Breccia flows w/ interbedded basalt | 3616 - 3706 | 1401.2 | |
| - Breccia flow | 3706' - 3723' | 1166 | |
| - Basaltic Andes | 3723' - 3727 | 2200.1 | |
| - Breccia flow | 3727 - 3760 | 1611.9 | |



| | | |
|---|-------------|--------|
| Basaltic Andes | 3760 - 3764 | 1661.3 |
| Breccia flow | 3764 - 3797 | 1611.9 |
| Basaltic Andes | 3797 - 3804 | 1380.4 |
| Breccia flow | 3804 - 3815 | 1425.5 |
| Basaltic Andes | 3815 - 3821 | 1141.6 |
| Flow breccia | 3821 - 3835 | 1851.0 |
| basaltic Andesite | 3835 - 3840 | 1159.7 |
| flow breccia | 3840 - 3852 | 1239.1 |
| Basaltic Andesite | 3852 - 3874 | 1188.5 |
| Breccia flow | 3874 - 3897 | 1692.1 |
| Basaltic Andes. | 3897 - 3902 | 1450.1 |
| Breccia flow | 3902 - 3915 | 1345.9 |
| Basaltic Andesite | 3915 - 3922 | 1623.7 |
| Breccia flow | 3922 - 3965 | 1523.6 |
| Olivine Basalt | 3965 - 3982 | 1250.2 |
| Basaltic Andes | 3982 - 3999 | 1556.8 |
| Breccia flow | 3999 - 4010 | 1380.7 |
| Basaltic Andes. | 4010 - 4029 | 1394.8 |
| Breccia flow | 4029 - 4044 | 1296.8 |
| Basaltic Andes. | 4044 - 4081 | 1494.0 |
| Breccia flow | 4081 - 4089 | 1328.9 |
| Basaltic Andes. | 4089 - 4105 | 1469.5 |
| Breccia flow | 4105 - 4122 | 1465.2 |
| Bas. And | 4122 - 4125 | 1742.1 |
| Breccia flow | 4125 - 4139 | 1289.2 |
| B.A. | 4139 - 4144 | 1821 |
| Breccia flow | 4144 - 4175 | 1256.1 |
| Bas. And | 4175 - 4210 | 1572.9 |
| Breccia flow | 4210 - 4217 | 2313.4 |
| Bas. And. | 4217 - 4267 | 1703.6 |
| Breccia flow | 4267 - 4271 | 1491 |
| Bas. And | 4271 - 4282 | 2043.4 |
| Breccia flow | 4282 - 4287 | 1626.1 |
| Bas. And. | 4287 - 4298 | 2606.6 |
| interbedded | 4298 - 4338 | 1929.6 |
| Breccias + Basaltic Andes. | | |
| Breccia flow | 4338 - 4376 | 1771.6 |
| Bas. Andes. | 4376 - 4390 | 1837.8 |
| Breccia flow | 4390 - 4399 | 1505.9 |
| Bas. And. | 4399 - 4426 | 1646.4 |
| Breccia flow | 4426 - 4442 | 2146.7 |
| basalt + breccia flows (interbedded) | 4442 - 4463 | 1849.8 |
| breccia flow | 4463 - 4477 | 2335.8 |
| Basalt. Andes | 4477 - 4490 | 1770.6 |
| Breccia flow with interbedded basalt | 4490 - 4519 | 2014.0 |
| Breccia flow | 4519 - 4529 | 1809.2 |
| Basaltic Andesite | 4529 - 4553 | 2184.4 |



| Lithology | Depth Interval | Ave Suss. |
|--|----------------|-----------|
| Breccia flow | 4553 - 4565. | 1718.8 |
| basaltic And. | 4565 - 4596 | 1859.6 |
| + breccia flows interbedded | | |
| Breccia flow | 4596 - 4616 | 2229.7 |
| Basaltic And | 4616 - 4620 | 2353.1 |
| Breccia flow | 4620 - 4630 | 1865.7 |
| Basalt. And | 4630 - 4636 | 2660.3 |
| breccia flow | 4636 - 4649 | 1989.8 |
| basaltic And. | 4649 - 4658 | 2672.6 |
| breccia flow | 4658 - 4694 | 1861.7 |
| Basaltic Andes. | 4694 - 4707 | 2161.1 |
| Breccia flow | 4707 - 4730 | 2363.5 |
| interbedded Breccia and basalt flow | 4730 - 4742 | 2190.0 |
| Breccia flow | 4742 - 4767 | 2155.7 |
| Basaltic And | 4767 - 4784 | 2043.5 |
| Breccia flow | 4784 - 4790 | 1559.9 |
| Basaltic And. | 4790 - 4796 | 2146.0 |
| Flow Breccia | 4796 - TD | ? |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

Drill Hole: CTGH-1 Pg 1 of 78

Date: 6-8-87

Company: Thermal Power

Logged by: ML & HR

Core Diameter: 2.40" = NC
(in.)

Total Correction: $(1/d^2)(1.75)(\frac{1}{\text{present}}) =$

Instrument: BISON-3101A

$(\frac{1}{2.40})^2 (1.75) = .303819$

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | General Lithology | Comments |
|-----------------|--------------------|-------|-----|----------------|-------------|--------------------------|--------------|--------------------|-------------------|--|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 1 527.75 | 2730 2746 | X | | 2730 | .3038 | 829.4 | | | Olivine Basalt | broken, 1.9% core missing along fracture |
| 528.0 | 2373 | X | | 2373 | .3038 | 721.0 | | | B " | |
| 528.5 | 2803 | X | | 2803 | .3038 | 851.6 | | | " | |
| 529 | 3053 | X | | 3053 | .3038 | 927.6 | | | " | natural fracture |
| zero → 530 | 2953 | X | | 2953 | .3038 | 897.2 | | | " | |
| 530.7 | 2967 | X | | 2967 | .3038 | 901.4 | | | " | |
| 531.5 | 3012 | X | | 3012 | .3038 | 915.0 | | | " | |
| 532.5 | 2839 | X | | 2839 | .3038 | 862.5 | | | " | |
| 533.0 | 2984 | X | | 2984 | .3038 | 906.5 | | | " | |
| zero → 533.5 | 2907 | X | | 2907 | .3038 | 883.1 | | | " | |
| 535.0 | 2667 | X | | 2667 | .3038 | 810.2 | | | " | |
| Box 2 536.3 | 2931 | X | | 2931 | .3038 | 890.4 | | | " | |
| 536.8 | 2959 | X | | 2959 | .3038 | 899.0 | | | " | |
| 537.5 | 2686 | X | | 2686 | .3038 | 816.0 | | | " | |
| zero → 538.0 | 2956 | X | | 2956 | .3038 | 898.1 | | | " | |
| 538.5 | 2737 | X | | 2737 | .3038 | 831.6 | | | " | |
| 539.0 | 2938 | X | | 2938 | .3038 | 892.6 | | | " | |
| 540.0 | 3095 | X | | 3095 | .3038 | 940.3 | | | " | altered vug - green mineral |
| 541.0 | 3125 | X | | 3125 | .3038 | 949.4 | | | " | |
| zero → 541.5 | 2839 | X | | 2839 | .3038 | 862.5 | | | " | |
| 542.0 | 2879 | X | | 2879 | .3038 | 874.6 | | | " | |
| 542-544 | | | | | | | | | " | 542-544 badly broken no reading |
| Box 3 546.0 | 3120 | X | | 3120 | .3038 | 947.9 | | | " | 544-546 badly broken |
| 546.3 | 2918 | X | | 2918 | .3038 | 886.5 | | | " | |
| 547.3 | 2694 | X | | 2694 | .3038 | 818.5 | | | " | major fractures (fresh) |
| 549.3 | 1318 | X | | 1318 | .4340 | 572.0 | st. dev 79.4 | 863.32 | " | 1/70 highly fractured cum mineral |
| 551.3 | 1300 | X | | 1300 | .3038 | 395.0 | | | Basalt | vesicular, w/ clay |
| 551.6 | 1072 | X | | 1072 | .3038 | 325.7 | | | " | badly broken |
| Box 4 552.5 | 920 | X | | 920 | .3038 | 279.5 | | | " | vesicular but along |
| 552.8 | 978 | X | | 978 | .3574 | 349.6 | | | " | 1/25 |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

Drill Hole: CTGH-1 Pg 2 of 74

Date: 6-9-87

Company: Thermal Power

Logged by: ML & HR

Core Diameter: NC. 2.40"

Total Correction: $(1/d^2)(1.75)(\frac{1}{10}) = .303819$

Instrument: BISON-3101A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | General lithology | Comments |
|--------------------|--------------------|-------|-----|----------------|-------------|--------------------------|------|--------------------|-------------------|--|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Zero → 554.8 | 930 | X | | 930 | .3038 | 282.6 | | | Basalt | |
| 555.3 | 1040 | X | | 1040 | .3038 | 316.0 | | | " | pk-brn clay |
| 558.0 | 1325 | X | | 1325 | .3798 | 503.2 | | | " | 556-562 badly less vesicular broken ($\frac{1}{80}$) |
| 30x5. 563 | 2730 | X | | 2730 | .3038 | 829.4 | | | " | minor alteration of mafics - FeOx - Crumbly; Cu min? |
| 565.5 | 2497 | X | | 2497 | .4051 | 1011.5 | | | " | $\frac{1}{75}$ Partial sample Cu min? |
| 566. | 2024 | X | | 2024 | .4051 | 819.91 | | | " | $\frac{1}{75}$ Partial sample Cu min |
| 567 | 1816 | X | | 1816 | .4051 | 735.6 | | | " | $\frac{1}{75}$ Remainder of box badly broken |
| Zero → 30x6. 581.0 | 3472 | X | | 3472 | .3038 | 1055 | | | " | visible limonite |
| 582.0 | 2965 | X | | 2965 | .3038 | 900.8 | | | " | |
| 584.0 | 3093 | X | | 3093 | .3038 | 939.7 | | | " | |
| 585.0 | 2892 | X | | 2892 | .3038 | 878.6 | | | " | |
| 586.0 | 2760 | X | | 2760 | .3038 | 838.5 | | | " | core getting denser |
| 586.5 | 2821 | X | | 2821 | .3038 | 857.1 | | | " | less vesicles, fractures |
| 587.2 | 2886 | X | | 2886 | .3038 | 876.8 | | | " | |
| 587.8 | 2892 | X | | 2892 | .3038 | 878.6 | | | " | |
| Zero → 30x7. 588.3 | 2490 | X | | 2490 | .3198 | 796.3 | | | " | $\frac{1}{95}$ Partial sample |
| 589.0 | 1738 | X | | 1738 | .3798 | 660 | | | " | $\frac{1}{80}$ Partial sample vesicular broken |
| 589.3 | 2815 | X | | 2815 | .3376 | 950.3 | | | " | $\frac{1}{90}$ Partial sample very dense |
| 589.9 | 2895 | X | | 2895 | .3198 | 925.8 | | | " | $\frac{1}{95}$ |
| 590.4 | 2252 | X | | 2252 | .3038 | 684.2 | | | " | |
| 590.9 | 2572 | X | | 2572 | .3038 | 781.4 | | | " | |
| 592.0 | 2582 | X | | 2582 | .3038 | 784.5 | | | " | remainder of box badly broken |
| Zero → 30x8. 597.0 | 2779 | X | | 2779 | .3038 | 844.3 | | | " | |
| 598.5 | 2750 | X | | 2750 | .3038 | 835.5 | | | " | very dense |
| 598.8 | 2735 | X | | 2735 | .3038 | 830.9 | | | " | |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

Drill Hole: CTG4-1 Pg 3 of 78

Date: 6-10-87

Company: Thermal Power

Logged by: ML

Core Diameter: NC 2.40"

Total Correction: $(1/d^2)(1.75)(\frac{1}{2}) = .303819$

Instrument: Bison 3101 A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | General Lithology | Comments |
|------------------------|--------------------|-------|-----|----------------|-------------|--------------------------|------|--------------------|-------------------|---|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 8 zero → 600.5 | 2510 | x | | 2510 | .4051 | 1016.8 | | | Basalt | ↓ partial sample |
| 601.7 | 2895 | x | | 2895 | .3038 | 879.6 | | | " | Dense flow |
| 602.5 | 2710 | x | | 2710 | .3038 | 823.3 | | | " | remainder of box badly broken |
| Box 9 611.0 | 1387 | x | | 1387 | .3038 | 421.4 | | | " | Broken up to 611 vesicular |
| 618.0 | 2459 | x | | 2459 | .3375 | 830.1 | | | " | 1/90 partial vesicular, clay alter. |
| 618.5 | 2992 | x | | 2992 | .3038 | 909.0 | | | " | denser |
| zero → 619.5 | 3782 | x | | 3782 | .3038 | 1,149.0 | | | " | dense |
| Box 10 620.3 | 2759 | x | | 2759 | .3038 | 838.2 | | | " | |
| 621.0 | 2768 | x | | 2768 | .3038 | 841.0 | | | " | dense; slight clay in vesicles |
| 623 | 2655 | x | | 2655 | .3038 | 806.6 | | | " | very dense w/ a few large (> 2cm) vesicles |
| 624.7 | 1175 | x | | 1175 | .3198 | 375.8 | | | " | 1/95 partial sample increasing vesicles |
| zero → 628.5 | 4122 | x | | 4122 | .3038 | 1,252.3 | | | " | clay in vesicles |
| 628.8 | 4040 | x | | 4040 | .3038 | 1,227.4 | | | " | |
| Box 11 629.5 | 2621 | x | | 2621 | .3038 | 796.3 | | | " | vesicular w/ clay in vesicles |
| 632.0 | 3116 | x | | 3116 | .3038 | 946.7 | | | " | " |
| 634.5 | 3130 | x | | 3130 | .3038 | 956.9 | | | " | fractured + broken from 635-638 |
| zero → 638.5 | 3436 | x | | 3436 | .3038 | 1043.9 | | | " | |
| Box 12 639.5 | 3410 | x | | 3410 | .3038 | 1036.0 | | | " | dense no vesicles continuous |
| 641.0 | 3441 | x | | 3441 | .3038 | 1045.4 | | | " | ↑ |
| 641.5 | 3267 | x | | 3267 | .3038 | 992.6 | | | " | |
| 643.0 | 3291 | x | | 3291 | .3038 | 1000.6 | | | " | dense no vesicles |
| 643.9 | 3501 | x | | 3501 | .3038 | 1063.7 | | | " | |
| 645.2 | 3812 | x | | 3812 | .3376 | 1,286.8 | | | " | 1/90 partial sample dense no vesicles; clay |
| zero → Box 13 650.5 | 3628 | x | | 3628 | .3198 | 1,160.2 | | | " | 1st 2 ft of box broken very vesicular, alt, part. sam 1/95 |
| 651.5 | 4033 | x | | 4033 | .3038 | 1,225.3 | | | " | clay in vesicles |
| 653.0 | 3788 | x | | 3788 | .3038 | 1,150.9 | | | " | small fractures |
| 657.5 | 2826 | x | | 2826 | .3038 | 858.6 | | | " | 656-657 - removed by Therm. DOGAMZ possible mix up of core? → |
| Box 14 658.7 | 2886 | x | | 2886 | .3038 | 876.8 | | | " | |
| 659.3 | 2617 | x | | 2617 | .3038 | 795.1 | | | " | 660-663.5 badly broken |
| zero → 664.0 | 1301 | x | | 1301 | .3038 | 395.3 | | | " | vesicular - clay in vesicles |

larger sections of intact core

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

Drill Hole: CT64-1 Pg 4 of 78

Date: 6-10-87

Company: THERMAL POWER

Logged by: ML

Core Diameter: 2.40" NC

Total Correction: $(1/d^2)(1.75)(\frac{1}{90}) = .303819 \times \frac{1}{90}$

Instrument: Bison 3101 A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | General Lithology | Comments |
|------------------------|--------------------|-------|-----|----------------|-------------|--------------------------|------|--------------------|-------------------|---|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 14 (cont) 664.3 | 1120 | ✓ | | 1120 | .3038 | 340.2 | | | Basalt | vesicular remainder of box badly broken |
| Box 15 684.7 | 2401 | ✓ | | 2401 | .3198 | 767.9 | | | " | 675'-683' badly broken dense 1/95 partial sample |
| 685.5 | 2098 | ✓ | | 2098 | .3038 | 637.4 | | | " | |
| 687.5 | 3353 | X | | 3353 | .3038 | 1018.7 | | | " | much denser core intact clay in fract. |
| zero → 690.5 | 6052 | X | | 6052 | .3038 | 1,838.7 | | | " | 689'-690' broken (vesicular tuff w/ much clay) |
| | | | | | | | | | " | This sample is very dense, non vesicular, clay. |
| | | | | | | | | | " | phenocrysts & no apparent alteration - dark gray |
| | | | | | | | | | " | Thermal + DOGAMZ took sample - 692'-693' blocks appear to be in wrong place 1/95 part. sample |
| 691.0? | 6513 | ✓ | | 6513 | .3198 | 2082.9 | | | " | 693'-696' badly broken |
| Box 16 696.5 | 3107 | ✓ | | 3107 | .3038 | 944.0 | | | " | dense no vesicles clay alt. on fract. |
| 698.5 | 3408 | ✓ | | 3408 | .3038 | 1,126.6 | | | " | dense vert. fractures |
| 700.5 | 3443 | X | | 3443 | .3038 | 1046.0 | | | " | |
| zero → 700.9 | 2733 | ✓ | | 2733 | .3038 | 830.3 | | | " | |
| Box 17 701.6 | 2750 | ✓ | | 2750 | .3038 | 835.5 | | | " | dense no vesicles |
| 702.0 | 2658 | ✓ | | 2658 | .3038 | 807.6 | | | " | |
| 702.5 | 2893 | ✓ | | 2893 | .3038 | 878.9 | | | " | some vesicles - clay |
| 703.8 | 2890 | ✓ | | 2890 | .3038 | 878.0 | | | " | 704-707 broken |
| 708.5 | 4334 | ✓ | | 4334 | .3376 | 1,463.1 | | | " | 707'-708' THERMAL 1/90 dense no vesicles DOGAMZ partial |
| 709.3 | 3492 | ✓ | | 3492 | .3038 | 1060.9 | | | " | |
| zero → 710.3 | 4256 | X | | 4256 | .3038 | 1,293.0 | | | " | dense non vesicul. |
| Box 18 712 | 536 | X | | 536 | .3038 | 162.8 | | | " | vesicular - clay in vesicles very red |
| 714 | 1186 | X | | 1186 | .3376 | 400.4 | | | " | 1/90 partial sample |
| ~ 716 | 931 | X | | 931 | .3376 | 314.3 | | | " | vesicles > 2 cm 1/90 partial sample |
| 718 | 1152 | X | | 1152 | .3798 | 437.5 | | | " | 717 - badly broken 1/80 partial, fractures |
| 718.8 | 1292 | ✓ | | 1292 | .3038 | 392.5 | | | " | 719-733 badly broken |
| 733.2 | 2300 | ✓ | | 2300 | .4651 | 931.7 | | | " | 1/75 partial sample |
| zero → 734 | 2290 | X | | 2290 | .3798 | 869.7 | | | " | 1/80 |
| Box 19 735 | 1806 | X | | 1806 | .3038 | 548.7 | | | " | badly broken 735-739 |
| 739.8 | 4738 | X | | 4738 | .3198 | 1515.3 | | | " | 1/95 partial sample |
| 740.5 | 3765 | X | | 3765 | .3375 | 1271.0 | | | " | 1/90 partial sample |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

Drill Hole: CTGH-1 Pg 5 of 78

Date: 6-10-87

Company: THERMAL POWER

Logged by: ML

Core Diameter: 2.40" NC

Total Correction: $(1/d^2)(1.75)() =$

Instrument: Bison 3101A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | General Lithology | Comments |
|------------------------|--------------------|-------|-----|----------------|-------------|--------------------------|------|--------------------|-------------------|---|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 19 (cont) 741.5 | 3128 | x | | 3128 | .3038 | 956.3 | | | Basalt | |
| Box 20 zero → 745.0 | 3263 | x | | 3263 | .3798 | 1239.2 | | | " | 743-745 badly broken K90 partial sample, dense |
| 745.7 | 3097 | x | | 3097 | .3038 | 940.9 | | | " | dense; non vesicular, Red alter. on fract. |
| 746.5 | 3078 | x | | 3078 | .3038 | 935.2 | | | " | |
| 748.5 | 2929 | x | | 2929 | .3038 | 889.9 | | | " | Thermal Power / DOGAMI took 747-748' red clay. alteration |
| 749.3 | 3260 | y | | 3260 | .3038 | 990.4 | | | " | dense non vesicular |
| 749.7 | 3207 | x | | 3207 | .3038 | 974.3 | | | " | |
| Box 21 zero → 750.5 | 3402 | y | | 3402 | .3038 | 1033.6 | | | " | dense - complete cores non vesicular |
| 751.0 | 3885 | x | | 3885 | .3038 | 1180.3 | | | " | " |
| 753 | 4219 | x | | 4219 | .3038 | 1281.8 | | | " | " |
| 755 | 4144 | x | | 4144 | .3038 | 1259.6 | | | " | " |
| 757 | 4313 | y | | 4313 | .3038 | 1310.4 | | | " | " |
| 759 | 3749 | y | | 3749 | .3038 | 1139.0 | | | " | " |
| Box 22 761 | 3712 | y | | 3712 | .3038 | 1127.8 | | | " | " |
| 763 | 3954 | x | | 3954 | .3038 | 1201.3 | | | " | " |
| 765 | 3812 | x | | 3812 | .3038 | 1158.1 | | | " | " |
| 767 | 3547 | y | | 3547 | .3038 | 1077.6 | | | " | " |
| 769 | 3859 | y | | 3859 | .3038 | 1172.4 | | | " | " |
| zero → Box 23 770.3 | 3196 | y | | 3196 | .3038 | 971.0 | | | " | denser red alterat |
| 771.8 | 457 | x | | 457 | .4051 | 185.1 | | | " | vesicular → filled with clay → partial sample 1/15 |
| 781.7 | 3364 | x | | 3364 | .3038 | 1022.9 | | | " | badly broken to 781 dense, few vesicles; clay alterat. |
| 782.3 | 3050 | y | | 3050 | .3038 | 926.6 | | | " | dense vesicular clay in vesicles |
| 783.5 | 3820 | y | | 3820 | .3038 | 1160.6 | | | " | vesicular → no apparent alteration |
| 784.1 | 5075 | x | | 5075 | .3038 | 1541.9 | | | " | denser w/ vesicles slight clay alteration |
| Box 24 787 | | | | | | | | | " | remainder of box broken |
| 788.0 | 2518 | x | | 2518 | .4340 | 1092.9 | | | " | 786'-787' THERMAL & K90 partial DOGAMI |
| 798.0 | 4313 | x | | 4313 | .4051 | 1747.2 | | | " | 788'-798' badly broken much clay alteration / 1/5 |
| | | | | | | | | | " | rest of box broken partial |
| Box 25 zero → 801 | 2268 | x | | 2268 | .5064 | 1148.4 | | | " | 1/60 partial 800-801 broken |
| 807 | 2835 | x | | 2835 | .3038 | 861.3 | | | " | 801-807 badly broken 804-805' remainder of box broken |

By this time I am convinced that the blocks representing Thermal + Dogami are misplaced or contain incorrect data. I believe the individual that took these core samples believed the arrows to be pointing up corehole rather than down. Comparing boxes with core recovery log (by wellsite Geologists) confirms that arrows do indeed point down corehole. Therefore, susceptibility measurements made in near proximity of these missing samples may be off in the depth estimate by $\pm 1 - 2$ feet. I will record where these blocks occur

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

Drill Hole: CTGH-1 Pg 6 of 78

Date: 6-10-87

Company: THERMAL POWER

Logged by: ML

Core Diameter: 2.40"

Total Correction: $(1/d^2)(1.75)() =$

Instrument: Bison 301 A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | General lithol. | Comments |
|-------------------------|--------------------|-------|-----|----------------|-------------|--------------------------|-------------------------|--------------------|-----------------------------|---|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 26 809.5 | 2732 | x | | 2732 | .3038 | 830.0 | | | | dense; few vesicles clay alt. |
| 812.0 | 3721 | x | | 3721 | .3798 | 1413.1 | | | | 1/80 partial dense clay alt. |
| 813 | 2530 | x | | 2530 | .3038 | 768.7 | ^{s. dev} 330.4 | 917.8 | | 814-815 clay alt badly broken |
| 816 | 2028 | x | | 2028 | .4051 | 821.5 | | | Lithic tuff | 1/75 partial broken |
| | | | | | | | | | " | lithic tuff. brown alt. red alteration |
| 816.5 | 1286 | x | | 1286 | .5064 | 651.2 | | | " | " w/ chlorite limonite? 1/60 partial |
| 817 | 2296 | x | | 2296 | .3198 | 734.3 | | | " | 1/95 partial |
| Box 27 zero → 818 | 2515 | x | | 2515 | .3038 | 763.2 | | | " | 1/80 |
| 820 | 2567 | x | | 2567 | .3038 | 779.9 | | | " | |
| 822 | 3261 | x | | 3261 | .3038 | 990.8 | | | " | very dense 824.5-825.5 broken |
| 825.8 | 2352 | x | | 2352 | .3038 | 714.6 | | | " | less dense |
| Box 28 826.3 | 2474 | x | | 2474 | .3038 | 751.6 | | | " | |
| 830 | 1625 | x | | 1625 | .5064 | 822.8 | | | " | 826-835 badly broken 1/60 partial |
| zero → 835.5 | 2651 | x | | 2651 | .3038 | 805.4 | | | " | tuff - hem. stain? crumbly |
| | | | | | | | | | " | 837-838 - THERMAL? DOGAMI? |
| 838.2 [±] ? | 3325 | x | | 3325 | .3038 | 1010.2 | ^{s. dev} 109.2 | 804.1 | " | blocks in wrong place? indicate end of box is 839 |
| Box 29 840.2 | 2843 | x | | 2843 | .3574 | 1016.2 | | | Gradual transit to andesite | instead of 838, this sample could be 837 as well (839) |
| | | | | | | | | | " | vertical contact andesite and lithic 1/85 partial sample tuff |
| 842 | 3491 | x | | 3491 | .3038 | 1060.6 | | | " | dense; few lithics 840-842 badly broken |
| | | | | | | | | | " | |
| 845 | 2253 | x | | 2253 | .3798 | 855.6 | ^{s. dev} 107.8 | 977.5 | " | 842-845 broken crumbly w/ much clay 1/80 partial |
| zero Box 30 848.8 | 2762 | x | | 2762 | .3038 | 839.1 | | | Andesite | remainder of box broken |
| | | | | | | | | | | *** see note |
| | | | | | | | | | | Tool samples that are represented by 1/80 |
| | | | | | | | | | | crumbly pieces, 75-100 wt% |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

 Drill Hole: CTG4-1 Pg 7 of 78

 Date: 6-11-87

 Company: THERMAL POWER

 Logged by: ML

 Core Diameter: 2.40" NC

 Total Correction: $(1/d^2)(1.75)() =$

 Instrument: Bison 3101 A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | General Lithol | Comments |
|-----------------------------|--------------------|-------|-----|----------------|-------------|--------------------------|------|--------------------|----------------|--|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 30 (cont) zero → 862 | 1862 | X | | 1862 | .4051 | 754.3 | | | Andesite | Sample taken by Thermal #DOGAME 2849-850? Badly broken remainder of box |
| | | | | | | | | | " | 1/75 partial sample dense no vesicles, clay |
| Box 31 863.8 | 2151 | X | | 2151 | .3798 | 816.9 | | | " | 1/80 partial sample |
| 875.0 | 2082 | X | | 2082 | .4051 | 843.4 | | | " | most of box is badly broken 1/75 partial sample; clay alterat. |
| Box 32 878.2 | 1606 | X | | 1606 | .5064 | 813.2 | | | " | 1/60 partial middle of box in pieces |
| Box 33 884.8 | 2412 | X | | 2412 | .3376 | 814.2 | | | " | 1/90 partial sample |
| 887.3 | 2150 | | | 2150 | .3798 | 816.51 | | | " | 1/80 partial broken |
| 888.5 | 3220 | X | | 3220 | .3038 | 978.3 | | | " | dense; no vesicles clay alteration |
| 889.5 | 2474 | X | | 2474 | .3376 | 835.2 | | | " | 1/60 partial |
| 891.2 | 2624 | X | | 2624 | .3376 | 885.80 | | | " | 1/90 partial |
| Box 34 zero → 893.3 | 3030 | X | | 3030 | .3038 | 926.6 | | | " | dense no vesicles |
| 899.0 | 3214 | X | | 3214 | .3038 | 976.5 | | | " | broken to 899 |
| 900.0 | 3330 | X | | 3330 | .3038 | 1011.7 | | | " | dense no alter. visible |
| 902.0 | 2902 | X | | 2902 | .3038 | 881.7 | | | " | |
| 903 | 2829 | X | | 2829 | .3038 | 859.5 | | | " | |
| Box 35 904.0 | 2847 | X | | 2847 | .3198 | 910.5 | | | " | 1/95 partial |
| 907 | 2146 | X | | 2146 | .3798 | 815.0 | | | " | badly broken 904-907 1/80 partial sample |
| 912.8 | 2568 | X | | 2568 | .3376 | 866.9 | | | " | most of box broken → 1/90 partial sample |
| Box 36 914 | 2424 | X | | 2424 | .3798 | 920.6 | | | " | 913-914 badly broken 1/80 partial |
| 915.0 | 2989 | X | | 2989 | .3038 | 908.1 | | | " | dense, no vesicles slight clay alt. |
| 917 | 2618 | X | | 2618 | .3198 | 837.3 | | | " | 1/95 clay on fract. remainder of box broken |
| zero → Box 37 919 | 2710 | X | | 2710 | .3038 | 823.3 | | | " | |
| 921.3 | 2514 | X | | 2514 | .3198 | 804.0 | | | " | 1/95 922-923 broken + crumbly - much clay |
| 923.5 | 2585 | X | | 2585 | .3198 | 826.7 | | | " | dense; clay on fract. 1/95 |
| 924.5 | 2800 | X | | 2800 | .3038 | 850.9 | | | " | many fractures (due to drilling) |
| 925.5 | 2687 | X | | 2687 | .3574 | 853.2 | | | " | 1/85 partial clay, poss. hem. stain |
| | | | | | | | | | " | remainder of box very broken |
| zero → Box 38 928.5 | 2824 | X | | 2824 | .3038 | 858.0 | | | " | pink clay - alter. |
| 931.8 | 2794 | X | | 2794 | .3798 | 1061.0 | | | " | 1/80 partial much clay; 929-931 much broken core |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

Drill Hole: CT64-1 Pg 8 of 78

Date: 6-11-87

Company: THERMAL POWER

Logged by: ML

Core Diameter: 2.40" N.C.

