# 15007 - 15008

Double Drive Tube

1278.4 grams

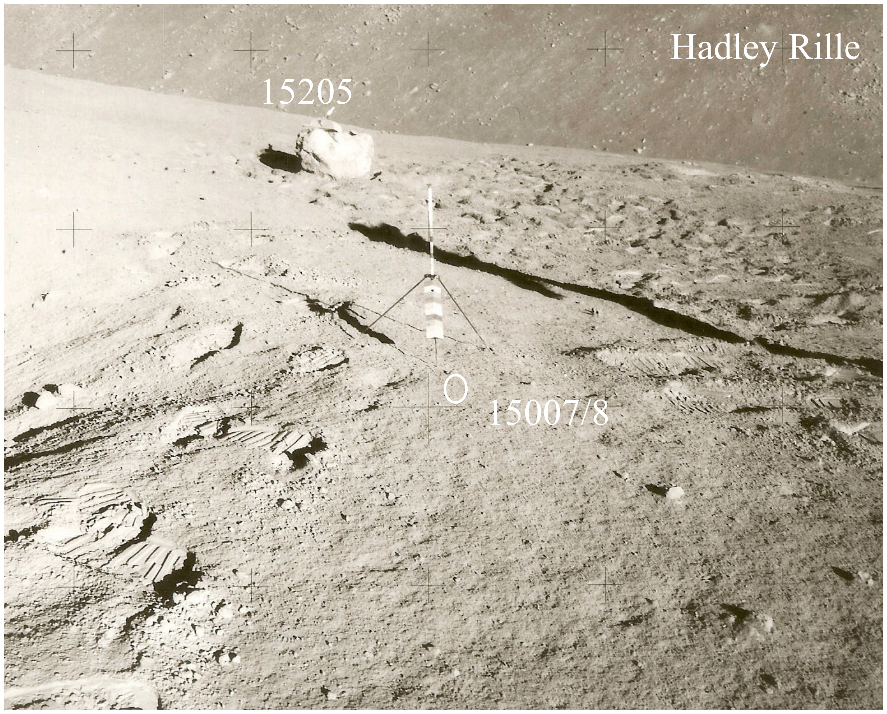


*Figure 1: Location of double drive tube 15008/7, station 2, Apollo 15. AS15-85-11443.*

## Introduction

The total depth of the 15007/8 double drive tube is 56.6 cm. It was collected from the rim of a 10 meter shallow crater at the highest point on the Apennine Front at station 2, Apollo 15 (figure 1) close to the location of reference soil (15220), and other soil samples including 15091, 15101, 15201, 15211, 15231 collected nearby (see section on 15100). Station 2 was on the outer flank of St. George Crater which punched deep into the Apennine Front material.

15008 is the top segment of the double drive tube, and 15007 is the bottom segment. 15007 was found to contain immature, glass-rich and more aluminous soil at about 55 cm depth.

The 15008/7 double drive tube was the first taken with the new 4.13 cm diameter assembly (Mitchell et al. 1972). The soil material did not fall out and was less disturbed, because it did not have to "flow" past a lip as was the case in previous missions. Papike et al. (1982) included 15007/8 in their set of reference soils.

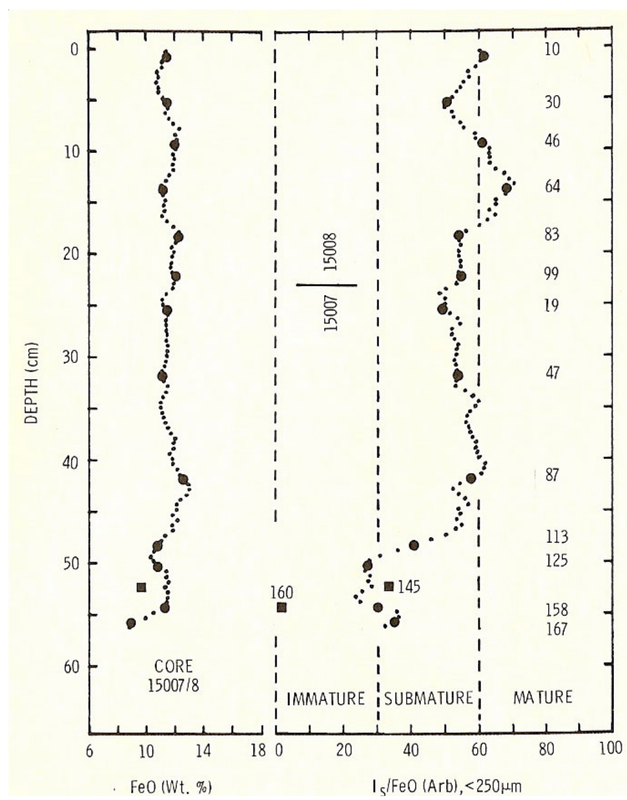


*Figure 2: Maturity of soil as function of depth in double drive tume 15008 - 15007 (Bogard et al. 1982).*

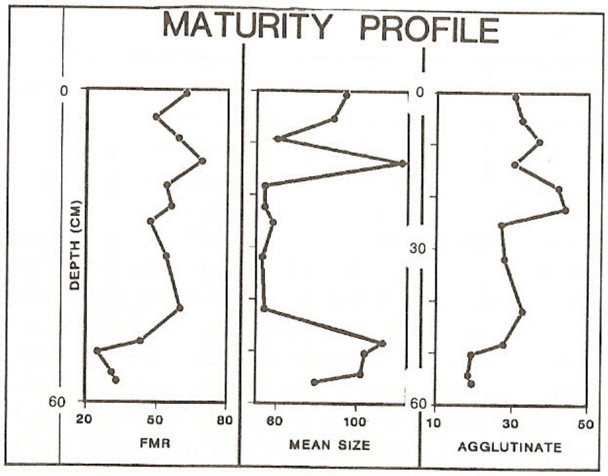


*Figure 3: Maturity, grain size and agglutinate content as function of depth in 15008/7 drive tube (Basu et al. 1982).*

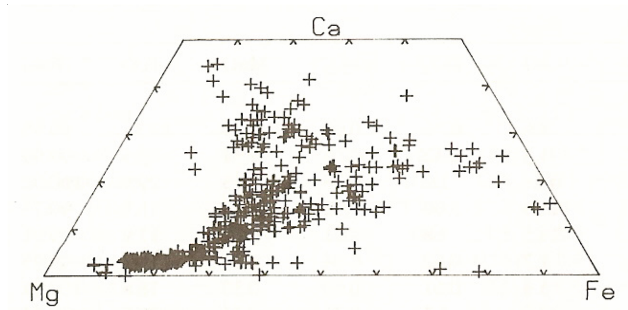


*Figure 4: Composition of individual pyroxene grains in 15008/7 (Basu et al. 1982).*

## Petrography

The maturity index ($I_s$/FeO) of 15008/7 varies as a function of depth (figure 2). There are more agglutinates in the top of the core than the bottom and the average grain size is also variable (figure 3). Graf (1992) reported the grain size studies (figure 10). Nagle (1980, 1981a,b) gives a description of the core during dissection and Basu et al. (1988) give the detailed model mineralogy (see table). The only notable result is that there was a lot (26 %) of green glass in the 55 cm horizon.

During dissection, Nagle (1981) separated several apparently pristine rock fragments from the bottom of 15007. Portions of these were studied by Warren et al. (1983). Some of these separated particles were KREEP basalt, while others were "anorthosite".

Mutispectral imaging by Pieters et al. (1981) revealed a feldspathic fragment-rich zone with a chaotic fabric that occurs between 10 and 18 cm depth. Figure 13 is a low-magnification photomicrograph of thin section 15008,6023 illustrating fragments of breccias incorporated into the core at about 18 cm depth.

The composition of individual pyroxene grains shows that KREEP basalt is a major component of the Apennine Front (figure 4).

## Chemistry

The bottom of the core (15007) is more aluminous and less mafic than the surface soils (Korotev 1987). The composition of the top (15008) has not been reported, but one can assume it is the same as the surface soil (15201).

## Cosmogenic isotopes and exposure ages

Nishiizumi et al. (1989), Jull et al. (1998) and Fruchter et al. (1982) studied $^{36}$Cl, $^{14}$C and $^{26}$Al (respectively) as function of depth (figures 6 - 8).

## Other Studies

Bogard et al. (1982) determined the rare gas content and isotopic ratios as function of depth. They concluded that the top 18 cm was deposited by the adjacent 10 meter crater, while the material 18 to 49 cm was the preexisting regolith, mass-wasted off of

**Mineralogical Mode 15007/8** *(from Basu et al. 1988)*

Summary (90 – 150 micron)

| Depth (cm) | 9.3 | 25 | 32 | 42 | 50 | 55 | Ave |
|---|---|---|---|---|---|---|---|
| Agglutinate | 36.9% | 43.9 | 27.9 | 32.7 | 19.3 | 18.5 | 29.9 |
| Breccia | 11.3 | 13.8 | 12.2 | 11.1 | 13.8 | 9.1 | 12.4 |
| Lithic | 8 | 6.3 | 8 | 6.6 | 7 | 8.7 | 7.8 |
| Glass | 12.5 | 14.2 | 15.1 | 12.7 | **28.6** | **33.8** | 15.2 |
| Minerals | 31.3 | 38.5 | 36.3 | 36.8 | 30.5 | 29.5 | 34.6 |
| plag | 12.5 | 18.5 | 15.4 | 18.4 | 18.1 | 15.4 | 16.7 |
| pyx. | 17.2 | 18.8 | 19.4 | 16.5 | 11.5 | 13.5 | 15.9 |
| ol. | 1.3 | 0.9 | 0.9 | 1.9 | 0.3 | 0.6 | 1.4 |

