

New Antarctic Meteorite Curator

Kevin Righter

In November, I assumed the position of Antarctic Meteorite Curator at NASA's Johnson Space Center. I feel very fortunate to have the opportunity to oversee the curation of the Antarctic Meteorite Collection. This is a large and dynamic collection, augmented every year with new, interesting and unique specimens. The meteorite processing team here at JSC does an outstanding job of carrying this out, and we plan to continue with the many new samples returned from the most recent season (see ANSMET report). I welcome any questions, comments or concerns from members of the community – please don't hesitate to contact me at the address at the end of the newsletter.

My interest in meteorites and planetary science was sparked by a summer internship at the Lunar and Planetary Institute in 1987 just after completing college. I studied pallasite meteorites and their possible relation to the eucrite parent body (or Vesta) for a master's thesis at the University of Michigan with Richard Arculus. Because I had an interest in fieldwork and terrestrial petrology, I pursued a doctoral thesis at the University of California at Berkeley and worked with Ian Carmichael on field and experimental studies of the western Mexican Volcanic Belt. Since 1994, I have been a postdoctoral research associate with Mike Drake at the Lunar and Planetary Laboratory of the University of Arizona. My research there has included experimental studies of metal-silicate equilibrium and core formation and planetary differentiation as well as studies of a broad range of meteorites such as metal-rich chondrites, HED and martian meteorites. I also continue working on problems in basaltic volcanism in continental and island arcs.

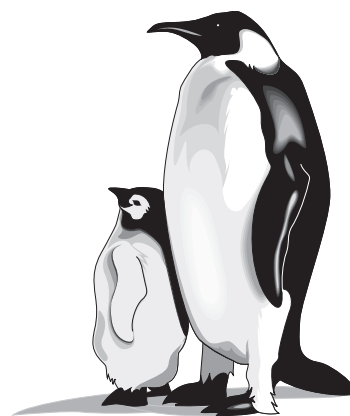
I was fortunate enough to have the opportunity to be a part of the 99-00 ANSMET field team. The 99-00 field season returned a whopping 1042 samples from the Queen Alexandra Range (Foggy Bottom and Goodwin Nunatak), Lewis Cliffs, Miller Range and Geologists Range.

The 1999-2000 ANSMET field team near Goodwin Nunatak, from left to right: John Schutt, Peter Pesch, Phil Bland, Henning Haack, Andreas Weigel, and Kevin Righter

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Ob Hill near McMurdo, left to right: Kevin Righter, Andreas Weigel, Henning Haack, Ralph Harvey, Rene Martinez; kneeling is Phil Bland with Fifi.

New Meteorites

This newsletter contains classifications for 439 new meteorites from the 1999, 2000 and 2001 ANSMET collections. They include samples from the Queen Alexandra Range, Bates Nunatak, Finger Ridge, Meteorite Hills, and Mt. Crean. Descriptions are given for 44 meteorites; 3 diogenites, 2 eucrites, 4 howardites, 17 carbonaceous chondrites, 7 ordinary chondrites, 2 enstatite chondrites, and 9 irons.

Mars Meteorite Compendium - 2003

Twenty-eight Martian meteorites, including ten from Antarctica, are the subjects of intense study. The Mars Meteorite Compendium is continually being updated with new data. Chuck Meyer invites corrections and/or critical comments. To find it, go to the URL listed below:

<http://curator.jsc.nasa.gov/curator/antmet/mmc/mmc.htm>

New Thin Section Procedures

In Spring 2002, MWG agreed that meteorite thin sections that have been approved for and subjected to destructive analysis should be documented and records kept of the analytical techniques used in each case. When returning a thin section, any destructive analysis should be described using the new Meteorite Sample Analysis Record form (MF-76) available on the website:

<http://curator.jsc.nasa.gov/curator/forms/mf76met-download.htm>

In addition, a sample recall was initiated for sections that have been on loan for more than 5 years. This was done so that we do not develop situations where investigators have hundreds of sections amassed in their laboratories, making future meteorite sample returns to JSC a daunting task. Meteorite thin sections should be returned according to the procedures outlined at this URL:

http://curator.jsc.nasa.gov/curator/samretins_met.htm



Ralph Harvey
ANSMET

Report on the 2002-2003 Field Season

I'm not the right person to write this. I'm the lazy one who stayed home this season to play with my kids. But it falls to me to make the report, since those who actually did the work are now off climbing mountains in the Andes, surfing in Fiji, hanging out in McMurdo, or just generally avoiding me.