Total Correction: $(1/d^2)(1.75)(\%_0) = .303819 \times \%_0$

Instrument: BISON 3101 A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | General Lithology | Comments |
|---------------|--------------------|-------|-----|----------------|-------------|--------------------------|------|--------------------|-------------------|--|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 38 (cont) | | | | | | | | | Andesite | |
| 932.5 | 3083 | x | | 3083 | .3038 | 936.7 | | | | |
| 933.8 | 3398 | x | | 3398 | .3038 | 1032.4 | | | " | dense - less clay alteration |
| 936.8 | 3164 | y | | 3164 | .3038 | 961.3 | | | " | 934-936 badly broken |
| 937.0 | 2731 | x | | 2731 | .3574 | 976.2 | | | " | 1/88 partial |
| Box 39 | | | | | | | | | " | most of box badly broken |
| 947.8 | 2480 | x | | 2480 | .3038 | 753.5 | | | " | Crumbly with much clay |
| Box 40 | | | | | | | | | " | 1st possible sample near end of box |
| 949.7 | 2662 | x | | 2662 | .3132 | 833.8 | | | " | 1/97 partial |
| 956.0 | 2551 | x | | 2551 | .3376 | 861.2 | | | " | 1/90 partial |
| 957 | 2470 | x | | 2470 | .3376 | 833.8 | | | " | most of box broken in small pieces |
| 959 | 2820 | x | | 2820 | .3038 | 856.8 | | | " | 1/90 |
| | | | | | | | | | " | sampled taken by DSGAMS & 958-959 + THERM |
| Box 41 | | | | | | | | | " | dense, much alteration small fractures |
| 961.3 | 2532 | x | | 2532 | .3038 | 769.3 | | | " | |
| Box 42 | | | | | | | | | " | much fragments from casing - crumbly + broken |
| 963 | 2463 | x | | 2463 | .3038 | 748.3 | | | " | This sample is denser |
| 963.8 | 2679 | x | | 2679 | .3038 | 813.9 | | | " | |
| 964.3 | 2578 | x | | 2578 | .3038 | 783.2 | | | " | |
| Box 42 | | | | | | | | | " | |
| 965.3 | 2824 | y | | 2824 | .3038 | 857.9 | | | " | |
| 967.6 | 2534 | x | | 2534 | .3038 | 769.9 | | | " | |
| 969.7 | 2714 | x | | 2714 | .3038 | 824.6 | | | " | dense no alteration very boring box |
| 970.7 | 2692 | x | | 2692 | .3038 | 817.9 | | | " | |
| 973.0 | 2652 | x | | 2652 | .3038 | 805.7 | | | " | |
| Box 43 | | | | | | | | | " | |
| 975.0 | 2726 | y | | 2726 | .3038 | 828.2 | | | " | |
| 977.7 | 2558 | x | | 2558 | .3038 | 777.2 | | | " | same boring |
| 979.9 | 2654 | x | | 2654 | .3376 | 895.9 | | | " | 1/90 partial andesite |
| 980.5 | 2918 | y | | 2918 | .3132 | 914.0 | | | " | 1/97 |
| 982.7 | 2640 | y | | 2640 | .3038 | 802.1 | | | " | |
| Box 44 | | | | | | | | | " | |
| 985.2 | 2620 | y | | 2620 | .3376 | 884.5 | | | " | 1/90 |
| 987.3 | 2828 | x | | 2828 | .3038 | 859.2 | | | " | |
| Box 45 | | | | | | | | | " | boring rock |
| 988.5 | 2759 | x | | 2759 | .3038 | 838.2 | | | " | |
| 989.5 | 2618 | x | | 2618 | .4051 | 1060.5 | | | " | 1/75 partial clay alter. |
| | | | | | | | | | " | remainder of box badly broken - much clay on fractures |
| Box 45 | | | | | | | | | " | most of box broken up many fractures |
| 996.5 | 2390 | x | | 2390 | .3038 | 726.1 | | | " | |
| 997.5 | 2073 | | | 2073 | .3798 | 787.3 | | | " | 1/60 much broken rock |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

Drill Hole: CTGH-1 Pg 10 of 48

Date: 6-12-87

Company: THERMAL POWER

Logged by: ML

Core Diameter: 2.40" NC

Total Correction: $(1/d^2)(1.75)(\frac{1}{10}) = .303819$

Instrument: Bison 3101 A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | General Rock Type | Comments |
|-------------------------|--------------------|-------|-----|----------------|-------------|--------------------------|------|--------------------|-------------------|---|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 49 zero → 1035 | 2870 | X | | 2870 | .3038 | 872.0 | | | Basaltic andesite | 1030'-1035' → badly broken |
| 1037.3 | 2517 | X | | 2517 | .3038 | 764.7 | | | " | most of box broken 1037-1039 breccia to d |
| Box 50 1039.5 | 3094 | X | | 3094 | .3198 | 989.5 | | | " | 1/95 clay alterat. |
| 1041.5 | 3313 | X | | 3313 | .3038 | 1006.5 | | | " | |
| 1043.5 | 3034 | X | | 3034 | .3038 | 921.8 | | | " | |
| 1046.0 | 3075 | X | | 3075 | .3038 | 934.2 | | | " | red stain (hematite?) on fractures; dense |
| 1048.0 | 3132 | X | | 3132 | .3038 | 951.6 | | | " | |
| Box 51 zero → 1050.3 | 2520 | ✓ | | 2520 | .3574 | 900.7 | | | " | 1/85 partial sample |
| 1053.0 | 2734 | X | | 2734 | .3376 | 922.9 | | | " | 1/90 partial |
| 1054.0 | 2994 | X | | 2994 | .3198 | 957.5 | | | " | 1/95 |
| 1056.7 | 2940 | ✓ | | 2940 | .3038 | 893.2 | | | " | coarse fracture w/ clay |
| 1057.3 | 2960 | X | | 2960 | .3038 | 899.3 | | | " | |
| Box 52 1058.5 | 2880 | X | | 2880 | .3574 | 1029.4 | | | " | 1/85 partial |
| 1060.0 | 2988 | X | | 2988 | .3198 | 955.6 | | | " | 1/95 |
| 1063.0 | 2810 | X | | 2810 | .3038 | 853.7 | | | " | |
| zero → 1065.0 | 2800 | X | | 2800 | .3376 | 945.2 | | | " | 1/90 partial fractured; much clay alter |
| | | | | | | | | | " | remainder of box badly broken |
| Box 53 1068.3 | 2788 | X | | 2788 | .3038 | 847.0 | | | " | start of box broken up chlorite? on fractures; clay |
| 1070.9 | 2353 | ✓ | | 2353 | .4051 | 953.2 | | | " | 1/75 partial |
| | | | | | | | | | " | remainder of box all fractured - unable to get piece whole enough for measurement |
| Box 54 1076.5 | 2901 | X | | 2901 | .3376 | 979.3 | | | " | 1/90 |
| 1077.5 | 2678 | X | | 2678 | .3376 | 904.03 | | | " | 1/90 |
| 1078.5 | 2641 | X | | 2641 | .3132 | 827.2 | | | " | 1/97 much clay in fractures |
| 1080.5 | 2996 | X | | 2996 | .3132 | 938.4 | | | " | 1/97 |
| 1081.0 | 2476 | X | | 2476 | .3574 | 885.0 | | | increased clay | 1/85 partial much clay clay has drying cracks chlorite? alterat |
| Box 55 zero → 1083.5 | 3130 | X | | 3130 | .3038 | 950.9 | | | " | 10 84-1087 broken up |
| 1087.8 | 2619 | X | | 2619 | .3574 | 936.1 | | | " | 1/85 partial much clay |
| 1088.5 | 2895 | X | | 2895 | .3375 | 977.3 | | | " | 1/90 partial |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

Drill Hole: MGH-1 Pg 11 of 78

Date: 6-12-87

Company: THERMAL POWER

Logged by: ML

Core Diameter: 2.40" NC

Total Correction: $(1/d^2)(1.75)(\frac{1}{60}) = .30389$

Instrument: Bison 3101A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | General lithology | Comments |
|----------------------------|--------------------|-------|-----|----------------|-------------|--------------------------|----------------|--------------------|-----------------------|---|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 55 (cont) 1090.0 | 2903 | x | | 2903 | .3198 | 928.4 | | | Andesite | 1/95 partial |
| Box 56 1092.0 | 2984 | x | | 2984 | .3038 | 906.6 | | | " | continuous sample |
| 1093.8 | 2842 | x | | 2842 | .3198 | 908.9 | | | " | 1/95 |
| 1095 | 3022 | x | | 3022 | .3038 | 918.14 | | | " | |
| 1098 | 3011 | x | | 3011 | .3038 | 914.8 | | | " | |
| 1099.5 | 2980 | x | | 2980 | .3038 | 905.4 | | | " | |
| zero → Box 57 1103.5 | 2947 | x | | 2947 | .3132 | 923.0 | | | " | 1101-1103 broken up 1/97 partial |
| 1105.7 | 2859 | x | | 2859 | .3038 | 868.6 | | | " | |
| 1108.0 | 2410 | x | | 2410 | .3038 | 732.2 | | | " | |
| 1108.9 | 2660 | x | | 2660 | .3376 | 897.9 | | | " | much orange clay 1/90 |
| 1109.5 | 2248 | x | | 2248 | .3798 | 853.7 | | | basal flow breccia | 1/80 |
| Box 58 1110.5 | 3598 | x | | 3598 | .3376 | 1214.6 | | | " | much clay, crumbly |
| 1111.0 | 2959 | x | | 2959 | .3038 | 899.0 | 5 den 114.0 | 884.6 | " | |
| 1113.5 | 1848 | x | | 1848 | .3038 | 561.4 | | | Lahar | large lithics crumbly DICE clay matrix |
| 1114.0 | 2486 | x | | 2486 | .3038 | 755.3 | | | " | darker |
| 1114.8 | 3135 | x | | 3135 | .3038 | 952.5 | | | " | lighter matrix |
| 1115.3 | 3436 | x | | 3436 | .3038 | 1043.9 | | | " | |
| zero → 1118.5 | 2750 | x | | 2750 | .3038 | 835.5 | | | " | yellow/orange clay (?) alteration |
| Box 59 1120.5 | 2474 | x | | 2474 | .3038 | 751.6 | | | " | very crumbly |
| 1122.5 | 2427 | x | | 2427 | .3198 | 776.2 | | | " | 1/95 |
| 1128.0 | 1667 | x | | 1667 | .3574 | 595.8 | | | " | 1123-1130 very broken 1/85 |
| 1130.0 | 4315 | x | | 4315 | .3038 | 1310.9 | | | Basalt Andesite? | This sample is very dense + solid, no vesicles |
| 1130.3 | 4155 | x | | 4155 | .3574 | 1485.1 | | | " | 1/85 partial little alteration |
| Box 60 zero → 1131.5 | 3392 | x | | 3392 | .3038 | 1030.5 | | | ? | 1130-1131 broken up chlorite? alteration |
| 1134.8 | 1926 | x | | 1926 | .3574 | 688.4 | | | Lahar | crumbly - much red clay large lithics broken from m 1/85 partial hematite stain? |
| 1136.3 | 1480 | x | | 1480 | .3798 | 562.0 | | 625.2 | Lahar | 1/80 most of this box is broken up |
| 1138.3 | 4274 | x | | 4274 | .3038 | 1298.5 | | | transit. Dacite | transition of Lahar to Dacite? many small lithics, dens + clay, limonite(?) stain |
| 1138.7 | 2448 | x | | 2448 | .3038 | 743.7 | | | Dacite | plagiocl, dense |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

Drill Hole: CTGH-1 Pg 13 of 78

Date: 6-15-87

Company: THERMAL POWER

Logged by: ML

Core Diameter: 2.40"

Total Correction: $(1/d^2)(1.75)() = .303819 \times \frac{1}{9}$

Instrument: Bison 3101 A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | Gener Lithol | Comments |
|-------------------------|--------------------|-------|-----|----------------|-------------|--------------------------|------|--------------------|--------------|---|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 62 zero → 1149.8 | 5075 | X | | 5075 | .3038 | 1541.8 | | | Ducte | slight clay alter. |
| 1151.5 | 5945 | X | | 5945 | .3038 | 1806.2 | | | " | plag phenocrysts |
| 1152.5 | 5596 | X | | 5596 | .3038 | 1700.2 | | | " | |
| 1153.3 | 5593 | X | | 5593 | .3038 | 1699.3 | | | " | |
| 1155.0 | 6278 | X | | 6278 | .3038 | 1907.4 | | | " | |
| 1157.5 | 6475 | X | | 6475 | .3038 | 1967.2 | | | " | more clay |
| Box 63 1158.5 | 5294 | X | | 5294 | .3038 | 1608.4 | | | " | 'pinker' color |
| 1161.5 | 4594 | X | | 4594 | .3038 | 1395.7 | | | " | |
| 1162.0 | 4594 | X | | 4594 | .3038 | 1395.7 | | | " | |
| 1164.0 | 2280 | X | | 2280 | .3198 | 729.2 | | | " | 1/95 banded clay in fracture S |
| zero → 1166.0 | 4080 | X | | 4080 | .3038 | 1239.6 | | | " | |
| Box 64 1167.0 | 5204 | X | | 5204 | .3038 | 1581.1 | | | " | |
| 1170.0 | 5924 | X | | 5924 | .3198 | 1894.5 | | | " | 1/95 |
| 1172.5 | 4889 | X | | 4889 | .3038 | 1485.4 | | | " | |
| 1174.0 | 3836 | X | | 3836 | .3038 | 1165.4 | | | " | |
| 1174.8 | 4757 | X | | 4757 | .3038 | 1445.3 | | | " | remainder of box broken |
| Box 65 zero → 1177.8 | 5090 | X | | 5090 | .3038 | 1546.4 | | | " | much clay alteration - banding |
| 1182.0 | 4952 | X | | 4952 | .3038 | 1504.5 | | | " | 1189-1182 broken much clay, core shows banding |
| 1184.7 | 3270 | X | | 3270 | .3038 | 993.5 | | | " | |
| 1185.0 | 3404 | X | | 3404 | .3038 | 1034.2 | | | " | |
| Box 66 1186.5 | 2710 | P | | 2710 | .3038 | 823.3 | | | " | |
| 1187.3 | 3749 | X | | 3749 | .3038 | 1139.0 | | | " | |
| 1190.5 | 3806 | X | | 3806 | .3198 | 1215.3 | | | " | 1/95 much clay |
| 1193.8 | 3765 | X | | 3765 | .3038 | 1143.9 | | | " | |
| zero → 1195.0 | 4670 | X | | 4670 | .3038 | 1418.8 | | | " | |
| Box 67 1197.2 | 4245 | X | | 4245 | .3038 | 1289.7 | | | " | |
| 1198.0 | 4630 | X | | 4630 | .3038 | 1406.7 | | | " | |
| 1198.5 | 4260 | X | | 4260 | .3038 | 1294.3 | | | " | |
| 1199.5 | 4232 | X | | 4232 | .3376 | 1428.6 | | | " | 1/90 orange clay on fract |
| 1201.5 | 5100 | X | | 5100 | .3198 | 1631.0 | | | " | 1/95 much alteration various colors |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

Drill Hole: CTG4-1 Pg 14 of 78

Date: 6-15-87

Company: THERMAL POWER

Logged by: ML

Core Diameter: 2.40"

Total Correction: $(1/d^2)(1.75)() =$

Instrument: Bison 3101 A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | General lithol | Comments |
|-------------------------|--------------------|-------|-----|----------------|-------------|--------------------------|-------------|--------------------|----------------------------|--|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 67 (cont) 1202.5 | 3587 | x | | 3587 | .3038 | 1089.8 | | | Dacite | Clay on fract. |
| Box 68 200 → 1205.5 | 3804 | x | | 3804 | .3038 | 1155.7 | | | " | |
| 1207.5 | 3858 | x | | 3858 | .3038 | 1172.1 | | | " | Much alteration of fractures |
| 1210.5 | 3395 | x | | 3395 | .3038 | 1031.5 | | | " | |
| 1213.8 | 3490 | x | | 3490 | .3038 | 1060.3 | | | " | |
| 1214.8 | 3477 | x | | 3477 | .3038 | 1056.4 | | | " | |
| 20x69 1216.5 | 4050 | x | | 4050 | .3038 | 1230.5 | | | " | 1215-1216' to DSGAM + THERMAL |
| 1217.5 | 2965 | x | | 2965 | .3198 | 948.2 | | | " | Yes |
| 1219.3 | 3333 | x | | 3333 | .3038 | 1012.6 | | | " | |
| 1220.8 | 3590 | x | | 3590 | .3038 | 1090.7 | | | " | coating on fractures |
| 2000 → 1222.8 | 3273 | x | | 3273 | .3038 | 994.4 | | | " | |
| Box 70 1224.0 | 3469 | x | | 3469 | .3038 | 1053.9 | | | " | Rust colored alteration |
| 1226.0 | 2888 | x | | 2888 | .3038 | 877.4 | | | " | decreasing alteration |
| 1228.5 | 3324 | x | | 3324 | .3038 | 1009.9 | | | " | Small calc crystals |
| 1229.0 | 1592 | x | | 1592 | .3038 | 483.7 | 5 dev 330.3 | 1293.5 | basal flow breccia | banding yellow alterat. possible sulfur? |
| 1229.5 | 1777 | x | | 1777 | .3038 | 539.9 | | | " | decrease in density increase in vesicles |
| 1231.5 | 1049 | x | | 1049 | .3038 | 318.7 | | | Flow breccia | Small clasts, much alteration, crumbly |
| 1233.0 | 1805 | x | | 1805 | .3038 | 548.4 | | | " | 1230-1232 broken up |
| Box 71 1233.0 | 1805 | x | | 1805 | .3038 | 548.4 | | | " | crumbly much clay with drying cracks |
| 1235.0 | 1357 | x | | 1357 | .3038 | 412.3 | | | " | large (pilli (?) clasts of Andesite (?) or dacite not very vesicular |
| 2000 → 1235.0 | 1357 | x | | 1357 | .3038 | 412.3 | | | " | dark brown alteration as coating, crumbly |
| 1236.5 | 1752 | x | | 1752 | .3038 | 532.3 | | | " | increasing crumbly more brown coating |
| 1238.5 | 2040 | x | | 2040 | .3198 | 652.4 | | | " | clast. are vesicular matrix → dense (mud) |
| 1241.5 | 5419 | x | | 5419 | .3038 | 1646.4 | | | " | much redish alteration on fractures |
| 1241.5 | 5419 | x | | 5419 | .3038 | 1646.4 | | | " | matrix has "mud" cracks in it. Yes |
| 1241.5 | 5419 | x | | 5419 | .3038 | 1646.4 | | | " | large clasts increasing vesicular orange mud matrix different than rest of |
| Box 72 1242.8 | 638 | x | | 638 | .3038 | 193.8 | | | Vokab-clastic breccia flow | decrease in clast size increase in intense orange color |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

Drill Hole: LT64-1 Pg 16 of 78

Date: 6-16-87

Company: THERMA POWER

Logged by: ML

Core Diameter: 2.00"

Total Correction: $(1/d^2)(1.75)(\frac{1}{96}) = .303819 \times \frac{1}{96}$
sample present in dec. form (96 samples)

Instrument: Bison 3101 A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | General lithol. | Comments |
|-------------------------|--------------------|-------|-----|----------------|-------------|--------------------------|-------|--------------------|---------------------------|---|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 75 zero → 1271.3 | 3352 | x | | 3352 | .3038 | 1018.14 | | | Volcano-Clastic | |
| 1272.5 | 2750 | x | | 2750 | .3038 | 835.5 | | | Flow breccia | less dense |
| 1275.0 | 3495 | y | | 3495 | .3038 | 1061.8 | | | " | more dense → increase of clasts. |
| 1276.8 | 2330 | x | | 2330 | .3198 | 745.2 | | | " | 1/5 fewer lithics remainder of box broken up |
| Box 76 1281.5 | 2538 | x | | 2538 | .3574 | 907.2 | | | " | 1/85 large clast |
| 1282.5 | 2880 | y | | 2880 | .3198 | 921.1 | | | " | 1/95 clasts supported mud matrix |
| 1284.5 | 2778 | y | | 2778 | .3038 | 844.0 | | | " | small lithics - more mud |
| 1287.0 | 2718 | x | | 2718 | .3038 | 825.8 | 500.6 | 962.0 | " | dense red alteration mineral / remainder of box broken up |
| Box 77 zero → 1292.0 | 2144 | x | | 2144 | .3038 | 651.4 | | 931.0 | Volcano clastic flow dome | 1298-1292 broken up probably base of flow |
| 1293.8 | 2230 | x | | 2230 | .3038 | 677.5 | | | " | this is much more dense breccia than flow less crumbly |
| 1294.5 | 2320 | x | | 2320 | .3038 | 704.9 | | | " | no fractures or alteration dense |
| 1297.0 | 2342 | y | | 2342 | .3038 | 711.5 | 27.5 | 686.3 | " | w/ very few phenocrysts looks like Andesite? 1295-1297 - DOGAMI + THERMAL |
| Box 78 1297.8 | 3285 | x | | 3285 | .3038 | 998.0 | | | Tuff | looks like a tuff - crumbly red; not dense |
| 1300.0 | 1328 | x | | 1328 | .3198 | 424.7 | | | Tuff | much brown oxidized alteration present |
| 1302.0 | 666 | x | | 666 | .3798 | 252.9 | | | " | 1/80 crumbly alterat. on fractures |
| 1303.0 | 525 | y | | 525 | .3798 | 199.4 | 365.7 | 468.7 | " | 1/80 remainder of box broken |
| Box 79 zero → 1307 | 747 | x | | 747 | .3376 | 252.2 | | | Andesite/Diabase | 1/50 much clay alteration + vertical flow bands |
| 1309 | 989 | x | | 989 | .3038 | 300.5 | | | " | remainder of box badly broken |
| Box 80 1315.8 | 1406 | y | | 1406 | .5064 | 711.9 | | | " | 1/60 1318.6-1319.6 DOGAMI + THERM |
| 1319.8 | 1774 | x | | 1774 | .3376 | 598.9 | | | " | 1/90 most of box in little pieces |
| 1325.0 | 2593 | y | | 2593 | .4051 | 1050.4 | | | " | 1/75 |
| Box 81 1326.0 | 2218 | y | | 2218 | .3132 | 694.7 | | | " | 1/97 denser, less crumbly |
| 1328.8 | 3091 | y | | 3091 | .3198 | 988.5 | | | " | 1/95 much clay on fractures |
| 1330.5 | 3273 | x | | 3273 | .3798 | 1243.0 | | | " | 1/80 remainder of box in pieces |
| Box 82 1336.0 | 2836 | x | | 2836 | .3038 | 861.6 | | | " | |
| 1338.6 | 3563 | x | | 3563 | .3798 | 1353.1 | | | " | much clay on fractures 1/80 |
| 1341.8 | 1840 | y | | 1840 | .4051 | 745.4 | | | " | 1/75 much clay alti |
| 1343.5 | 2506 | y | | 2506 | .3198 | 801.4 | | | " | 1/95 |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

Salem Rashid
hydrology

Drill Hole: CTG 4-1 Pg 17 of 78

Date: 6-16-87

Company: THERMAL POWER

Logged by: ML

Core Diameter: 2.40"

Total Correction: $(1/d^2)(1.75)(\frac{1}{96}) = .303819 \times (\frac{1}{96})$

Instrument: Bison 3101A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | General lithology | Comments |
|--|--------------------|-------|-----|----------------|-------------|--------------------------|------|--------------------|-------------------|---|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 83 200 → 1345.5 | 2781 | ✓ | | 2781 | .3038 | 844.9 | | | Diapire | |
| 1347.5 | 2085 | ✓ | | 2085 | .5064 | 1055.8 | | | " | broken up in box 1/60 |
| 1350.5 | 1791 | x | | 1791 | .4674 | 837.1 | | | " | 1/65 much clay |
| 1352.0 | 2024 | x | | 2024 | .3574 | 723.45 | | | " | 1/85 |
| Box 84 1354.0 | 2040 | x | | 2040 | .3198 | 652.4 | | | " | blue dendritic mineral on fresh fractures 1/85 |
| 1355.0 | 2401 | x | | 2401 | .3132 | 752.0 | | | " | 1/97 |
| 1357.5 | 2288 | ✓ | | 2288 | .3198 | 731.7 | | | " | 1/95 |
| 1359.5 | 2173 | x | | 2173 | .3376 | 733.6 | | | " | 1/90 |
| 1361.7 | 2216 | x | | 2216 | .3038 | 673.3 | | | " | much alteration clay |
| Box 85 1363.5 | 2392 | ✓ | | 2392 | .3198 | 765.0 | | | " | 1/95 |
| 1365.0 | 1963 | x | | 1963 | .3038 | 596.4 | | | " | |
| 1368.0 | 2040 | x | | 2040 | .3038 | 699.8 | | | " | |
| 200 → 1369.0 | 2260 | ✓ | | 2260 | .3376 | 762.9 | | | " | 1/90 |
| Box 86 1372.5 | 2230 | x | | 2230 | .3376 | 752.8 | | | " | 1/90 lots of fractures |
| 1375.0 | 2521 | x | | 2521 | .3198 | 806.2 | | | " | 1/95 |
| 1377.0 | 2258 | x | | 2258 | .3132 | 767.2 | | | " | 1/97 remainder of box is broken |
| Box 87 1379.8 | 2350 | ✓ | | 2350 | .3798 | 892.5 | | | " | 1/80 large fractures with clay |
| 1382.0 | 2010 | x | | 2010 | .3574 | 718.4 | | | " | 1/85 |
| 1386.0 | 2115 | x | | 2115 | .5064 | 1070.0 | | | " | 1/60 most of box badly broken |
| Box 88 200 → 1388.0 | 2270 | ✓ | | 2270 | .3376 | 766.3 | | | " | 1/90 most of box broken |
| 1390.5 | 2604 | x | | 2604 | .3038 | 791.1 | | | " | |
| 1393.5 | 2150 | x | | 2150 | .3376 | 725.8 | | | " | 1/90 |
| 1394.5 | 2116 | x | | 2116 | .3038 | 642.9 | | | " | remainder of box broken |
| Box 89 1395.5 | 1770 | ✓ | | 1770 | .4674 | 827.3 | | | " | 1/65 very broken up box |
| 1398.0 | 2264 | x | | 2264 | .3198 | 724.0 | | | " | 1/85 |
| 1400.5 | 2520 | x | | 2520 | .3038 | 765.6 | | | " | |
| 1401.5 | 2390 | x | | 2390 | .3132 | 748.6 | | | " | 1/97 remainder of box in little pieces |
| Box 90 1405.5 | 2240 | ✓ | | 2240 | .3574 | 800.6 | | | " | this entire box is in small pieces 1/85 |
| 1408.0 | 2380 | ✓ | | 2380 | .4051 | 964.1 | | | " | some clay alter. Chlorite? 1/75 |
| 1411.5 | 2257 | ✓ | | 2257 | .3574 | 806.7 | | | " | interbedded stuff? thick clay in fractures 1/85 |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

 Drill Hole: CTGH-1 Pg. 19 of 78

 Date: 6-17-87

 Company: THERMAL POWER

 Logged by: ML

 Core Diameter: 2.40" NC

 Total Correction: $(1/d^2)(1.75)(\frac{1}{62}) = .303819 \times \frac{1}{62}$

 Instrument: Bison 3101A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | General Lithology | Comments |
|----------------------------|--------------------|-------|-----|----------------|-------------|--------------------------|------|--------------------|-------------------|---|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 94 zero → 1439.0 | 1655 | X | | 1655 | .3038 | 502.8 | | | Andosit-Dacite | dense chlorite alter, flow banding |
| 1440.5 | 1813 | X | | 1813 | .3038 | 550.8 | | | " | not as much clay as rest of dome |
| 1442.5 | 1925 | X | | 1925 | .3038 | 584.8 | | | " | |
| 1444.0 | 2089 | X | | 2089 | .3038 | 634.7 | | | " | |
| 1446.5 | 2339 | X | | 2339 | .3038 | 710.6 | | | " | increase in clay + fract. |
| Box 95 1448.5 | 2234 | X | | 2234 | .3198 | 714.4 | | | " | 1/95 many fractures |
| 1449.0 | 2173 | X | | 2173 | .3376 | 733.5 | | | " | 1/90 |
| 1451.0 | 1745 | X | | 1745 | .3376 | 589.1 | | | " | 1/90 |
| 1453.8 | 2171 | X | | 2171 | .3038 | 659.6 | | | " | |
| 1455.8 | 2458 | Ø | | 2458 | .3038 | 746.7 | | | " | |
| zero → Box 96 1456.5 | 2658 | X | | 2658 | .3038 | 807.5 | | | " | chlorite + clay, dense alter. |
| 1459.0 | 1784 | X | | 1784 | .3198 | 570.5 | | | " | very crumbly much clay 1/95 |
| 1461.5 | 1918 | X | | 1918 | .3038 | 582.7 | | | " | |
| 1464.0 | 2038 | X | | 2038 | .3198 | 651.8 | | | " | 1/95 |
| 1465.5 | 2325 | ✓ | | 2325 | .3198 | 706.4 | | | " | |
| Box 97 zero → 1468.0 | 2120 | X | | 2120 | .3038 | 644.1 | | | " | |
| 1469.8 | 2219 | X | | 2219 | .3038 | 674.2 | | | " | |
| 1470.8 | 2110 | X | | 2110 | .3038 | 641.1 | | | " | |
| 1473.0 | 1890 | Ø | | 1890 | .3038 | 574.2 | | | " | |
| 1475.0 | 2207 | X | | 2207 | .3038 | 670.5 | | | " | |
| Box 98 1476.0 | 2103 | Ø | | 2103 | .3038 | 638.9 | | | " | |
| 1477.0 | 2002 | Ø | | 2002 | .3574 | 715.6 | | | " | 1/85 broken + 1483 |
| 1483.3 | 2219 | X | | 2219 | .3038 | 674.2 | | | " | remainder of box badly broken |
| Box 99 zero → 1486.0 | 2123 | Ø | | 2123 | .3038 | 645.0 | | | " | |
| 1488.0 | 1900 | Ø | | 1900 | .3038 | 577.3 | | | " | broken 1488-1491 mud in vent fracture |
| 1491.5 | 1874 | X | | 1874 | .3038 | 569.4 | | | " | |
| 1493.5 | 2210 | Ø | | 2210 | .3038 | 671.4 | | | " | |
| Box 100 1497.5 | 2239 | Ø | | 2239 | .3038 | 680.3 | | | " | broken 1494-1497 much clay |
| 1500.0 | 2306 | Ø | | 2306 | .3038 | 700.6 | | | " | |
| 1501.0 | 2134 | X | | 2134 | .3038 | 648.3 | | | " | chlorite + clay plus yellow miner on fractur. |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