***Note: See Basu (table 2) for detail.***

**Table 1. Chemical composition of 15008/7.**

| | 15007 | | 15201 | | 15007 (particles) | | |
|---|---|---|---|---|---|---|---|
| *reference* | Korotev87 | | | | Warren83 | | |
| *weight* | 55-57cm | 42-43cm | surface | | ,290 | ,296 | |
| SiO2 % | ave. 3 | ave. 3 | | | 49.4 | 43.9 | (a) |
| TiO2 | 1.24 | 1.5 | 1.3 | (a) | 1.42 | 0.03 | (a) |
| Al2O3 | 20 | 18.4 | 17.1 | (a) | 19.8 | 35.1 | (a) |
| FeO | 10 | 11.6 | 11.5 | (a) | 7.85 | 0.22 | (a) |
| MnO | 0.144 | 0.162 | 0.16 | (a) | 0.11 | 0.005 | (a) |
| MgO | 10.3 | 10.7 | 10.7 | (a) | 7.63 | 0.33 | (a) |
| CaO | 11.4 | 10.6 | 10.7 | (a) | 11.76 | 19.9 | (a) |
| Na2O | 0.467 | 0.423 | 0.42 | (a) | 0.83 | 0.31 | (a) |
| K2O | | | | | 0.45 | 0.07 | (a) |
| P2O5 | | | | | | | |
| S % | | | | | | | |
| *sum* | | | | | | | |
| | | | | | | | |
| Sc ppm | 18.5 | 22 | 22.1 | (a) | 15.2 | 0.84 | (a) |
| V | 65 | 85 | 76 | (a) | | | |
| Cr | 2013 | 2263 | 2220 | (a) | 1810 | 75 | (a) |
| Co | 30.2 | 38.2 | 37.7 | (a) | 17 | 0.7 | (a) |
| Ni | 162 | 238 | 225 | (a) | 28 | 4 | (a) |
| Cu | | | | | | | |
| Zn | | | | | 4.7 | 0.4 | (a) |
| Ga | | | | | 6 | 3.1 | (a) |
| Ge ppb | | | | | 340 | 106 | (a) |
| As | | | | | | | |
| Se | | | | | | | |
| Rb | | | | | 16 | | |
| Sr | 145 | 113 | 140 | (a) | 230 | 168 | (a) |
| Y | | | | | | | |
| Zr | 363 | 277 | 320 | (a) | 870 | 10 | (a) |
| Nb | | | | | | | |
| Mo | | | | | | | |
| Ru | | | | | | | |
| Rh | | | | | | | |
| Pd ppb | | | | | | | |
| Ag ppb | | | | | | | |
| Cd ppb | | | | | | | |
| In ppb | | | | | | | |
| Sn ppb | | | | | | | |
| Sb ppb | | | | | | | |
| Te ppb | | | | | | | |
| Cs ppm | 0.25 | 0.2 | 0.24 | (a) | | | |
| Ba | 256 | 226 | 218 | (a) | 660 | 30 | (a) |
| La | 22.9 | 20.6 | 20.4 | (a) | 53 | 0.3 | (a) |
| Ce | 59 | 54.3 | 53 | (a) | 139 | 0.66 | (a) |
| Pr | | | | | | | |
| Nd | 34.3 | 32.7 | 30 | (a) | 88 | 0.46 | (a) |
| Sm | 10.8 | 9.8 | 9.48 | (a) | 23.2 | 0.11 | (a) |
| Eu | 1.36 | 1.29 | 1.27 | (a) | 2.63 | 0.74 | (a) |
| Gd | | | | | | | |
| Tb | 2.02 | 1.91 | 1.78 | (a) | 4.7 | 0.021 | (a) |
| Dy | | | | | 30 | 0.107 | (a) |
| Ho | | | | | | | |
| Er | | | | | | | |
| Tm | | | | | | | |
| Yb | 7.67 | 6.93 | 6.6 | (a) | 15.8 | 0.068 | (a) |
| Lu | 1.04 | 0.96 | 0.99 | (a) | 2.2 | 0.008 | (a) |
| Hf | 8.7 | 7.7 | 7.6 | (a) | 18.6 | 0.111 | (a) |
| Ta | 1 | 0.93 | 0.9 | (a) | 2.04 | 0.006 | (a) |
| W ppb | | | | | | | |
| Re ppb | | | | | 0.025 | 0.005 | (b) |
| Os ppb | | | | | | | |
| Ir ppb | 4.4 | 7.2 | 7.6 | (a) | 0.073 | 0.026 | (b) |
| Pt ppb | | | | | | | |
| Au ppb | 1.9 | 3.3 | 2.2 | (a) | 0.31 | 0.041 | (b) |
| Th ppm | 3.8 | 3.4 | 4.3 | (a) | 9.2 | | (a) |
| U ppm | 1.27 | 0.87 | 0.86 | (a) | 2.4 | | (a) |

*technique : (a) INAA, (b) RNAA*

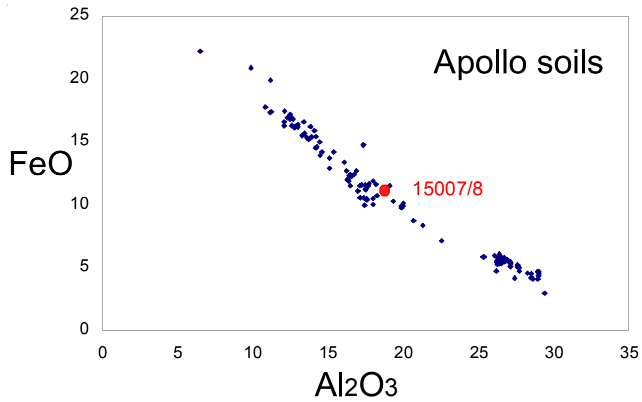


*Figure 5: Chemical composition of 15008/7 drive tube compared with other Apollo soils.*

the Apennine Front. However, they ignored the contribution St. George Crater must have made.

## Processing

15007 and 15008 were returned in ALSRC#1 (sealed). 15008 was dissected, described and first distributed in 1980 (Nagle 1981a,b). Thin sections are available for the complete core (e.g. figure 13). Pb contamination was found to be severe.

“Sampling was easy (figure 9). The double drive tube was pushed almost to the depth of the lower drive tube (AS15-86-11577), then driven 2” per hammer blow to the full depth possible. The rammer was inserted 6" after sampling. There was no indication of spillage during uncoupling of the drive tubes or placing them into the return container SCB1. Because the drive tube was returned in as SCB, it was subjected to spacecraft cabin atmosphere for approximately 7 days. The core was placed in dry $gN_2$ on August 10, 1971. It was X-rayed October 1979. There was slumping approximately 8 cm at the top of 15008. About 5.5 cm of compaction of 15008 occurred during extrusion. Bulk density of 15008 is 1.65 $gm/cm^3$ and 15007 is 1.7 $gm/cm^3$.”

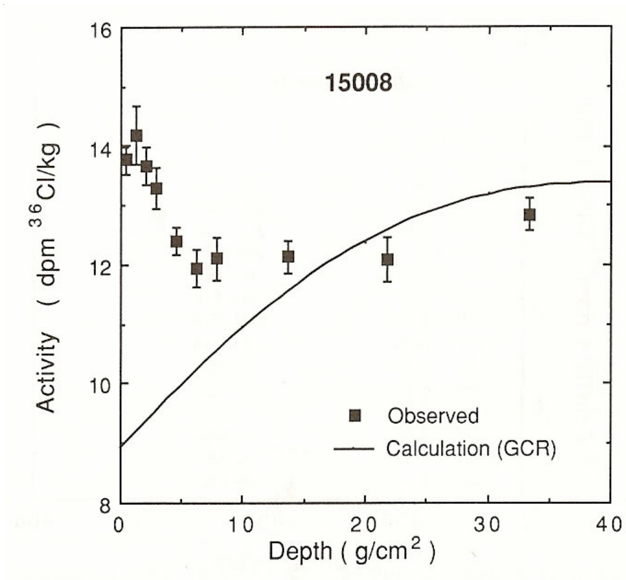


*Figure 6: 36Cl as fucnction of depth in 15008 (Nishiizumi et al. 1989).*

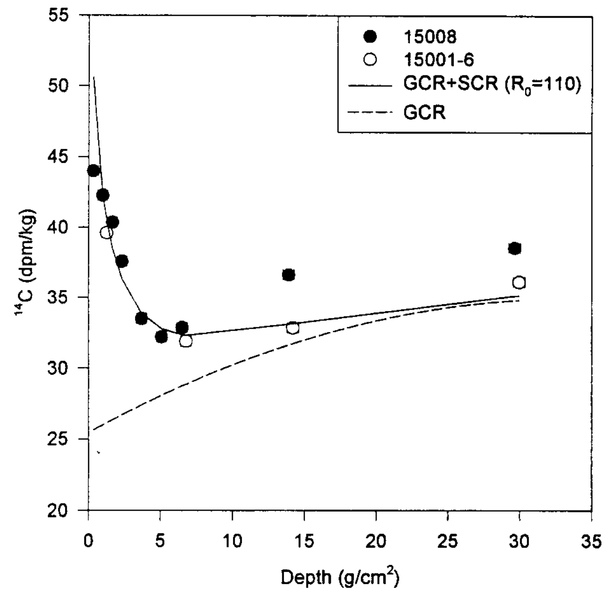


*Figure 7: 14C as function of depth in 15008/7 and deep drill 15001 (Jull et al. 1998).*

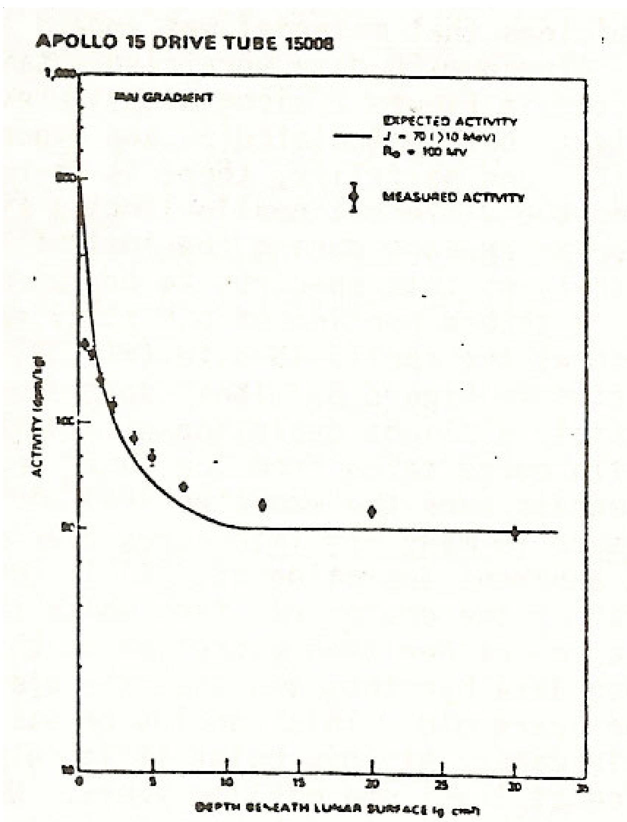


*Figure 8: 26Al as function of depth in top of 15008 drive tube (Fruchter et al. 1982).*

## Transcript core

*CDR Okay – next thing on the agenda is a double core.*

*LMP Yes. Okay: I'm going to go over and configure for it.*

*CDR Oh, we've got a good place here. We've got a fairly deep crater: it must be about 10 meters across, and a meter and a half or so deep, and we'll pick the rim of that – There's a fresh impact crater in – in the rim anyway, which like it pulled out some - -*

*CDR Is that as far as you can push it, Jim?*

*LMP That's as far as I can push it. I got the picture: go ahead.*

*CDR Okay. It's a – We've got one full core, second core is going in about 2 inches per hammer stroke.*

*CDR And we've got almost a second core. Got a couple of inches to go, Jim. Doing good. Okay: that's good, man. All the way in, Good show. Okay. Pull it out slowly. Nice. Nice. Easy does it. That's nice. Coming out very clean. Hold it steady. Got a good one. Okay. Come on over this way a little. Cap for it.*

*LMP Give me the cap. I'll put it on, Dave*

*CDR Okay. Good idea. Okay Rammer went in about 6 inches.*

*CC And Dave, we're standing by for a number on the core.*

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*Figure 9: Doube drive tube 15008/7 during insertion into soft rim of small crater.*