Thanks to wonderful support from NASA, we were finally able to deploy two ANSMET field teams this year. The larger main team went to the MacAlpine Hills, and did their best to finish ANSMET's work in the Walcott Névé region after nine previous seasons of systematic searching. The team of 8 included, Nancy Chabot (science lead), Jamie Pierce (safety lead), Scott Messenger, Carl Allen, Dante Lauretta, Dan Glavin, Linda Welzenbach, and Andy Caldwell (2nd Teachers Experience Antarctica participant-Andy's web site describes the trip).

This team deployed to the ancient Beardmore South Camp. John Schutt went along as a "native guide" for the first few days, to help them cover the 60 km traverse south to the Goodwin Nunataks. They started the season there so they could finish the remaining few sweeps left from our last season in the region (1999-2000).

About a week later, they traversed to MacAlpine Hills, where we had never really invested the resources to finish searching. The group did a great job at MacAlpine Hills, and came within just a day or two of completely finishing when Murphy's law kicked in. With just a few days left to go, they hit the "mother lode", recovering more than 100 meteorites in a single day. Then,

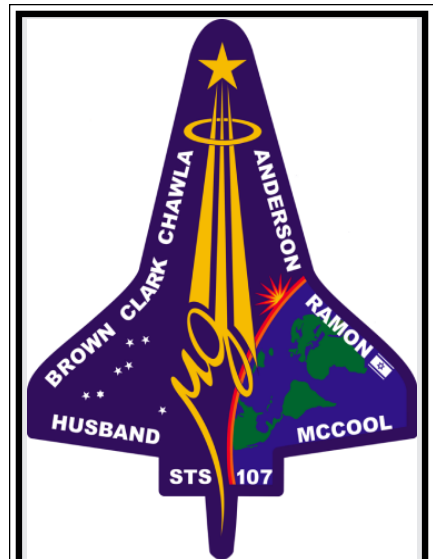
significant snow fell, leaving them no alternative but to depart with a small area remaining unsearched for a future visit.

All reports suggest the team had an amazing chemistry, and the numbers suggest they were hard workers as well; they recovered a total of 607 specimens overall.

The goal of the smaller and more mobile reconnaissance team was to scout out poorly known or previously unvisited icefields and fully explore their potential with visits lasting a week or more rather than a few hours or days. Their targets were the icefields in the Pecora Escarpment region, which was last visited by ANSMET in 1991. The 4 person team consisted of John Schutt (science and safety lead), Diane DiMassa, Cady Coleman, and Dean Eppler. The team deployed to the region via South Pole

Station, and was heavily supported by a Twin Otter, allowing them to spend time at many widely spread icefields without dangerous and time-consuming traverses. Equipped with brand-new snowmobiles (something we haven't seen since the 1980's), the group successfully identified at least one icefield with good potential, completed searching at a couple of other smaller sites, and crossed a few sites off our potential target list. Along the way, the reconnaissance team recovered a total of 317 specimens, bringing the season's total to 924.

As an observer and "leader at a distance," I was constantly envious of both teams and enormously pleased with the season's results. We have very high hopes that those of you reading this will find exciting things in the "02" meteorite collection.



This newsletter is dedicated to the crew of STS-107. Their dedication to science, devotion to space exploration, service to our country, and inspiration to people all around the world will never be forgotten.