Drill Hole: CTG4-1 Pg 20 of 78

Date: 6-17 87

Company: THERMAL POWER

Logged by: mc

Core Diameter: 2.40" NC

Total Correction: $(1/d^2)(1.75)(\frac{1}{90}) = .303819 \times \frac{1}{90}$

Instrument: Bison 3101 A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | General Lithol. | Comments |
|-----------------------------|--------------------|-------|-----|----------------|-------------|--------------------------|------|--------------------|---------------------|---------------------------------------|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| 30x 100 (cont) 1501.7 | 2028 | X | | 2028 | .3198 | 648.6 | | | Oacc. p- Cindos. | 1/95 |
| 1502.5 | 2295 | X | | 2295 | .3574 | 820.3 | | | " | much clay 1/85 |
| Box 101 zero → 1503.5 | 2195 | X | | 2195 | .3038 | 666.9 | | | " | |
| 1505.8 | 1600 | X | | 1600 | .4340 | 694.4 | | | " | 1/10 very crumbly |
| 1508.0 | 2410 | X | | 2410 | .3132 | 754.8 | | | " | 1/97 remainder of box broken up |
| Box 102 1513.5 | 2010 | X | | 2016 | .3038 | 610.7 | | | " | |
| 1515.0 | 2137 | X | | 2137 | .3038 | 649.3 | | | " | |
| 1516.5 | 2217 | X | | 2217 | .3038 | 673.6 | | | " | |
| 1519.0 | 2330 | X | | 2330 | .3038 | 707.9 | | | " | |
| 1521.0 | 2414 | X | | 2414 | .3038 | 733.4 | | | " | |
| Box 103 zero → 1521.7 | 2294 | X | | 2294 | .3376 | 774.4 | | | " | 1/90 1522-1525 broken up |
| 1526.0 | 2060 | X | | 2060 | .3038 | 625.9 | | | " | dendritic mineral on natural fract. |
| 1526.5 | 2175 | X | | 2175 | .3038 | 666.8 | | | " | |
| 1527.3 | 2186 | X | | 2186 | .3038 | 664.1 | | | " | remainder of box in small pieces |
| Box 104 1532.5 | 2050 | X | | 2050 | .3038 | 622.8 | | | " | 1530-1532 broken up 1/90 |
| 1534.0 | 2024 | X | | 2024 | .3132 | 633.9 | | | " | 1/97 |
| 1536.0 | 2200 | X | | 2200 | .3038 | 668.4 | | | " | dark red clay in fract. |
| 1537.5 | 2564 | X | | 2564 | .3038 | 779.0 | | | " | |
| 1538.9 | 3010 | X | | 3010 | .3132 | 942.8 | | | " | 1/97 |
| zero → Box 105 1539.5 | 2920 | X | | 2920 | .3038 | 887.2 | | | " | |
| 1542.5 | 2714 | X | | 2714 | .3038 | 824.6 | | | " | dark dendritic mineral dense, no clay |
| 1544.0 | 3045 | X | | 3045 | .3038 | 925.1 | | | " | increasing lighter color |
| 1546.0 | 3005 | X | | 3005 | .3038 | 913.0 | | | " | |
| 1547 | 2090 | X | | 2090 | .5064 | 1058.3 | | | " | 1/60 |
| Box 106 1548 | 2365 | X | | 2365 | .3574 | 845.3 | | | " | 1/85 |
| 15500 | 2775 | X | | 2775 | .3038 | 843.1 | | | " | chlorite / no clay alterit. |
| 1552.0 | 2481 | X | | 2481 | .3038 | 753.8 | | | " | dendritic mineral |
| 1555.0 | 2929 | X | | 2929 | .3038 | 889.9 | | | " | |
| 1556.5 | 3040 | X | | 3040 | .3038 | 923.6 | | | " | |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

Drill Hole: CT64-1 Pg 21 of 78

Date: 6-17-87

Company: THERMAL POWER

Logged by: ML

Core Diameter: 2.40" NC

Total Correction: $(1/d^2)(1.75)() = .303819 \times \frac{1}{.75}$

Instrument: Bison 3101A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | Gen. of Lithol. | Comments |
|--------------------------|--------------------|-------|-----|----------------|-------------|--------------------------|----------------|--------------------|---|---|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 107 zero → 1558.0 | 2410 | ✓ | | 2410 | .4051 | 976.3 | | | Dacite | most of box broken 1/25 clay fractures |
| 1559.0 | 2404 | ✓ | | 2404 | .3798 | 913.0 | | | " | 1/60 1560 - 1564 broken up |
| 1564.0 | 2822 | ✓ | | 2822 | .3376 | 952.6 | | | " | remainder 1/90 of box broken |
| Box 108 1566.0 | 2534 | ✓ | | 2534 | .3038 | 769.9 | | | " | |
| 1568.0 | 4286 | ✓ | | 4286 | .3038 | 1302.2 | | | " | transitional |
| 1570.0 | 2178 | X | | 2178 | .3038 | 661.7 | 5 dex 155.6 | 738.6 | Basal Flow | large clasts clay alteration |
| 1571.0 | 956 | X | | 956 | .3038 | 290.4 | | | Breccia | |
| 1573.5 | 684 | ✓ | | 684 | .3376 | 230.9 | | | " | 1/90 |
| Box 109 zero → 1575.3 | 1416 | X | | 1416 | .4340 | 614.6 | | | " | 1/70 crumbly most of box broken |
| 1578.0 | 4913 | X | | 4913 | .3198 | 1571.2 | | | " | 1/95 broken 1576 - 1578 |
| 1580.0 | 4533 | X | | 4533 | .3132 | 1419.8 | | | " | 1/97 these last 2 samples look like Dacite flow like previous footage |
| Box 110 1584.0 | 3827 | ✓ | | 3827 | .3038 | 1162.6 | | | " | lithic clasts visible dense, no alteration |
| 1586.0 | 2283 | ✓ | | 2283 | .3376 | 710.7 | | | " | ash matrix, most of box very crumbly broken |
| 1586.5 | 2454 | ✓ | | 2454 | .3376 | 828.4 | | | Volcano large clasts or 1/90 andesite/Basalt | |
| 1587 | | | | | | | | | clasts | much clay alter. 1/80 |
| 1589.0 | 3955 | ✓ | | 3955 | .3038 | 1201.6 | | | " | |
| 1591.0 | 4844 | X | | 4844 | .3038 | 1471.7 | | | " | This sample had various colored clasts → some alterat. |
| Box 111 zero → 1593.0 | 6785 | X | | 6785 | .3038 | 2,061.4 | | | " | brown mud matrix small lithics |
| 1594.0 | 5580 | ✓ | | 5580 | .3038 | 1695.3 | | | " | this sample looks very different from west large lithics again |
| 1596.5 | 5630 | X | | 5630 | .3038 | 1710.5 | | | " | dense + dark |
| 1598.0 | 4480 | ✓ | | 4480 | .3038 | 1361.1 | | | " | |
| 1600.0 | 4622 | ✓ | | 4622 | .3038 | 1404.2 | | | " | |
| Box 112 1602.0 | 4188 | ✓ | | 4188 | .3038 | 1272.4 | | | " | large clasts no clay alter. |
| 1603.0 | 4986 | X | | 4986 | .3038 | 1514.8 | | | " | |
| 1605.8 | 5940 | ✓ | | 5940 | .3038 | 1804.7 | | | " | |
| 1607.0 | 4982 | ✓ | | 4982 | .3038 | 1513.6 | | | " | very colorful clasts |
| 1609.5 | 5151 | ✓ | | 5151 | .3038 | 1565.0 | | | " | |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

Drill Hole: CT64-1 Pg 22 of 78

Date: 6-17-87

Company: Thermal Power

Logged by: ML

Core Diameter: 2.40" NC

Total Correction: $(1/d^2)(1.75)() = .303819 \times 1/90$

Instrument: Bison 3101A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | General lithol. | Comments |
|--------------------------|--------------------|-------|-----|----------------|-------------|--------------------------|----------------|--------------------|--|--|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 113 zero → 1611.0 | 4617 | x | | 4617 | .3038 | 1402.7 | | | Lahar | |
| 1612.5 | 4511 | x | | 4511 | .3038 | 1370.5 | | | " | many lithic clasts no clay |
| 1614.8 | 6409 | x | | 6409 | .3038 | 1947.2 | | | " | |
| 1618.5 | 4115 | x | | 4115 | .3038 | 1250.2 | | | " | |
| 1620.0 | 4510 | x | | 4510 | .3038 | 1370.2 | | | " | |
| Box 114 1621.5 | 4918 | x | | 4918 | .3038 | 1494.2 | | | " | all of this core is complet w/ little fracturing or crumbling alteration not visible |
| 1624.5 | 5953 | x | | 5953 | .3038 | 1808.6 | | | " | very large clasts (Andosite?) |
| 1626.5 | 6512 | x | | 6512 | .3038 | 1978.5 | | | " | 1627-1629 broken in small pieces |
| 1629.5 | 5127 | x | | 5127 | .3038 | 1557.7 | s dev 287.3 | 1526.6 | " | very dark, crumbly |
| Box 115 zero → 1630.5 | 1180 | x | x | 11,800 | .3038 | 3585.1 | | | transit Lahar-Basalt upper flow breccia | much darker matrix than before large clasts very shiny black material on fractures |
| 1631.0 | 707 | | x | 7070 | .3038 | 2148.0 | | | " | brown matrix w/ very large clasts (20-30cm) clasts appear to be basalt w/ plagiophenocrysts |
| 1633.0 | 6031 | x | | 6031 | .3038 | 1832.3 | | | " | ash + clay matrix |
| 1635.0 | 8000 | x | | 8000 | .3038 | 2430.5 | | | " | |
| 1636.0 | 3380 | x | | 3380 | .3038 | 1026.9 | | | Basalt Flow | much lighter (cm vesicles alterat-chlorite no apparent clasts of ash as in above lahar chlorite alteration on fractures |
| 1637.5 | 7958 | x | | 7958 | .3038 | 2417.8 | | | upper flow brecc. | basalt clasts large lugs with strange pink clay, chlorite more strange pink clay chlorite + basalt clasts |
| 1638.0 | 9705 | x | | 9705 | .3038 | 2948.6 | | | " | |
| Box 116 1640 | 7175 | x | | 7175 | .3038 | 2179.9 | | | " | pink clay |
| 1641.5 | 1004 | | x | 10,040 | .3038 | 3050.3 | | | " | more breccia |
| 1643.5 | 642 | x | x | 6420 | .3038 | 1950.5 | | | " | large clasts |
| 1644.5 | 9745 | x | | 9745 | .3038 | 2960.7 | s dev 563.1 | 2550.4 | " | much lighter color but still appears to be breccia with large clasts |
| 1646.5 | 4781 | x | | 4781 | .3038 | 1452.5 | | | basalt flow | next 2 feet broken up gray, vesicular, chlorite & clay in vesicles |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

Drill Hole: CTGH-1 Pg 23 of 78

Date: 6-17-87

Company: THERMAL POWER

Logged by: ML

Core Diameter: 2.40" NC

Total Correction: $(1/d^2)(1.75)() = .30387 \times 1/10$

Instrument: Bison 3101A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag.Susc. | General Lithol. | Comments |
|-------------|--------------------|-------|-----|----------------|-------------|-------------------------|------|-------------------|--------------------|---|
| | | x1 | x10 | | | ($\times 10^{-6}$ oes) | S.I. | | | |
| 1648.5 | 1725 | X | | 1725 | .3038 | 524.1 | | | basalt Andesite | not as vesicular light gray |
| 1650.0 | 1807 | ✓ | | 1807 | .3038 | 549.0 | | | " | uniform - not much clay alteration on fract. |
| 1652.0 | 1546 | ✓ | | 1546 | .3038 | 469.7 | | | " | |
| 1653.0 | 1548 | ✓ | | 1548 | .3038 | 494.1 | | | | 1/95 |
| 1656.0 | 1607 | X | | 1607 | .3038 | 488.2 | | | | |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

Drill Hole: CTGH-1 Pg 24 of 78

Date: 6-18-87

Company: THERMAL POWER

Logged by: ML

Core Diameter: 2.40" NC

Total Correction: $(1/d^2)(1.75)() = .30387 \times \frac{1}{97}$

Instrument: Bison 3101 A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | General Lithol. | Comments |
|-----------------------------|--------------------|-------|-----|----------------|-------------|--------------------------|----------------|--------------------|----------------------|--|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 118 zero → 1656.8 | 1571 | X | | 1571 | .3198 | 502.4 | | | Basalt flow | 1657-1661 broken up 1661-1663 thermal + 006AMZ much lighter, no vesicles (andesite?) |
| 1663.0 | 2079 | X | | 2079 | .3038 | 631.6 | | | " | 1/90 |
| 1664.0 | 1912 | X | | 1912 | .3376 | 645.4 | | | " | 1/90 |
| 1665.0 | 1528 | X | | 1528 | .3376 | 515.8 | | | " | 1/90 |
| Box 119 1666.3 | 1292 | X | | 1292 | .3198 | 413.2 | s dev 288 | 607.8 | " | 1/95 |
| 1667.3 | 3185 | | | 3185 | .3038 | 967.7 | | | Basalt flow breccia | |
| 1669.5 | 4103 | X | | 4103 | .3038 | 1246.6 | | | " | crumbly some large vesicular clasts of basalt green mineral in vesicles much clay / mud ash matrix |
| 1671.0 | 4521 | X | | 4521 | .3038 | 1373.6 | | | " | very large vesicular clast in mud matrix, dense |
| 1673.0 | 5089 | X | | 5089 | .3132 | 1594.0 | | | " | lighter, pink clay, no vesicles in clasts 1/97 |
| 1674.5 | 4442 | X | | 4442 | .3038 | 1347.6 | | | Lahar volcano clasts | Much less dense - large clasts - various colors red clay matrix vesic. alterat. in vesicles no clasts |
| Box 120 1676.5 | 2628 | X | | 2628 | .3038 | 798.4 | | | " | orange red matrix - matrix supported clasts are various lithologies, very crumbly - on fracturing clay has almost "glassy" appearance 1/80 |
| 1680.0 | 1143 | X | | 1143 | .3798 | 434.1 | | | " | brown mud / ash matrix large clasts |
| 1682.0 | 4032 | X | | 4032 | .3038 | 1225.0 | | | Andesite? | |
| 1683.0 | 4596 | X | | 4596 | .3038 | 1396.4 | | | | |
| zero → Box 121 1685.5 | 5265 | X | | 5265 | .3038 | 1599.6 | | | Lahar volcano clasts | large clasts chlorite alter |
| 1687.0 | 5706 | X | | 5706 | .3038 | 1733.6 | | | " | increasing lighter color matrix |
| 1689.5 | 3832 | X | | 3832 | .3038 | 1164.2 | | | " | |
| 1690.5 | 3684 | X | | 3684 | .3038 | 1119.3 | | | " | |
| 1693.0 | 2826 | X | | 2826 | .3038 | 858.6 | s dev 389.9 | 1167.9 | " | |
| Box 122 1694.0 | 2986 | X | | 2986 | .3038 | 907.2 | | | Upper flow breccia | olive color |
| 1701 | 5178 | X | | 5178 | .3038 | 1573.2 | | | " | broken up to 1701 thermal 1696.5 - 1697.5 + 006AMZ |
| 1703.5 | 4760 | X | | 4760 | .3038 | 1446.2 | | | " | this sample has a strange smell!! |
| zero → Box 123 1704.0 | 2268 | X | | 2268 | .3132 | 710.4 | | | Basalt flow | 1/97 dense, few phenocrysts |
| 1706.5 | 6534 | X | | 6534 | .3038 | 1985 | | | " | |
| 1707.5 | 4306 | X | | 4306 | .3198 | 1377 | | | " | 1/95 |
| 1709.0 | 1389 | X | | 1389 | .3798 | 527.5 | | | " | 1/80 This is only intact piece in remainder of core much alterat. - yellow? chlorite? black? |
| | | | | | | | | | " | crumbly pale green coating |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

Drill Hole: CT64-1 Pg 25 of 78

Date: 6-18-87

Company: THERMAL POWER

Logged by: ML

Core Diameter: 2.40" NC

Total Correction: $(1/d^2)(1.75)() = .303817 \times \frac{1}{0.70}$

Instrument: Bison 3101A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | General Lithol. | Comments |
|--------------------------|--------------------|-------|-----|----------------|-------------|--------------------------|------------|--------------------|-----------------|---|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 124 1716.5 | 1774 | ✓ | | 1774 | .3038 | 538.0 | | | basalt/andes. | broken up to 1716 pale green coating |
| 1718.5 | 1875 | ✓ | | 1875 | .4051 | 759.5 | | | " | 1/75 |
| 1720.0 | 1995 | ✓ | | 1995 | .3198 | 638.0 | | | " | 1/95 most of box broken |
| Box 125 1721.5 | 2021 | x | | 2021 | .3198 | 646.3 | | | " | 1/95 |
| 1727.5 | 1672 | ✓ | | 1672 | .3198 | 534.7 | | | " | 1721.5 - 1727 badly broken 1/95 |
| 1728.0 | 1316 | ✓ | | 1316 | .5064 | 1666.4 | | | " | 1/60 remainder of box broken |
| Box 126 1731.0 | 2234 | x | | 2234 | .3798 | 848.4 | | | " | 1/80 much green coating |
| 1737.0 | 1916 | x | | 1916 | .3038 | 582.1 | | | " | 80% of this box broken up - only 2 readings possible |
| zero → Box 127 1738.5 | 2102 | x | | 2102 | .3038 | 638.6 | | | " | |
| 1739.8 | 1970 | ✓ | | 1970 | .3038 | 598.5 | | | " | |
| 1741.0 | 1910 | x | | 1910 | .3038 | 580.3 | | | " | 1741.5 - 1744.5 broken up |
| 1744.0 | 1776 | ✓ | | 1776 | .3798 | 674.5 | | | " | 1/80 |
| Box 128 1746.5 | 1716 | ✓ | | 1716 | .3038 | 521.3 | | | " | |
| 1747.5 | 1852 | x | | 1852 | .3038 | 562.7 | | | " | |
| 1748.5 | 1835 | ✓ | | 1835 | .3038 | 557.5 | | | " | |
| 1750.0 | 1910 | ✓ | | 1910 | .3038 | 580.3 | | | " | pyroxite on fract |
| 1752.5 | 1924 | ✓ | | 1924 | .3038 | 584.5 | | | " | |
| zero → Box 129 1758.5 | 1529 | ✓ | | 1529 | .4340 | 663.6 | | | " | 1/30 most of box broken |
| 1760.5 | 1720 | x | | 1720 | .4340 | 746.5 | | | " | 1/70 |
| 1762.5 | 2092 | x | | 2092 | .3376 | 706.2 | | | " | 1/90 |
| 1754.0 | 2015 | ✓ | | 2015 | .3376 | 680.2 | | | " | 1/90 remainder of box broken |
| Box 130 1768.0 | 1451 | x | | 1451 | .4340 | 629.8 | | | " | There were only 2 1/70 samples where reading could be taken |
| 1778.0 | 2000 | x | | 2000 | .4051 | 810.2 | | | " | 1/75 |
| Box 131 1780.0 | | | | | | | | | | Core recovery poor in this section |
| | | | | | | | | | | Thermal + DOGM I took 2 samples |
| 1780.0 | 5380 | ✓ | | 5380 | .4051 | 2179.4 | std. 405.7 | 768.9 | | 1/75 darker color increase in clay |
| 1782.0 | 1296 | ✓ | | 1296 | .3038 | 393.7 | | | intra-floccular | red nonvesic clay matrix small clasts |
| 1784.0 | 964 | x | | 964 | .3038 | 292.9 | | | cl. if sig | red matrix (mud) + v. vesicular clasts |
| 1786.5 | 1208 | ✓ | | 1208 | .3038 | 367.0 | | | " | |
| 1788.5 | 1328 | x | | 1328 | .3038 | 403.5 | | | " | |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

Drill Hole: CT64-1 Pg 26 of 78

Date: 6-18-87

Company: THERMAL POWER

Logged by: ML

Core Diameter: 2.40" NC

Total Correction: $(1/d^2)(1.75)() = 0.303817 \times \frac{1}{96}$

Instrument: Gison 3101 A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | Gen. Lithol. | Comments |
|--------------------------|--------------------|-------|-----|----------------|-------------|--------------------------|-------------|--------------------|------------------------------|--|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 132 zero → 1789.5 | 1391 | X | | 1391 | .3038 | 422.6 | | | intra flow cinders | |
| 1792.5 | 482 | X | | 482 | .3132 | 151.6 | | | " | 1/97 |
| 1793.5 | 420 | X | | 420 | .3198 | 134.3 | s dev 141.2 | 309.2 | " | 1/95 |
| 1796.0 | 4100 | X | | 4100 | .3038 | 1245.6 | | | intra flow breccia | dark matrix more lithics |
| 1797.0 | 2780 | X | | 2780 | .3038 | 844.6 | | | " | |
| Box 133 1799.5 | 3207 | X | | 3207 | .3038 | 974.3 | | | basalt | dense |
| 1801.5 | 2274 | X | | 2274 | .3038 | 690.9 | | | " | some vesicles - little altered. |
| 1804.5 | 2219 | X | | 2219 | .3038 | 674.2 | | | " | |
| 1806.0 | 2095 | X | | 2095 | .3132 | 656.2 | | | " | 1/97 |
| 1807.0 | 2133 | X | | 2133 | .3038 | 648.0 | | | " | |
| Box 134 1808.3 | 2086 | X | | 2086 | .3038 | 633.8 | | | " | |
| 1809.5 | 1925 | X | | 1925 | .4340 | 835.5 | | | " | 1/70 |
| 1811.5 | 1833 | X | | 1833 | .3376 | 618.8 | | | " | 1/90 |
| 1814.0 | 1586 | X | | 1586 | .3038 | 481.9 | | | " | |
| 1816.5 | 1602 | X | | 1602 | .3038 | 486.7 | s dev 146.8 | 670.0 | " | samples taken by Thermal & OOGAMEZ 1815-1816? |
| zero → Box 135 1819.0 | 3688 | X | | 3688 | .3198 | 1179.4 | | | minor flow breccia | 1/95 1817-1819 broken up |
| 1819.8 | 2655 | X | | 2655 | .3038 | 806.6 | | | " | |
| 1820.5 | 2682 | X | | 2682 | .4051 | 1086.4 | | | Lapilli in sandy matrix/clay | various sized lapilli 1/75 |
| 1823.0 | 2174 | X | | 2174 | .3038 | 660.5 | | | " | lithics small - no grading - looks almost like sed rock except for flow patterns |
| 1824.5 | 2325 | X | | 2325 | .3038 | 706.4 | | | " | very crumbly w/ cracking (clay w/ lapilli) |
| Box 136 zero → 1825.5 | 789 | X | | 789 | .3038 | 239.7 | s dev 346.4 | 673.2 | upper flow breccia | brown ash dense |
| 1826.5 | 493 | X | | 493 | .3038 | 149.8 | | | " | |
| 1827.5 | 2302 | X | | 2302 | .3038 | 699.4 | | | " | |
| 1829.5 | 2080 | X | | 2080 | .3038 | 631.9 | | | " | |
| 1832.0 | 814 | X | | 814 | .3038 | 247.3 | | | basalt | |
| 1834.0 | 1330 | X | | 1330 | .3038 | 404.1 | | | " | |
| Box 137 1836.0 | 892 | X | | 892 | .3198 | 285.3 | | | " | 1/95 |
| 1837.0 | 1892 | X | | 1892 | .3038 | 574.8 | | | " | vesicular dense |
| 1840.0 | 2776 | X | | 2776 | .3038 | 843.4 | | | " | |
| 1842.0 | 2150 | X | | 2150 | .3038 | 653.2 | | | " | non vesicular |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

Drill Hole: CTGH-1 Pg 27 of 78

Date: 6-18-87

Company: THERMAL POWER

Logged by: ML

Core Diameter: 2.40" NC

Total Correction: $(1/d^2)(1.75)() = .303889 \times \frac{1}{0.70}$

Instrument: Bison 3101A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | Gen. lithol | Comments |
|--------------------------|--------------------|-------|-----|----------------|-------------|--------------------------|-------|--------------------|---|--|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 137 (cont) 1844.5 | 1080 | ✓ | | 1080 | .3038 | 328.1 | | | Basalt | |
| Box 138 1847.5 | 916 | ✓ | | 916 | .3038 | 278.2 | | | " | 1845-1847 fractures 1845-1846? THERMAL black wax clay vesicles filled w/ clay |
| 1850.0 | 930 | ✓ | | 930 | .3198 | 297.4 | | | " | 1895 |
| 1851.0 | 695 | ✓ | | 695 | .3038 | 211.1 | | | " | |
| 1853.0 | 1930 | ✓ | | 1930 | .3038 | 586.4 | | | " | |
| 1853.8 | 1165 | ✓ | | 1165 | .3038 | 353.9 | | | " | increase in vesicles |
| Box 139 1855.0 | 1568 | ✓ | | 1568 | .3038 | 476.4 | | | " | some chlorite? |
| 1856.5 | 625 | ✓ | | 625 | .3038 | 189.9 | 192.0 | 409.2 | " | |
| 1858.0 | 1258 | ✓ | | 1258 | .3038 | 382.2 | | | basal flow breccia | large clasts in mud matrix |
| 1860.0 | 2352 | ✓ | | 2352 | .3038 | 714.6 | | | " | |
| 1862.0 | 3942 | ✓ | | 3942 | .3038 | 1197.6 | | | " | |
| Box 140 1864.5 | 5907 | ✓ | | 5907 | .3038 | 1794.7 | | | " | chlorite alter large clasts |
| 1866.5 | 5842 | ✓ | | 5842 | .3038 | 1774.9 | | | " | |
| 1868.0 | 5281 | ✓ | | 5281 | .3038 | 1604.5 | | | " | |
| 1869.0 | 2907 | ✓ | | 2907 | .3038 | 883.2 | | | " | "Pinker" matrix less clay |
| 1871.0 | 1228 | ✓ | | 1228 | .3038 | 373.1 | | 1894.5 | " | light color only slight alteration |
| Box 141 1872.0 | 4353 | ✓ | | 4353 | .3038 | 1322.5 | | | flow transit breccia to basalt | |
| 1875.0 | 3980 | ✓ | | 3980 | .3038 | 1209.2 | | | Basalt | pink clay lenses |
| 1878.0 | 1707 | ✓ | | 1707 | .3038 | 518.6 | | | " | black waxy clay on frac |
| 1879.5 | 1787 | ✓ | | 1787 | .3038 | 542.9 | | | " | |
| 1881.5 | 1522 | ✓ | | 1522 | .3038 | 462.4 | | | " | |
| Box 142 1882.5 | 1403 | ✓ | | 1403 | .3038 | 426.3 | | | " | |
| 1885.5 | 1520 | ✓ | | 1520 | .3038 | 461.8 | | | " | |
| 1887.0 | 1277 | ✓ | | 1277 | .3038 | 388.0 | | | " | |
| 1889.0 | 1620 | ✓ | | 1620 | .3038 | 492.2 | | | " | |
| 1890.0 | 1985 | ✓ | | 1985 | .3038 | 603.1 | | | " | flow planes → little alteration |
| Box 143 1892.0 | 1393 | ✓ | | 1393 | .3038 | 423.2 | | | " | very uniform → not any alteration or fract. |
| 1894.0 | 1295 | ✓ | | 1295 | .3038 | 393.5 | | | " | |
| 1897.0 | 1946 | ✓ | | 1946 | .3038 | 591.2 | | | " | dense, no vesicles, phono clay alter. |
| 1898.0 | 1970 | ✓ | | 1970 | .3038 | 598.5 | | | " | |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

Drill Hole: CTG H-1 Pg 29 of 78

Date: 6-24-87

Company: THERMAL POWER

Logged by: ML

Core Diameter: 2.40" NC

Total Correction: $(1/d^2)(1.75)() = .303819$

Instrument: Bison 3101A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | General lithol | Comments |
|----------------------------|--------------------|-------|-----|----------------|-------------|--------------------------|------|--------------------|------------------|---|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 146 (cont) 202 1922 | 2088 | X | | 2028 | .3038 | 616.2 | | | Basalt | few fractures, dense |
| 1926 | 1766 | ✓ | | 1766 | .3038 | 536.5 | | | " | |
| 1926.8 | 1764 | X | | 1764 | .3038 | 535.9 | | | " | |
| Box 147 1928.5 | 1365 | X | | 1365 | .3376 | 460.8 | | | " | 1/90 |
| 1929.5 | 1314 | X | | 1314 | .3038 | 399.2 | | | " | |
| 1932.5 | 1400 | ✓ | | 1400 | .3038 | 425.3 | | | " | |
| 1934.0 | 1308 | ✓ | | 1308 | .3038 | 397.4 | | | " | |
| Box 148 1937.5 | 1228 | ✓ | | 1228 | .3038 | 373.1 | | | " | black waxy clay on fractures |
| 1940.5 | 1260 | X | | 1260 | .3376 | 425.3 | | | " | box broken up 1/90 |
| 1942.0 | 1923 | ✓ | | 1923 | .3574 | 687.3 | | | " | 1/85 |
| 1946.5 | 1566 | X | | 1566 | .3038 | 475.8 | | | " | some breccia on sample |
| Box 149 1948.0 | 2201 | X | | 2201 | .3038 | 668.7 | | | " | very little altered |
| 1949.0 | 2068 | ✓ | | 2068 | .3038 | 628.3 | | | " | |
| 1953.0 | 1893 | X | | 1893 | .3132 | 592.9 | | | " | 1/97 |
| 1955.0 | 2011 | X | | 2011 | .3038 | 611.0 | | | " | |
| Box 150 1957.0 | 1958 | ✓ | | 1958 | .3038 | 594.9 | | | " | |
| 1958.5 | 1910 | ✓ | | 1910 | .3038 | 580.3 | | | " | |
| 1960.5 | 2120 | ✓ | | 2120 | .3038 | 644.1 | | | " | |
| 1963.0 | 2117 | ✓ | | 2117 | .3038 | 643.2 | | | " | |
| Box 151 1965.0 | 2045 | ✓ | | 2045 | .3038 | 621.3 | | 527.8 | " | |
| 1967.5 | 3097 | X | | 3097 | .3038 | 940.9 | | | Basalt | transition much less dense clay surface |
| 1969.0 | 3886 | ✓ | | 3886 | .3574 | 1389.0 | | | Capilliuff | 1/85 waxy red clay |
| 1971.0 | | | | | | | | | Capilliuff | |
| 1971.0 | 5544 | X | | 5544 | .3038 | 1684.4 | | | top flow Breccia | dark dense vesic- ar |
| 1973.0 | 4569 | X | | 4569 | .3038 | 1388.2 | | | " | transition to basalt again |
| Box 152 1974.0 | 3916 | X | | 3916 | .3376 | 1322.0 | | | basalt | 1/90 vesicular chlorite alter |
| 1977.0 | 4738 | X | | 4738 | .3038 | 1439.5 | | | flow breccia | |
| 1981.5 | 4802 | X | | 4802 | .3198 | 1535.7 | | | Basalt | 1/95 |
| 1983.0 | 3964 | X | | 3964 | .3038 | 1204.3 | | | " | vesicular chlorite zone in matrix (well formed xls) |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