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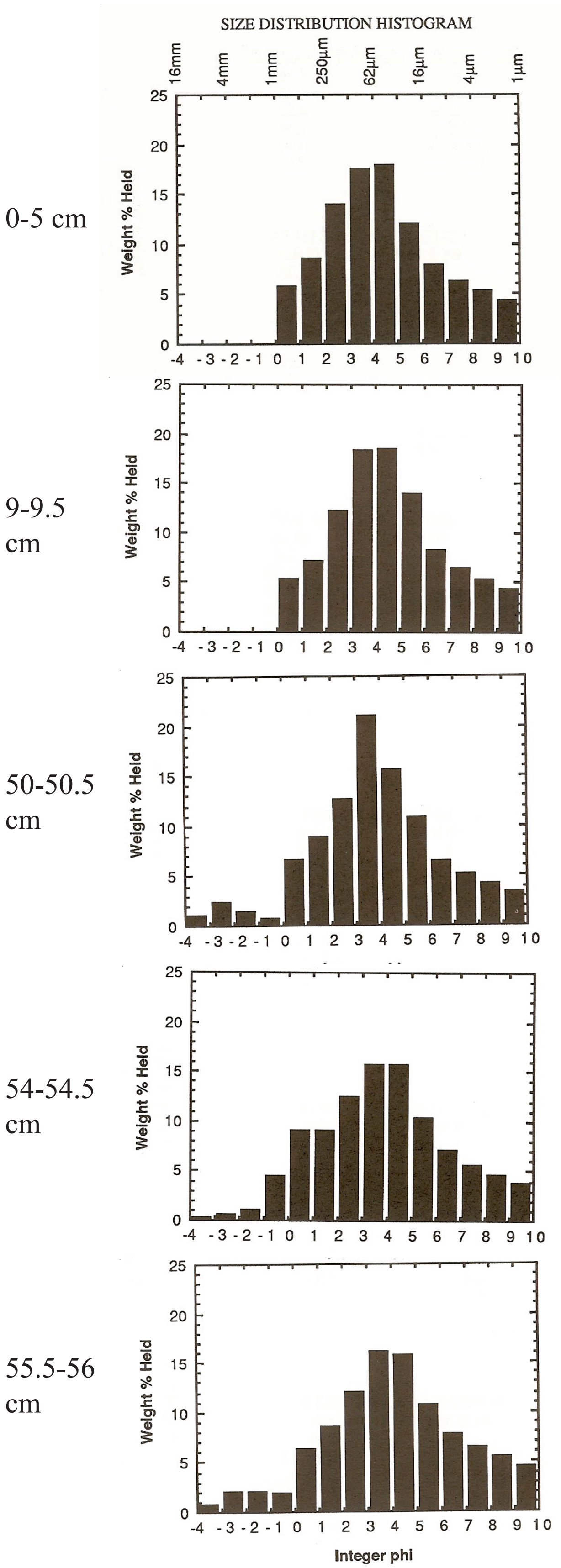


*Figure 10: Grain size distribution of several layers of 15008/7 double drive tube (from Graf 1992).*

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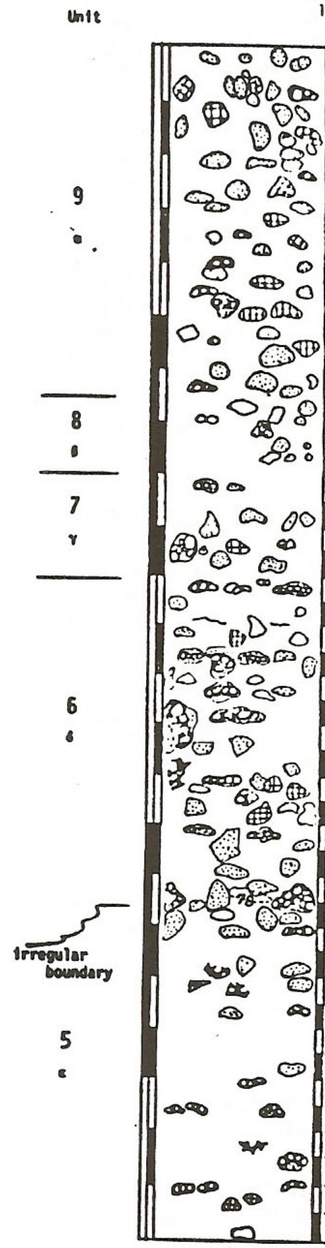
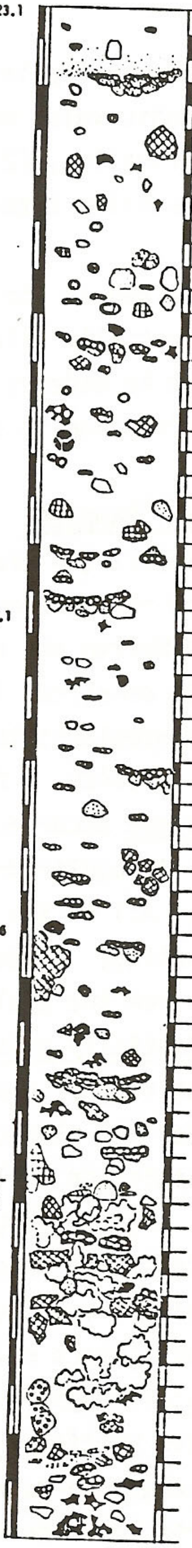
*Figure 11: First dissection layer of 15008 (top)(Nagle 1981b).*




| Distance below lunar surface (linear cm) | Fine < 1mm Fraction Sample No. | Fine < 1mm Fraction Sample Wt(gm) | Coarse > 1mm Fraction Sample No. | Coarse > 1mm Fraction Sample Wt(gm) | Special samples Sample No. | Special samples Sample Wt(gm) | Sample interval | Sample type |
|---|---|---|---|---|---|---|---|---|
| 0.0 | | | | | | | | |
| 0.5 | ,8 | 1.566 | ,9 | 0.116 | ,20 | 0.255 | 0 - 1 cm | bulk, slumped |
| 1.0 | ,10 | 1.694 | ,11 | 0.357 | | | | |
| 1.5 | ,12 | 1.992 | ,13 | 0.305 | | | | |
| 2.0 | ,14 | 1.750 | ,15 | 0.530 | | | | |
| 2.5 | ,16 | 1.770 | ,17 | 0.142 | | | | |
| 3.0 | ,18 | 1.614 | ,19 | 0.175 | | | | |
| 3.5 | ,22 | 2.146 | ,23 | 0.210 | | | | |
| 4.0 | ,24 | 1.803 | ,25 | 0.125 | | | | |
| 4.5 | ,26 | 1.422 | ,27 | 0.092 | ,21 | 0.163 | 4 - 5 cm | bulk, slumped |
| 5.0 | ,28 | 2.013 | ,29 | 0.173 | | | | |
| 5.5 | ,30 | 2.038 | ,31 | 0.125 | | | | |
| 6.0 | ,32 | 2.004 | ,33 | 0.248 | | | | |
| 6.5 | ,34 | 1.983 | ,35 | 0.219 | | | | |
| 7.0 | ,36 | 2.319 | ,37 | 0.055 | | | | |
| 7.5 | ,38 | 2.146 | ,39 | 0.091 | | | | |
| 8.0 | ,40 | 2.194 | ,41 | 0.045 | | | | |
| 8.5 | ,42 | 2.117 | ,43 | 0.064 | | | | |
| 9.0 | ,44 | 2.047 | ,45 | 0.185 | | | | |
| 9.5 | ,46 | 2.144 | ,47 | 0.369 | | | | |
| 10.0 | ,48 | 2.051 | ,49 | 0.068 | | | | |
| 10.5 | ,50 | 2.278 | ,51 | 0.096 | | | | |
| 11.0 | ,52 | 1.490 | ,53 | 0.052 | | | | |
| 11.5 | ,54 | 2.929 | ,55 | 0.087 | | | | |
| 12.0 | ,56 | 2.104 | ,57 | 0.365 | | | | |
| 12.5 | ,58 | 2.013 | ,59 | 0.140 | | | | |
| 13.0 | ,60 | 2.070 | ,61 | 1.353 | | | | |
| 13.5 | ,62 | 1.942 | ,63 | 0.113 | | | | |
| 14.0 | ,64 | 1.839 | ,65 | 0.128 | | | | |
| 14.5 | ,66 | 2.174 | ,67 | 0.335 | | | | |
| 15.0 | ,68 | 2.461 | ,69 | 0.196 | | | | |
| 15.5 | ,70 | 2.338 | ,71 | 0.255 | | | | |
| 16.0 | ,72 | 1.665 | ,73 | 0.263 | | | | |
| 16.5 | ,74 | 1.896 | ,75 | 0.599 | ,104 | 0.972 | 15.5-16.3 cm | large agglutinate |
| 17.0 | ,76 | 2.297 | ,77 | 0.212 | ,78 | 0.021 | 16.6-16.8 cm | light clast |
| 17.5 | ,79 | 2.361 | ,80 | 0.437 | | | | |
| 18.0 | ,81 | 1.914 | ,82 | 0.154 | | | | |
| 18.5 | ,83 | 2.381 | ,84 | 0.120 | | | | |
| 19.0 | ,85 | 2.336 | ,86 | 0.045 | | | | |
| 19.5 | ,87 | 2.067 | ,88 | 0.057 | | | | |
| 20.0 | ,89 | 2.454 | ,90 | 0.161 | | | | |
| 20.5 | ,91 | 2.333 | ,92 | 0.070 | | | | |
| 21.0 | ,93 | 2.674 | ,94 | 0.100 | | | | |
| 21.5 | ,95 | 2.453 | ,96 | 0.056 | | | | |
| 22.0 | ,97 | 2.396 | ,98 | 0.139 | | | | |
| 22.5 | ,99 | 2.236 | ,100 | 0.092 | | | | |
| 23.1 | ,101 | 2.571 | ,102 | 0.077 | | | | |

LITHOLOGIC SYMBOLS USED IN COLUMNAR SECTION

- Xtalline rock fragments (basalt, ANT)
- Xtalline-matrix breccia
- cataclastic anorthosite
- light soil clasts
- orange-brown glass
- green glass clods
- oriented vesicular glass particles or clumps
- fragmented vesicular glass
- soil breccia