ANSMET Team: Jamie Pierce, John Schutt, Cady Coleman, Scott Messinger, Andy Caldwell, Dante Laurretta, Daniel Glavin. Front Row: Diane DiMassa, Nancy Chabot, Carlton Allen, Linda Welzenbach, Dean Eppler (photo by Elizabeth Morton and Daniel Glavin)



2002-2003 ANSMET Team with Meteorite



Blue Man pointing to meteorite

Andy Caldwell's web site describing the expedition can be found at: http://tea.rice.edu/tea_caldwellfrontpage.html

New Meteorites

From 1999-2001 Collection

Pages 5-23 contain preliminary descriptions and classifications of meteorites that were completed since publication of issue 25(2), Aug. 2002. Specimens of special petrologic type (carbonaceous chondrite, unequilibrated ordinary chondrite, achondrite, etc.) are represented by separate descriptions unless they are paired with previously described meteorites. However, some specimens of non-special petrologic type are listed only as single line entries in Table 1. For convenience, new specimens of special petrological type are also recast in Table 2.

Macroscopic descriptions of stony meteorites were performed at NASA/JSC. These descriptions summarize hand-specimen features observed during initial examination. Classification is based on microscopic petrography and reconnaissance-level electron microprobe analyses using polished sections prepared from a small chip of each meteorite. For each stony meteorite the sample number assigned to the preliminary examination section is included. In some cases, however, a single microscopic description was based on thin sections of several specimens believed to be members of a single fall.

Meteorite descriptions contained in this issue were contributed by the following individuals:

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Antarctic Meteorite Locations

ALH	—	Allan Hills	PRE	—	Mt. Prestrud
BEC	—	Beckett Nunatak	QUE	—	Queen Alexandra Range
BOW	—	Bowden Neve	RKP	—	Reckling Peak
BTN	—	Bates Nunataks	SCO	—	Scott Glacier
CRE	—	Mt. Crean	STE	—	Stewart Hills
DAV	—	David Glacier	TEN	—	Tentacle Ridge
DEW	—	Mt. DeWitt	TIL	—	Thiel Mountains
DOM	—	Dominion Range	TYR	—	Taylor Glacier
DRP	—	Derrick Peak	WIS	—	Wisconsin Range
EET	—	Elephant Moraine	WSG	—	Mt. Wisting
FIN	—	Finger Ridge			
GDR	—	Gardner Ridge			
GEO	—	Geologists Range			
GRA	—	Graves Nunataks			
GRO	—	Grosvenor Mountains			
HOW	—	Mt. Howe			
ILD	—	Inland Forts			
KLE	—	Klein Ice Field			
LAP	—	LaPaz Ice Field			
LEW	—	Lewis Cliff			
LON	—	Lonewolf Nunataks			
MAC	—	MacAlpine Hills			
MBR	—	Mount Baldr			
MCY	—	MacKay Glacier			
MET	—	Meteorite Hills			
MIL	—	Miller Range			
OTT	—	Outpost Nunatak			
PAT	—	Patuxent Range			
PCA	—	Pecora Escarpment			
PGP	—	Purgatory Peak			