Drill Hole: CTG H-1 Pg. 31 of 78

Date: 6-29-87

Company: THERMAL POWER

Logged by: mc

Core Diameter: 2.40" Nc

Total Correction: $(1/d^2)(1.75)() = .303819$

Instrument: BISON 3101 A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | general lithology | Comments |
|-------------------|--------------------|-------|-----|----------------|-------------|--------------------------|--------------|--------------------|-------------------------|---|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| zero → Box 158 | 2031 | 1047 | ✓ | 1047 | .3132 | 327.9 | s dev 472 | 12/10.1 | basalt flow | most of box broken Much mud+clay; crumbly |
| | 2037.5 | 929 | ✓ | 929 | .3574 | 332.1 | | | breccia | white clay, zeolites + chlorite |
| | 2038.0 | 1120 | ✓ | 1120 | .3198 | 358.2 | | | " | 1/95 clast supported less clay |
| | 2039.0 | 6651 | ✓ | 6651 | .3038 | 2020.7 | | | transition to basalt | very small clasts chlorite; clay in fract. |
| Box 159 | 2040.0 | 2134 | ✓ | 2134 | .3038 | 648.3 | | | basalt | vesicles w/ zeolites white + red clays, chlorite |
| | 2043.5 | 1060 | ✓ | 1060 | .3038 | 322.0 | | | " | " |
| | 2045.0 | 1101 | ✓ | 1101 | .3198 | 352.1 | | | " | 1/95 |
| | 2046.0 | 927 | ✓ | 927 | .3132 | 290.4 | | | " | 1/97 remainder of box broken |
| zero → Box 160 | 2049.5 | 1248 | ✓ | 1248 | .3038 | 379.2 | | | flow breccia | appearance of flow breccia small clasts, chloritized |
| | 2052.0 | 1479 | ✓ | 1479 | .3038 | 449.3 | | | basalt flow breccia | large clasts > 2cm no vesicles |
| | 2054.0 | 2830 | ✓ | 2830 | .3038 | 859.8 | | | basalt | vesicles w/ white clay |
| | 2055.0 | 1390 | ✓ | 1390 | .3038 | 422.3 | | | " | |
| | 2056.5 | 2081 | ✓ | 2081 | .3038 | 632.2 | | | " | |
| Box 161 | 2058.0 | 3408 | ✓ | 3408 | .3038 | 1035.4 | | | " | |
| | 2059.0 | 4488 | ✓ | 4488 | .3038 | 1363.5 | | | " | waxy orange clay in vesicles |
| | 2062.5 | 1718 | ✓ | 1718 | .3798 | 1704.4 | | | " | 1/80 much zeolite xls on fracture |
| | 2064 | 2266 | ✓ | 2266 | .3038 | 688.5 | | | " | looks like flow breccia large clasts |
| | 2066 | 1457 | ✓ | 1457 | .3038 | 442.7 | | | " | |
| Box 162 zero → | 2068 | 2907 | ✓ | 2907 | .3038 | 883.2 | | | " | many vesicles → all filled w/ white clay |
| | 2069 | 2563 | ✓ | 2563 | .3038 | 778.7 | | | " | |
| | 2071.5 | 2484 | ✓ | 2484 | .3038 | 754.7 | | | " | |
| | 2073.5 | 1154 | ✓ | 1154 | .3038 | 350.6 | | | " | light color, increased vesicles |
| | 2075.0 | 1639 | ✓ | 1639 | .3038 | 497.0 | | | " | |
| Box 163 | 2076.5 | 1444 | ✓ | 1444 | .3038 | 438.7 | | | " | |
| | 2077.5 | 1371 | ✓ | 1371 | .3038 | 416.5 | | | " | |
| | 2082.0 | 1161 | ✓ | 1161 | .3038 | 352.7 | | | " | |
| | 2084.0 | 1310 | ✓ | 1310 | .3038 | 398.0 | | | " | |
| zero → Box 164 | 2086.0 | 1814 | ✓ | 1814 | .3038 | 551.1 | | | " | |
| | 2089.0 | 6329 | ✓ | 6329 | .3038 | 1941.1 | | | " | |
| | 2090.0 | 2297 | ✓ | 2297 | .3038 | 697.9 | | | " | |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

 Drill Hole: CT64-1 Pg. 32 of 78

 Date: 6-29-87

 Company: THERMAL POWER

 Logged by: ML

 Core Diameter: 2.40" NC

 Total Correction: $(1/d^2)(1.75)() = .303819$

 Instrument: BISON 3101 A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | Gen. Lithol. | Comments |
|------------------------------|--------------------|-------|-----|----------------|-------------|--------------------------|------|--------------------|--------------|--|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 164 cont 2092 | 2111 | ✓ | | 2111 | .3038 | 641.4 | | | Basalt | |
| 2094 | 1744 | X | | 1744 | .3038 | 529.9 | | | " | |
| Box 165 2096.5 | 942 | ✓ | | 942 | .3038 | 286.2 | | | " | |
| 2097.5 | 1270 | X | | 1270 | .3038 | 385.9 | | | " | non vesicular |
| 2099.5 | 1853 | ✓ | | 1853 | .3038 | 563.0 | | | " | |
| 2101.5 | 1772 | ✓ | | 1772 | .3038 | 538.4 | | | " | |
| 2104.5 | 1176 | X | | 1176 | .3038 | 357.3 | | | " | |
| Box 166 2105.5 | 1045 | X | | 1045 | .3038 | 317.5 | | | " | |
| 2108.0 | 1104 | ✓ | | 1104 | .3038 | 335.4 | | | " | phenocrysts |
| 2109.0 | 1083 | ✓ | | 1083 | .3038 | 329.0 | | | " | |
| 2111.0 | 1671 | X | | 1671 | .3038 | 507.7 | | | " | zed. on fractures red remainder of box broken |
| Box 167 2115.5 | 1750 | ✓ | | 1750 | .3038 | 531.7 | | | " | |
| 2116.5 | 2322 | X | | 2322 | .3038 | 705.5 | | | slow breccia | |
| 2119.5 | 1669 | X | | 1669 | .3038 | 507.1 | | | ? | muddy-mech clay |
| 2121.0 | 1811 | X | | 1811 | .3038 | 550.2 | | | basalt | |
| 2123.0 | 3974 | X | | 3974 | .3038 | 1207.4 | | | " | |
| Box 168 2125.0 | 3178 | X | | 3178 | .3038 | 965.5 | | | " | vesicular; clay in vesicles |
| 2127.0 | 1680 | ✓ | | 1680 | .3038 | 510.4 | | | " | ↓ |
| 2128.8 | 4360 | ✓ | | 4360 | .3038 | 1324.6 | | | " | abundant vesicles |
| 2129.5 | 4178 | X | | 4178 | .3038 | 1269.4 | | | " | ↓ |
| 2132.5 | 4544 | X | | 4544 | .3038 | 1380.6 | | | " | |
| Box 169 2133.5 | 4025 | ✓ | | 4025 | .3038 | 1222.9 | | | " | |
| 2136.0 | 5490 | ✓ | | 5490 | .3038 | 1668.0 | | | " | |
| 2138.0 | 1658 | X | | 1658 | .3038 | 503.7 | | | " | |
| 2139.0 | 1077 | X | | 1077 | .3038 | 327.2 | | | " | non vesicular |
| 2141.5 | 6392 | X | | 6392 | .3038 | 1942 | | | " | " chlorite; white clay |
| Box 170 2143.0 | 3878 | ✓ | | 3878 | .3038 | 1178.2 | | | " | |
| 2145.0 | 5211 | X | | 5211 | .3038 | 1583.2 | | | " | |
| 2148 | 5817 | ✓ | | 5817 | .3038 | 1767.3 | | | " | dark + dense |
| 2151 | 6795 | X | | 6795 | .3038 | 2064.4 | | | " | |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

Drill Hole: CTGH-1 Pg 33 of 78

Date: 6-29-87

Company: THERMAL POWER

Logged by: ML

Core Diameter: 2.40" NC

Total Correction: $(1/d^2)(1.75)() = 1,303819$

Instrument: Bison 3107 A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | general lithol. | Comments |
|--------------------------|--------------------|-------|-----|----------------|-------------|--------------------------|------|--------------------|---------------------|--|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 171 zero → 2152.0 | 4655 | X | | 4655 | 13038 | 1414.3 | | | basalt | vesicular red clay in vesicles |
| 2155.6 | 2227 | X | | 2227 | 13038 | 676.6 | | | " | zeolite in vesicles plate phenon |
| 2156.0 | 1072 | X | | 1072 | 13038 | 325.7 | | | " | |
| 2157.5 | 1510 | X | | 1510 | 13038 | 458.8 | | | " | non-vesicular |
| 2160.5 | 676 | X | | 676 | 13038 | 205.4 | | | " | red color clay in vesicles |
| Box 172 2162.5 | 552 | X | | 552 | 13038 | 167.7 | | | " | " |
| 2164.0 | 476 | X | | 476 | 13038 | 144.6 | | | " | |
| 2166.0 | 784 | X | | 784 | 13038 | 238.2 | | | " | red, vesicular w/ clay |
| 2167.0 | 692 | X | | 692 | 13038 | 210.2 | | | " | |
| 2169.8 | 396 | X | | 396 | 13038 | 120.3 | | | " | |
| Box 173 zero → 2171.5 | 470 | X | | 470 | 13038 | 142.8 | | | " | much zeolite in vesicles |
| 2172.5 | 493 | X | | 493 | 13038 | 149.8 | | | " | |
| 2175.0 | 616 | X | | 616 | 13038 | 187.2 | | | " | vesicle filled w/ zeolite white clay appears to be zeolite |
| 2177.0 | 568 | X | | 568 | 13038 | 172.6 | | | " | |
| 2179.0 | 630 | X | | 630 | 13038 | 191.4 | | | " | |
| Box 174 2180.0 | 794 | X | | 794 | 13038 | 241.2 | | | " | |
| 2183.0 | 1517 | X | | 1517 | 13038 | 460.9 | | | " | |
| 2184.0 | 4328 | X | | 4328 | 13038 | 1314.9 | | | intra flow ash | |
| 2185.0 | 2967 | X | | 2967 | 13038 | 901.4 | | | basalt | vesicles w/ white clay |
| 2187.0 | 3486 | X | | 3486 | 13038 | 1059.1 | | | " | |
| 2188.0 | 2493 | X | | 2493 | 13038 | 757.4 | | | " | |
| Box 175 zero → 2189.5 | 1662 | X | | 1662 | 13038 | 604.9 | | | fault zone cemented | crumbly, much clay |
| 2192.0 | 4762 | X | | 4762 | 13038 | 1446.8 | | | flow breccia? | zeolite large clasts; red clay |
| 2194.0 | 1856 | X | | 1856 | 13038 | 562.1 | | | " | |
| 2196.0 | 1518 | X | | 1518 | 13038 | 461.2 | | | basalt | |
| 2198.0 | 1990 | X | | 1990 | 13038 | 604.6 | | | " | |
| zero → Box 176 2199.0 | 2367 | X | | 2367 | 13038 | 719.1 | | | " | |
| 2202.0 | 1328 | X | | 1328 | 13038 | 403.5 | | | " | |
| 2203 | 1118 | X | | 1118 | 13038 | 339.7 | | | " | |
| 2206 | 1041 | X | | 1041 | 13038 | 316.3 | | | " | |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

Drill Hole: CT64-1 Pg 34 of 78

Date: 6-29-87

Company: THERMAL POWER

Logged by: ML

Core Diameter: 2.40" NC

Total Correction: $(1/d^2)(1.75)() = .303819$

Instrument: Bison 3101A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | gen. lithol | Comments |
|------------------------|--------------------|-------|-----|----------------|-------------|--------------------------|-----------|--------------------|-----------------------|---|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 176 (cont) 2207 | 1066 | X | | 1066 | .3038 | 323.9 | | | basalt | |
| Box 177 2209 | 982 | Y | | 982 | .3038 | 298.4 | | | " | chloritized zeolite |
| 2211 | 1264 | X | | 1264 | .3038 | 384.0 | | | " | |
| 2213 | 1388 | X | | 1388 | .3038 | 421.7 | | | " | zeolite on fractures nonvesicular chloritized |
| 2214 | 1092 | Y | | 1092 | .3038 | 331.8 | | | " | " |
| 2217 | 998 | X | | 998 | .3038 | 303.2 | | | " | " |
| Box 178 2219 | 1056 | X | | 1056 | .3038 | 320.8 | | | " | " |
| 2221 | 1568 | X | | 1568 | .3038 | 476.4 | | | " | " |
| 2223 | 4822 | Y | | 4822 | .3038 | 1465 | | | " | dark gray vesicles w/ zeolite |
| 2225 | 1830 | Y | | 1830 | .3038 | 556.0 | | | intra flow ash | dark red w/ clay in vesicles |
| 2227.5 | 730 | Y | | 730 | .3038 | 221.8 | | | intra flow ash | |
| Box 179 2228.5 | 910 | Y | | 910 | .3038 | 276.5 | | | intra flow ash | |
| 2230.0 | 950 | Y | | 950 | .3038 | 288.6 | | | basalt | |
| 2233 | 1236 | Y | | 1236 | .3038 | 375.5 | | | basalt | |
| 2234.5 | 2522 | Y | | 2522 | .3038 | 766.2 | | | " | |
| 2236.0 | 957 | Y | | 957 | .3038 | 290.8 | S dev 462 | 652.7 | " | |
| Box 180 2238.5 | 1586 | X | | 1586 | .3038 | 481.8 | | | upper flow breccia | chloritized → blue amorphous mineral in vesicles, zeolite |
| 2242 | 1294 | X | | 1294 | .3038 | 393.1 | | | " | blue mineral on fracture chloritized. |
| 2244.5 | 3674 | Y | | 3674 | .3038 | 1116.2 | | | basalt flow breccia | |
| 2246.0 | 4921 | Y | | 4921 | .3038 | 1495.1 | | | " | large clasts + blocks |
| Box 181 2248.0 | 1935 | X | | 1935 | .3038 | 587.9 | | | " | |
| 2250.0 | 1915 | X | | 1915 | .3038 | 581.8 | | | " | |
| 2252.5 | 665 | X | | 665 | .3038 | 202.0 | | | Basalt | black waxy clay in vesicles many vesicles |
| 2255.0 | 5056 | X | | 5056 | .3198 | 1616.9 | | | basaltic flow breccia | non vesicular |
| 2256.0 | 4038 | Y | | 4038 | .3038 | 1226.8 | | | " | brown clay w/ large clasts > 2 inches |
| Box 182 2259.5 | 4136 | X | | 4136 | .3038 | 1256.6 | | | " | 2057-2059 badly broken |
| 2261.5 | 3324 | Y | | 3324 | .3038 | 1009.9 | | | " | |
| 2263.5 | 2836 | Y | | 2836 | .3038 | 861.6 | | | basalt | vesicular |
| 2264.0 | 3376 | Y | | 3376 | .3038 | 1025.7 | | | flow breccia | |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

 Drill Hole: CT64-1 Pg 35 of 78

 Date: 6-29-87

 Company: THERMAL POWER

 Logged by: ML

 Core Diameter: 2.40" NC

 Total Correction: $(1/d^2)(1.75)() = .303819$

 Instrument: Bison 3101A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | Gen. lithol | Comments |
|------------------------------|--------------------|-------|-----|----------------|-------------|--------------------------|------------|--------------------|-----------------------------|--|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 183 2267.5 | 2240 | X | | 2240 | .3038 | 680.6 | | | basalt | 2265-2267 badly broken - chloritized 1/85 |
| 2269.0 | 2257 | X | | 2257 | .3038 | 685.7 | | | flow breccia | |
| 2271.0 | 1402 | Y | | 1402 | .3038 | 426.0 | | | " | |
| 2272.0 | 1704 | Y | | 1704 | .3038 | 517.7 | | | " | |
| Box 184 2274.5 | 1119 | X | | 1119 | .3038 | 340.1 | | | " | strongly chloritized dense no vesicles |
| 2276.8 | 889 | X | | 889 | .3038 | 270.1 | | | " | |
| 2278.0 | 2236 | X | | 2236 | .3038 | 679.3 | | | " | matrix → red clay large clasts |
| 2281.0 | 1980 | X | | 1980 | .3038 | 601.6 | | | M | |
| 2283.0 | 1224 | Y | | 1224 | .3038 | 371.9 | | | " | |
| Box 185 2287 | 1898 | Y | | 1898 | .3038 | 576.6 | | | basalt | 2284-2286 is badly broken much chlorite |
| 2289.5 | 2393 | X | | 2393 | .3038 | 727.0 | | | flow breccia | zeolite + white clay very crumbly; much clay remainder of box broken into small pieces |
| Box 186 2292.8 | 1222 | X | | 1222 | .4051 | 495.0 | | | " | 1/75 most of box broken |
| 2296.5 | 1443 | X | | 1443 | .3038 | 438.4 | | | " | strong chloritization zeolite on fract. |
| 2301.0 | 4885 | Y | | 4885 | .3038 | 1484.2 | | | basalt | dark, dense no vesicles |
| Box 187 2302.0 | 3846 | X | | 3846 | .3038 | 1168.5 | | | flow breccia | orange matrix broken up to 2306 |
| 2307.0 | 4724 | Y | | 4724 | .3038 | 1435.2 | | | " | |
| 2308.0 | 5313 | Y | | 5313 | .3574 | 1899 | | | " | 1/85 zeolite |
| 2309.5 | 6834 | X | | 6834 | .3038 | 2076 | | | flow breccia | dark + dense no vesicles |
| Box 188 2311.0 | 1914 | X | | 1914 | .3038 | 581.5 | | | " | |
| 2313 | 1826 | Y | | 1826 | .3038 | 554.8 | | | " | |
| 2316.5 | 2130 | Y | | 2130 | .3038 | 647.1 | s dev 48.6 | 8.38% | " | |
| 2318 | 2417 | Y | | 2417 | .3038 | 734.3 | | | large clasts in clay matrix | |
| Box 189 2320 | 4766 | X | | 4766 | .3574 | 1176.5 | | | " | large clasts 1/85 |
| 2322.5 | 3872 | Y | | 3872 | .3038 | 1176.4 | | | " | |
| 2326.5 | 2444 | Y | | 2444 | .3198 | 781.6 | | | " | 1/85 |
| 2327.0 | 4340 | Y | | 4340 | .3038 | 1318.6 | | | " | dense + dark |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

 Drill Hole: CT64-V Pg 36 of 78

 Date: 6-30-87

 Company: THERMAL POWER

 Logged by: ML

 Core Diameter: 2.40" NC

 Total Correction: $(1/d^2)(1.75)() = .303819$

 Instrument: Bison 3101A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | Gen Lithol | Comments |
|-----------------------------|--------------------|-------|-----|----------------|-------------|--------------------------|------|--------------------|-------------------|--|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 190 200 → 2328 | 3136 | X | | 3136 | .4051 | 1270.4 | | | Lahar volcanic | 1/75 |
| 2329.5 | 4354 | X | | 4354 | .3798 | 1653.5 | | | " breccia | 1/80 dark gray |
| 2333.5 | 734 | X | | 734 | .3038 | 223.0 | | | ash flow | red ash w/ small lithics |
| 2335.5 | 1927 | X | | 1927 | .4051 | 780.6 | | | " | 1/95 red ash |
| 2337.0 | 2870 | X | | 2870 | .3038 | 872.0 | | | " | red ash |
| Box 191 2338 | 608 | X | | 608 | .3038 | 184.7 | | | " | red ash matrix w/ dark clasts |
| 2341 | 2353 | X | | 2353 | .3198 | 752.5 | sdev | 562.6 | " | 1/95 |
| 2343.5 | 4592 | X | | 4592 | .3038 | 1395.1 | | | Lahar | dark mud matrix all sizes of lithics. clasts are dark gray mud matrix. blue min! |
| 2345.0 | 3810 | X | | 3810 | .3038 | 1157 | | | " | non fractur amorphous |
| 2346.5 | 4684 | X | | 4684 | .3038 | 1423.1 | | | " | |
| zero → Box 192 2349.0 | 5113 | X | | 5113 | .3038 | 1553.4 | | | " | dark gray mud matrix w/ varied lithics |
| 2351 | 5168 | X | | 5168 | .3038 | 1570.1 | | | " | |
| 2353.5 | 2440 | X | | 2440 | .3038 | 741.3 | | | " | increase in matrix |
| 2354.0 | 2441 | X | | 2441 | .3038 | 741.6 | | | " | |
| 2357.0 | 2308 | X | | 2308 | .3376 | 779.1 | | | " | clast supported andesitic clasts 1/90 |
| Box 193 2359 | 2640 | X | | 2640 | .3038 | 802.1 | | | " | |
| 2360.5 | 3622 | X | | 3622 | .3038 | 1100.4 | | | ash flow | |
| 2363.0 | 3026 | X | | 3026 | .3376 | 1021.5 | | | " | 1/90 |
| 2364.0 | 7162 | X | | 7162 | .3038 | 2176.0 | | | Basalt | chlorite very dark + dense |
| 2365.5 | 6998 | X | | 6998 | .3038 | 2126.1 | | | " | very mafic no clasts |
| Box 194 2374 | 1510 | X | | 1510 | .4051 | 611.7 | | | " | this box is b/c kon into small pieces only 1 samp poss 1/6 1/75 |
| Box 195 2375.5 | 2304 | X | | 2304 | .3376 | 777.8 | | | Basalt / Andes | 1/90 |
| 2377.5 | 5480 | X | | 5480 | .3574 | 1958.7 | | | flow Breccia | 1/85 |
| 2378.5 | 3390 | X | | 3390 | .3038 | 1029.9 | | | " | |
| 2381.0 | 5404 | X | | 5404 | .3038 | 1641.8 | | | Lahar | |
| 2383.0 | 4909 | X | | 4909 | .3038 | 1491.4 | | | " | |
| Box 196 2384.0 | 6519 | X | | 6519 | .3038 | 1980.6 | | | flow Breccia | |
| 2386.0 | 4628 | X | | 4628 | .3198 | 1480.1 | | | Lahar | 1/95 |
| 2387.0 | 4462 | X | | 4462 | .3038 | 1355.6 | | | " | |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

Drill Hole: CT64-1 Pg 37 of 78

Date: 6-30-87

Company: THERMAL POWER

Logged by: ML

Core Diameter: 2.40" NC

Total Correction: $(1/d^2)(1.75)() = ,303819$

Instrument: Gagn 3101 A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | Gen. Lithol. | Comments |
|-------------------------|--------------------|-------|-----|----------------|-------------|--------------------------|---------------|--------------------|---------------------|---|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 196 (cont) 2389 | 3072 | ✓ | | 3072 | ,3038 | 933.4 | | | Lahar | red ash matrix unsorted clasts |
| 2392.5 | 3319 | ✗ | | 3319 | ,3038 | 1008.4 | | | " | |
| Box 197 200 → 2394.0 | 2564 | ✓ | | 2564 | ,3038 | 779.0 | | | " | few clasts |
| 2396.0 | 3118 | ✓ | | 3118 | ,3038 | 947.3 | | | " | |
| 2398.0 | 2742 | ✗ | | 2742 | ,3038 | 833.1 | | | " | clast supported mud matrix |
| 2400.0 | 3793 | ✗ | | 3793 | ,3038 | 1152.4 | | | " | |
| 2402.0 | 3020 | ✗ | | 3020 | ,3038 | 917.5 | | | " | muddy, crumbly matrix not clast supported |
| Box 198 2405.5 | 2682 | ✓ | | 2682 | ,3038 | 814.8 | | | " | 2403-2405 broken up |
| 2406.5 | 2745 | ✗ | | 2745 | ,3038 | 834.0 | | | " | mud matrix clast all look similar |
| 2407.5 | 3102 | ✗ | | 3102 | ,3038 | 942.4 | | | " | |
| 2409.0 | 2310 | ✗ | | 2310 | ,3132 | 723.5 | | | " | remainder of box broken up |
| Box 199 200 → 2412 | 2492 | ✓ | | 2492 | ,3038 | 757.1 | | | flow breccia | distinct contact red clast supported |
| 2414 | 4573 | ✓ | | 4573 | ,3038 | 1389.4 | | | volic breccia | large mafic clasts |
| 2415.5 | 4084 | ✗ | | 4084 | ,3038 | 1240.8 | sdev 355.3 | 1155.9 | " | |
| 2417.5 | 455 | ✓ | | 455 | ,3038 | 138.2 | | | ash flow | red clay/ash small non mafic lithics |
| 2419.5 | 742 | ✗ | | 742 | ,3038 | 225.4 | | 181.8 | ash breccia | " |
| Box 200 2420.5 | 2655 | ✓ | | 2655 | ,3038 | 806.6 | | | Andesite flow | still contains red ash |
| 2423.0 | 6285 | ✗ | | 6285 | ,3038 | 1909.5 | | | " | gray-green + reddish chloritiz. matrix |
| 2425.5 | 4140 | ✗ | | 4140 | ,3038 | 1257.8 | | | Andesite breccia | mud matrix |
| 2427.0 | 1936 | ✓ | | 1936 | ,3038 | 588.2 | | | " | distinct contact |
| 2429.0 | 1813 | ✗ | | 1813 | ,3198 | 579.8 | | | " | 1/95 strongly chloritized zone on fracture |
| Box 201 200 → 2430.5 | 1325 | ✓ | | 1325 | ,3198 | 423.7 | | | " | waxy clay? on frac 1/95 |
| 2435.5 | 3260 | ✗ | | 3260 | ,8376 | 1100.5 | | | " | 2431-2435 broken up 1/90 |
| 2437.0 | 2889 | ✗ | | 2889 | ,3038 | 877.7 | | | " | |
| 2439 | 3298 | ✓ | | 3298 | ,3038 | 1002.0 | | | " | |
| Box 202 2441 | 1425 | ✗ | | 1425 | ,3038 | 432.9 | | | " | |
| 2443 | 2479 | ✗ | | 2479 | ,3574 | 886.1 | | | " | 1/85 |
| 2444.5 | 4827 | ✗ | | 4827 | ,3038 | 1466.5 | | | " | ↓ decrease in % of mud matrix |
| 2446.5 | 6660 | ✗ | | 6660 | ,3198 | 2129.9 | | | " | 1/95 |
| 2448.5 | 2327 | ✓ | | 2327 | ,3038 | 707.0 | 522.3 | 1012.0 | " | |

seems like flows w/ more clast have higher K
mostly contain pyroclastics of varying origin \rightarrow indicate
parent rock susceptible \rightarrow significance here?