| Distance below lunar surface (linear cm) | Fine (< 1mm) fraction Sample No. | Sample Wt. (gm) | Coarse (> 1mm) fraction Sample No. | Sample Wt. (gm) |
|---|---|---|---|---|
| 23.1 | | | | |
| 23.6 | ,11 | 1.777 | ,12 | 0.029 |
| 24.1 | ,13 | 1.972 | ,14 | 0.072 |
| 24.6 | ,15 | 2.238 | ,16 | 0.075 |
| 25.1 | ,17 | 2.080 | ,18 | 0.131 |
| 25.6 | ,19 | 1.853 | ,20 | 0.042 * |
| 26.1 | ,22 | 1.858 | ,23 | 0.620 |
| 26.6 | ,24 | 1.941 | ,25 | 0.110 |
| 27.1 | ,26 | 2.309 | ,27 | 0.040 |
| 27.6 | ,28 | 1.717 | ,29 | 0.047 |
| 28.1 | ,30 | 2.296 | ,31 | 0.055 * |
| 28.6 | ,33 | 1.827 | ,34 | 0.072 |
| 29.1 | ,35 | 2.216 | ,36 | 0.281 |
| 29.6 | ,37 | 2.493 | ,38 | 0.101 |
| 30.1 | ,39 | 2.689 | ,40 | 0.080 |
| 30.6 | ,41 | 1.944 | ,42 | 0.126 |
| 31.1 | ,43 | 2.119 | ,44 | 0.064 |
| 31.6 | ,45 | 1.846 | ,46 | 0.055 |
| 32.1 | ,47 | 2.212 | ,48 | 0.270 |
| 32.6 | ,49 | 2.303 | ,50 | 0.089 |
| 33.1 | ,51 | 2.377 | ,52 | 0.092 |
| 33.6 | ,53 | 2.219 | ,54 | 0.081 |
| 34.1 | ,55 | 2.181 | ,56 | 0.094 |
| 34.6 | ,57 | 2.157 | ,58 | 0.142 |
| 35.1 | ,59 | 2.190 | ,60 | 0.176 |
| 35.6 | ,61 | 2.202 | ,62 | 0.045 |
| 36.1 | ,63 | 1.893 | ,64 | 0.171 |
| 36.6 | ,65 | 2.200 | ,66 | 0.045 |
| 37.1 | ,67 | 2.248 | ,68 | 0.030 |
| 37.6 | ,69 | 2.158 | ,70 | 0.100 |
| 38.1 | ,71 | 2.238 | ,72 | 0.062 |
| 38.6 | ,73 | 2.310 | ,74 | 0.043 |
| 39.1 | ,75 | 2.409 | ,76 | 0.076 |
| 39.6 | ,77 | 2.105 | ,78 | 0.027 |
| 40.1 | ,79 | 1.998 | ,80 | 0.095 |
| 40.6 | ,81 | 2.256 | ,82 | 0.074 |
| 41.1 | ,83 | 1.997 | ,84 | 0.079 |
| 41.6 | ,85 | 2.118 | ,86 | 0.028 |
| 42.1 | ,87 | 2.315 | ,88 | 0.095 |
| 42.6 | ,89 | 1.992 | ,90 | 0.094 |
| 43.1 | ,91 | 2.224 | ,92 | 0.043 |
| 43.6 | ,93 | 2.193 | ,94 | 0.072 |
| 44.1 | ,95 | 1.851 | ,96 | 0.095 |
| 44.6 | ,97 | 1.849 | ,98 | 3.152 |
| 45.1 | ,99 | 2.555 | ,100 | 0.221 |
| 45.6 | ,101 | 2.205 | ,102 | 0.052 |
| 46.1 | ,103 | 2.008 | ,104 | 0.068 |
| 46.6 | ,105 | 2.309 | ,106 | 0.100 |
| 47.1 | ,107 | 1.956 | ,108 | 0.290 |
| 47.6 | ,109 | 1.923 | ,110 | 0.248 |
| 48.1 | ,111 | 2.553 | ,112 | 0.134 |
| 48.6 | ,113 | 2.124 | ,114 | 0.209 |
| 49.1 | ,115 | 1.855 | ,116 | 0.187 |
| 49.6 | ,117 | 1.658 | ,118 | 0.309 * |
| 50.1 | ,119 | 2.447 | ,120 | 0.222 * |
| 50.6 | ,125 | 2.421 | ,126 | 0.436 * |
| 51.1 | ,128 | 2.068 | ,129 | 0.156 * |
| 51.6 | ,134 | 2.231 | ,135 | 0.366 * |
| 52.1 | ,137 | 2.070 | ,138 | 0.116 * |
| 52.6 | ,142 | 2.144 | ,143 | 0.173 * |
| 53.1 | ,147 | 2.194 | ,148 | 0.076 * |
| 53.6 | ,150 | 2.166 | ,151 | 0.123 * |
| 54.1 | ,154 | 2.274 | ,155 | 0.120 * |
| 54.6 | ,158 | 2.175 | ,159 | 0.102 * |
| 55.1 | ,162 | 2.111 | ,163 | 0.137 * |
| 55.6 | ,165 | 2.522 | ,166 | 0.164 |
| 56.1 | ,167 | 1.699 | ,168 | 0.116 |
| 56.8 | ,169 | 2.582 | ,170 | 0.524 |

Total depth after extrusion: 56.8 cm below lunar surface

* additional distinctive material was placed in special samples

LITHOLOGIC SYMBOLS IN COLUMNAR SECTION

- Xtalline rock fragments (basalt, ANT, norite etc.)
- Xtalline-matrix breccia
- Cataclastic anorthosite
- light soil clasts
- orange-brown glass
- green glass clods
- oriented vesicular glass particles or clumps
- fragmented vesicular glass
- soil breccia

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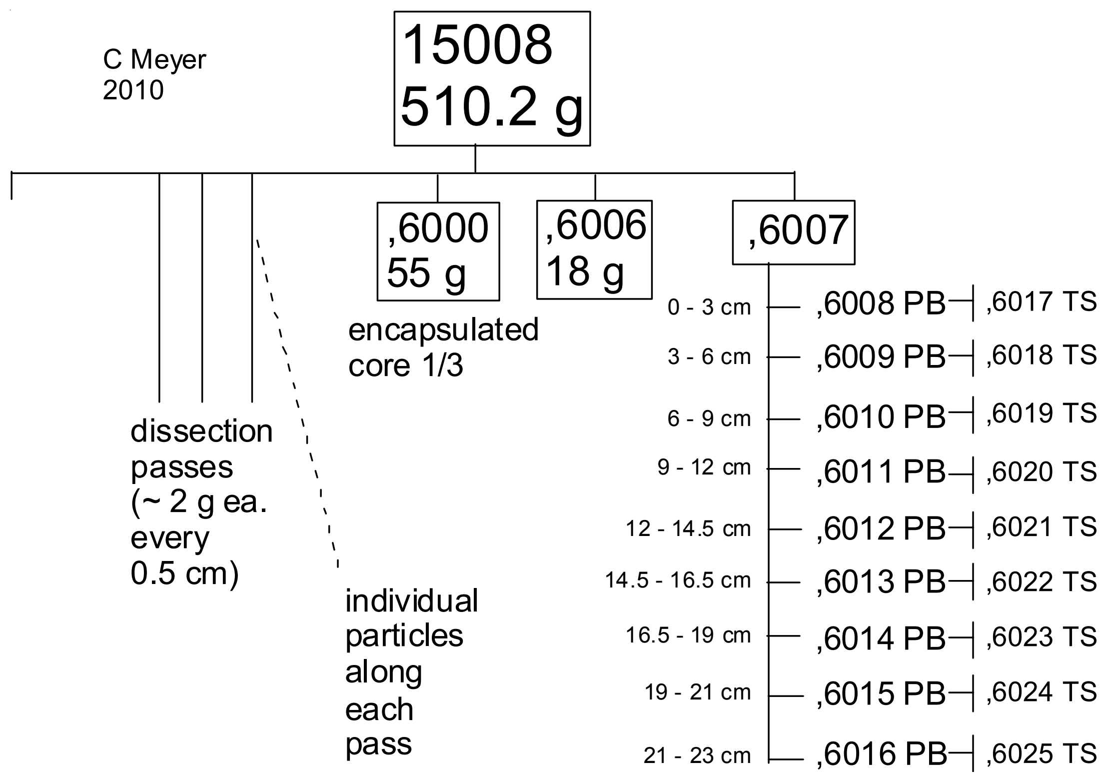
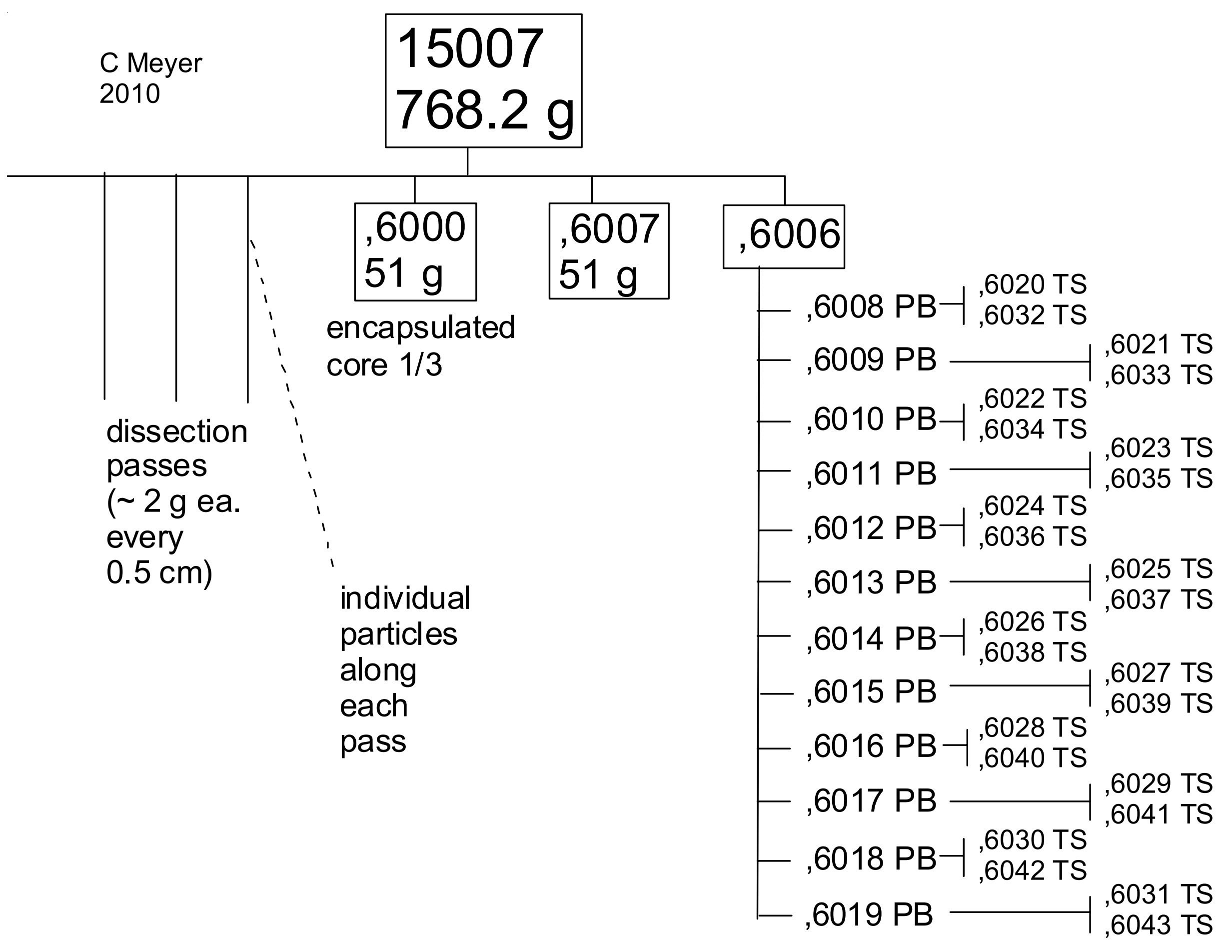
*Figure 12: First dissection layer of 15007 (top)(Nagle 1981b).*


C Meyer
2010
15008
510.2 g
,6000
55 g
,6006
18 g
encapsulated
core 1/3
,6007
dissection
passes
(~ 2 g ea.
every
0.5 cm)
individual
particles
along
each
pass
0 - 3 cm
,6008 PB
,6017 TS
3 - 6 cm
,6009 PB
,6018 TS
6 - 9 cm
,6010 PB
,6019 TS
9 - 12 cm
,6011 PB
,6020 TS
12 - 14.5 cm
,6012 PB
,6021 TS
14.5 - 16.5 cm
,6013 PB
,6022 TS
16.5 - 19 cm
,6014 PB
,6023 TS
19 - 21 cm
,6015 PB
,6024 TS
21 - 23 cm
,6016 PB
,6025 TS


C Meyer
2010
15007
768.2 g
,6000
51 g
,6007
51 g
encapsulated
core 1/3
,6006
dissection
passes
(~ 2 g ea.
every
0.5 cm)
individual
particles
along
each
pass
,6008 PB
,6020 TS
,6032 TS
,6009 PB
,6021 TS
,6033 TS
,6010 PB
,6022 TS
,6034 TS
,6011 PB
,6023 TS
,6035 TS
,6012 PB
,6024 TS
,6036 TS
,6013 PB
,6025 TS
,6037 TS
,6014 PB
,6026 TS
,6038 TS
,6015 PB
,6027 TS
,6039 TS
,6016 PB
,6028 TS
,6040 TS
,6017 PB
,6029 TS
,6041 TS
,6018 PB
,6030 TS
,6042 TS
,6019 PB
,6031 TS
,6043 TS