Table 1: List of Newly Classified Antarctic Meteorites**

Sample Number	Weight (g)	Classification	Weathering	Fracturing	% Fa	% Fs
QUE 99 420 ~	2.1	LL5 CHONDRITE	B	B		
QUE 99 421 ~	2.0	LL5 CHONDRITE	B	B		
QUE 99 422 ~	2.8	LL5 CHONDRITE	B/C	B		
QUE 99 423 ~	0.7	L6 CHONDRITE	C	B		
QUE 99 424 ~	4.5	LL5 CHONDRITE	B/C	B		
QUE 99 425	0.2	H4 CHONDRITE	C	B/C	18	15
QUE 99 426 ~	2.2	LL5 CHONDRITE	B/C	B		
QUE 99 427 ~	0.2	LL5 CHONDRITE	B	B		
QUE 99 428 ~	4.7	LL5 CHONDRITE	A/B	A/B		
QUE 99 429 ~	3.2	LL5 CHONDRITE	B	B		
QUE 99 674 ~	1.1	LL5 CHONDRITE	B/C	B		
QUE 99 740 ~	2.4	L6 CHONDRITE	C	A/B		
QUE 99 750 ~	0.5	LL5 CHONDRITE	B/C	B		
QUE 99 751 ~	1.3	LL5 CHONDRITE	B/C	B		
QUE 99 752	1.4	CM2 CHONDRITE	C	B	0-23	2-10
QUE 99 753 ~	3.5	LL5 CHONDRITE	B	B		
QUE 99 754 ~	0.6	LL6 CHONDRITE	B	B		
QUE 99 755 ~	1.0	L6 CHONDRITE	C	B		
QUE 99 756 ~	2.3	LL5 CHONDRITE	B/C	B		
QUE 99 757 ~	1.5	LL5 CHONDRITE	B	B		
QUE 99 758 ~	0.4	LL5 CHONDRITE	B	B		
QUE 99 759 ~	1.7	LL5 CHONDRITE	B	B		
QUE 99 783 ~	34.5	L5 CHONDRITE	B/C	A		
QUE 99 822 ~	23.4	H5 CHONDRITE	C	A/B		
QUE 99 867 ~	3.6	H5 CHONDRITE	B/C	A/B		
QUE 99 893 ~	22.2	LL5 CHONDRITE	B/C	B/C		
BTN 00 304 ~	709.0	LL6 CHONDRITE	A	A/B		
BTN 00 305 ~	316.4	L5 CHONDRITE	B	A		
BTN 00 306 ~	67.0	L5 CHONDRITE	B/C	B		
BTN 00 307 ~	130.1	L6 CHONDRITE	B	A/B		
BTN 00 310 ~	20.6	LL6 CHONDRITE	A/B	A/B		
FIN 00 100	39.6	H5 CHONDRITE	B	B	18	16
FIN 00 101	121.8	H4 CHONDRITE	B	B	18	16
FIN 00 102	78.1	H5 CHONDRITE	B	B	19	16
MET 00 449 ~	1192.3	LL6 CHONDRITE	C	C		
MET 00 450 ~	691.1	LL6 CHONDRITE	BE	B		
MET 00 451 ~	767.2	LL6 CHONDRITE	BE	B		
MET 00 453 ~	265.6	LL6 CHONDRITE	B/C	A		
MET 00 454 ~	487.0	LL6 CHONDRITE	B/C	A/B		
MET 00 457 ~	709.4	LL6 CHONDRITE	B/C	A/B		
MET 00 458 ~	687.5	LL6 CHONDRITE	B	B		
MET 00 459 ~	1118.7	LL6 CHONDRITE	B	B/C		
MET 00 462 ~	590.7	L5 CHONDRITE	C	C		
MET 00 463 ~	369.9	L6 CHONDRITE	A/B	A/B		
MET 00 464 ~	418.9	LL6 CHONDRITE	A/B	B		

~Classified by using refractive indices.