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

Drill Hole: CT64-1 Pg 38 of 78

Date: 6-30-87

Company: THERMAL POWER

Logged by: ML

Core Diameter: 2.40" NC

Total Correction: $(1/d^2)(1.75)() = .303819$

Instrument: BLON 3101A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | gen, lithol | Comments |
|-----------------------------|--------------------|-------|-----|----------------|-------------|--------------------------|---------------|--------------------|----------------------------------|---|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 203 2450.5 | 375 | X | | 375 | .3038 | 113.9 | | | ash | crystal flow very crumbled & broken clay altered few mafics |
| 2451.5 | 329 | X | | 329 | .3038 | 99.9 | | | " | |
| 2452.5 | 992 | X | | 992 | .3036 | 301.4 | | 171 | " | |
| 2453.0 | 1619 | Y | | 1619 | .3038 | 491.9 | 184.6 | 251.8 | " | less crumbly increased lithics |
| 2457.0 | 2395 | Y | | 2395 | .3797 | 909.6 | | Ando | flow breccia | Andesitic clasts red matrix 1/80 |
| Box 204 zero → 2459.0 | 2867 | Y | | 2867 | .3038 | 871.1 | | | " | red ash matrix w/ all sizes of clasts |
| 2460.5 | 3992 | Y | | 3992 | .3038 | 1212.8 | | | Andosic | totally gray no matrix |
| 2462.5 | 2629 | Y | | 2629 | .3038 | 798.7 | | | and. flow breccia | red matrix - ash |
| 2465.0 | 2559 | X | | 2559 | .3038 | 777.5 | | | " | " |
| 2466.5 | 1533 | X | | 1533 | .3038 | 465.7 | | | " | " |
| Box 205 2468.0 | 1433 | X | | 1433 | .3038 | 435.4 | sdev 267.8 | 781.5 | " | " |
| 2470.0 | 5244 | Y | | 5244 | .3038 | 1593.2 | | | andosic flow breccia | gray matrix - Andosic clast supported |
| 2472.0 | 6626 | Y | | 6626 | .3038 | 2013.1 | | | " | " |
| 2474.0 | 4572 | Y | | 4572 | .3038 | 1389.1 | | | " | " |
| 2476.5 | 5029 | Y | | 5029 | .3038 | 1527.9 | | | " | " |
| Box 206 zero → 2477.0 | 4617 | Y | | 4617 | .3038 | 1402.7 | sdev 254.1 | 1585.2 | " | " |
| 2479.5 | 2760 | Y | | 2760 | .3038 | 838.5 | | | Andosic flow | lighter gray |
| 2481.0 | 2540 | Y | | 2540 | .3038 | 771.7 | | | " | " |
| 2483.0 | 2652 | Y | | 2652 | .3038 | 805.7 | | | " | " |
| 2485.0 | 2912 | Y | | 2912 | .3038 | 884.7 | | | " | " |
| Box 207 2487 | 2561 | Y | | 2561 | .3038 | 778.1 | sdev | 815.7 | " | " |
| 2488 | 1274 | X | | 1274 | .3038 | 387.1 | | | transit. on Andosic flow breccia | lighter color |
| 2489 | 1976 | Y | | 1976 | .3038 | 600.3 | | | " | " |
| 2493 | 2385 | Y | | 2385 | .3038 | 724.6 | | | " | " |
| 2494 | 3370 | X | | 3370 | .3038 | 1024.0 | | | " | this entire Andosite has little or no clay |
| zero → Box 208 2496.5 | 2387 | Y | | 2387 | .3038 | 725.2 | | | " | " |
| 2498.0 | 2469 | Y | | 2469 | .3038 | 750.1 | | | " | " |
| 2500.0 | 2460 | X | | 2460 | .3038 | 747.4 | | | " | " |
| 2502.0 | 3369 | Y | | 3369 | .3038 | 1023.6 | | | " | " |
| 2503.0 | 3439 | X | | 3439 | .3038 | 1044.8 | | | " | " |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

 Drill Hole: CT64-1 Pg 40 of 78

 Date: 7-1-87

 Company: THERMAL POWER

 Logged by: ML

 Core Diameter: 2.40" NC

 Total Correction: $(1/d^2)(1.75)() =$

 Instrument: Bison 3101A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | Gen. Lithol. | Comments |
|--------------------------|--------------------|-------|-----|----------------|-------------|--------------------------|------------|--------------------|--------------------|--|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 211 zero → 2523.0 | 1883 | X | | 1883 | 3038 | 572.1 | | 0 | And, flow breccia | |
| 2524.0 | 1999 | X | | 1999 | " | 607.3 | | | " | |
| 2525.0 | 1801 | X | | 1801 | " | 547.2 | | | " | |
| 2527.0 | 2098 | Y | | 2098 | " | 637.4 | | | " | |
| 2532.0 | 4179 | Y | | 4179 | " | 1269.7 | | | " | increase in chlorite |
| Box 212 2534.0 | 4935 | Y | | 4935 | " | 1499.3 | sdev 296.7 | 884.4 | " | |
| 2535.0 | 1959 | X | | 1959 | " | 595.2 | | | Basal flow breccia | red ash matrix |
| 2538.0 | 1206 | Y | | 1206 | " | 366.4 | | | " | |
| 2539.0 | 1389 | Y | | 1389 | " | 422.0 | | | " | |
| 2542.0 | 1935 | X | | 1935 | " | 587.9 | | | " | small lithics |
| Box 213 zero → 2543.5 | 2880 | X | | 2880 | " | 875.0 | | | " | varying lithic type |
| 2545.0 | 790 | X | | 790 | " | 240.0 | sdev | 514.4 | " | darker, muddy matrix |
| 2546.0 | 5142 | Y | | 5142 | " | 1562.2 | | | upper flow breccia | no red clay matrix brown, chlorite |
| 2547.0 | 2395 | Y | | 2395 | " | 727.6 | | | " | possible nematite + zeolite clast support. |
| 2551.0 | 3680 | X | | 3680 | " | 1118.0 | | | " | |
| Box 214 2554.0 | 7027 | Y | | 7027 | " | 2034.9 | | | " | transition |
| 2555.0 | 7612 | Y | | 7612 | " | 2312.7 | | | " | |
| 2557.0 | 7672 | Y | | 7672 | " | 2330.9 | | 1697.7 | " | yellow coating dark gray |
| 2559.0 | 1345 | X | | 13450 | 3038 | 4086.4 | | | Andosik | dense + dark no chlorite white clay or calcite |
| 2560.5 | 1612 | X | | 16,120 | 3198 | 5155.3 | | | " | in micromats 1/95 |
| Box 215 zero → 2562.5 | 1254 | X | | 12,540 | 3038 | 3809.9 | | | " | dark mineral - pyrox hornblend or olivine present as phenocrysts |
| 2564.0 | 1138 | X | | 11,380 | 3038 | 3457.5 | | | " | green clay (?) chlorite on fracture |
| 2566.0 | 1345 | Y | | 13,450 | 3038 | 4086.4 | | | " | chlorite alter |
| 2567.0 | 1269 | X | | 12,690 | 3038 | 3855.5 | | | " | |
| 2569.0 | 1400 | Y | | 14,000 | 3038 | 4253.5 | | | " | |
| Box 216 2571.0 | 1204 | Y | | 12,040 | 3198 | 3850.5 | | | " | 1/90 much chlorite on fract |
| 2572.5 | 1305 | Y | | 13,050 | 3198 | 4173.5 | | | " | 1/95 |
| 2576.0 | 1020 | X | | 10,200 | 3198 | 3262.1 | | | " | 1/95 |
| 2577.0 | 1155 | X | | 11,550 | 3198 | 3693.8 | | | " | 1/95 |
| 2578.0 | 910 | X | | 9,100 | 3038 | 2764.8 | sdev 816.5 | 3685.9 | " | |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

 Drill Hole: CTG4-1 Pg 41 of 78

 Date: 7-1-87

 Company: THERMAL POWDER

 Logged by: ML

 Core Diameter: 2.40" NC

 Total Correction: $(1/d^2)(1.75)() = 1303819$

 Instrument: Bison 3101 A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | Gen 1-th | Comments |
|--------------------------|--------------------|-------|-----|----------------|-------------|--------------------------|----------------|--------------------|---------------------|---|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| zero → Box 217 2579 | 615 | | X | 6150 | .3038 | 1868.5 | | | Andesite | obvious clay increase increase in alteration. |
| 2581.5 | 2147 | X | | 2147 | " | 652.3 | | | basal flow breccia | small lithic clast supported |
| 2585.0 | 1406 | X | | 1406 | " | 427.2 | | | " | 2586-2587.5 broken up |
| 2588 | 1107 | X | | 1107 | " | 336.3 | | | Lithic tuff | |
| Box 218 2590 | 1752 | X | | 1752 | " | 532.3 | | | " | various slag pills/lithics of all sizes + compos |
| 2593 | 4046 | Y | | 4046 | " | 1229.3 | | | " | blue/green copper(?) minerals on one fract |
| 2593.5 | 4523 | Y | | 4523 | " | 1374.2 | | | " | |
| 2595.5 | 3994 | Y | | 3994 | .3574 | 1427.6 | | | " | 1/85 |
| 2597.0 | 2803 | Y | | 2803 | .3038 | 851.6 | | | " | |
| zero → Box 219 2599.5 | 2753 | X | | 2753 | .3038 | 836.4 | | | " | matrix lighter much white clay smaller lithics |
| 2601.0 | 2662 | Y | | 2662 | .3038 | 808.8 | | | " | |
| 2602.5 | 2345 | Y | | 2345 | .3038 | 712.5 | s dev 373.2 | 901.0 | " | |
| 2604.0 | 4032 | Y | | 4032 | .3038 | 1225 | | | volcanic breccias | gray + dense some sorting |
| 2605.0 | 4371 | X | | 4371 | .3038 | 1328.0 | | | " | |
| Box 220 2606.5 | 5044 | Y | | 5044 | .3038 | 1532.5 | | | crystal lithic tuff | dark gray ash matrix |
| 2609.0 | 5230 | Y | | 5230 | .3038 | 1589.0 | | | " | small lithic s plag xls |
| 2611.5 | 5220 | Y | | 5220 | .3038 | 1585.9 | | | " | lithics look like andesite matrix support |
| 2613.5 | 5176 | Y | | 5176 | .3038 | 1572.6 | | | " | |
| 2614.0 | 5111 | Y | | 5111 | " | 1552.8 | s dev 23.6 | 1566.4 | " | |
| Box 221 2616.5 | 4904 | X | | 4904 | " | 1489.9 | | | crystal vitric tuff | lithic start of vitric inclusions decrease in lithics |
| 2618 | 5043 | Y | | 5043 | " | 1532.2 | | | " | |
| 2619 | 3986 | X | | 3986 | " | 1211.0 | | | " | much less dense than previous samples of this unit mostly xl, vitric |
| 2622 | 4437 | Y | | 4437 | " | 1348.0 | | | " | |
| 2624 | 4558 | Y | | 4558 | " | 1384.8 | | | " | |
| Box 222 zero → 2626 | 4428 | Y | | 4428 | " | 1345.3 | | | " | |
| 2627 | 4790 | Y | | 4790 | " | 1455.3 | | | " | |
| 2629 | 4630 | Y | | 4630 | .3132 | 1450.2 | | | " | 1/97 |
| 2630 | 4656 | Y | | 4656 | .3038 | 1414.6 | | | " | |
| 2633.5 | 4754 | Y | | 4754 | .3132 | 1489.0 | | | " | 1/97 |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

Drill Hole: CTG4-1 Pg. 42 of 78

Date: 7-1-87

Company: HERMAN POWER

Logged by: ML

Core Diameter: 2.40" NL

Total Correction: $(1/d^2)(1.75)() = .303819$

Instrument: Bison 3101A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | gen lith | Comments |
|-------------------------|--------------------|-------|-----|----------------|-------------|--------------------------|-----------|--------------------|-----------------------------|--|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 223 2634.5 | 4943 | X | | 4943 | .3038 | 1501.8 | | | crystal lithic | thionic matrix dark gray |
| 2636.0 | 4828 | X | | 4828 | " | 1466.8 | | | " | plag phenocr. |
| 2638 | 4800 | X | | 4800 | " | 1458.3 | | | " | |
| 2640.5 | 4394 | X | | 4394 | " | 1335.0 | | | " | |
| 2642.0 | 4254 | X | | 4254 | " | 1292.4 | | | " | |
| Box 224 zero 2645 | 4373 | X | | 4373 | " | 1328.6 | | | " | |
| 2646 | 4011 | X | | 4011 | " | 1218.6 | | | " | |
| 2648 | 3165 | X | | 3165 | " | 961.6 | | | " | |
| 2650 | 3226 | X | | 3226 | " | 980.1 | | | " | |
| 2652 | 3122 | X | | 3122 | " | 948.5 | | | " | |
| Box 225 2653.5 | 2783 | X | | 2783 | " | 845.5 | | | " | |
| 2655.0 | 2024 | X | | 2024 | " | 614.9 | 249.8 | 1276.0 | transition | matrix much lighter |
| 2658.0 | 7989 | X | | 7989 | " | 2427.2 | | | Upper flow breccia andesite | vesicular basalt clast "muddy" matrix, small lithics contains glass pieces |
| 2659 | 7686 | X | | 7686 | " | 2335.2 | | | " | |
| 2661 | 7843 | X | | 7843 | " | 2382.9 | | | " | |
| Box 226 2663.5 | 7713 | X | | 7713 | " | 2343.4 | | | " | white clay (m... on fractures) |
| | | | | | | | | | " | zeolite in amy dules |
| | | | | | | | | | " | can scratch white clay w/ fingernail, maybe talc ? due to alteration of olivine, pyrox + amphib. |
| 2665.5 | 6137 | X | | 6137 | " | 1864.5 | | | " | |
| 2667.0 | 3777 | X | | 3777 | " | 1147.5 | sdv 502.5 | 2083.4 | Andesite olivine basalt | lithics are beginning to vary more, muddy |
| 2668.5 | 8750 | X | | 8750 | " | 2658.4 | | | " | |
| 2670.5 | 4513 | X | | 4513 | " | 1371.1 | | | " | |
| Box 227 2672.5 | 4818 | X | | 4818 | " | 1463.8 | | | " | |
| zero 2674.0 | 6828 | X | | 6828 | " | 2074.5 | | | " | zeolite in vesicle much white clay (talc?) |
| 2676.0 | 6177 | X | | 6177 | " | 1876.7 | | 1888.9 | " | |
| 2678.0 | 2931 | X | | 2931 | " | 890.5 | | | Andesite breccia basal flow | |
| 2679.5 | 2395 | X | | 2395 | " | 727.6 | | | " | lithics, glass white clay, muddy color zeolite cement? |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

 Drill Hole: CT6H-1 Pg. 43 of 78

 Date: 7-1-87

 Company: THERMAL POWER

 Logged by: ML

 Core Diameter: 2.40 IN.

 Total Correction: $(1/d^2)(1.75)() =$

 Instrument: Buison 3101A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | gen lith | Comments |
|-------------------|--------------------|-------|-----|----------------|-------------|--------------------------|-----------|--------------------|---------------------------|---|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 228 2681.5 | 1812 | X | | 1812 | 3038 | 550.5 | | | andes. basal flow | much zeolite cement |
| 2683.5 | 2368 | Y | | 2368 | " | 719.4 | | | breccia | vitric particles |
| 2685.0 | 3993 | X | | 3993 | " | 1213.2 | | | " | |
| 2687.0 | 5937 | Y | | 5937 | " | 1803.8 | | | " | |
| 2689.0 | 4751 | X | | 4751 | " | 1443.4 | | | " | |
| Box 229 2690.5 | 4547 | X | | 4547 | " | 1381.5 | | | " | extensive zeolites in vesicles - large vesicles |
| 2692.0 | 2714 | Y | | 2714 | " | 824.6 | 417.9 | 1061.6 | " | |
| 2694.0 | 2405 | Y | | 2405 | " | 730.7 | | | Lunar | light brown ash most clast v. small |
| 2696 | 3450 | Y | | 3450 | " | 1048.2 | | | " | laminat. @ angle zeolite/zeolite clay |
| 2698 | 3720 | Y | | 3720 | " | 1130.2 | | | " | in vesicles various clasts/no sorting |
| Box 230 2701 | 2972 | X | | 2972 | " | 902.9 | | | " | |
| 2702 | 3108 | X | | 3108 | " | 944.3 | | | " | |
| 2703.5 | 3411 | X | | 3411 | " | 1036.3 | | | " | |
| 2706 | 2984 | Y | | 2984 | " | 906.6 | | | " | |
| 2707.5 | 3747 | X | | 3747 | " | 1138.4 | | | " | |
| Box 231 2709.5 | 4410 | X | | 4410 | " | 1339.8 | | | " | |
| 2711.0 | 4707 | Y | | 4707 | " | 1430.1 | | 1060.8 | " | |
| 2713.5 | 4524 | Y | | 4524 | " | 1374.5 | | | Capill. ash | |
| 2715.0 | 4600 | Y | | 4600 | " | 1397.6 | | | " | |
| 2716.5 | 4989 | X | | 4989 | " | 1515.8 | | | " | |
| Box 232 2718 | 4838 | X | | 4838 | " | 1469.9 | sdev 65.1 | 1439.4 | " | |
| 2720 | 3597 | Y | | 3597 | " | 1092.8 | | | Lunar/volcaniclastic | |
| 2722 | 3598 | X | | 3598 | " | 1093.1 | | | " | poor sorting, various clast compos. |
| 2724 | 3877 | Y | | 3877 | " | 1177.9 | | | " | no clay |
| 2726 | 3824 | Y | | 3824 | " | 1161.8 | | 1131.4 | " | less matrix |
| Box 233 2728 | 4214 | X | | 4214 | " | 1280.3 | | | Andesite upper flow brecc | red brown clay matrix |
| 2730 | 3095 | Y | | 3095 | " | 940.3 | | | " | andesite lithics |
| 2732 | 2478 | Y | | 2478 | " | 752.9 | | 991.2 | " | red matrix distinctive |
| 2733.5 | 990 | Y | | 990 | " | 300.8 | | | Andesite red. | very pink & porphyritic white clay |
| 2736 | 847 | Y | | 847 | " | 257.4 | | | " | |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

Drill Hole: CTGH-1 Pg 45 of 78

Date: 7-6-87

Company: THERMAL POWER

Logged by: ML

Core Diameter: 2.40" NC

Total Correction: $(1/d^2)(1.75)() = 303819$

Instrument: Bison 3101A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | Gen. Lithol | Comments |
|--------------------------|--------------------|-------|-----|----------------|-------------|--------------------------|------|--------------------|------------------------------|--|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| zero → Box 236 2755.0 | 5437 | X | | 5437 | 3038 | 1651.9 | | | Andesite flow | gray matrix Greyish green clays on fracture surfaces |
| 2757.0 | 5534 | Y | | 5534 | " | 1681.4 | | | (Basaltic Andesite) | |
| 2759.0 | 4906 | X | | 4906 | 3376 | 1656.2 | | | " | 1/90 |
| 2763.0 | 4904 | X | | 4904 | 3038 | 1489.9 | | | " | |
| 2765 | 5984 | Y | | 5984 | " | 1818.0 | | | " | |
| Box 237 2767 | 5757 | Y | | 5757 | 3132 | 1803.2 | | | " | 1/97 |
| 2766.5 | 6322 | X | | 6322 | 3038 | 1920.7 | | | " | |
| 2771.0 | 4284 | Y | | 4284 | " | 1301.6 | | | " | Green clays on fracture (maybe chlonite?) |
| 2772.5 | 5411 | Y | | 5411 | " | 1644 | | | " | |
| 2774.0 | 4766 | Y | | 4766 | " | 1448.0 | | | " | |
| zero → Box 238 2775.5 | 4422 | Y | | 4422 | " | 1343.5 | | | " | |
| 2778.0 | 5344 | Y | | 5344 | " | 1623.6 | | | " | |
| 2780.5 | 5718 | Y | | 5718 | " | 1737.2 | | | " | |
| 2781.5 | 4626 | Y | | 4626 | " | 1405.5 | | | " | minor zeolites on fracture pyrolusite (?) also |
| 2783.5 | 5534 | Y | | 5534 | " | 1681.4 | | | Breccia cemented w/ chlonite | zeolite clays |
| Box 239 | | | | | | | | | " | well consolidated breccia |
| | | | | | | | | | | white clays (zeolite on fractures & in between breccia frags not flow breccia) |
| Box 239 2785.0 | 5056 | Y | | 5056 | " | 1536.1 | | | " | |
| 2789.0 | 6795 | Y | | 6795 | " | 2064.5 | | | basaltic andes | |
| 2791.0 | 4815 | Y | | 4815 | " | 1462.9 | | | " | |
| 2793.0 | 4095 | Y | | 4095 | 3376 | 1382.4 | | | " | 1/90 much clonite + white "waxy" clay |
| zero → Box 240 2795 | 4771 | Y | | 4771 | 3038 | 1449.5 | | | " | |
| 2797 | 5802 | Y | | 5802 | " | 1762.8 | | | " | |
| 2799 | 4895 | Y | | 4895 | " | 1487.2 | | | " | |
| 2800 | 5994 | Y | | 5994 | " | 1821.1 | | | " | |
| 2803.5 | 5782 | Y | | 5782 | " | 1756.7 | | | " | much white waxy clay |
| Box 241 2805.0 | 5320 | Y | | 5320 | " | 1616.3 | | | " | |
| 2808.5 | 3607 | Y | | 3607 | " | 1095.9 | | | " | 2805-2808 broken up 1/95 |
| 2810.5 | 4539 | Y | | 4539 | " | 1379 | | | " | |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

Drill Hole: CTG4-1 Pg 46 of 78

Date: 7-6-87

Company: THERMAL POWER

Logged by: ML

Core Diameter: 2.40" NC

Total Correction: $(1/d^2)(1.75)() = .303819$

Instrument: BUSON 3101 A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | Gen Lith | Comments |
|-----------------------------|--------------------|-------|-----|----------------|-------------|--------------------------|--------|--------------------|--------------------|---|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 241 (cont) 2813.0 | 4501 | ✓ | | 4501 | .3038 | 1367.5 | | | Basaltic andesite | andesite |
| zero Box 242 2815.0 | 4549 | ✓ | | 4549 | " | 1382.1 | | | " | white clay / drusy zeolites |
| 2817.0 | 5427 | ✓ | | 5427 | " | 1648.8 | | | " | |
| 2818.5 | 6198 | ✓ | | 6198 | " | 1883.1 | | | " | |
| 2820.0 | 6763 | ✓ | | 6763 | " | 2054.7 | | | " | |
| 2822 | 5573 | ✓ | | 5573 | " | 1693.2 | | | " | |
| Box 243 2824.5 | 5762 | ✓ | | 5762 | .3132 | 1804.7 | | | " | 1/97 |
| 2825.5 | 5396 | ✓ | | 5396 | " | 1639.4 | | | " | |
| 2828 | 5415 | ✓ | | 5415 | " | 1645.2 | | | " | |
| 2830 | 4750 | ✓ | | 4750 | " | 1443.2 | | | " | |
| 2831.5 | 3698 | ✓ | | 3698 | " | 1,123.5 | | | " | |
| zero → Box 244 2833.0 | 5065 | ✓ | | 5065 | " | 1538.8 | | | " | |
| 2835.5 | 4532 | ✓ | | 4532 | " | 1376.9 | | | " | This sample has extensive zeolite on fracture (also chlorite on mud with apparent desiccation or act white clay in fractures) |
| 2836.5 | 5045 | ✓ | | 5045 | " | 1532.8 | sdev — | 1471.8 | " | |
| 2840.0 | 1361 | ✓ | | 1361 | " | 413.5 | | | Basal flow breccia | red matrix; large clasts |
| 2841.5 | 2005 | ✓ | | 2005 | " | 609.2 | | 511.3 | " | |
| Box 245 2844.5 | 1370 | ✓ | | 1370 | " | 416.2 | | | volcanic breccia | 2842-2844 badly broken or laminar possibly red matrix - various lithology |
| 2847.0 | 2221 | ✓ | | 2221 | " | 674.8 | | | explosive origin | capill. many blocks - andesite? drusy zeolites |
| 2849.5 | 1614 | ✓ | | 1614 | .3574 | 576.9 | | | " | |
| 2851.3 | 2533 | ✓ | | 2533 | " | 775.6 | | | " | |
| Box 246 2852.5 | 3805 | ✓ | | 3805 | " | 1156.0 | | | " | increase in basaltic andesite (or increase in clast size) |
| 2854.0 | 4762 | ✓ | | 4762 | " | 1446.8 | | | " | matrix supported - muddy matrix rounded capill. mostly matrix → mud flow (?) |
| 2857.0 | 3914 | ✓ | | 3914 | " | 1189.1 | | | " | |
| 2858.0 | 3211 | ✓ | | 3211 | " | 975.6 | | | " | |
| 2860.0 | 4636 | ✓ | | 4636 | " | 1408.5 | | | " | |
| Box 247 2862 | 4715 | ✓ | | 4715 | " | 1432.5 | | | " | mostly dk gray basalt, andesite for capill. |
| 2864 | 2424 | X | | 2424 | .5063 | 1227.4 | | | " | 2863-2866 badly broken about 2864' much zeolite & desiccated clay on fract. reddish matrix |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

Drill Hole: CT641 Pg 47 of 78

Date: 1-6-87

Company: THERMAL POWER

Logged by: ML

Core Diameter: 2.40"

Total Correction: $(1/d^2)(1.75)() = .303819$

Instrument: Bison 3101A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | Gen Lith | Comments |
|-----------------------------------|--------------------|-------|-----|----------------|-------------|--------------------------|------|--------------------|--------------------|---|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 247 (cont) 2867 | 6519 | 0 | | 6519 | .3038 | 1980.6 | | | volcanic-clastics | most of box broken |
| 2869 | 4040 | 0 | | 4040 | " | 1227.4 | | " | volc. breccia/lava | |
| Box 248 2871 | 7788 | 0 | | 7788 | " | 2366.1 | | " | " | large blocks of basaltic andesite in red clay ash matrix |
| 2873 | 4315 | 0 | | 4315 | " | 1311.0 | | " | " | |
| 2875 | 9457 | 0 | | 9457 | " | 2873 | | " | " | dark gray matrix |
| 2877 | 6982 | 0 | | 6982 | " | 2121.3 | | " | " | " |
| Box 249 2881 | 4751 | 0 | | 4751 | " | 1443.4 | | " | " | |
| 2883.5 | 4066 | 0 | | 4066 | " | 1235.3 | | " | " | red/orange ash matrix |
| 2885.0 | 6130 | 0 | | 6130 | " | 1862.4 | | " | " | clasts supported - mostly basaltic andes - blocks |
| 2887.0 | 2432 | 0 | | 2432 | " | 738.9 | | " | " | clast all differ in size + composition / ash matrix |
| 2888.5 | 1616 | 0 | | 1616 | " | 491.0 | | " | " | increase in orange ash matrix |
| Box 250 2890.5 | 1662 | 0 | | 1662 | " | 504.9 | | " | " | very small lapilli |
| 2892.5 | 4052 | 0 | | 4052 | " | 1231.1 | | " | " | dark clast supported |
| 2894.5 | 1329 | 0 | | 1329 | " | 403.8 | | " | " | light orange matrix small lapilli |
| 2898.5 | 2090 | 0 | | 2090 | " | 635.0 | | " | " | greenish matrix w/ andesite blocks |
| Box 251 2900.5 | 1641 | 0 | | 1641 | .3198 | 524.8 | | " | " | 1/2 crumbly green clay (?) matrix |
| 2901.5 | 2486 | 0 | | 2486 | .3038 | 755.3 | | " | " | " |
| 2903.5 | 1720 | 0 | | 1720 | " | 522.6 | | " | " | small lapilli - grading present |
| 2906.5 | 4687 | 0 | | 4687 | " | 1424 | | " | " | |
| 2908.0 | 1895 | 0 | | 1895 | " | 575.7 | | " | " | |
| Box 252 2910.0 | 1552 | 0 | | 1552 | " | 471.5 | | " | " | green clay matrix |
| 2914.5 | 1227 | 0 | | 1227 | " | 372.8 | | " | " | 2911 - 2914 broken up (clayish clay matrix) green matrix, small lapilli |
| 2915.0 | 2808 | 0 | | 2808 | " | 853.1 | | " | " | |
| 2917.0 | 1050 | 0 | | 1050 | " | 319.0 | | " | " | |
| Box 253 2919.0 | 5740 | 0 | | 5740 | " | 1743.9 | | " | " | brown matrix w/ blocks |
| 2921.5 | 4672 | 0 | | 4672 | " | 1419.4 | | " | " | |
| 2923.5 | 2111 | 0 | | 2111 | .3132 | 661.2 | | " | " | Yag |
| 2925.0 | 2579 | 0 | | 2579 | .3038 | 783.5 | | " | " | |
| 2927.5 | 3381 | 0 | | 3381 | " | 1027.2 | | " | " | |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

 Drill Hole: CT64-1 Pg 48 of 78

 Date: 7-6-87

 Company: THERMAL POWER

 Logged by: ML

 Core Diameter: 2.40" NC

 Total Correction: $(1/d^2)(1.75)() = .303819$

 Instrument: Bison 3101A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | Gen Lith | Comments |
|-------------------|--------------------|-------|-----|----------------|-------------|--------------------------|------|--------------------|----------|---|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 254 2929.5 | 3970 | x | | 3970 | .3038 | 1206 | | | " | volcaniclastic volc breccia/lahar |
| 2930.5 | 3806 | x | | 3806 | " | 1156 | | | " | dark gray matrix |
| 2934.0 | 3913 | x | | 3913 | " | 1188.8 | | 1086.3 | " | definite grading, small occurrence of lapilli |
| 2936 | 5790 | x | | 5790 | " | 1759.1 | | | " | ash/tuff looks like basaltic andesite |
| Box 258 2938 | 4347 | y | | 4347 | " | 1320.7 | | | " | porphyritic w/ mottled gray appearance |
| 2940 | 1099 | y | | 1099 | " | 333.9 | | | " | red/ash matrix ^{no contact} between gray |
| 2947.5 | 2829 | x | | 2829 | " | 859.5 | | | " | |
| 2943 | 2405 | x | | 2405 | " | 730.7 | | | " | |
| 2944 | 3147 | y | | 3147 | " | 956.1 | | | " | |
| 2946 | 1178 | y | | 1178 | " | 357.9 | | | " | red ash |
| 2948 | 1733 | y | | 1733 | " | 526.5 | | | " | |
| 2950 | 706 | x | | 706 | " | 214.5 | sdev | 784.3 | " | 2951-2955 broken up |
| 2954.5 | 2663 | x | | 2663 | .3574 | 951.8 | | | " | volcaniclastic/ volcanic breccia dark gray matrix various clast |
| Box 257 2958.0 | 3368 | y | | 3368 | .3038 | 1023.3 | | | " | 2955-2958 all broken up |
| 2962.0 | 3027 | x | | 3027 | .5064 | 1532.8 | | | " | 1/60 |
| Box 258 2964.5 | 2226 | x | | 2226 | .3574 | 795.6 | sdev | 319.1 | 1075.9 | 1/85 various lapilli various lithology |
| 2967.0 | 3207 | y | | 3207 | .4051 | 1299.1 | | | " | olivine basalt flows 1/75 dark gray |
| 2968.0 | 2226 | y | | 2226 | .4051 | 901.7 | | | " | 1/75 |
| 2971.0 | 3000 | x | | 3000 | .3038 | 911.5 | | | " | |
| 2973.0 | 6689 | x | | 6689 | " | 2032.2 | | | " | |
| Box 259 2974.5 | 4736 | y | | 4736 | " | 1438.9 | | | " | |
| 2977.0 | 4901 | y | | 4901 | .3198 | 1567.4 | | 1370 | " | 1/95 |
| 2980.5 | 7064 | x | | 7064 | .3038 | 2146.2 | | | " | slow breccia |
| 2982.0 | 5581 | x | | 5581 | .3574 | 1994.8 | | | " | 1/85 |
| Box 260 2984.0 | 3892 | x | | 3892 | .3038 | 1182.5 | | | " | |
| 2986.5 | 3108 | y | | 3108 | " | 944.3 | | | " | |
| 2987.5 | 6082 | x | | 6082 | " | 1847.8 | | | " | |
| 2989.5 | 5661 | x | | 5661 | " | 1719.9 | | | " | |
| 2991.0 | 5105 | y | | 5105 | " | 1551.0 | | | " | |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

Drill Hole: CTGH-1 Pg. 49 of 78

Date: 7-6-87

Company: THERMAL Power

Logged by: ML

Core Diameter: 2.40"