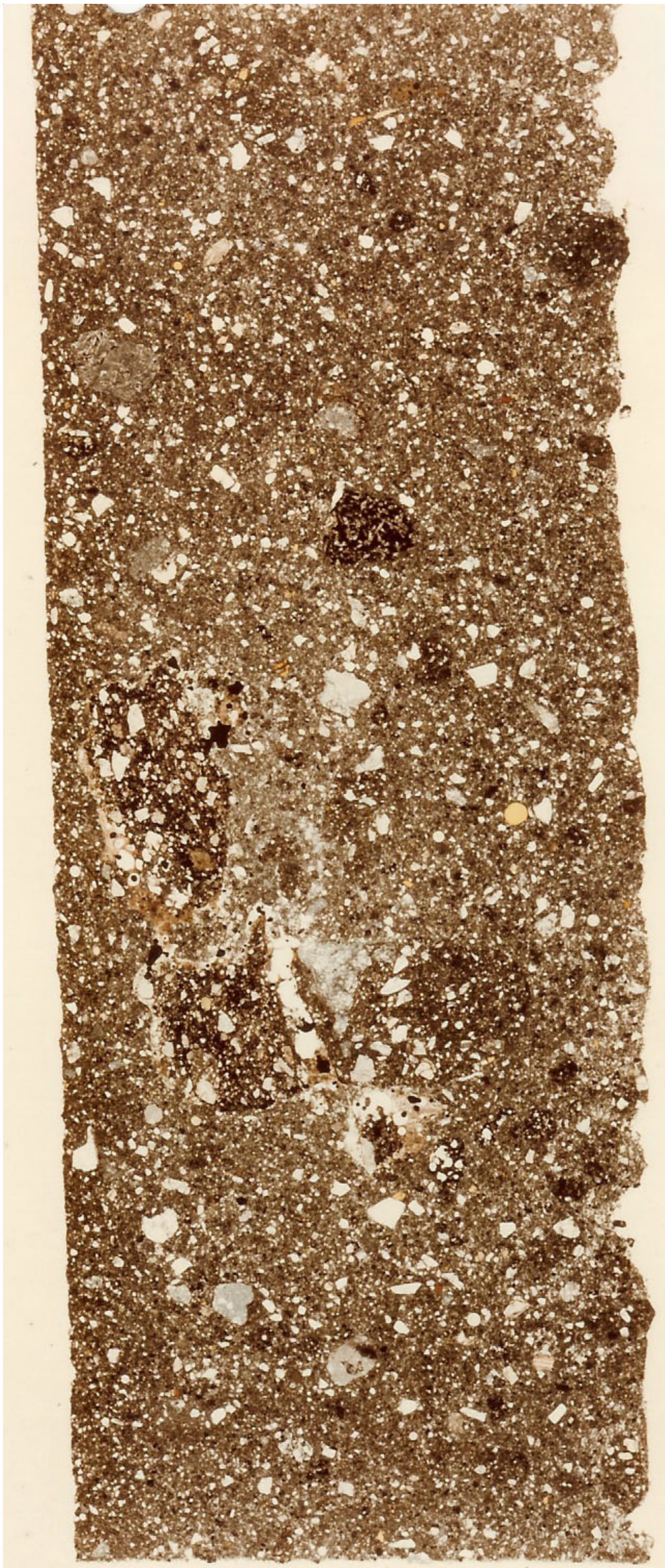
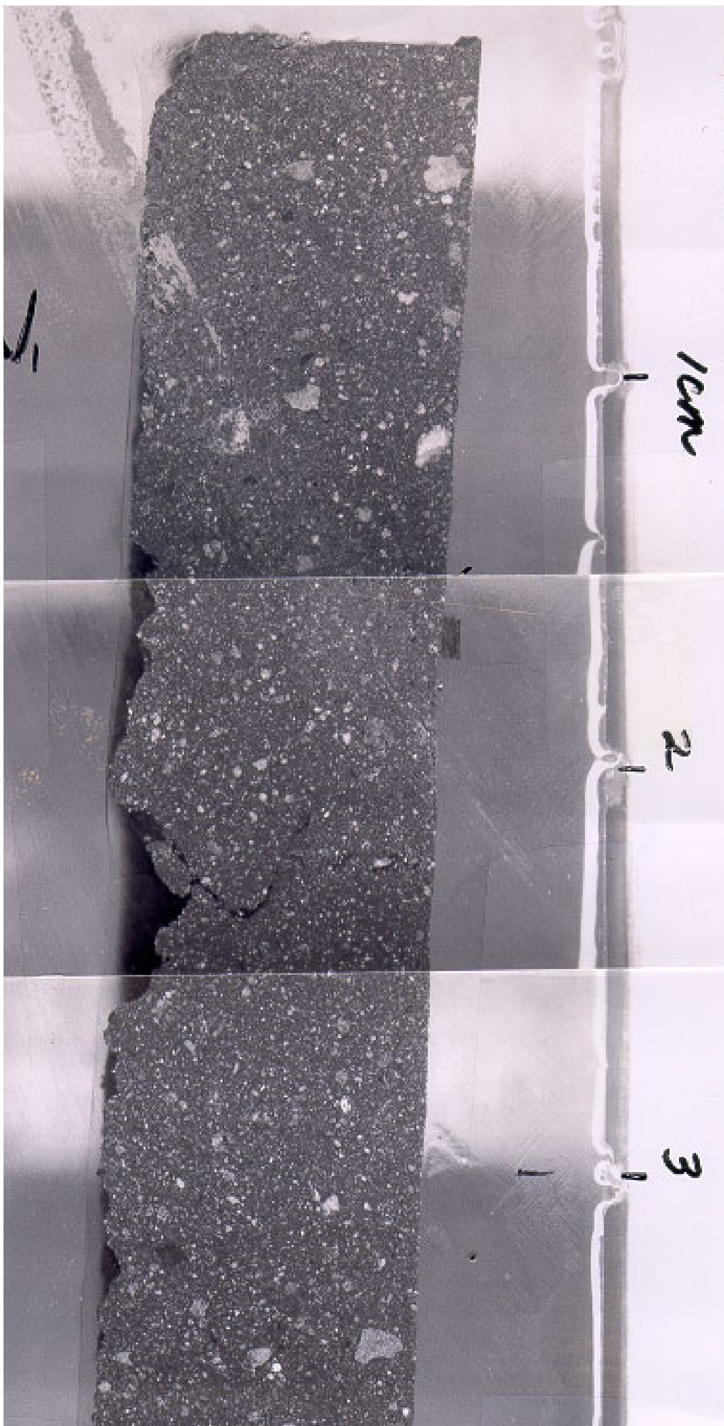


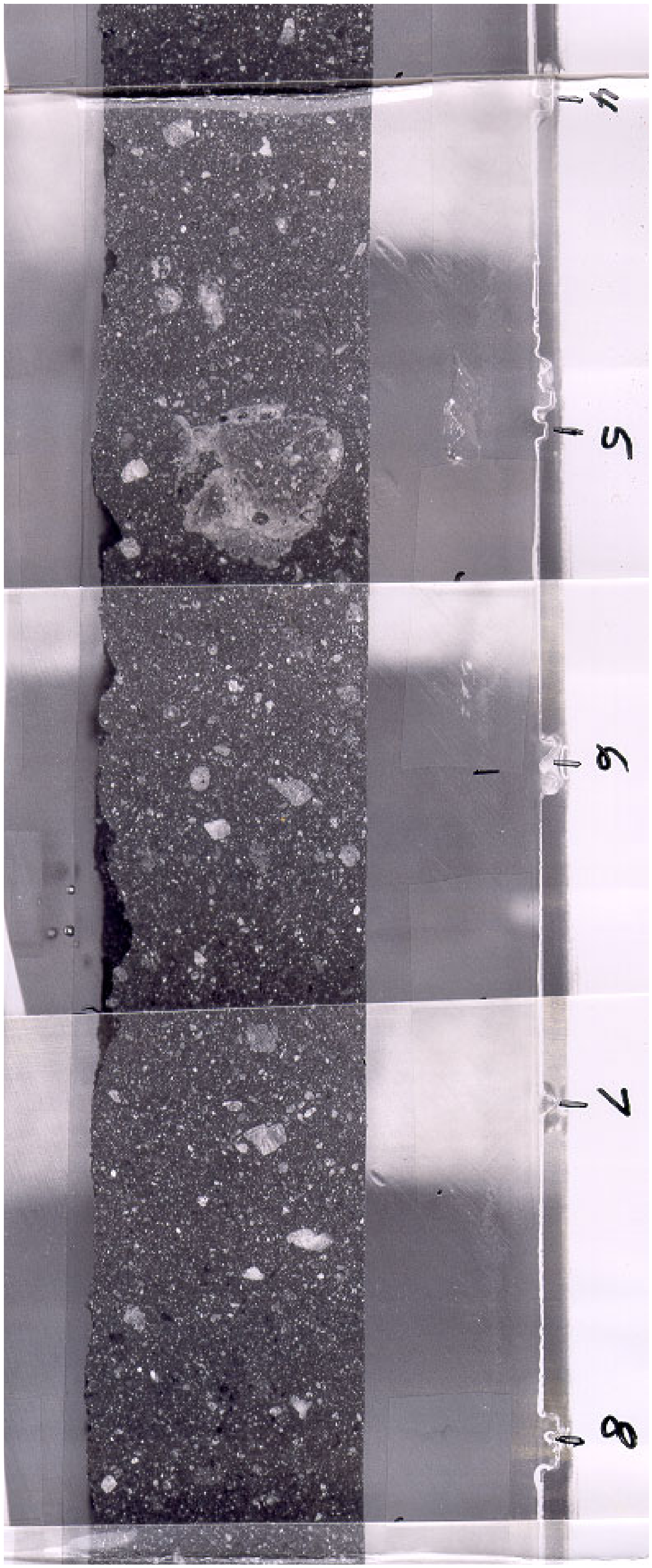
*Figure 13: Photomicrograph of thin section 15008,6023 from depth 16.5 - 19 cm.*