Sample Number	Weight (g)	Classification	Weathering	Fracturing	% Fa	% Fs
MET 00 465 ~	516.4	L5 CHONDRITE	B/C	B		
MET 00 466 ~	296.8	LL5 CHONDRITE	B	B		
MET 00 467 ~	422.5	L5 CHONDRITE	B	B		
MET 00 468 ~	361.7	L5 CHONDRITE	B	A/B		
MET 00 469 ~	273.0	L5 CHONDRITE	B/C	B		
MET 00 470 ~	456.2	LL6 CHONDRITE	B/C	A/B		
MET 00 471 ~	367.1	L5 CHONDRITE	A/B	A		
MET 00 472 ~	348.3	L6 CHONDRITE	CE	B/C		
MET 00 473 ~	270.0	LL6 CHONDRITE	B	A/B		
MET 00 474 ~	153.3	LL5 CHONDRITE	A/B	B		
MET 00 475 ~	367.8	LL6 CHONDRITE	B/C	A/B		
MET 00 476 ~	433.3	L5 CHONDRITE	B/C	A		
MET 00 477 ~	474.2	LL6 CHONDRITE	A/B	B/C		
MET 00 478 ~	343.0	L5 CHONDRITE	A/B	A		
MET 00 479 ~	315.0	LL6 CHONDRITE	B/C	A/B		
MET 00 480 ~	190.5	L5 CHONDRITE	B	A/B		
MET 00 481 ~	208.4	L5 CHONDRITE	B	A		
MET 00 482 ~	175.3	LL6 CHONDRITE	A/B	A/B		
MET 00 483 ~	251.9	LL5 CHONDRITE	A/B	A/B		
MET 00 484 ~	233.7	L5 CHONDRITE	B/C	A		
MET 00 485 ~	221.9	LL6 CHONDRITE	C	A/B		
MET 00 486 ~	157.5	L5 CHONDRITE	B/C	C		
MET 00 487 ~	159.2	L5 CHONDRITE	B	B/C		
MET 00 488 ~	132.4	L5 CHONDRITE	C	C		
MET 00 489	232.0	L3.6 CHONDRITE	A/B	A/B	14-31	4-22
MET 00 490 ~	100.9	LL5 CHONDRITE	B/C	B/C		
MET 00 491	106.6	LL6 CHONDRITE	A	A/B	30	24
MET 00 492 ~	160.0	L5 CHONDRITE	B/C	A/B		
MET 00 493 ~	39.0	L5 CHONDRITE	C	B		
MET 00 494 ~	156.8	L5 CHONDRITE	C	C		
MET 00 495	266.5	LL6 CHONDRITE	A	A/B	28	23
MET 00 496 ~	128.8	L5 CHONDRITE	B/C	B		
MET 00 497 ~	221.6	LL6 CHONDRITE	C	B		
MET 00 498 ~	112.5	L6 CHONDRITE	C	C		
MET 00 499 ~	111.7	L6 CHONDRITE	C	A		
MET 00 500 ~	230.7	L6 CHONDRITE	C	B		
MET 00 501 ~	101.5	LL6 CHONDRITE	A/B	B/C		
MET 00 502 ~	130.8	LL5 CHONDRITE	C	C		
MET 00 503 ~	152.1	LL6 CHONDRITE	B/C	C		
MET 00 504 ~	165.9	L5 CHONDRITE	B/C	B		
MET 00 505 ~	174.6	LL5 CHONDRITE	C	B		
MET 00 506	301.1	H3.4 CHONDRITE	B	A/B	4-27	2-16
MET 00 507 ~	105.1	L5 CHONDRITE	B/C	B		
MET 00 508 ~	68.6	LL6 CHONDRITE	B/C	B		
MET 00 509 ~	180.9	LL6 CHONDRITE	B/C	B		
MET 00 510 ~	186.6	LL5 CHONDRITE	B	A		
MET 00 511 ~	131.7	L5 CHONDRITE	B/C	A/B		
MET 00 512 ~	93.4	LL5 CHONDRITE	B/C	A		
MET 00 513 ~	148.3	L5 CHONDRITE	C	A/B		
MET 00 514 ~	275.1	L5 CHONDRITE	B	A/B		
MET 00 515 ~	304.8	LL6 CHONDRITE	B/C	A/B		
MET 00 516 ~	117.6	L5 CHONDRITE	C	A/B		

~Classified by using refractive indices.