Total Correction: $(1/d^2)(1.75)() = 1,303819$

Instrument: BISON 3101A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | Gen Lith | Comments |
|------------------------|--------------------|-------|-----|----------------|-------------|--------------------------|----------------|--------------------|----------------|---|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 261 2993 | 3072 | ✓ | | 3072 | 13038 | 933.3 | | | Basalt breccia | flow multi-colored |
| 2995 | 3105 | ✓ | | 3105 | " | 943.4 | | | | |
| 2997 | 2458 | ✓ | | 2458 | " | 746.8 | | | | |
| 2998.5 | 4088 | ✗ | | 4088 | " | 1242.0 | | | | |
| 3000.0 | 5052 | ✓ | | 5052 | " | 1534.9 | 5 dev 465.9 | 1399 | " | |
| Box 262 3003.0 | 3170 | ✗ | | 3170 | " | 963.1 | | | giving Basalt | |
| 3005.0 | 2767 | ✗ | | 2767 | " | 840.7 | | | " | beginning to become vesicular |
| 3006.5 | 3688 | ✓ | | 3688 | " | 1120.5 | | | " | |
| 3007.0 | 7394 | ✗ | | 7394 | " | 2246.4 | | | " | |
| 3009.0 | 5795 | ✓ | | 5795 | " | 1760.6 | | | " | white clay, minor zeolite on fractures, in vesicles (hard to see) |
| zero to Box 263 3012.0 | 6035 | ✓ | | 6035 | " | 1833.6 | — | 1460.8 | ✗ | |
| 3014.5 | 5281 | ✗ | | 5281 | " | 1604.5 | | | flow breccia | |
| 3016.0 | 3309 | ✓ | | 3309 | " | 1005.3 | | | " | |
| 3018.5 | 4533 | ✓ | | 4533 | " | 1377.2 | | | volcan breccia | |
| Box 264 3019.5 | 4802 | ✗ | | 4802 | " | 1458.9 | | | flow breccia | |
| 3022.0 | 4831 | ✓ | | 4831 | " | 1467.8 | | | " | |
| 3024.0 | 3394 | ✗ | | 3394 | " | 1031.2 | | | " | |
| 3025.5 | 3830 | ✗ | | 3830 | " | 1163.6 | | | " | more vesicular |
| 3027.5 | 2838 | ✗ | | 2838 | " | 862.2 | — | 1246.3 | " | |
| zero to Box 265 3029.0 | 3975 | ✗ | | 3975 | " | 1207.7 | | | giving Basalt | white clay in vesicles; blue clay (?) minerals on fracture |
| 3032.0 | 4032 | ✗ | | 4032 | " | 1225.0 | | | " | |
| 3033.0 | 3815 | ✗ | | 3815 | " | 1159.1 | | | flow breccia | |
| 3036.0 | 3944 | ✓ | | 3944 | " | 1198.3 | | | " | |
| 3036.5 | 3656 | ✗ | | 3656 | " | 1110.8 | | | " | much blue clay mineral on fract, white zeol (?) clay also |
| Box 266 3039.0 | 3925 | ✓ | | 3925 | " | 1192.5 | | | giving basalt | |
| 3040.5 | 2836 | ✓ | | 2836 | " | 861.6 | | | " | |
| 3042.0 | 3049 | ✓ | | 3049 | " | 926.3 | — | 1110.2 | " | |
| 3045.0 | 4219 | ✓ | | 4219 | " | 1281.8 | | | flow breccia | |
| 3046.0 | 4388 | ✓ | | 4388 | " | 1333.2 | | | " | |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

 Drill Hole: CTGH-1 Pg. 51 of 76

 Date: 7-7-87

 Company: THERMAL POWER

 Logged by: ML

 Core Diameter: 2.40" NC

 Total Correction: $(1/d^2)(1.75)() = .303819$

 Instrument: Bison 3101 A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | Gen. Lithol. | Comments |
|-----------------------------|--------------------|-------|-----|----------------|-------------|--------------------------|------------------|--------------------|-------------------|--|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| 3067.0 3067.0 | 6943 | X | | 6943 | .3038 | 2109.4 | | | Flow breccia | vesicular |
| 3069.5 | 2380 | X | | 2380 | " | 723.1 | | | " | vesicles filled w/ blue clay (3) increase in vesicles |
| 3072.5 | 4532 | X | | 4532 | " | 1376.9 | | | olivine basalt | vesicular |
| 3075.5 | 5444 | X | | 5444 | " | 1654.0 | | | " | " |
| 3076.5 3076.5 | 3024 | X | | 3024 | " | 918.8 | | | " | " |
| 3080.0 | 3850 | X | | 3850 | " | 1169.7 | | | " | " |
| 3082.0 | 2521 | X | | 2521 | " | 765.9 | | | Flow breccia | " |
| 3084.0 | 4055 | X | | 4055 | " | 1232.0 | | | olivine basalt | vesicular |
| 3086 3086 | 2904 | X | | 2904 | " | 882.3 | | | " | green & blue clay |
| 3088.5 | 2728 | X | | 2728 | " | 828.8 | | | " | |
| 3089.5 | 3539 | X | | 3539 | " | 1075.2 | | | " | |
| 3092.0 | 3890 | X | | 3890 | " | 1181.8 | std dev 404 | 1159.8 | Flow breccia | |
| 3093.5 | 3091 | X | | 3091 | " | 939.1 | | | olivine basalt | |
| 3095.0 3095.0 | 2798 | X | | 2798 | " | 850.1 | | | " | |
| 3097.0 | 3307 | X | | 3307 | " | 1004.7 | | | " | |
| 3099.5 | 3613 | X | | 3613 | .3132 | 1131.6 | | | " | 197 |
| 3101.0 | 2319 | X | | 2319 | " | 704.5 | | | " | |
| 3102.0 | 2790 | X | | 2790 | " | 847.7 | | | " | |
| 3104.0 3104.0 | 2370 | X | | 2370 | " | 720.1 | | | " | |
| 3106 | 3844 | X | | 3844 | " | 1167.9 | | | " | |
| 3108 | 4268 | X | | 4268 | " | 1296.7 | std dev 204.9 | 962.5 | " | |
| 3109 | 3050 | X | | 3050 | " | 926.6 | | | basaltic Andesite | much denser grey no vesicles much blue clay alteration, lt. med gray |
| 3111.5 | 4206 | X | | 4206 | " | 1277.9 | | | " | |
| 3114.0 3114.0 | 6631 | X | | 6631 | " | 2014.6 | | | " | This entire box contains a blue/green mineral most likely malachite (effervesces lightly in dilute HCl) possibly calcite as well however white "clay" does not react in HCl in fractures + voids |
| 3117.0 | 2543 | X | | 2543 | " | 772.6 | | | " | |
| 3120.0 | 2814 | X | | 2814 | " | 854.9 | | | " | |
| 3122 | 3067 | X | | 3067 | " | 931.8 | | | " | |
| | | | | | | | | | | This zone is highly fractured as well! 3113 - 3123 |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

Drill Hole: CT64-1 Pg 52 of 78

Date: 7-7-87

Company: THERMAL POWER

Logged by: mc

Core Diameter: 2.40" NC

Total Correction: $(1/d^2)(1.75)() = .303819$

Instrument: BISON 3101 A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | Gen Lith | Comments |
|-------------------|--------------------|-------|-----|----------------|-------------|--------------------------|------|--------------------|---------------------|--|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 275 3124 | 3749 | ✓ | | 3749 | .3038 | 1139.0 | | | basaltic andesite | light grey |
| 3126 | 4187 | ✓ | | 4187 | .3376 | 1413.4 | — | 1166.4 | " | 1/90 crumbly white clay in fract |
| 3128 | 2755 | ✓ | | 2755 | .3038 | 837 | | | volcanic breccia | (like before) vesicular |
| 3129.5 | 4321 | X | | 4321 | " | 1312.8 | | | basalt flow breccia | |
| 3130.5 | 3777 | X | | 3777 | " | 1147.5 | | | " | olivine not as apparent as before |
| Box 276 3132.5 | 2824 | X | | 2824 | " | 858.0 | | | " | |
| 3134.0 | 2342 | ✓ | | 2342 | " | 711.5 | | | olivine basalt | |
| 3136.5 | 1822 | ✓ | | 1822 | " | 553.6 | | | " | |
| 3139.5 | 2745 | X | | 2745 | " | 834.0 | | | flow breccia | |
| 3140 | 5267 | X | | 5267 | " | 1600.2 | | | " | |
| Box 277 3141.5 | 2735 | ✓ | | 2735 | " | 830.9 | | | Basaltic andesite | white "clay" at beginning of box effervesces slightly - w/ olivine possible calcite cement - (?) |
| 3145 | | | | | | | | | XIS | on fractures med gray basalt |
| 3145.5 | 4220 | X | | 4220 | " | 1282.1 | | | " | malachite on fractures + in vesicles brown stain also (hematite) box fractured matrix |
| 3146.5 | 4103 | X | | 4103 | " | 1246.6 | | | flow breccia | vesicular w/ much blue clay red matrix |
| 3149.5 | 4293 | X | | 4293 | " | 1304.3 | | | basalt | 3148 ¹ vesicles called w/ zeolites/zeolite cement |
| | | | | | | | | | | malachite on fracture amygdules brown clay (a basalt) |
| Box 278 3151.5 | 3090 | X | | 3090 | .3574 | 1104.5 | | | flow breccia | 1/25 |
| 3153 | 4210 | X | | 4210 | .3038 | 1279.1 | | | " | |
| 3155 | 1704 | ✓ | | 1704 | " | 517.7 | | | " | |
| 3157 | 4026 | X | | 4026 | " | 1223.2 | | | or basalt | 3158-3159 very fractured & coated w/ a blue-white "clay" ← might contain some carbonate cement (reacts v. slightly in HCl) |
| Box 279 3162 | 1714 | ✓ | | 1714 | " | 520.7 | | | flow breccia | 3159.5-3160.5 badly fractured basaltic andesite w/ much malachite on fractures doesn't effervesce |
| 3165 | 2655 | ✓ | | 2655 | " | 806.6 | | | " | |
| 3166 | 3904 | ✓ | | 3904 | " | 1186.1 | | | " | |
| 3168 | 3631 | ✓ | | 3631 | " | 1103.2 | | | ✓ | |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

Drill Hole: CTGH-1 Pg 53 of 78

Date: 7-7-87

Company: THERMAL POWER

Logged by: ML

Core Diameter: 2.40" NC

Total Correction: $(1/d^2)(1.75)() = .303819$

Instrument: Bison 3101A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | Gen Lith | Comments |
|--------------------------------|--------------------|-------|-----|----------------|-------------|--------------------------|-------------|--------------------|----------------|--|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| 280 Box 286 3169 | 3225 | ✓ | | 3225 | .3038 | 979.8 | | | basalt | |
| 3172 | 3126 | ✓ | | 3126 | " | 949.7 | | | flow breccia | |
| 3173 | 3074 | ✓ | | 3074 | " | 933.9 | - | 1005.3 | basalt | vesicular w/ mud clay in vesicles |
| 3175 | 3626 | ✓ | | 3626 | " | 1101.6 | | | flow breccia | |
| 3177 | 1912 | ✓ | | 1912 | " | 580.9 | | | " | |
| Box 281 3178 | 2672 | X | | 2672 | " | 811.8 | | | " | |
| 3181 | 2834 | ✓ | | 2834 | " | 861.0 | | | " | |
| 3183 | 2968 | ✓ | | 2968 | " | 901.7 | | | olivine basalt | |
| 3186 | 4321 | X | | 4321 | " | 1312.8 | | | flow breccia | 3183'-3187' fracture w/ blue/green min. (malachite? effervesces) on fracture zone. Much olivine present definite contact between breccia + basalt small drusy zeolites in fract & vein s/vesic |
| Box 282 3188 | 3057 | X | | 3057 | " | 928.8 | | | " | vesicular |
| 3190 | 3507 | ✓ | | 3507 | " | 1065.5 | < | 945.5 | " | |
| 3192 | 2095 | ✓ | | 2095 | " | 636.5 | | | Olivine Basalt | non vesicular, mt to gray |
| 3193 | 2246 | X | | 2246 | " | 682.4 | | | " | dense olivine phenocrysts |
| 3195 | 4040 | ✓ | | 4040 | " | 1227.4 | s dev 328.7 | 848.8 | " | |
| 280 Box 283 3198 | 3964 | ✓ | | 3964 | " | 1204.3 | | | flow breccia | |
| 3199 | 2466 | ✓ | | 2466 | " | 747.4 | | | " | |
| 3201 | 3830 | ✓ | | 3830 | " | 1163.6 | | | " | |
| 3202.5 | 3797 | X | | 3797 | " | 1153.6 | | | " | Drusy zeolites coating over on bluish grey clay on fracture surface |
| 3203.5 | 2238 | ✓ | | 2238 | " | 679.9 | | | " | |
| Box 284 3206.0 | 1842 | ✓ | | 1842 | " | 559.6 | | | flow breccia | malachite (small amt) in vesicles/fractures (effervesces) |
| 3208.0 | 806 | X | | 806 | .3574 | 288.1 | | | basalt | vesicular/ much drusy zeolites on large 1/85 |
| | | | | | | | | | flow | fracture + vesicles malachite (?) on fractures much light green clay, also |
| 3210.0 | 1042 | ✓ | | 1042 | .3038 | 316.6 | | | flow breccia | |
| 3212.0 | 1023 | X | | 1023 | " | 310.8 | | | " | |
| 3213.5 | 1907 | X | | 1907 | " | 579.4 | | | " | zeolites in vesicles exposed on fractures |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

Drill Hole: CTGH-1 Pg 54 of 78

Date: 7-7-87

Company: THERMAL POWER

Logged by: ML

Core Diameter: 2.40" NC

Total Correction: $(1/d^2)(1.75)() =$ 303819

Instrument: Bison 3101A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | Gener. Lithol. | Comments |
|---------------------------|--------------------|-------|-----|----------------|-------------|--------------------------|------|--------------------|--------------------------|--|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 285 3215.5 | 1754 | X | | 1754 | 3038 | 532.9 | | | vesicular oliving basalt | zeolite in vesicles |
| 3218.0 | 4404 | X | | 4404 | " | 1338 | | | flow breccia | |
| 3219.5 | 2680 | X | | 2680 | " | 814.2 | | | " | |
| 3221.0 | 4036 | X | | 4036 | " | 1226.2 | | | " | |
| 3222.5 | 4710 | X | | 4710 | " | 1431.0 | | | " | |
| Box 286 zero 3224.5 | 3875 | Y | | 3875 | " | 1177.3 | | | " | |
| 3227.0 | 2335 | X | | 2335 | " | 709.4 | | | " | large vesicular clasts filled w/ clay |
| 3228 | 2200 | X | | 2200 | " | 668.4 | | | " | |
| 3232 | 2518 | X | | 2518 | " | 765.0 | | | " | |
| Box 287 3234 | 2404 | X | | 2404 | " | 730.4 | | | " | |
| 3235.5 | 3245 | X | | 3245 | " | 985.9 | | | " | |
| 3238.0 | 5355 | X | | 5355 | " | 1627.0 | | | " | zeolites on fracture turquoise clay (?) in vesicles (effervesces) |
| 3240 | 5208 | X | | 5208 | " | 1582.3 | | | " | zeolite in large vesicle |
| 3241.5 | 4843 | X | | 4843 | " | 1471.4 | | | " | |
| Box 288 3244.0 | 2317 | X | | 2317 | " | 703.9 | | | " | much lighter matrix |
| 3245.5 | 4249 | X | | 4249 | " | 1290.9 | | | basalt | at top of this core is vein with opalescent pale blue quartz same fracture contains pale blue + green clay |
| 3248.5 | 4360 | X | | 4360 | " | 1324.6 | | | flow breccia | |
| 3251.0 | 2130 | X | | 2130 | " | 647.1 | | | " | |
| Box 289 zero 3252.8 | 4368 | X | | 4368 | " | 1327.1 | | | basalt | |
| 3255.0 | 2934 | X | | 2934 | " | 891.4 | | | " | |
| 3256.0 | 3460 | X | | 3460 | " | 1051.2 | | | " | |
| 3258 | 2792 | X | | 2792 | " | 848.3 | | | flow breccia | |
| 3260.5 | 2980 | X | | 2980 | " | 905.4 | | | " | |
| Box 290 3263 | 3854 | Y | | 3854 | " | 1170.9 | | | " | |
| 3266 | 4090 | X | | 4090 | " | 1242.6 | | | basalt | |
| 3267 | 2806 | X | | 2806 | " | 852.5 | | | flow breccia | |
| 3269.8 | 2362 | X | | 2362 | " | 717.6 | | | " | |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

Drill Hole: CT6H-1 Pg 55 of 78

Date: 7-7-87

Company: THERMAL POWER

Logged by: ML

Core Diameter: NL 2.40"

Total Correction: $(1/d^2)(1.75)() = 303819$

Instrument: Bison 3101A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | Gen Lith | Comments |
|-------------------|--------------------|-------|-----|----------------|-------------|--------------------------|--------|--------------------|----------------|---|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 291 3271 | 2214 | X | | 2214 | 3038 | 672.6 | | | Flow breccia | |
| 3273 | 1627 | N | | 1627 | " | 494.3 | 359 | 938.3 | " | |
| 3275 | 3438 | Y | | 3438 | " | 1044.5 | | | Olivine Basalt | no vesicles no clay |
| 3279 | 4110 | Y | | 4110 | " | 1248.7 | | | Flow breccia | Much lt. blue clay |
| Box 292 3281 | 2515 | Y | | 2515 | " | 764.1 | | | " | |
| 3283 | 3122 | Y | | 3122 | " | 948.5 | | | " | |
| 3284 | 2270 | b | | 2270 | " | 689.7 | | | " | |
| 3288 | 2992 | b | | 2992 | " | 909.0 | | | " | |
| Box 293 3290.5 | 2825 | Y | | 2825 | " | 858.3 | 1066.0 | 1066.0 | Olivine Basalt | non vesicular |
| 3293.0 | 2722 | b | | 2722 | " | 827.0 | | | basal breccia | |
| 3296 | 3102 | Y | | 3102 | " | 942.4 | | | " | |
| 3298.5 | 3782 | Y | | 3782 | " | 1149.0 | | 968.6 | " | |
| Box 294 3300.5 | 2278 | X | | 2278 | " | 692.1 | | | Basalt | vesicular |
| 3302.5 | 4098 | X | | 4098 | " | 1245 | | | " | |
| 3304.5 | 2919 | Y | | 2919 | " | 886.8 | | | " | |
| 3307.5 | 4485 | Y | | 4485 | 3376 | 1514.1 | | 1084.5 | " | 1/90 |
| Box 295 3309 | 5340 | X | | 5340 | 3038 | 1622.4 | | | Flow breccia | |
| 3312 | 2230 | Y | | 2230 | " | 677.5 | | | " | |
| 3315 | 3839 | X | | 3839 | " | 1166.4 | | | " | |
| 3317 | 2960 | Y | | 2960 | " | 899.3 | | | " | |
| Box 296 3319.5 | 3682 | Y | | 3682 | " | 1118.7 | | 1197 | basalt | |
| 3321.0 | 2160 | Y | | 2160 | " | 656.3 | | | Flow breccia | more vesicular little or no clay |
| 3323 | 3957 | Y | | 3957 | " | 1202.2 | | | " | zeolites in vesicle at bottom structure of sample |
| 3326.5 | 2596 | X | | 2596 | " | 788.7 | | | " | Much blue + white clay |
| Box 297 3328 | 3294 | Y | | 3294 | " | 1000.8 | | | " | |
| 3331 | 2770 | Y | | 2770 | " | 841.6 | | | " | |
| 3333 | 3441 | Y | | 3441 | " | 1045.4 | | | " | |
| 3336 | 4188 | Y | | 4188 | " | 1272.4 | | | basalt | drusy silica on fractures @ sample base |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

Drill Hole: CT6H-1 Pg 56 of 78

Date: 7-7-87

Company: THERMAL POWER

Logged by: ML

Core Diameter: 2.40" NC

Total Correction: $(1/d^2)(1.75)() = .303819$

Instrument: Bison 3101A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | Gen Lth | Comments |
|--------------------------------------|--------------------|-------|-----|----------------|-------------|--------------------------|-----------|--------------------|--------------|---|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| <u>Box 298</u> 3338 | 2950 | X | | 2950 | .3038 | 896.3 | S dev 267 | 1014.2 | flow breccia | |
| 3343 | 3490 | X | | 3490 | " | 1060.3 | | | basalt | |
| 3345 | 3084 | Y | | 3084 | " | 937.0 | | | " | box is broken up |
| <u>Box 299</u> <u>290</u> 3347 | 2735 | X | | 2735 | " | 830.9 | | | " | |
| 3349 | 3066 | Y | | 3066 | " | 931.5 | | | " | (note what thermal Geos said about 3350 cu) |
| 3351 | 3459 | Y | | 3459 | " | 1050.9 | | 962.1 | Y | |
| 3354 | 3996 | Y | | 3996 | " | 1214.1 | | | breccia flow | |
| <u>Box 300</u> 3356 | 3504 | Y | | 3504 | " | 1064.6 | | | " | much blue clay |
| 3358 | 2720 | Y | | 2720 | " | 826.4 | | | " | blue green clay in all vesicles |
| 3362 | 3871 | Y | | 3871 | " | 1176.1 | | | " | |
| 3363 | 3074 | Y | | 3074 | " | 933.9 | | | " | |
| <u>Box 301</u> 3365 | 1770 | Y | | 1770 | " | 537.8 | | | " | vesicularity increases |
| 3369 | 4107 | Y | | 4107 | " | 1247.8 | | | " | |
| 3371.5 | 5517 | Y | | 5517 | " | 1676.2 | | 1084.6 | " | vesicles filled with white clay; blue clay on fract |
| 3372 | 6125 | Y | | 6125 | .3376 | 2067.7 | | | basalt | vesicular zeolites on fract malachite crystal? 690 |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

Drill Hole: CT6H-1 Pg 57 of 78

Date: 7-8-87

Company: THERMAL POWER

Logged by: ML

Core Diameter: 2.40" NC

Total Correction: $(1/d^2)(1.75)() = ,303819$

Instrument: Bison 3101A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | Gen. Lith. | Comments |
|--------------------------|--------------------|-------|-----|----------------|-------------|--------------------------|-------------|--------------------|-------------------|---|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 302 zero → 3374 | 3904 | X | | 3904 | .3376 | 1317.9 | | | basalt | brecciated (tectonic) but recemented / chlorite on frac. ^{1/80} |
| 3376.5 | 3213 | X | | 3213 | .3038 | 976.2 | | | " | |
| 3380.5 | 4800 | X | | 4800 | .3038 | 1458.3 | | | flow breccia | |
| 3382.0 | 2282 | Y | | 2282 | " | 693.3 | | | " | increasing vesicular |
| Box 303 3384.0 | 3087 | X | | 3087 | " | 937.9 | | | " | |
| 3386.5 | 4957 | X | | 4957 | " | 1506.0 | | | basaltic andesite | bale blue clay coating |
| 3388 | 5222 | Y | | 5222 | " | 1586.5 | | | " | |
| 3389 | 3202 | X | | 3202 | " | 972.8 | | | " | |
| Box 304 3393 | 3665 | Y | | 3665 | .3574 | 1310.0 | 5 dec 114.6 | 1242.1 | " | ^{1/85} |
| 3398 | 1656 | X | | 1656 | .3038 | 503.1 | | | flow breccia | |
| 3399 | 3021 | Y | | 3021 | " | 917.8 | | | " | |
| 3400.5 | 2895 | X | | 2895 | " | 879.6 | | | " | |
| Box 305 zero → 3402.0 | 3214 | X | | 3214 | " | 976.5 | | | " | |
| 3404.5 | 3034 | X | | 3034 | " | 921.8 | | | " | |
| 3408 | 3275 | Y | | 3275 | " | 995.0 | | | " | |
| 3410 | 2316 | Y | | 2316 | " | 703.6 | | | " | |
| Box 306 3412 | 4194 | Y | | 4194 | " | 1274.2 | | | " | |
| 3414 | 1957 | Y | | 1957 | " | 594.6 | | | " | |
| 3418 | 3210 | X | | 3210 | " | 975.3 | | | " | |
| 3420 | 2866 | X | | 2866 | " | 870.7 | | 873.8 | " | |
| Box 307 3422 | 3321 | X | | 3321 | " | 1009.0 | | 873.8 | basaltic andesite | vesicular w/ → turquoise blue clay in vesicles |
| 3424 | 3636 | X | | 3636 | " | 1104.7 | | | " | |
| 3425 | | | | | | | | | " | large vesicle w/ zeolites in cav. by mud w/ desiccation cracks + turquoise clay |
| 3426 | 3175 | Y | | 3175 | " | 964.6 | | | " | zeolites on frac. throughout this box |
| 3429 | 3720 | X | | 3720 | " | 1130.2 | | | " | |
| Box 308 zero → 3432 | 3200 | X | | 3200 | " | 972.2 | | 1036.1 | " | |
| 3435 | 6614 | X | | 6614 | " | 2009.5 | | | flow breccia | |
| 3437 | 5298 | X | | 5298 | " | 1609.6 | | | " | |
| 3439 | 2920 | Y | | 2920 | " | 887.2 | | | " | |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

Drill Hole: CT6H-1 Pg 58 of 78

Date: 7-8-87

Company: THERMAL POWER

Logged by: ML

Core Diameter: 2.40"

Total Correction: $(1/d^2)(1.75)() = .303819$

Instrument: ALSON 361A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | Gen. lithol | Comments |
|-------------------|--------------------|-------|-----|----------------|-------------|--------------------------|--------------|--------------------|-------------------|---|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 309 3441.5 | 3227 | ✓ | | 3227 | .3038 | 980.4 | | | flow breccia | |
| 3443 | 5854 | ✓ | | 5854 | " | 1778.6 | | | " | dark matrix → clay in vesicles |
| 3445 | 3357 | ✓ | | 3357 | " | 1019.9 | | | basaltic andesite | |
| 3449 | 3664 | ✓ | | 3664 | " | 1113.2 | | | " | |
| Box 310 3450.5 | 3894 | ✓ | | 3894 | " | 1183.1 | | | " | dark gray no vesicles |
| 3452 | 5802 | ✓ | | 5802 | " | 1762.8 | | | flow breccia | |
| 3453 | 4033 | ✓ | | 4033 | " | 1225.3 | | | " | |
| 3458 | 3066 | ✓ | | 3066 | " | 931.5 | s. dev 397.5 | 1318.3 | Basalt andes | quartz on fract/veins (?) |
| Box 311 3459 | 5742 | ✓ | | 5742 | " | 1744.5 | | | flow breccia | definite green color |
| 3462 | 5200 | ✓ | | 5200 | " | 1579.9 | | | " | |
| 3465.5 | 4947 | ✓ | | 4947 | " | 1503.0 | | | " | |
| 3467.0 | 5357 | ✓ | | 5357 | " | 1627.6 | | | " | |
| Box 312 3469.0 | 4358 | ✓ | | 4358 | " | 1324.0 | | | " | |
| 3473.0 | 4187 | ✓ | | 4187 | " | 1272.1 | | | " | |
| 3475.0 | 5405 | ✓ | | 5405 | " | 1642.1 | | | " | vesicular clasts some clay |
| 3476.5 | 5340 | ✓ | | 5340 | " | 1622.4 | | | " | |
| Box 313 3478 | 3834 | ✓ | | 3834 | " | 1164.8 | | | " | |
| 3481 | 5091 | ✓ | | 5091 | " | 1546.7 | 187.1 | 1502.7 | " | zeolites + mud in vesicles |
| 3486 | 3085 | ✓ | | 3085 | .3198 | 986.6 | | | Basalt andes | med gray / chert clay (?) on fract |
| | | | | | | | | | | 3481-3485 broken up another SiO ₂ depos also in veins 1/95 |
| Box 314 3487.5 | 3777 | ✓ | | 3777 | .3038 | 1147.5 | | | " | SiO ₂ on vesicle - blue (calc carbonate) |
| 3489.0 | 1840 | ✓ | | 1840 | " | 559.0 | | | flow breccia | very vesicular zone |
| 3494 | 4820 | ✓ | | 4820 | " | 1464.4 | | | " | decrease in vesicles |
| 3498 | 2164 | ✓ | | 2164 | " | 657.5 | | | " | |
| Box 315 3498 | 3909 | ✓ | | 3909 | " | 1187.6 | | | " | |
| 3500 | 5134 | ✓ | | 5134 | " | 1559.8 | | | " | |
| 3502 | 3329 | ✓ | | 3329 | " | 1011.4 | | | " | clasts smaller |
| 3506 | 3484 | ✓ | | 3484 | " | 1058.5 | | | " | |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