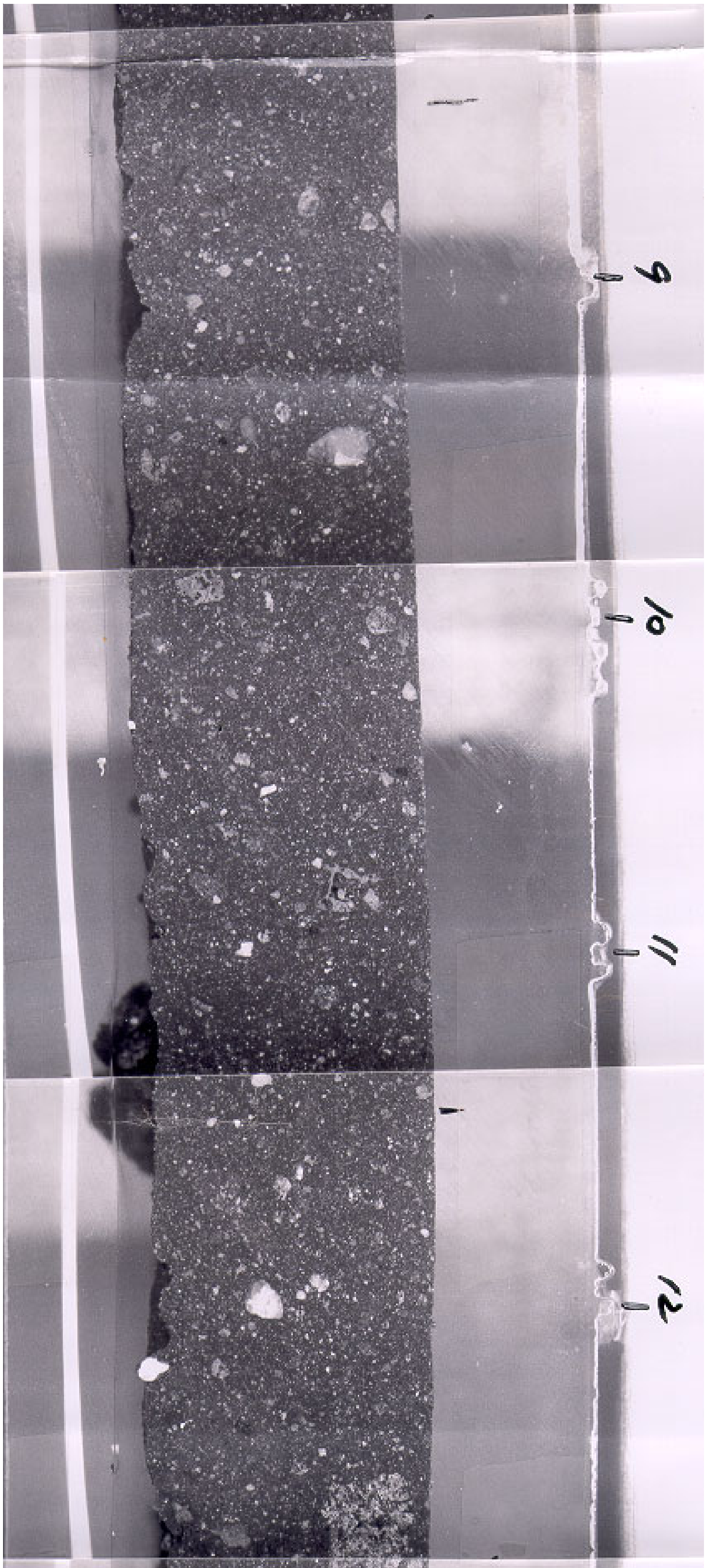
15008,6006 epoxy
encapsulated core

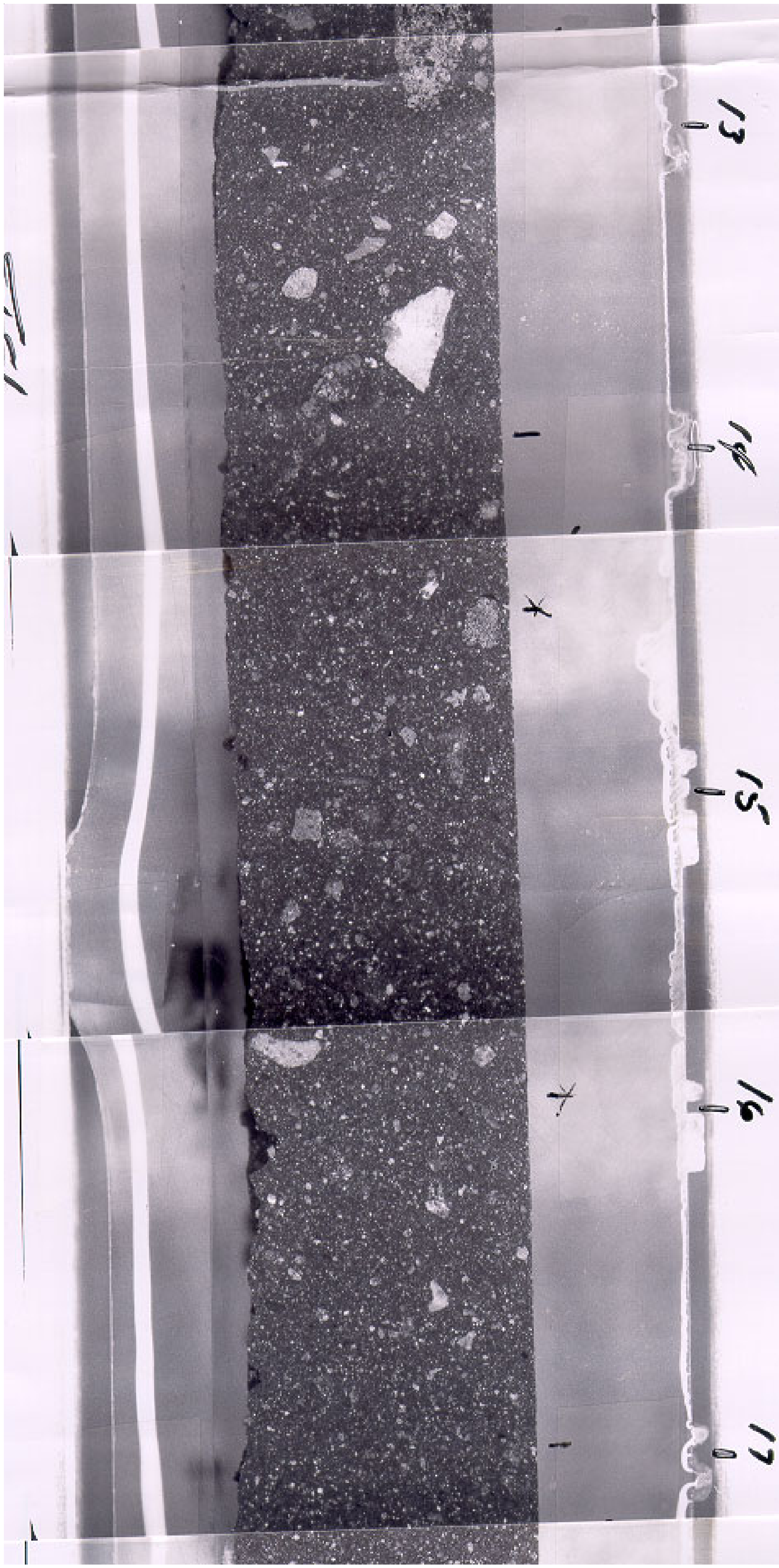
top

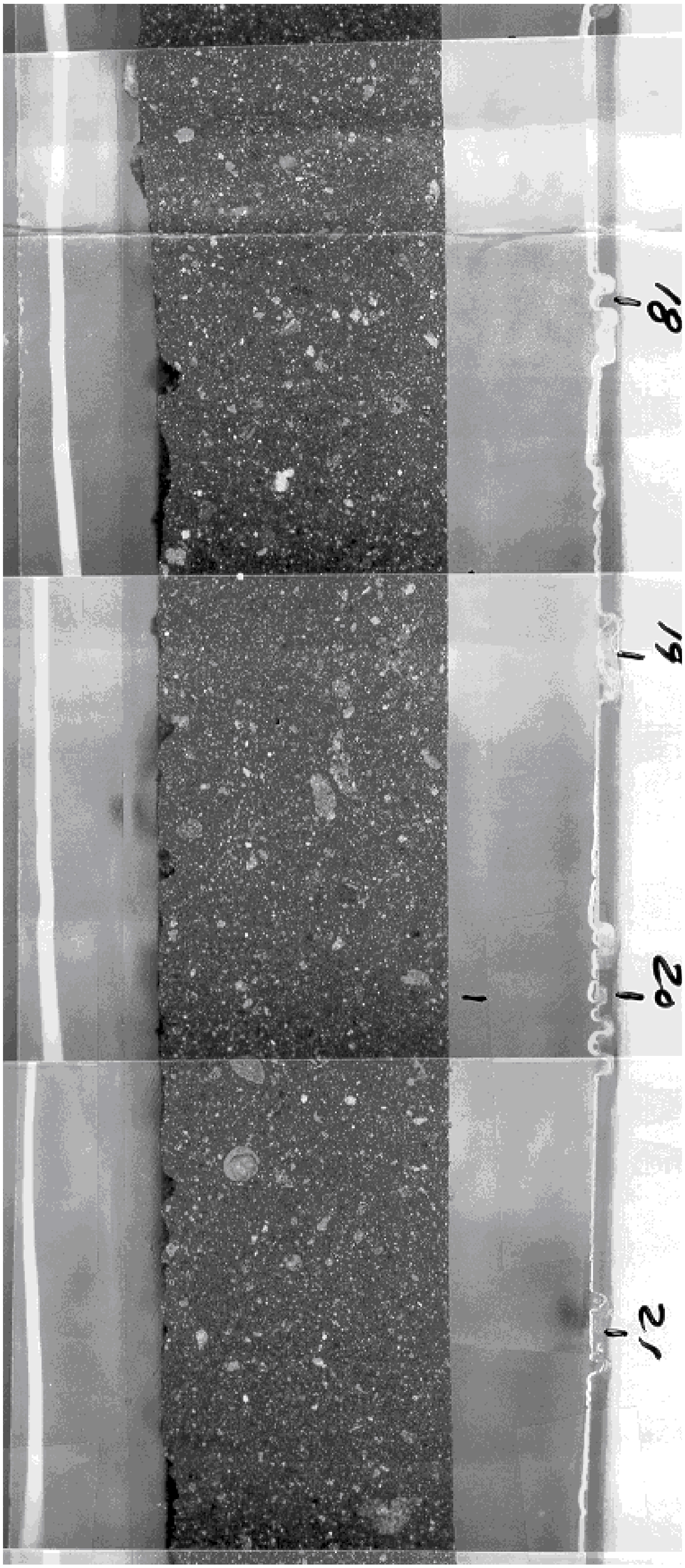


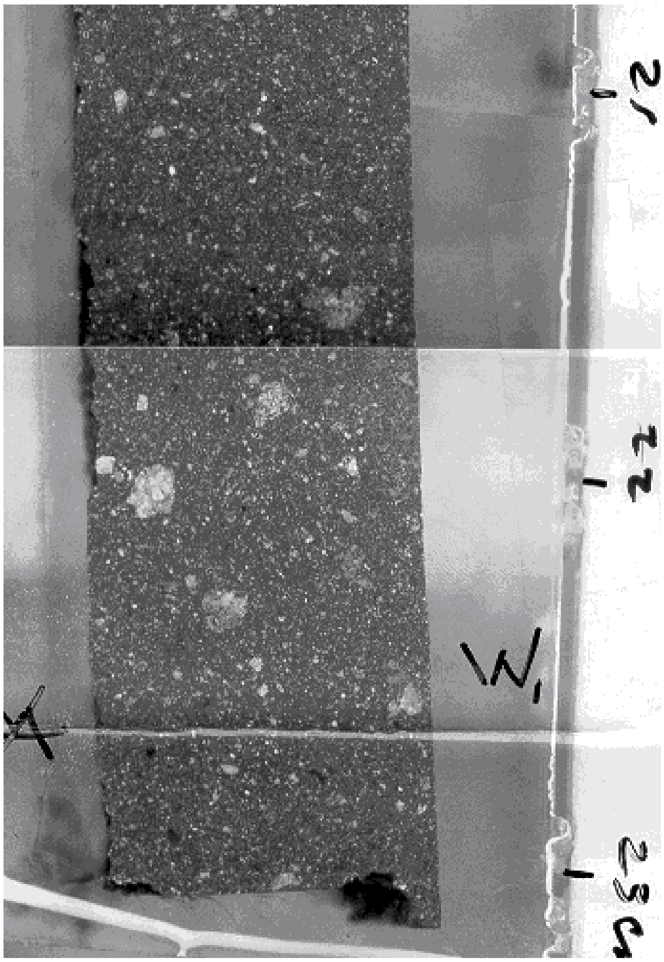

W1

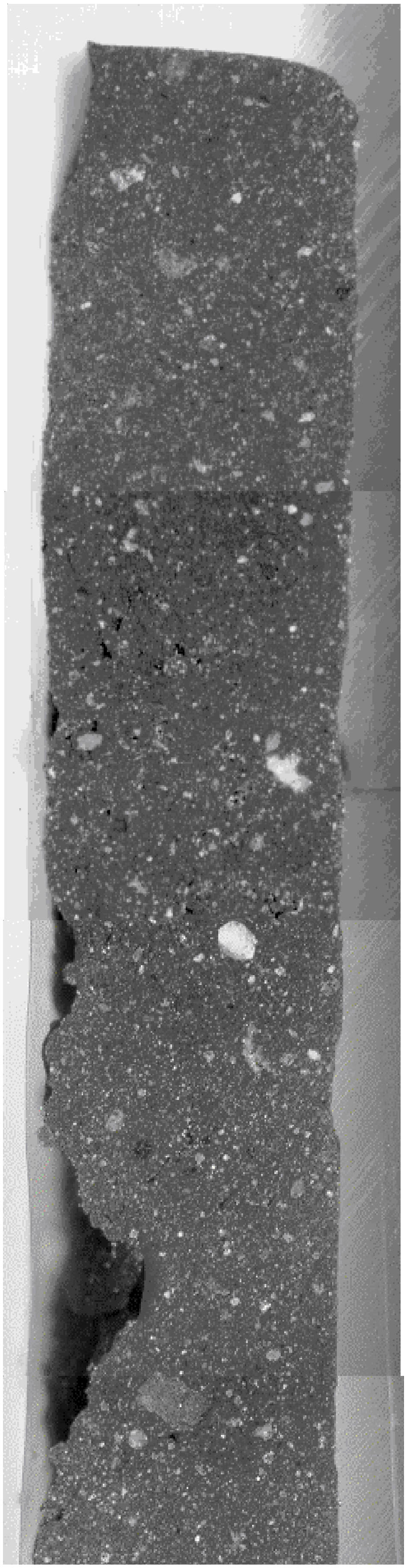