Sample Number	Weight (g)	Classification	Weathering	Fracturing	% Fa	% Fs
MET 00 517 ~	247.0	LL4 CHONDRITE	B/C	A/B		
MET 00 518 ~	247.8	LL6 CHONDRITE	B	A/B		
MET 00 519 ~	210.8	LL6 CHONDRITE	B	A		
MET 00 520 ~	263.4	L5 CHONDRITE	B	C		
MET 00 521 ~	134.0	LL5 CHONDRITE	B	A/B		
MET 00 522 ~	115.7	L5 CHONDRITE	B/C	A/B		
MET 00 523 ~	60.8	LL6 CHONDRITE	B/C	B		
MET 00 524 ~	226.0	L6 CHONDRITE	B	B		
MET 00 527 ~	225.0	L5 CHONDRITE	C	A/B		
MET 00 530 ~	106.2	LL5 CHONDRITE	C	B/C		
MET 00 531 ~	193.9	LL6 CHONDRITE	A/B	A		
MET 00 532 ~	132.6	L5 CHONDRITE	B	B		
MET 00 533 ~	127.6	LL5 CHONDRITE	C	A		
MET 00 534 ~	97.6	L6 CHONDRITE	C	A		
MET 00 535 ~	159.1	L4 CHONDRITE	C	B		
MET 00 536 ~	137.2	L6 CHONDRITE	C	A		
MET 00 537 ~	148.8	L6 CHONDRITE	C	B/C		
MET 00 538 ~	77.2	L5 CHONDRITE	B/C	B		
MET 00 539 ~	193.7	LL5 CHONDRITE	B	B		
MET 00 540 ~	103.2	LL6 CHONDRITE	B/C	B/C		
MET 00 541 ~	125.8	LL5 CHONDRITE	A	A/B		
MET 00 542 ~	80.3	L6 CHONDRITE	C	C		
MET 00 543 ~	25.4	L6 CHONDRITE	C	C		
MET 00 544 ~	52.7	L5 CHONDRITE	B/C	A/B		
MET 00 545 ~	59.8	L5 CHONDRITE	B/C	B		
MET 00 546 ~	75.9	L5 CHONDRITE	B	B		
MET 00 549 ~	101.5	L5 CHONDRITE	B/C	B		
MET 00 550 ~	104.5	LL6 CHONDRITE	B/C	A/B		
MET 00 551 ~	58.6	LL6 CHONDRITE	C	A		
MET 00 552 ~	97.3	H3.4 CHONDRITE	B/C	A	1-17	1-15
MET 00 553 ~	74.3	L5 CHONDRITE	B/C	A		
MET 00 554 ~	67.1	L6 CHONDRITE	B/C	B		
MET 00 555 ~	91.1	L5 CHONDRITE	B/C	A/B		
MET 00 556 ~	66.5	L5 CHONDRITE	B/C	A		
MET 00 557 ~	49.5	LL6 CHONDRITE	B/C	A/B		
MET 00 558 ~	157.0	L5 CHONDRITE	B/C	A		
MET 00 559 ~	95.0	L6 CHONDRITE	B/C	A/B		
MET 00 560 ~	61.8	LL5 CHONDRITE	A/B	B		
MET 00 561 ~	80.2	L5 CHONDRITE	C	C		
MET 00 562 ~	78.5	L5 CHONDRITE	B/C	B		
MET 00 563 ~	48.2	L5 CHONDRITE	C	C		
MET 00 564 ~	53.6	L5 CHONDRITE	C	B		
MET 00 565 ~	110.0	L5 CHONDRITE	B/C	A/B		
MET 00 566 ~	143.8	L5 CHONDRITE	C	A/B		
MET 00 567 ~	40.4	L5 CHONDRITE	B/C	B		
MET 00 568 ~	63.3	L6 CHONDRITE	C	A/B		
MET 00 569 ~	110.3	L6 CHONDRITE	B	A/B		
MET 00 570 ~	157.0	H3.8 CHONDRITE	C	B	13-19	12-17
MET 00 571 ~	114.3	LL6 CHONDRITE	B	A/B		
MET 00 572 ~	95.8	H4 CHONDRITE	B	B	19	8-20
MET 00 573 ~	71.0	LL6 CHONDRITE	A/B	A/B		
MET 00 574 ~	106.5	LL5 CHONDRITE	A	A		

~Classified by using refractive indices.