 Drill Hole: CTGH-1 Pg. 59 of 78

 Date: 7-8-87

 Company: THERMAL POWER

 Logged by: ML

 Core Diameter: 2.40" NC

 Total Correction: $(1/d^2)(1.75)() = 303819$

 Instrument: BISON 3101A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | Gen Lith. | Comments |
|---------------------|--------------------|-------|-----|----------------|-------------|--------------------------|-------------|--------------------|-----------------|--|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 316 3507.5 | 5674 | 0 | | 5674 | 3038 | 1723.9 | | | Clay breccia | zeolite in vesicle (small amt) |
| 3512.5 | 2800 | X | | 2800 | " | 850.7 | | | " | v. green |
| 3514 | 1630 | X | | 1630 | " | 495.2 | | | " | increase in vesicularity |
| 3516.5 | 4618 | 0 | | 4618 | " | 1403.0 | | | " | |
| Box 317 3518.0 | 3035 | 0 | | 3035 | " | 922.1 | | | Basaltic Andes. | porphyritic, clay on fractures |
| 3520 | 3283 | 0 | | 3283 | " | 997.4 | | | " | |
| 3524 | 3904 | 0 | | 3904 | " | 1186.1 | | | " | blue clay on frac |
| 3525 | 3300 | 0 | | 3300 | " | 1002.6 | | | " | |
| Box 318 3527 | 4006 | 0 | | 4006 | " | 1217.1 | s dev 32.9 | 1079.5 | " | fractures reconnected together |
| 3531 | 5820 | 0 | | 5820 | " | 1768.2 | | | flow breccia | very mafic clasts |
| 3532.5 | 4846 | 0 | | 4846 | " | 1472.3 | | | " | |
| 3534.5 | 1758 | X | | 1758 | " | 534.1 | | | " | red matrix |
| zero → Box 319 3536 | 2792 | X | | 2792 | " | 848.3 | | | " | u intermediate clasts. |
| 3538 | 1991 | 0 | | 1991 | " | 604.9 | | | " | increase in green color + mafic clasts |
| 3542.5 | 398 | 0 | | 398 | " | 120.9 | | | " | Basaltic u. large mafic andesite clasts zeolites in fract. |
| 3543 | 542 | 0 | | 542 | " | 164.7 | | 7 | " | lining vesicles |
| Box 320 3546 | 2021 | X | | 2021 | " | 614.0 | | 765.9 | " | |
| 3549 | 3297 | 0 | | 3297 | " | 1001.7 | | | " | large clasts; some vesicles greenish color |
| 3551 | 3535 | 0 | | 3535 | " | 1074.0 | | | " | |
| 3553 | 4859 | X | | 4859 | " | 1476.3 | | | " | |
| Box 321 3555 | 4824 | 0 | | 4824 | " | 1465.6 | | | " | |
| 3557 | 4203 | 0 | | 4203 | " | 1276.9 | | | " | |
| 3559 | 2984 | 0 | | 2984 | " | 906.6 | | | " | very vesicular, zeolites on vesicles |
| 3562.5 | 5354 | 0 | | 5354 | " | 1626.6 | | | " | brown & green clay + quartz in vesicles also |
| Box 322 3564 | 5455 | X | | 5455 | " | 1657.3 | | | " | dense non-vesicular dark gray |
| 3566 | 6105 | 0 | | 6105 | " | 1854.8 | | | " | red + green matrix large clasts |
| 3570 | 3648 | X | | 3648 | " | 1108.3 | s dev 318.4 | 1344.8 | " | |
| 3571.5 | 3814 | 0 | | 3814 | " | 1158.8 | | | Basaltic and | gray fm clay filling vesicles |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

 Drill Hole: CTG 4-1 Pg 60 of 78

 Date: 7-8-87

 Company: THERMAL POWER

 Logged by: ML

 Core Diameter: 2.40

 Total Correction: $(1/d^2)(1.75)() = 130389$

 Instrument: Bison 3101A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | Gen lth | Comments |
|------------------------------|--------------------|-------|-----|----------------|-------------|--------------------------|-------------|--------------------|-------------------|---|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 323 3573.5 | 8058 | X | | 8058 | 130389 | 2448.2 | | 1803.5 | Basaltic Andesite | much white clay in veins + vesicles |
| 3576.0 | 5721 | X | | 5721 | " | 1738.2 | | | flow breccia | zeolite in vesicles |
| 3579.0 | 4539 | Y | | 4539 | " | 1379 | | | " | 3578! - much drusy zeol on fract/vesicle green clay coating on zeol. |
| 3581 | 5456 | Y | | 5456 | " | 1657.6 | | | " | less dense brown matrix |
| Box 324 3583 | 4484 | Y | | 4484 | " | 1362.3 | | | " | |
| 3585 | 5599 | Y | | 5599 | " | 1701.1 | | | " | more vesicular |
| 3589.5 | 5411 | X | | 5411 | " | 1644.1 | | | " | drusy zeolites in large vesicle |
| 3591 | 4544 | Y | | 4544 | " | 1380.6 | | | " | |
| Box 325 3593 | 2416 | Y | | 2416 | " | 734.0 | | | " | vesicular |
| 3595 | 4408 | Y | | 4408 | " | 1339.2 | | | " | |
| 3599 | 4296 | X | | 4296 | " | 1305.2 | | | " | |
| 3601 | 6002 | X | | 6002 | " | 1823.5 | s dev 304.7 | 1460.4 | " | |
| Box 326 3602 | 5166 | Y | | 5166 | " | 1567.7 | | | basaltic Andesite | mod gray zeolites drusy coatings on clay |
| 3604 | 6404 | Y | | 6404 | " | 1945.7 | | | " | large clay coated zeolites in vesicles |
| 3606 | 2836 | Y | | 2836 | " | 861.6 | | | " | th. blue clay on fract + vesicles |
| 3608 | 3152 | Y | | 3152 | " | 957.6 | | | " | blue/green mineral that looks like Qtz (conchoidal fracture) however is too soft - not malachite (doesn't effervesce) |
| Box 327 3612 | 4446 | X | | 4446 | " | 1350.8 | | | " | (???) (silicified clays, milky Qtz. in vesicles) |
| 3613.5 | 3398 | Y | | 3398 | " | 1032.4 | s dev 417.4 | 1286.0 | " | clay in vesicles banded clays in one vesicle |
| 3617 | 4162 | Y | | 4162 | " | 1264.4 | | | flow breccia | corceladonite? |
| 3619 | 6438 | Y | | 6438 | " | 1956.0 | | | " | |
| Box 328 3621.5 | 5235 | Y | | 5235 | " | 1590.4 | | | " | dense/no vesicles or clay |
| 3623 | 5699 | Y | | 5699 | " | 1731.5 | | | " | |
| 3625.5 | 6010 | Y | | 6010 | " | 1835.9 | | | " | white + blue clay on frac. |
| 3628 | 4967 | Y | | 4967 | " | 1509.1 | | | " | |
| Box 329 3632 | 6267 | Y | | 6267 | " | 1904.0 | | | " | |
| 3635 | 4736 | X | | 4736 | " | 1438.9 | | | " | |
| 3636.5 | 2317 | X | | 2317 | " | 703.9 | | | " | |
| 3638 | 3460 | Y | | 3460 | " | 1051.2 | | | " | |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

 Drill Hole: CTGH-1 Pg. 601 of 78

 Date: 7-8-87

 Company: THERMAL POWER

 Logged by: ML

 Core Diameter: 2.40" NC

 Total Correction: $(1/d^2)(1.75)() = 303819$

Instrument: _____

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | Gen. Lith | Comments |
|-----------------------------|--------------------|-------|-----|----------------|-------------|--------------------------|-------------|--------------------|-----------|---|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 330 3639.5 | 5156 | ✓ | | 5156 | 3038 | 1566.5 | | | | |
| 3644 | 4036 | ✓ | | 4036 | " | 1226.2 | | | | Blow breccia w/ interbedded Basalt andesite |
| 3646 | 5436 | ✗ | | 5436 | 11 | 1651.6 | | | " | |
| 3648 | 1862 | ✓ | | 1862 | " | 565.7 | | | " | zeolites in very small vesicles on fract. |
| Box 331 zero → 3649 | 4846 | ✓ | | 4846 | " | 1472.3 | | | " | |
| 3651.5 | 4505 | ✗ | | 4505 | " | 1368.7 | | | " | |
| 3653.0 | 7449 | ✓ | | 7449 | " | 2263.2 | | | " | zeolites in vesicles |
| 3657.5 | 3622 | ✓ | | 3622 | " | 1100.4 | | | " | |
| Box 332 3659.0 | 4550 | ✗ | | 4550 | " | 1382.9 | | | " | |
| 3663.0 | 4920 | ✗ | | 4920 | " | 1494.8 | | | " | |
| 3665.0 | 3390 | ✗ | | 3390 | " | 1029.9 | | | " | |
| 3667 | 4735 | ✗ | | 4735 | " | 1438.8 | | | " | |
| Box 333 3668 | 4876 | ✓ | | 4876 | " | 1481.4 | | | " | zeolites in vesicles |
| 3673 | 3480 | ✓ | | 3480 | " | 1057.3 | | | " | |
| 3674 | 3715 | ✓ | | 3715 | " | 1128.7 | | | " | |
| 3676 | 4834 | ✗ | | 4834 | " | 1468.7 | | | " | |
| Box 334 3677.5 | 4159 | ✗ | | 4159 | " | 1263.6 | | | " | |
| 3680 | 4915 | ✓ | | 4915 | " | 1493 | | | " | turgous blue clay(?) in vesicles |
| 3682 | 5768 | ✓ | | 5768 | " | 1752.4 | | | " | |
| 3683 | 4850 | ✓ | | 4850 | " | 1473.5 | | | " | |
| zero → Box 335 3687.5 | 4789 | ✓ | | 4789 | " | 1455.0 | | | " | |
| 3689.0 | 3915 | ✗ | | 3915 | " | 1189.4 | | | " | |
| 3693 | 3650 | ✗ | | 3650 | " | 1108.9 | | | " | |
| 3695.5 | 3419 | ✗ | | 3419 | " | 1038.8 | | | " | |
| Box 336 3697 | 4159 | ✓ | | 4159 | " | 1263.6 | | | " | clasts - increasingly mafic |
| 3699 | 4930 | ✗ | | 4930 | " | 1497.8 | | | " | |
| 3703 | 4666 | ✗ | | 4666 | " | 1417.6 | | | Basalt | 3cm vesicle req. coat amyd. of chlorody celadonite v. vesicle |
| 3705 | 5577 | ✓ | | 5577 | " | 1694.4 | S dev 328.6 | 1401.2 | " | |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

 Drill Hole: CTGM-1 Pg 6a of 78

 Date: 7-9-87

 Company: THERMAL POWER

 Logged by: ML

 Core Diameter: 2.40" NC

 Total Correction: $(1/d^2)(1.75)() = .303819$

 Instrument: Bison 3101A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | Gen lith | Comments |
|------------------------|--------------------|-------|-----|----------------|-------------|--------------------------|-------------|--------------------|-----------------|---|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| zero → Box 337 3707 | 5050 | X | | 5050 | .3038 | 1534.3 | | | flow breccia | clay (zeolite?) in vesicles |
| 3710 | 3664 | X | | 3664 | " | 1113.2 | | | " | clasts vesicular w/ celadonite amygdules |
| 3713 | 3217 | X | | 3217 | " | 977.4 | | | " | v. lg. clasts |
| 3714 | 3274 | Y | | 3274 | " | 994.7 | | | " | brown clay common |
| Box 338 3716 | 3509 | X | | 3509 | " | 1066.1 | | | " | |
| 3718 | 4268 | Y | | 4268 | .3132 | 1336.8 | | | " | 1/2 chlorite on frac green clay |
| 3720 | 3202 | X | | 3202 | .3038 | 972.8 | | | " | much brown clay |
| 3722 | 4387 | Y | | 4387 | " | 1332.8 | | 1166.0 | " | |
| Box 339 3724 | 9229 | Y | | 9229 | " | 2803.9 | | | basaltic andes. | |
| 3725.5 | 5254 | X | | 5254 | " | 1596.3 | | 2200.1 | " | |
| 3729 | 4494 | Y | | 4494 | " | 1365.4 | | | flow breccia | red matrix on some clasts celadonite amygd. |
| 3732 | 5535 | Y | | 5535 | " | 1681.6 | | | " | |
| Box 340 zero → 3734 | 4514 | X | | 4514 | " | 1371.4 | | | " | |
| 3736 | 5080 | X | | 5080 | " | 1543.4 | | | " | |
| 3738 | 2351 | Y | | 2351 | " | 714.3 | | | " | mafic clasts - vesicular v. little clay |
| 3742 | 3969 | X | | 3969 | " | 1205.8 | | | " | overall alteration decreasing |
| Box 341 3743.5 | 5020 | Y | | 5020 | " | 1525.2 | | | " | amygdules w/ white clay |
| 3745.0 | 7555 | Y | | 7555 | " | 2295.4 | | | " | elongated mafic clasts |
| 3747.0 | 5152 | X | | 5152 | " | 1565.3 | | | " | |
| 3751 | 3777 | X | | 3777 | " | 1147.5 | | | " | |
| Box 342 3754 | 4311 | X | | 4311 | " | 1309.8 | | | " | |
| 3756 | 5332 | Y | | 5332 | " | 1600.0 | | | " | zeolites on vesicles white & brown clay |
| 3758 | 2780 | X | | 2780 | " | 844.6 | | | " | zeolites on vesicles |
| 3759.5 | 5339 | X | | 5339 | " | 1622.1 | s dev 385.2 | 1415.1 | " | |
| Box 343 zero → 3761.5 | 5828 | X | | 5828 | " | 1770.6 | | | basaltic andes. | |
| 3763.5 | 5108 | X | | 5108 | " | 1551.9 | | 1661.3 | " | |
| 3765 | 3203 | Y | | 3203 | " | 973.1 | | | flow breccia | on top fract zeolites exposed in vesicle |
| 3767 | 8243 | Y | | 8243 | " | 2504 | | | " | |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

Drill Hole: CT64-1 Pg 63 of 78

Date: 7-9-87

Company: THERMAL POWER

Logged by: MC

Core Diameter: 2.40" NC

Total Correction: $(1/d^2)(1.75)() = .303819$

Instrument: BURON 3101 A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | Gen lithol | Comments |
|-------------------|--------------------|-------|-----|----------------|-------------|--------------------------|------------|--------------------|-------------------|---|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 344 3771 | 4975 | X | | 4975 | .3038 | 1511 | | | flow breccia | very mafic little clay |
| 3775 | 5276 | X | | 5276 | " | 1603 | | | " | |
| 3777 | 7244 | X | | 7244 | " | 2200.9 | | | " | vesicular clasts w/ zeolite in vesicles |
| 3778 | 6897 | X | | 6897 | " | 2095.4 | | | " | green clays less common |
| Box 345 3780 | 5340 | X | | 5340 | " | 1622.4 | | | " | |
| 3783.5 | 5660 | X | | 5660 | " | 1719.6 | | | " | |
| 3785 | 4502 | X | | 4502 | " | 1367.8 | | | " | |
| 3787 | 5144 | X | | 5144 | " | 1562.8 | | | " | vesicular clasts |
| Box 346 3789 | 5683 | X | | 5683 | " | 1726.6 | | | " | |
| 3792.5 | 3429 | X | | 3429 | " | 1041.8 | | | " | blue clay on fract. |
| 3795.0 | 3460 | X | | 3460 | " | 1051.2 | | | " | |
| 3798 | 6418 | X | | 6418 | " | 1949.9 | 1611.9 | | " | blue green clay (chlorite) |
| Box 347 3799.5 | 5018 | X | | 5018 | " | 1524.6 | | | basaltic andes | |
| 3801.5 | 3978 | X | | 3978 | " | 1208.6 | | | " | dense brecciated (tectonic) but consolidated/reconsolidated |
| 3803 | 4634 | X | | 4634 | " | 1407.9 | 1380.4 | | " | celadonite amygdules |
| 3805 | 3033 | X | | 3033 | " | 921.5 | | | flow breccia | vesicular clasts little alterat. |
| Box 348 3806.5 | 4818 | X | | 4818 | " | 1463.8 | | | " | zeolite coating blue clays in vesicles |
| 3808.5 | 5065 | X | | 5065 | " | 1538.8 | | | " | |
| 3810.5 | 3775 | X | | 3775 | " | 1146.9 | | | " | |
| 3814 | 6768 | X | | 6768 | " | 2056.3 | 1425.5 | | " | |
| Box 349 3816 | 3858 | X | | 3858 | " | 1172.1 | | | basaltic andes | med. gray chlorite on fract. |
| 3817 | 3657 | X | | 3657 | " | 1111.1 | 1141.6 | | " | zeolite on fract |
| 3821.5 | 5297 | X | | 5297 | " | 1609.3 | | | flow breccia | dark v. vesicular |
| 3823.5 | 5245 | X | | 5245 | " | 1593.5 | | | " | greenish color |
| Box 350 3828.5 | 5480 | X | | 5480 | " | 1664.9 | | | " | v. small amt zeolites |
| 3830 | 6805 | X | | 6805 | " | 2067.5 | | | " | celadonite/chalcedony extensive on fract; white |
| 3829 | 7395 | X | | 7395 | " | 2246.7 | | | " | clay in vesicles laminated clays in vesicles |
| 3832.5 | 4591 | X | | 4591 | " | 1394.8 | | | " | |
| Box 351 3834 | 7835 | X | | 7835 | " | 2380.4 | sdev 376.7 | 1851.0 | " | lt. blue clay |
| 3836 | 3991 | X | | 3991 | " | 1212.5 | | | basaltic andesite | amygdules filled with various colored clay or silica |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

 Drill Hole: CT614-1 Pg 64 of 78

 Date: 7-9-87

 Company: THERMAL POWER

 Logged by: ML

 Core Diameter: 2.40" NC

 Total Correction: $(1/d^2)(1.75)() = .303819$

 Instrument: Bison 3101A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | Gen lith | Comments |
|------------------------|--------------------|-------|-----|----------------|-------------|--------------------------|------------|--------------------|-----------------|--|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 351 (cont) 3838 | 3643 | X | | 3643 | .3038 | 1106.8 | | 1159.7 | basalt, and | |
| 3842 | 2682 | Y | | 2682 | " | 814.8 | | | flow breccia | brn-grey color |
| Box 352 3844 | 2596 | X | | 2596 | " | 788.7 | | | " | very vesicular |
| 3848 | 4753 | Y | | 4753 | " | 1444.1 | | | " | |
| 3850 | 6418 | Y | | 6418 | " | 1949.9 | | | " | |
| Box 353 3851.5 | 3943 | Y | | 3943 | " | 1198.0 | sdev 482.7 | 1239.1 | " | |
| 3853 | 3675 | Y | | 3675 | " | 1116.5 | | | Basalt and | hem./limonite stain - tectonic brecciation and cement with chlorite cement |
| 3855 | 3615 | X | | 3615 | " | 1098.3 | | | " | |
| 3857 | 4928 | Y | | 4928 | " | 1497.2 | | | " | |
| 3859 | 3547 | Y | | 3547 | " | 1077.6 | | | " | |
| Box 354 3862 | 3794 | X | | 3794 | " | 1152.7 | sdev 174.8 | 1188.5 | " | |
| 3864 | 6015 | Y | | 6015 | " | 1827.5 | | | Breccia flow | |
| 3866 | 5156 | X | | 5156 | " | 1566.5 | | | " | on top fracture -> zeolites in vesicles |
| 3870 | 4568 | Y | | 4568 | " | 1387.8 | | | basaltic andes | |
| Box 355 3871.5 | 4066 | Y | | 4066 | " | 1235.3 | | | " | |
| 3874 | 4676 | X | | 4676 | " | 1420.6 | | | flow breccia | vesicular B.A. clasts |
| 3877 | 5801 | X | | 5801 | " | 1762.4 | | | " | |
| 3878 | 4900 | X | | 4900 | " | 1488.7 | | | " | |
| Box 356 3880.5 | 6336 | X | | 6336 | " | 1925 | | | " | |
| 3883.0 | 6450 | Y | | 6450 | " | 1959.6 | | | " | |
| 3885 | 6750 | Y | | 6750 | " | 2050.8 | | | " | |
| 3888.5 | 5530 | Y | | 5530 | " | 1680.1 | | | " | decreasing alteration |
| Box 357 3892 | 599.1 | Y | | 599.1 | " | 1820.2 | | | " | vesicles filled w/ zeolite |
| 3894 | 6840 | Y | | 6840 | " | 2078.1 | | | " | |
| 3895.5 | 6000 | Y | | 6000 | " | 1822.9 | | | " | crumbly clays - (red) -> zeolites(?) in veins |
| 3896.5 | 4464 | Y | | 4464 | " | 1356.3 | sdev 268.0 | 1692.1 | " | |
| Box 358 3899 | 4401 | Y | | 4401 | " | 1337.1 | | | Basalt andesite | limonite(?) stain, blue-green clays, zeolites (white) in vesicle |
| 3903 | 5148 | Y | | 5148 | " | 1564.1 | | 1450.1 | " | |
| 3905 | 6265 | Y | | 6265 | " | 1903.4 | | | flow breccia | |
| 3906 | 4475 | X | | 4475 | " | 1359.6 | | | basalt and | amygdules filled w/ banded clays and zeolite |

boatrydal one large cavity w/ well developed zeolite xls

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

 Drill Hole: CTG4-1 Pg 65 of 78

 Date: 7-9-87

 Company: THERMAL POWER

 Logged by: ML

 Core Diameter: 2.40" NC

 Total Correction: $(1/d^2)(1.75)() = .303819$

 Instrument: BISON 3101 A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | Gener. lithol. | Comments |
|-------------|--------------------|-------|-----|----------------|-------------|--------------------------|-------------|--------------------|----------------|--|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| 3908 | 3247 | X | | 3247 | .3038 | 986.5 | | | flow breccia | |
| 3910 | 3460 | X | | 3460 | " | 1051.2 | | | " | v. vesicular |
| 3912 | 4703 | X | | 4703 | " | 1428.9 | s dev 305.3 | 1345.9 | " | |
| 3915.5 | 4883 | X | | 4883 | " | 1483.6 | | | basaltic andes | |
| 3917 | 4819 | X | | 4819 | .3198 | 1541.2 | | | " | 1/95 brecciated, re cemented then fractured green/blue clay (?) cement |
| 3918 | 6528 | X | | 6528 | .3038 | 1983.3 | | | " | |
| 3922 | 4649 | V | | 4649 | .3198 | 1486.8 | 241.2 | 1623.7 | " | 1/95 hematite/limonite stain |
| 3923 | 5323 | X | | 5323 | .3038 | 1617.2 | | | flow breccia | |
| 3925 | 3214 | Y | | 3214 | " | 976.5 | | | " | banded clays in vesicles |
| 3927 | 3731 | X | | 3731 | " | 1133.6 | | | " | |
| 3932 | 4694 | V | | 4694 | " | 1426.1 | | | " | |
| 3933.5 | 4838 | X | | 4838 | " | 1469.9 | | | " | |
| 3935 | 8009 | X | | 8009 | " | 2433.3 | | | " | |
| 3937 | 5140 | V | | 5140 | " | 1561.6 | | | " | v. little altered |
| 3939 | 5944 | X | | 5944 | " | 1805.9 | | | " | |
| 3942.5 | 5379 | X | | 5379 | " | 1634.2 | | | " | |
| 3946 | 5729 | V | | 5729 | " | 1740.6 | | | " | large vesicle filled w/ clay coated zeolites |
| 3948.5 | 5968 | X | | 5968 | " | 1813.2 | | | " | |
| 3950.0 | 6411 | X | | 6411 | " | 1947.8 | | | " | |
| 3952.5 | 5976 | X | | 5976 | " | 1815.6 | | | " | |
| 3955 | 4481 | X | | 4481 | " | 1361.4 | | | " | |
| 3957 | 6766 | X | | 6766 | " | 2055.6 | | | basaltic and. | increase in mafic clasts, some limonite (?) stain |
| 3960 | 3223 | Y | | 3223 | " | 979.2 | | | " | |
| 3961 | 1891 | Y | | 1891 | " | 574.5 | | | flow breccia | mostly mud, few clasts - brown color |
| 3963 | 3548 | X | | 3548 | " | 1077.9 | s dev 453.4 | 1523.6 | " | definitely matrix supported |
| 3965 | 2964 | V | | 2964 | " | 900.5 | | | divine basalt | zeolites, Qtz + mud in vesicles + veins |
| 3967 | 4514 | X | | 4514 | " | 1371.4 | | | " | amygdules of calcite in sm. amts |
| 3970 | 4832 | Y | | 4832 | " | 1468.1 | | | " | |
| 3973 | 4244 | Y | | 4244 | " | 1289.4 | | | basaltic andes | |
| 3975 | 4326 | X | | 4326 | " | 1314.3 | | | " | |
| 3977 | 4448 | X | | 4448 | " | 1351.4 | s dev | | " | |
| 3981.5 | 3476 | X | | 3476 | " | 1056.1 | 199.2 | 1250.2 | " | |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

 Drill Hole: CT64-1 Pg. 66 of 76

 Date: 7-13-87

 Company: THERMAL POWER

 Logged by: ML

 Core Diameter: 2.40" NC

 Total Correction: $(1/d^2)(1.75)() = 303819$

 Instrument: BISON 3101 A

| | Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | Gen. Lithol | Comments |
|-------------------|-------------|--------------------|-------|-----|----------------|-------------|--------------------------|----------------|--------------------|-------------------|------------------------------|
| | | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 367 zero → | 3983 | 5303 | X | | 5303 | 3038 | 1611.2 | | | flow breccia | red ash matrix clay |
| | 3985 | 4339 | Y | | 4339 | " | 1318.3 | | | basaltic andes. | wt. clay in vesicles |
| | 3987 | 8963 | Y | | 8963 | " | 2723.1 | | | " | dark grey |
| | 3990.5 | 4206 | Y | | 4206 | " | 1277.9 | | | " | med grey |
| Box 368 | 3993.0 | 3973 | Y | | 3973 | " | 1207.1 | | | " | Qtz on fract, in veins |
| | 3996.0 | 4070 | Y | | 4070 | " | 1236.5 | | | " | Qtz veins |
| | 3997 | 5193 | Y | | 5193 | " | 1577.7 | sdev 1556.8 | | " | |
| | 3999 | 6147 | Y | | 6147 | " | 1867.6 | | | flow breccia | |
| Box 369 | 4001 | 3371 | X | | 3371 | " | 1024.2 | | | " | |
| | 4003 | 2609 | Y | | 2609 | " | 792.7 | | | " | |
| | 4007 | 4214 | Y | | 4214 | " | 1280.3 | | | " | |
| | 4008 | 8752 | Y | | 3752 | " | 1139.9 | | | " | |
| zero → Box 370 | 4010.5 | 7173 | X | | 7173 | " | 2179.3 | sdev 532.1 | 1380.7 | " | |
| | 4012.5 | 4328 | X | | 4328 | " | 1314.9 | | | basaltic andes | |
| | 4017.0 | 4637 | X | | 4637 | 3132 | 1452.4 | | | " | 1/97 |
| | 4014 | 4275 | X | | 4275 | 3038 | 1298.8 | | | " | |
| Box 371 | 4019.5 | 4366 | X | | 4366 | " | 1326.5 | | | " | |
| | 4023.0 | 4451 | X | | 4451 | " | 1352.3 | | | " | large veins w/ extensive Qtz |
| | 4025.0 | 4524 | X | | 4524 | " | 1374.5 | | | " | |
| | 4028 | 5411 | Y | | 5411 | " | 1644.0 | sdev 121 | 1394.8 | " | |
| Box 372 | 4029 | 5487 | Y | | 5487 | " | 1667.1 | | | flow breccia | |
| | 4029.5 | 3740 | Y | | 3740 | " | 1136.3 | | | " | |
| | 4034 | 3065 | X | | 3065 | " | 931.2 | | | " | |
| | 4036 | 4290 | Y | | 4290 | " | 1303.4 | | | " | |
| zero → Box 373 | 4038 | 5157 | Y | | 5157 | " | 1566.8 | | | " | |
| | 4040 | 4759 | X | | 4759 | " | 1445.9 | | | " | |
| | 4042.5 | 4374 | X | | 4374 | " | 1328.9 | | | " | increase in red color |
| | 4044 | 3275 | X | | 3275 | " | 995.0 | 262.9 | 1296.8 | " | |
| Box 374 | 4047 | 4501 | X | | 4501 | " | 1367.5 | | | basaltic andesite | This box is |
| | 4051 | 4871 | X | | 4871 | 3132 | 1525.7 | | | " | 1/97 highly fractured |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

 Drill Hole: CTGH-1 Pg. 67 of 78

 Date: 7-13-87

 Company: THERMAL POWER

 Logged by: ML

 Core Diameter: 2.40" NC

 Total Correction: $(1/d^2)(1.75)() = 303819$

 Instrument: Bison 3101 A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | Gen. Lith. | Comments |
|------------------------------------|--------------------|-------|-----|----------------|-------------|--------------------------|--------------|--------------------|-------------------|--|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 374 (cont) 4054 | 4860 | X | | 4860 | 3038 | 1476.6 | | | basaltic andesite | green clay hom. stain (waxy) on fract |
| 4055 | 4788 | X | | 4788 | " | 1454.7 | | | " | |
| Box 375 4056 | 4600 | X | | 4600 | " | 1397.6 | | | " | |
| 4058 | 4819 | X | | 4819 | " | 1464.1 | | | " | this section is non vesicular |
| 4062.5 | 4591 | X | | 4591 | " | 1394.8 | | | " | |
| 4064.5 | 4519 | X | | 4519 | " | 1373.0 | | | " | |
| Box 376 2107 4068 | 5722 | X | | 5722 | " | 1738.4 | | | " | |
| 4070 | 5383 | X | | 5383 | " | 1635.5 | | | " | |
| 4072 | 4539 | X | | 4539 | " | 1379.0 | | | flow breccia | Qtz on fract (no zeolites in a white) amygdulose lamin w/ Qtz + celadonite |
| 4074 | 5306 | X | | 5306 | " | 1612.1 | | | basaltic And. | |
| Box 377 4075 | 5413 | X | | 5413 | " | 1644.6 | | | " | |
| 4077 | 5246 | X | | 5246 | " | 1593.8 | | | " | |
| 4079 | 4095 | X | | 4095 | " | 1244.1 | s dev. 120.1 | 1494.0 | " | |
| 4083.5 | 4115 | X | | 4115 | " | 1250.2 | | | breccia flow | amt of clay is definitely decreases |
| Box 378 4085 | 4633 | X | | 4633 | " | 1407.6 | s dev 111.3 | 1328.9 | " | |
| 4089 | 5897 | X | | 5897 | " | 1791.6 | | | basaltic Ando | |
| 4091 | 4730 | X | | 4730 | " | 1437.1 | | | " | tectonic brecciated recement w/ chonite, Qtz |
| 4092 | 4496 | X | | 4496 | " | 1366.0 | | | " | |
| zero Box 379 4096 | 4042 | X | | 4042 | " | 1228.0 | | | " | |
| 4098 | 4623 | X | | 4623 | " | 1404.5 | | | " | |
| 4100 | 4710 | X | | 4710 | " | 1431.0 | | | " | much horn clay on fractures |
| 4101 | 5100 | X | | 5100 | " | 1549.5 | | | " | |
| Box 380 4103.5 | 5096 | X | | 5096 | " | 1548.3 | 165.7 | 1469.5 | " | # opalescent blue Qtz in vesicles hematite stain |
| 4105 | 5045 | X | | 5045 | " | 1532.8 | | | flow breccia | grey coating on vesicles (zeolites?) in vesicles -> vesicula flow |
| 4109 | 4736 | X | | 4736 | " | 1438.9 | | | " | |
| 4111.5 | 5758 | X | | 5758 | " | 1749.4 | | | " | |
| Box 381 4113.5 | 4712 | X | | 4712 | " | 1431.6 | | | " | |
| 4115.5 | 3328 | X | | 3328 | " | 1011.1 | | | " | decrease in vesicles |
| 4118 | 5854 | X | | 5854 | " | 1778.6 | | | " | |
| 4120 | 4037 | X | | 4037 | " | 1226.5 | | | " | |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