9
10
11
12


13
15
16
17


18
19
20
21





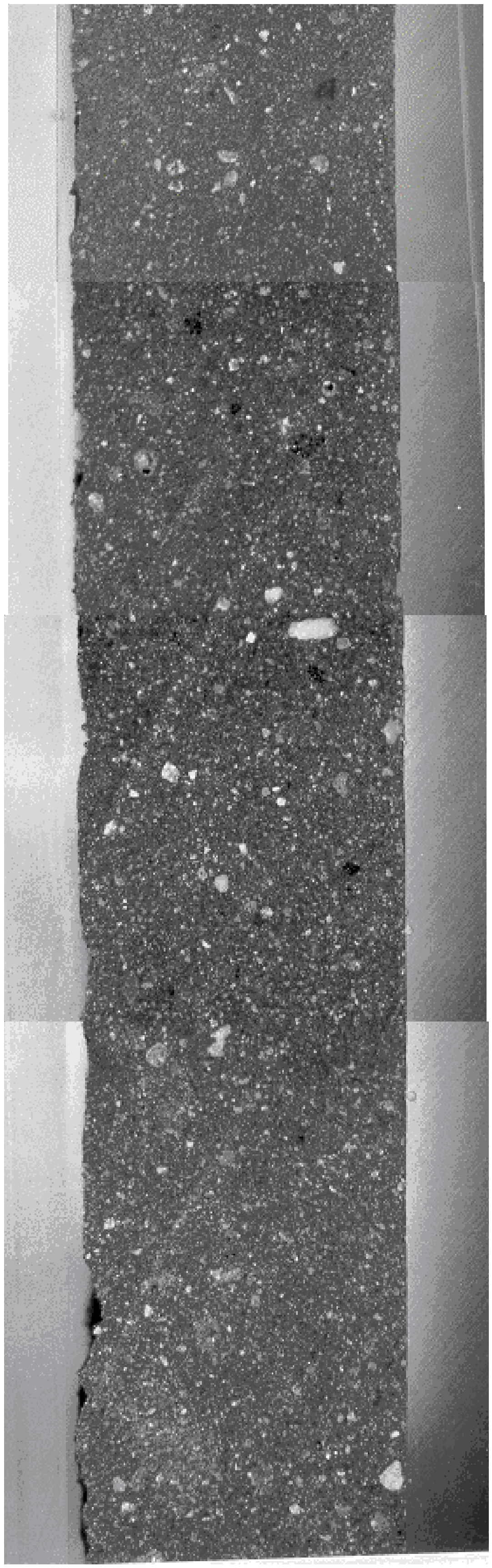
23 cm

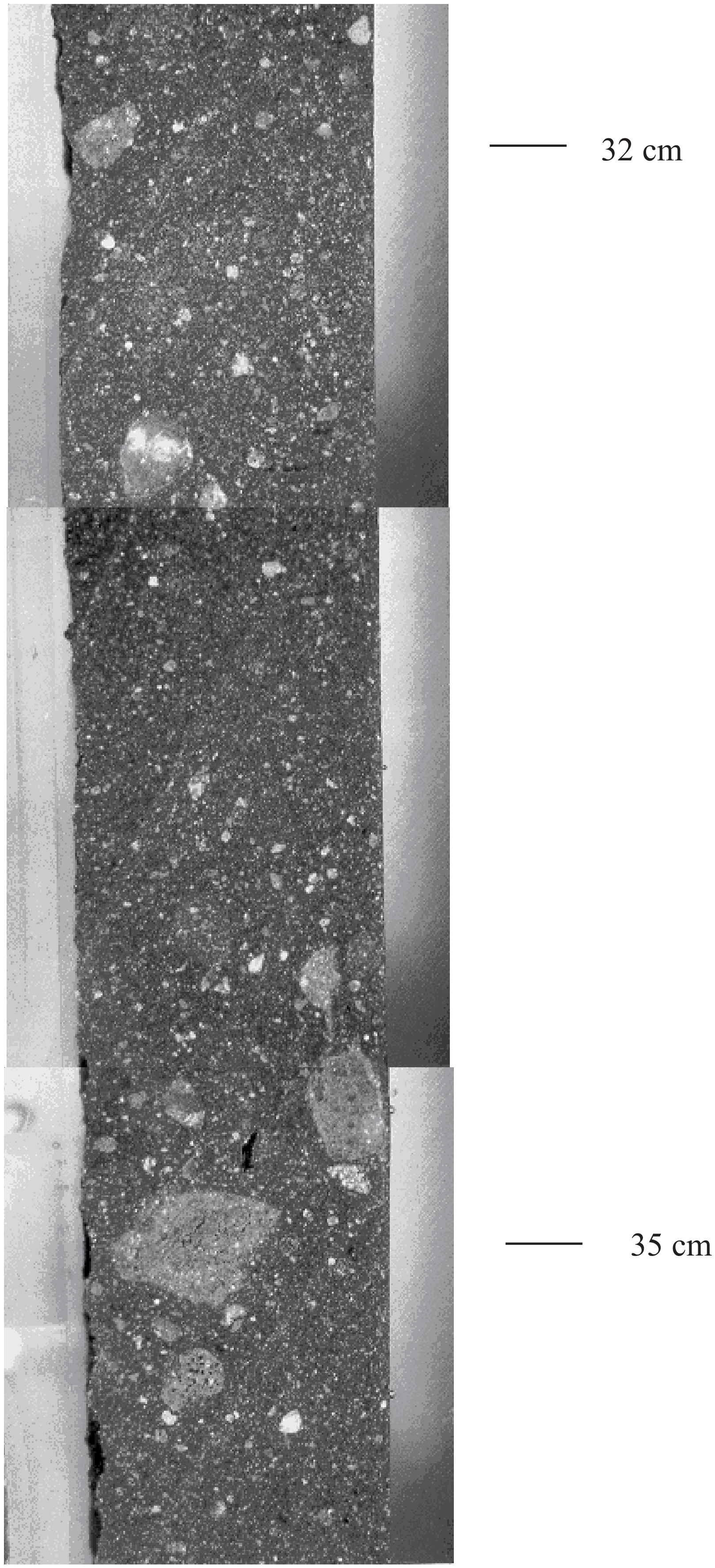
15007,6000
epoxy
encapsulted
core

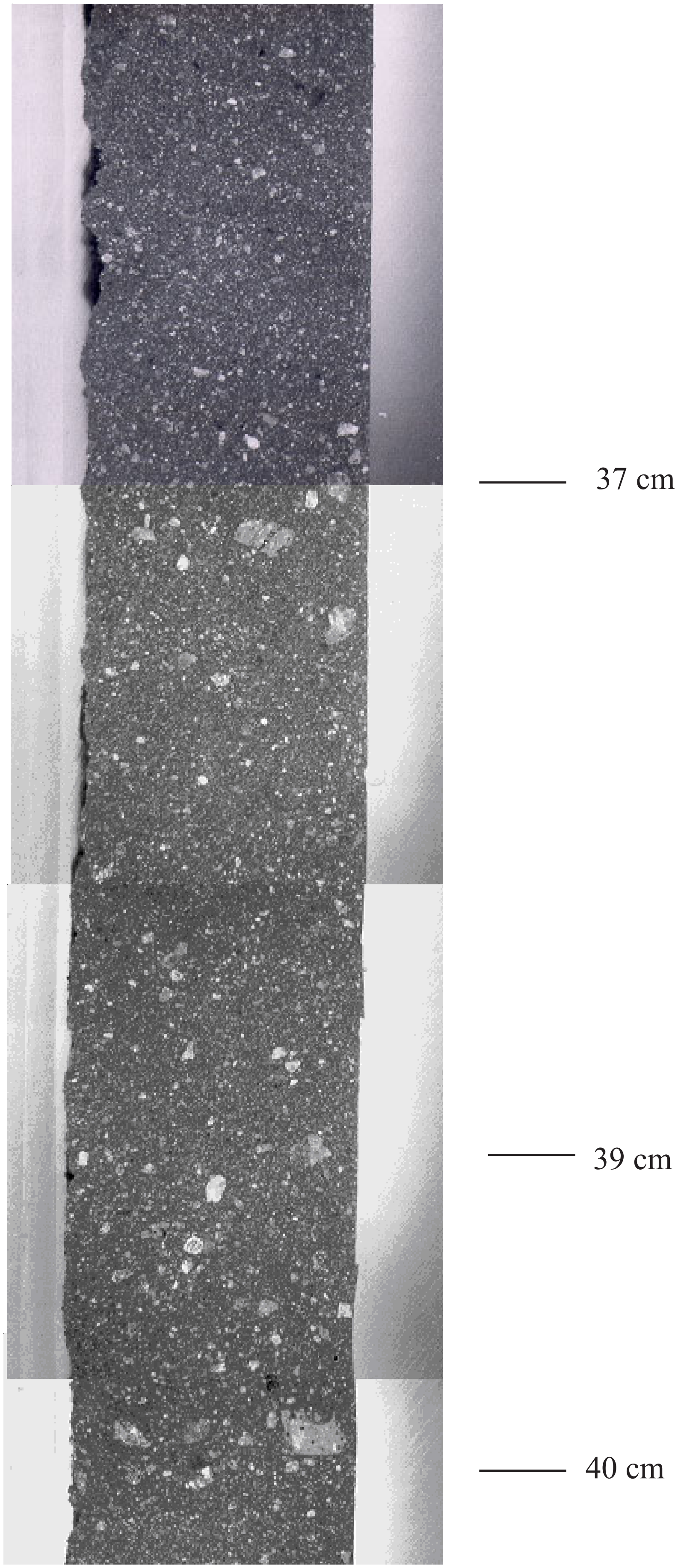
W1

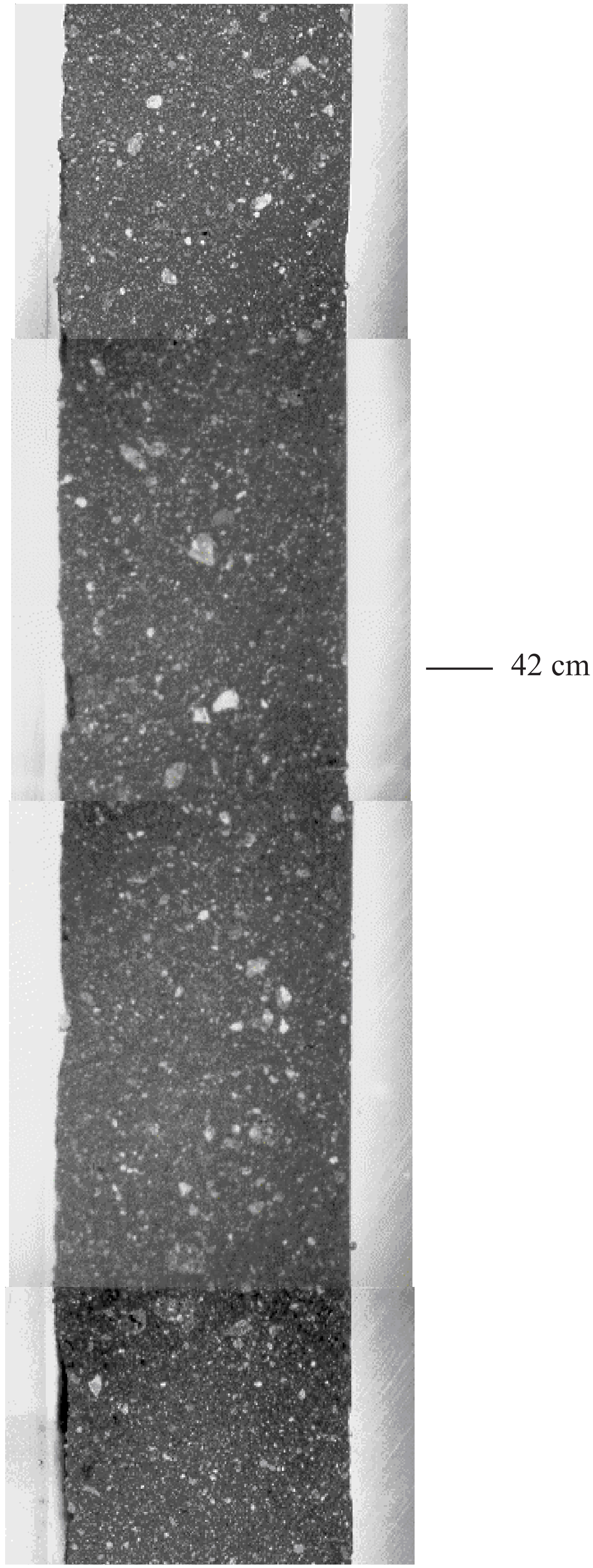