Sample Number	Weight (g)	Classification	Weathering	Fracturing	% Fa	% Fs
MET 00 575 ~	99.2	L5 CHONDRITE	C	B		
MET 00 576 ~	9.5	L6 CHONDRITE	C	B		
MET 00 577 ~	15.6	LL6 CHONDRITE	A/B	A/B		
MET 00 578 ~	64.3	L6 CHONDRITE	B	B/C		
MET 00 579 ~	55.9	L6 CHONDRITE	C	B/C		
MET 00 581 ~	100.2	LL6 CHONDRITE	C	A/B		
MET 00 582 ~	176.8	L5 CHONDRITE	C	B		
MET 00 583 ~	51.8	L5 CHONDRITE	B/C	B		
MET 00 584 ~	87.5	LL5 CHONDRITE	A/B	A/B		
MET 00 585 ~	74.2	L5 CHONDRITE	C	A/B		
MET 00 586 ~	93.1	L5 CHONDRITE	CE	B		
MET 00 587 ~	44.8	LL5 CHONDRITE	A/B	A		
MET 00 588 ~	50.9	LL5 CHONDRITE	B/C	A/B		
MET 00 589 ~	89.3	H6 CHONDRITE	B/C	A/B		
MET 00 590 ~	90.0	LL6 CHONDRITE	C	B/C		
MET 00 591 ~	114.8	H6 CHONDRITE	C	C		
MET 00 592 ~	95.8	L5 CHONDRITE	C	B		
MET 00 593 ~	53.8	LL5 CHONDRITE	B	A/B		
MET 00 594 ~	99.5	LL6 CHONDRITE	C	B/C		
MET 00 595 ~	66.5	LL6 CHONDRITE	C	B/C		
MET 00 596 ~	62.3	LL6 CHONDRITE	A/B	A/B		
MET 00 597 ~	94.8	LL6 CHONDRITE	C	B/C		
MET 00 598 ~	96.5	L6 CHONDRITE	C	C		
MET 00 599 ~	72.2	LL6 CHONDRITE	A/B	A/B		
MET 00 600 ~	78.5	LL6 CHONDRITE	B/C	B		
MET 00 601 ~	58.6	LL6 CHONDRITE	B/C	B		
MET 00 602 ~	121.3	L6 CHONDRITE	C	C		
MET 00 603 ~	67.7	LL6 CHONDRITE	A/B	A/B		
MET 00 604 ~	74.1	L6 CHONDRITE	C	B/C		
MET 00 605 ~	102.9	L5 CHONDRITE	B	A/B		
MET 00 606 ~	70.6	L5 CHONDRITE	B/C	B		
MET 00 607	76.6	H3.4 CHONDRITE	B	A	3-25	7-18
MET 00 608 ~	85.8	L5 CHONDRITE	C	B/C		
MET 00 609 ~	65.8	LL6 CHONDRITE	B/C	A/B		
MET 00 610 ~	118.3	H6 CHONDRITE	B	A		
MET 00 611 ~	113.8	H6 CHONDRITE	B/C	A/B		
MET 00 612 ~	110.5	L5 CHONDRITE	BE	A/B		
MET 00 613 ~	53.4	H6 CHONDRITE	B/C	A/B		
MET 00 614 ~	81.9	L5 CHONDRITE	B/C	A		
MET 00 615 ~	166.9	H6 CHONDRITE	B	A		
MET 00 616 ~	97.5	LL6 CHONDRITE	B	A/B		
MET 00 617 ~	114.0	LL6 CHONDRITE	B	A/B		
MET 00 618 ~	67.1	L5 CHONDRITE	A/B	A/B		
MET 00 619 ~	71.2	H6 CHONDRITE	B/C	A/B		
MET 00 620 ~	125.2	H6 CHONDRITE	CE	C		
MET 00 621	88.8	L3.6 CHONDRITE	B	A/B	10-28	3-17
MET 00 622 ~	87.7	LL5 CHONDRITE	B	A/B		
MET 00 623 ~	52.6	L6 CHONDRITE	C	B		
MET 00 624 ~	103.9	L5 CHONDRITE	A/B	A/B		
MET 00 625 ~	106.5	H6 CHONDRITE	C	B		
MET 00 626 ~	100.8	H6 CHONDRITE	C	C		

~Classified by using refractive indices.