 Drill Hole: CTG H-1 Pg 68 of 76

 Date: 7-13-87

 Company: THERMAL POWER

 Logged by: ML

 Core Diameter: 2.40"

 Total Correction: $(1/d^2)(1.75)() = ,303819$

 Instrument: Bison 3101 A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | Gen Lith | Comments |
|------------------|--------------------|-------|-----|----------------|-------------|--------------------------|---------------|--------------------|---------------|--|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 382 280 → | 4122 | 5110 | X | 5110 | 3038 | 1552.5 | sdev 255.3 | 1465.2 | Flow breccia | celadonite amygdules |
| | 4124 | 4773 | ✓ | 4773 | " | 1450.1 | | | Basalt ande | malachite on fract. - efferv in HCl slightly |
| | 4126 | 6695 | ✓ | 6695 | " | 2034.1 | | 1742.1 | " | |
| | 4127 | 5635 | ✓ | 5635 | " | 1712 | | | Flow breccia | |
| Box 383 | 4131 | 2021 | X | 2021 | " | 614 | | | " | laminated amygdal. with clay / celadonite wavy black clay |
| | 4133.5 | 4226 | ✓ | 4226 | " | 1283.9 | | | " | zeolites coated with blue-green clay exposed in vesicles on fractures |
| | 4135 | 2026 | X | 2026 | " | 615.5 | | | ✓ | vesicular, less amygdules |
| | 4139 | 7309 | X | 7309 | " | 2220.6 | sdev 700 | 1289.2 | 1 | silicified clay/or Qtz on fract |
| Box 384 | 4141 | 5995 | ✓ | 5995 | " | 1821.4 | | | basalt ande | |
| | 4144 | 4768 | X | 4768 | " | 1448.6 | | | Flow breccia | |
| | 4147 | 3320 | X | 3320 | " | 1008.7 | | | " | |
| | 4149 | 3309 | ✓ | 3309 | " | 1005.3 | | | " | |
| Box 385 280 → | 4150 | 3882 | X | 3882 | " | 1179.4 | | | " | |
| | 4154 | 3333 | X | 3333 | " | 1012.6 | | | " | limonite (?) stain dusty zeolites in vesic coating black clay Very vesicular |
| | 4156 | 6379 | ✓ | 6379 | " | 1938.1 | | | " | extensive zeolites coating qm clay in vesicles |
| | 4158 | 4540 | ✓ | 4540 | " | 1379.3 | | | " | |
| Box 386 | 4159 | 1700 | ✓ | 1700 | " | 516.5 | | | " | extens. zeol. on fract |
| | 4161 | 3394 | ✓ | 3394 | " | 1031.2 | | | " | |
| | 4165 | 7438 | ✓ | 7438 | " | 2259.8 | | | " | |
| | 4167 | 6331 | ✓ | 6331 | " | 1923.5 | | | " | |
| Box 387 | 4169 | 5954 | ✓ | 5954 | " | 1808.9 | | | " | |
| | 4171 | 1744 | X | 1744 | " | 529.9 | | | ✓ | |
| | 4172 | 1790 | ✓ | 1790 | " | 543.8 | sdev | 1256.1 | ✓ | |
| | 4177 | 5110 | ✓ | 5110 | " | 1552.5 | | | Basaltic ande | amygdules filled w/ clay + Qtz |
| Box 388 280 → | 4180 | 4866 | X | 4866 | " | 1478.4 | | | " | |
| | 4181 | 5120 | ✓ | 5120 | " | 1555.6 | | | " | |
| | 4183.5 | 4922 | X | 4922 | " | 1495.4 | | | " | Qtz in vesicles / qm |
| | 4186 | 5616 | | 5616 | " | 1706.3 | | | " | tectonically brecciat. + recent w/ Qtz + qm clay |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

 Drill Hole: CT64-1 Pg 70 of 78

 Date: 7-13-87

 Company: THERMAL POWER

 Logged by: ML

 Core Diameter: NX 1.82"

 Total Correction: $(1/d^2)(1.75)() = .528318$

 Instrument: BSDU 3101 A

| | Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | Gen. Lith. | Comments |
|-------------------|-------------|--------------------|-------|-----|----------------|-------------|--------------------------|----------------|--------------------|-------------------|--|
| | | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 391 | 4207 | 3410 | X | | 3410 | .5283 | 1801.6 | S dev | 1572.9 | basaltic Andes | |
| | 4211 | 5850 | X | | 5850 | " | 3091 | | | Flow breccia | |
| | 4214 | 3686 | X | | 3686 | " | 1947.4 | | | " | |
| Box 392 zero → | 4216.5 | 3600 | X | | 3600 | " | 1901.9 | S dev | 2313.4 | " | limonite stain v. vesicular |
| | 4218 | 3491 | X | | 3491 | " | 1844.4 | | | basalt and. | bright orange stain - and dry FeO ₂ |
| | 4223 | 3720 | X | | 3720 | " | 1965.3 | | | " | no Qtz in crust |
| | 4225 | 3500 | X | | 3500 | " | 1849.1 | | | " | |
| Box 393 | 4229 | 3429 | X | | 3429 | .5870 | 2012.9 | | | " | 1/90 |
| | 4231 | 2986 | X | | 2986 | .6215 | 1855.9 | | | " | 1/85 |
| | 4234.5 | 2929 | X | | 2929 | .5283 | 1547.4 | | | " | most of box broken |
| Box 394 | 4237 | 3045 | X | | 3045 | " | 1608.7 | | | " | |
| | 4239 | 1826 | X | | 1826 | " | 964.7 | | | " | |
| | 4241 | 2925 | X | | 2925 | " | 1545.3 | | | " | disseminate pyrite on top fract |
| | 4244 | 1861 | X | | 1861 | " | 983.2 | | | " | malachite - Qtz efferv. + calciton amygdal. vesicular |
| Box 395 zero → | 4247 | 3771 | X | | 3771 | " | 1992.3 | | | " | |
| | 4249 | 3582 | X | | 3582 | " | 1892.4 | | | " | |
| | 4252.5 | 2801 | X | | 2801 | " | 1479.8 | | | " | |
| | 4254 | 3051 | X | | 3051 | " | 1611.9 | | | " | |
| Box 396 | 4255.5 | 4308 | X | | 4308 | " | 2276 | | | basalt and. | hem./limonite stain no vesicular |
| | 4257 | 3054 | X | | 3054 | " | 1613.5 | | | " | |
| | 4260 | 3379 | X | | 3379 | " | 1785.2 | | | " | tectonic brecciated + re cemented |
| | 4262 | 3378 | X | | 3378 | " | 1784.7 | | | " | |
| Box 397 | 4265 | 3323 | X | | 3323 | " | 1755.6 | S dev 323.3 | 1703.6 | " | |
| | 4268 | 2536 | X | | 2536 | " | 1339.8 | | | Flow breccia | |
| | 4270 | 3108 | X | | 3108 | " | 1642.0 | | 1491 | " | |
| | 4273 | 3864 | X | | 3864 | " | 2041.4 | | 1411 | B.A. | |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

 Drill Hole: CT64-1 Pg. 71 of 78

 Date: 7-14-87

 Company: THERMAL POWER

 Logged by: ML

 Core Diameter: Nx 1.82"

 Total Correction: $(1/d^2)(1.75)() = .528318$

 Instrument: Bison 3101 A

| | Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | Gen. Lith | Comments |
|-----------------|-------------|--------------------|-------|-----|----------------|-------------|--------------------------|---------------|--------------------|-------------------|---|
| | | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 398 200+ | 4276.5 | 3519 | X | | 3519 | .5283 | 1859.2 | | | Basaltic andesite | pyrite on bottom frac of this some Qtz veins also |
| | 4278.0 | 4476 | X | | 4476 | " | 2364.8 | | | " | |
| | 4280 | 3612 | X | | 3612 | " | 1908.3 | sdev 227.6 | 2043.4 | " | v. vesicular darker grey |
| | 4283 | 2766 | X | | 2766 | " | 1461.3 | | | Flow breccia | |
| Box 399 | 4284 | 3409 | X | | 3409 | " | 1801.0 | | | " | |
| | 4286.5 | 3059 | X | | 3059 | " | 1616.1 | sdev | 1626 | " | limonite stain |
| | 4288 | 6835 | X | | 6835 | " | 3611.1 | | | Basaltic andes | remainder of box badly broken |
| Box 400 | 4294 | 3687 | X | | 3687 | .5283 | 2164.3 | | | " | 1/90 |
| | 4296.5 | 3870 | X | | 3870 | .5283 | 2044.6 | sdev | 2606.6 | " | non vesicular |
| | 4298.5 | 4241 | P | | 4241 | " | 2240.6 | | | breccia flow | |
| | 4301.0 | 3472 | X | | 3472 | " | 1834.3 | | | B.A. | vesicular w/ white clay dk grey |
| Box 401 | 4302 | 2907 | X | | 2907 | " | 1535.8 | | | " | " |
| | 4305 | 4530 | X | | 4530 | " | 2393.3 | | | Flow brecc | dk grey non vesicular |
| | 4307 | 4117 | X | | 4117 | " | 2175.1 | | | " | |
| | 4310 | 3258 | X | | 3258 | " | 1721.3 | | | BA | |
| Box 402 | 4313.5 | 2900 | X | | 2900 | " | 1532.1 | | | " | tectonic brecciated cemented by chlorite + clay |
| | 4315.5 | 1686 | X | | 1686 | " | 890.7 | | | Flow breccia | |
| | 4318 | 3234 | X | | 3234 | " | 1708.6 | | | B. A | vesicular w/ various clays |
| | 4320 | 3144 | X | | 3144 | " | 1661.0 | | | " | denser |
| 200+ Box 403 | 4323.5 | 4513 | X | | 4513 | " | 2384.3 | | | Flow brecc | yellow brown FeOx on bottom frag. |
| | 4325.5 | 3662 | X | | 3662 | " | 1934.7 | | | " | v. small amts disseminated pyrite (?) |
| | 4327 | 4785 | X | | 4785 | " | 2528 | | | " | |
| | 4329.5 | 4532 | X | | 4532 | " | 2394.3 | | | B.A. | |
| Box 404 | 4331 | 4244 | X | | 4244 | " | 2242.2 | | | " | this box is |
| | 4333.5 | 2736 | X | | 2736 | .6215 | 1696.8 | sdev | 1929.6 | " | 1/85 highly fractured |
| | 4339.0 | 2458 | X | | 2458 | .5283 | 1298.6 | | | Flow brecc | 4337-4338' fracture blue/green clay or malachite effervesces |
| Box 405 | 4340.5 | 3367 | X | | 3367 | " | 1778.8 | | | " | |
| | 4345 | 2870 | X | | 2870 | " | 1516.3 | | | " | |
| | 4347 | 3013 | X | | 3013 | " | 1591.8 | | | " | |
| | 4348.5 | 3694 | X | | 3694 | " | 1951.6 | | | " | |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

Drill Hole: CTG H-1 Pg 72 of 78

Date: 7-14-87

Company: THERMAL POWER

Logged by: ML

Core Diameter: DX 1.82"

Total Correction: $(1/d^2)(1.75)() = .52838$

Instrument: Bison 3101A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | Corg. with | Comments |
|-------------------|--------------------|-------|-----|----------------|-------------|--------------------------|------------|--------------------|--------------|--|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 406 | 4356 | 1654 | X | 1654 | .5283 | 873.8 | | | flow breccia | |
| | 4355.5 | 3312 | X | 3312 | .5283 | 1749.8 | | | " | |
| | 4356 | 5517 | X | 5517 | " | 2914.7 | | | " | |
| | 4358 | 3085 | X | 3085 | " | 1629.9 | | | " | |
| Box 407 zero → | 4359 | 3663 | X | 3663 | " | 1935.2 | | | " | |
| | 4361 | 4030 | X | 4030 | " | 2129.1 | | | " | |
| | 4364 | 2607 | X | 2607 | " | 1377.3 | | | " | v. mn. pyrite flat (hard to see) zeolites in vesicle exposed on bottom fract. pyrite? appears to be assoc. w/ Fe O ₂ brown/orange stain vesicular |
| | 4367 | 3248 | X | 3248 | " | 1715.9 | | | " | |
| Box 408 | 4369 | 4144 | X | 4144 | " | 2189.3 | | | " | |
| | 4371 | 3521 | X | 3521 | " | 1860.2 | | | " | possibly blue botryoidal |
| | 4375 | 3470 | | 3470 | " | 1833.3 | sdev | 1771.6 | " | blue clay coated zeol. in vesicles also some Fe O ₂ coloring - v. vesicular |
| | 4376 | 3370 | X | 3370 | " | 1780.4 | | | B.A | |
| Box 409 | 4378 | 3911 | X | 3911 | " | 2066.2 | | | " | |
| | 4380 | 3827 | X | 3827 | " | 2021.9 | | | " | dense med gray non vesicular |
| | 4385 | 2728 | X | 2728 | " | 1441.3 | | | " | |
| Box 410 | 4388 | 3557 | X | 3557 | " | 1879.2 | sdev 249.1 | 1637.8 | " | Qtz in veins |
| | 4392 | 3140 | X | 3140 | " | 1658.9 | | | flow breccia | |
| | 4395 | 2361 | X | 2361 | " | 1247.4 | | | " | |
| | 4396.5 | 3050 | X | 3050 | " | 1611.4 | | 1505.9 | " | |
| Box 411 | 4399 | 4011 | X | 4011 | " | 2119.1 | | | basalt andes | |
| | 4401.5 | 2003 | X | 2003 | " | 1058.2 | | | " | |
| | 4404 | 2520 | X | 2520 | " | 1331.4 | | | " | |
| | 4405.5 | 3778 | X | 3778 | " | 1996.0 | | | " | |
| Box 412 | 4407 | 2704 | X | 2704 | " | 1428.6 | | | " | 4407.5' - 4410' highly fract. much Qtz + clay possibly malachite? react v. slightly w HCl |
| | 4410.5 | 2354 | X | 2354 | " | 1243.7 | | | " | |
| | 4412.0 | 2428 | X | 2428 | " | 1282.8 | | | " | |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

 Drill Hole: CT64-1 Pg 73 of 78

 Date: 7-14-87

 Company: Thermal Power

 Logged by: ML

 Core Diameter: 1.82 NX

 Total Correction: $(1/d^2)(1.75)() = .528318$

 Instrument: Bison 301A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | Gen Int | Comments |
|-----------------|--------------------|-------|-----|----------------|-------------|--------------------------|--------------|--------------------|--------------------------|-----------------------------|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 413 zero | 4415.5 | | | 3793 | .5283 | 2003.9 | | | Bas. Andes | This unit non-vesicular |
| | 4419.5 | | | 3631 | " | 1918.3 | | | " | |
| | 4422.0 | | | 3559 | " | 1880.3 | | | " | much gm clay |
| | 4423 | | | 3499 | " | 1848.6 | s dev 378.2 | 1646.4 | " | |
| Box 414 | 4427 | | | 4194 | " | 2215.8 | | | Flow breccia | |
| | 4429 | | | 3646 | " | 1926.2 | | | " | zeolites in vesicles |
| | 4432 | | | 3535 | " | 1867.6 | | | " | |
| Box 415 | 4433.5 | | | 6275 | " | 3315.2 | | | " | |
| | 4437.0 | | | 3095 | " | 1635.1 | | | " | |
| | 4439.5 | | | 2480 | " | 1310.2 | | | " | |
| | 4441 | | | 5219 | " | 2757.3 | s dev 686.9 | 2146.7 | " | |
| Box 416 | 4443.5 | | | 3306 | " | 1746.6 | | | basalt and. breccia flow | v. lg. Qtz amygdules |
| | 4447 | | | 3090 | " | 1632.5 | | | B.A. | |
| | 4451 | | | 4014 | " | 2120.7 | | | " | |
| Box 417 | 4452 | | | 4296 | " | 2269.7 | | | breccia flow | |
| | 4454 | | | 1689 | " | 892.3 | | | B.A. | v. vesicular w/ Qtz amygdul |
| | 4458 | | | 3728 | " | 1969.6 | | | " | |
| | 4461 | | | 3888 | " | 2054.1 | | | " | |
| Box 418 | 4462 | | | 3999 | " | 2112.7 | | 1849.8 | " | |
| | 4464 | | | 3347 | " | 1768.3 | | | breccia flow | |
| | 4468 | | | 4309 | " | 2276.5 | | | " | |
| | 4471 | | | 3926 | " | 2074.2 | | | " | v. vesicular darker grey |
| Box 419 | 4472 | | | 6391 | " | 3376.5 | | | " | |
| | 4476 | | | 4133 | " | 2183.5 | | 2335.8 | " | |
| | 4479 | | | 3534 | " | 1867.1 | | | Basalt, Andes | Qtz amygdules |
| Box 420 | 4481.5 | | | 3355 | " | 1772.5 | | | " | dense non vesic med grey |
| | 4485 | | | 3154 | " | 1666.3 | | | " | |
| | 4487 | | | 3044 | " | 1608.2 | | | " | |
| | 4489 | | | 3670 | " | 1938.9 | s dev 1316.8 | 1770.6 | " | |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

 Drill Hole: CT64-1 Pg 74 of 78

 Date: 7-14-87

 Company: THERMAL POWER

 Logged by: ML

 Core Diameter: NX 1.82"

 Total Correction: $(1/d^2)(1.75)() = .528318$

 Instrument: Bison 3101 A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | Gen. Lith | Comments |
|-----------------------|--------------------|-------|-----|----------------|-------------|--------------------------|----------------|--------------------|-------------------|---|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 421 220 → 4491 | 3820 | Y | | 3820 | .5283 | 2018 | | B. | Breccia flow | zeolites in vesicles |
| 4495 | 4133 | X | | 4133 | " | 2183 | | | " | |
| 4498.5 | 3913 | X | | 3913 | " | 2067 | | | Basaltic andes | |
| Box 422 4500.5 | 3485 | X | | 3485 | " | 1841.2 | | | " | |
| 4504 | 5580 | Y | | 5580 | " | 2948 | | | breccia flow | |
| 4506 | 3952 | X | | 3952 | " | 2087.9 | | | " | small vesicles w/ celadonite(?) |
| 4507.5 | 3090 | X | | 3090 | " | 1632.5 | | | " | |
| Box 423 4509 | 2662 | X | | 2662 | " | 1406.4 | | | " | |
| 4513 | 3530 | Y | | 3530 | " | 1865.0 | 475 | 2011.1 | " | gm/wt clay on fract. |
| 4516.5 | 3958 | X | | 3958 | " | 2091.1 | 5 den 405 | 2014 | Basaltic And. | dense non vesicular |
| Box 424 4519 | 3466 | X | | 3466 | " | 1831.1 | | | breccia | |
| 4522.5 | 4526 | X | | 4526 | " | 2391.2 | | | " | |
| 4524 | 3100 | X | | 3100 | " | 1637.8 | | | " | |
| 4526 | 3172 | X | | 3172 | " | 1675.8 | | | " | |
| Box 425 4528 | 2858 | Y | | 2858 | " | 1509.9 | | 1809.2 | " | |
| 4532 | 3734 | X | | 3734 | " | 1972.7 | | | basalt and | white clay amygdale Qtz |
| 4536 | 4000 | X | | 4000 | " | 2113.3 | | | " | white fibrous clay clb zeolite? |
| Box 426 4538 | 4056 | X | | 4056 | " | 2142.8 | | | " | vesicular celadonite with clay amygdale |
| 4542 | 3666 | X | | 3666 | " | 1936.8 | | | " | |
| 4544 | 3585 | X | | 3585 | " | 1894.0 | | | " | lamination in vesicle clay, SiO ₂ mud |
| 4545 | 4679 | Y | | 4679 | " | 2478.0 | | | " | top fracture awes, fully develop |
| Box 427 4547 | 4710 | X | | 4710 | " | 2488.4 | | | " | zeolites in xl form celadonite amygdale |
| 4551 | 4496 | X | | 4496 | .5561 | 2500.3 | 5 den 265.4 | 2184.4 | " | 75 Qtz in vesic. laminated vesicle |
| 4556 | 1843 | Y | | 1843 | .5283 | 973.7 | | | breccia flow | 1/95 |
| Box 428 4556.5 | 2105 | X | | 2105 | " | 1112.1 | | | " | |
| 4559 | 4538 | X | | 4538 | " | 2397.5 | | | " | v. small amt of zeolites in vesicles |
| 4561 | 3759 | X | | 3759 | " | 1985.9 | | | " | |
| 4563 | 4022 | X | | 4022 | " | 2124.9 | 636.4 | 1718.8 | " | |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

 Drill Hole: CTGH-1 Pg 75 of 78

 Date: 7-14-87

 Company: THERMAL Power

 Logged by: ML

 Core Diameter: 1.82" NX

 Total Correction: $(1/d^2)(1.75)() = 0.528318$

 Instrument: Bison 301A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | Gen Lith | Comments |
|---------------------------|--------------------|-------|-----|----------------|-------------|--------------------------|---------------|--------------------|-------------------|---|
| | | x1 | x10 | | | (x 10 ⁻⁶ oer) | S.I. | | | |
| Box 429 zero → 4566 | 4060 | ✓ | | 4060 | 5238 | 2145.0 | | | Basaltic andes | zeolites coating vesicles, then filled w/ soft white clay less vesicular dense v. little clay |
| 4570.5 | 4518 | ✓ | | 2518 | " | 1330.3 | | | " | |
| 4574.0 | 1947 | × | | 1947 | " | 1028.6 | | | breccia flow | calcitonite amygdala clay coated zeolites in vesicles |
| Box 430 4576 | 4985 | × | | 4985 | " | 2633.7 | | | " | |
| 4579 | 4081 | ✓ | | 4081 | " | 2156.1 | | | " | |
| 4583.5 | 2264 | ✓ | | 2264 | " | 1196.1 | | | " | lg. cbst - vesicular filled w/ clay |
| Box 431 4585.0 | 2593 | ✓ | | 2593 | " | 1369.9 | | | " | some Fe stain } vesic clay |
| 4587.0 | 3800 | ✓ | | 3800 | " | 2007.6 | | | " | lg vesicle filled w/ wt "clay" that thermal geos called fibrous zeolite |
| 4591 | 3863 | ✓ | | 3863 | " | 2040.9 | 117.1 | 116.1 | " | |
| 4593 | 4428 | ✓ | | 4428 | " | 2339.4 | | | Basaltic andes | much vesicles w/ fibrous zeol. |
| Box 432 4595 | 4180 | ✓ | | 4180 | " | 2208.4 | | 1859.6 | " | |
| 4599 | 4242 | × | | 4242 | " | 2241.1 | | | Breccia | not as vesicular as before |
| 4602 | 4898 | ✓ | | 4898 | " | 2587.7 | | | " | |
| Box 433 4604 | 5466 | × | | 5466 | " | 2887.8 | | | " | |
| 4606 | 4875 | × | | 4875 | " | 2575.5 | | | " | |
| 4609.5 | 3813 | ✓ | | 3813 | " | 2014.5 | | | " | black clay in clast vesicles |
| 4612 | 3219 | ✓ | | 3219 | " | 1700.6 | | | " | little alteration this unit |
| zero → Box 434 4614 | 3030 | ✓ | | 3030 | " | 1600.8 | Sdev 483.5 | 2229.7 | " | |
| 4618 | 4454 | × | | 4454 | " | 2353.1 | | | basaltic andes | |
| 4622 | 3140 | × | | 3140 | " | 1658.9 | | | brecc | |
| Box 435 4623 | 3807 | ✓ | | 3807 | " | 2011.3 | | | " | |
| 4627 | 3647 | ✓ | | 3647 | " | 1926.8 | | 1865.7 | " | |
| 4630 | 5488 | ✓ | | 5488 | " | 2899.4 | | | B.A. | |
| 4631.5 | 4819 | × | | 4819 | " | 2546.0 | | | " | |
| Box 436 4633 | 4799 | ✓ | | 4799 | " | 2535.4 | | 2660.3 | " | very dense med grey no alter |
| 4637 | 3171 | ✓ | | 3171 | " | 1675.3 | | | breccia | |
| 4641 | 3467 | ✓ | | 3467 | " | 1831.7 | | | " | |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

 Drill Hole: CT64-1 Pg 77 of 78

 Date: 7-15-87

 Company: THERMAL POWDER

 Logged by: ML

 Core Diameter: Np 1.82"

 Total Correction: $(1/d^2)(1.75)() = .528318$

 Instrument: Bison 3101A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | Gen. Lith. | Comments |
|---------------------------|--------------------|-------|-----|----------------|-------------|--------------------------|------------|--------------------|----------------|--|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 440 zero → 4672 | 3976 | 0 | | 3976 | .5283 | 2100.6 | | | Flow breccia | |
| 4676 | 4535 | 0 | | 4535 | " | 2395.9 | | | " | |
| 4679 | 2979 | 0 | | 2979 | " | 1573.8 | | | " | much fibrous zeolite (?) (according to Thermal Geos) |
| Box 441 4681 | 2547 | 0 | | 2547 | " | 1345.6 | | | " | |
| 4685 | 1939 | X | | 1939 | " | 1024.4 | | | " | |
| 4687 | 3051 | 0 | | 3051 | " | 1611.9 | | | " | |
| 4689 | 4465 | 0 | | 4465 | " | 2358.9 | | | " | |
| Box 442 4691 | 5349 | 0 | | 5349 | " | 2825.9 | sdev 485.8 | 1861.7 | " | |
| 4695.5 | 4210 | 0 | | 4210 | " | 2224.2 | | | Basaltic Andes | |
| 4699 | 3685 | 0 | | 3685 | " | 1946.8 | | | " | amygd. dikes filled w/ Qtz + zeolite |
| Box 443 4701 | 4071 | 0 | | 4071 | " | 2150.8 | | | " | |
| 4703 | 3900 | 0 | | 3900 | " | 2060.4 | | | " | |
| 4707 | 4587 | 0 | | 4587 | " | 2423.4 | sdev 179.5 | 2161.1 | " | |
| 4709 | 3964 | 0 | | 3964 | .5870 | 2326.9 | | | Flow Brecc | 1/90 zeol. |
| Box 444 4710.5 | 4119 | 0 | | 4119 | .5283 | 2176.1 | | | " | |
| 4714 | 2328 | X | | 2328 | " | 1229.9 | | | " | |
| 4718 | 5698 | X | | 5698 | " | 3010.4 | | | " | |
| Box 445 4720.5 | 3453 | 0 | | 3453 | " | 1821.3 | | | " | |
| 4722 | 4520 | 0 | | 4520 | " | 2388.0 | | | " | |
| 4724 | 4446 | 0 | | 4446 | " | 2348.9 | | | " | increase in open vesicles |
| 4728 | 6036 | 0 | | 6036 | " | 3188.9 | | | " | |
| zero → Box 446 4729 | 5259 | 0 | | 5259 | " | 2778.4 | sdev 600 | 2363.5 | " | |
| 4734 | 3868 | 0 | | 3868 | " | 2043.5 | | | basaltic And. | |
| 4737 | 3742 | 0 | | 3742 | " | 1977.0 | | | breccia | |
| Box 447 4739 | 4441 | 0 | | 4441 | " | 2346.3 | | | basaltic Andes | Qtz +/- celadonite amygd. dikes |
| 4741 | 4530 | 0 | | 4530 | " | 2393.3 | sdev | 2190.0 | " | |
| 4745 | 4722 | 0 | | 4722 | " | 2494.7 | | | Flow Breccia | |
| 4746 | 4594 | 0 | | 4594 | " | 2427.1 | | | " | |

MAGNETIC SUSCEPTIBILITY LOG-DRILL CORE

 Drill Hole: CTGH-1 Pg 78 of 78

 Date: 7-15-87

 Company: THERMAL POWER

 Logged by: ML

 Core Diameter: 1 NX 1.82"

 Total Correction: $(1/d^2)(1.75)() = .5283$

 Instrument: Bison 3101 A

| Depth (ft.) | Instrument Reading | Scale | | Observed Value | Total Corr. | Magnetic Susc. | | Average Mag. Susc. | Gen (LTH) | Comments |
|-------------------|--------------------|-------|-----|----------------|-------------|--------------------------|------------|--------------------|--|--|
| | | x1 | x10 | | | (x 10 ⁻⁶ cgs) | S.I. | | | |
| Box 448 4749 | 4037 | Y | | 4037 | .5283 | 2132.8 | | | Flow breccia | |
| 4752 | 4394 | Y | | 4394 | " | 2321.4 | | " | | |
| 4755 | 4022 | X | | 4022 | " | 2124.9 | | " | U. little alteration in this flow | |
| Box 449 4757.5 | 3941 | X | | 3941 | " | 2082.1 | | " | | |
| 4759 | 2861 | Y | | 2861 | " | 1511.5 | | " | larger amt. of red in matrix than before | |
| 4763 | 4072 | Y | | 4072 | " | 2151.3 | sdev | 2155.7 | " | |
| 4766 | 4130 | X | | 4130 | " | 2181.9 | | | Basaltic Onides | |
| Box 450 4767 | 4364 | Y | | 4364 | " | 2305.6 | | | " | Much green clay vesicular |
| 4771 | 3188 | Y | | 3188 | " | 1684.3 | | | " | dense non vesicular sm. amt of Qtz |
| 4774 | 4071 | X | | 4071 | " | 2150.8 | | | " | This box is highly fractured + tectonic |
| Box 451 4776.5 | 3926 | X | | 3926 | " | 2074.2 | | | " | brecciated (then recc. wax clay on frac |
| 4778 | 3638 | X | | 3638 | " | 1922.0 | | | " | lighter grey w/ box stains |
| 4782 | 3765 | X | | 3765 | " | 1989.1 | | | " | stain increases on fracture |
| 4784 | 3862 | Y | | 3862 | " | 2040.4 | sdev 187.9 | 2043.5 | " | |
| Box 452 4786 | 2255 | X | | 2255 | " | 1191.4 | | | Flow breccia | |
| 4789.5 | 3650 | Y | | 3650 | " | 1928.4 | | 1559.9 | " | |
| 4793 | 4754 | X | | 4754 | " | 2511.6 | | | Basaltic and. | 4794' - lg amt Qtz x amm on fracture exposed |
| Box 453 4795 | 3370 | Y | | 3370 | " | 1780.4 | | | " | |
| 4797 | 4910 | Y | | 4910 | " | 2594.0 | | | Flow breccia | |
| | | | | | | | | | | Tot depth = 4800 |