25 cm

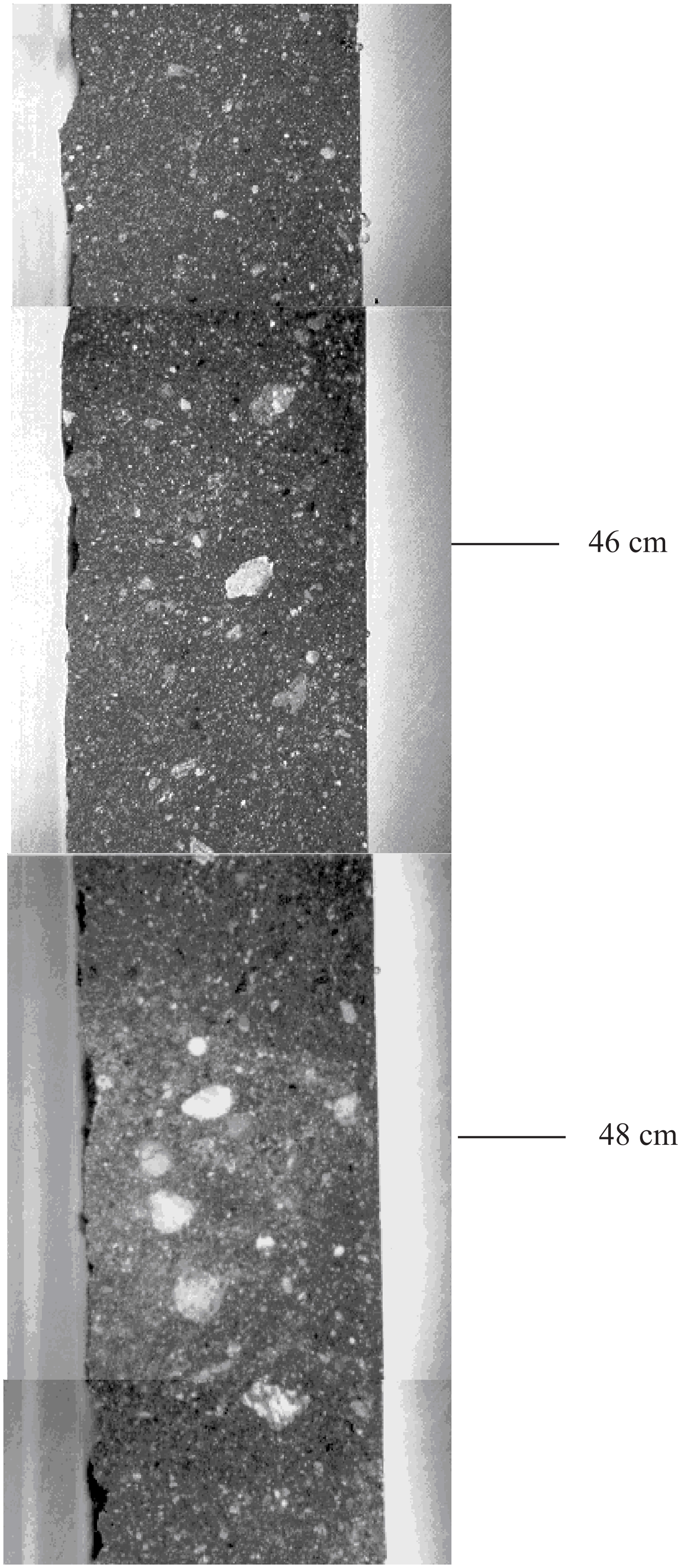
27 cm

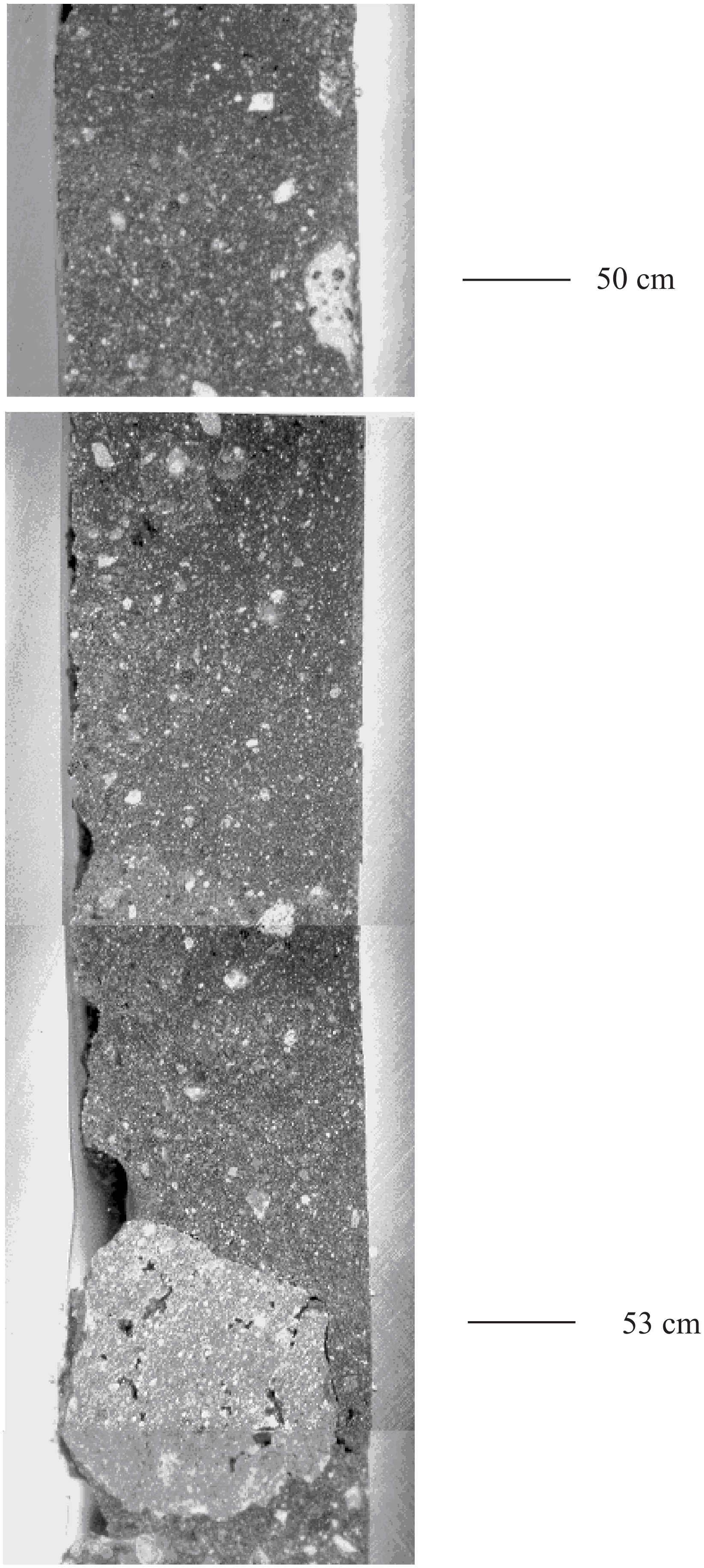

29 cm


32 cm
35 cm

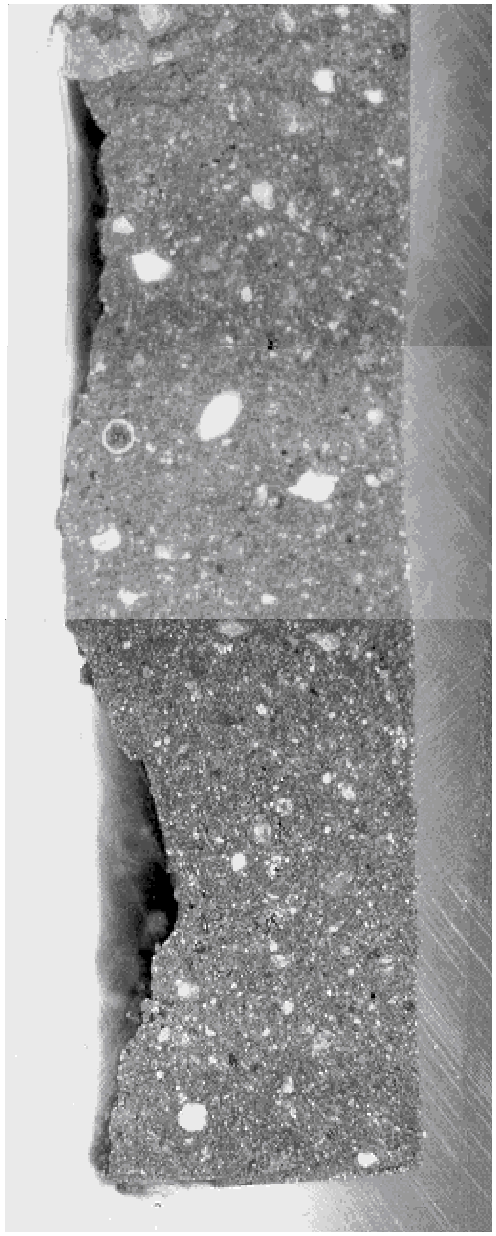

37 cm
39 cm
40 cm


42 cm


46 cm
48 cm



50 cm
53 cm



55 cm

56.6 cm

bottom