Sample Number	Weight (g)	Classification	Weathering	Fracturing	% Fa	% Fs
MET 00 627 ~	80.7	LL5 CHONDRITE	B/C	B		
MET 00 628 ~	40.7	H6 CHONDRITE	B/C	B/C		
MET 00 629 ~	17.6	LL6 CHONDRITE	B	A/B		
MET 00 630	10.8	CM2 CHONDRITE	A	B	0-2	2-7
MET 00 631 ~	5.8	L5 CHONDRITE	B	B		
MET 00 632	9.1	CM2 CHONDRITE	A	B	1-30	1-5
MET 00 633	20.4	CM2 CHONDRITE	B/CE	A/B	0-27	1-4
MET 00 634	3.1	CV3 CHONDRITE	B	B	3-41	1-2
MET 00 635	2.3	CM2 CHONDRITE	A	B	0-35	1
MET 00 636	2.5	EH4 CHONDRITE	C	B		0-1
MET 00 637 ~	7.2	L4 CHONDRITE	C	B/C		
MET 00 638 ~	7.5	LL6 CHONDRITE	C	B		
MET 00 639	13.4	CM2 CHONDRITE	A	B	0-41	2-6
MET 00 640 ~	3.5	L5 CHONDRITE	C	A/B		
MET 00 641 ~	27.1	L5 CHONDRITE	A/B	A/B		
MET 00 642 ~	47.8	LL6 CHONDRITE	C	B		
MET 00 643 ~	30.7	LL6 CHONDRITE	B/C	B		
MET 00 644 ~	55.1	LL6 CHONDRITE	C	B		
MET 00 645 ~	27.4	L5 CHONDRITE	C	A/B		
MET 00 646 ~	34.8	LL6 CHONDRITE	B/C	B		
MET 00 647 ~	56.0	LL6 CHONDRITE	C	B		
MET 00 648 ~	20.4	L6 CHONDRITE	C	A/B		
MET 00 649 ~	20.6	LL6 CHONDRITE	C	B		
MET 00 650	34.2	H6 CHONDRITE	C	B	19	17
MET 00 651 ~	38.5	LL6 CHONDRITE	A	A		
MET 00 652 ~	16.2	LL6 CHONDRITE	A/B	A		
MET 00 653 ~	17.0	L5 CHONDRITE	C	B		
MET 00 654 ~	40.5	H6 CHONDRITE	C	B		
MET 00 655 ~	43.1	L6 CHONDRITE	C	B		
MET 00 656 ~	32.8	L5 CHONDRITE	C	B		
MET 00 657 ~	38.9	L5 CHONDRITE	C	B		
MET 00 658 ~	46.4	L6 CHONDRITE	C	B		
MET 00 659 ~	40.4	L6 CHONDRITE	B	B		
MET 00 660 ~	33.8	L4 CHONDRITE	B/C	A		
MET 00 661 ~	19.4	H6 CHONDRITE	B/CE	A		
MET 00 662 ~	45.1	H6 CHONDRITE	B/C	A/B		
MET 00 663 ~	15.6	L5 CHONDRITE	B/CE	A		
MET 00 664 ~	16.7	L4 CHONDRITE	B/C	A		
MET 00 665 ~	30.0	LL6 CHONDRITE	B/CE	A/B		
MET 00 666 ~	15.0	L5 CHONDRITE	B	A		
MET 00 670 ~	21.9	L6 CHONDRITE	C	A/B		
MET 00 671 ~	12.5	H6 CHONDRITE	C	B		
MET 00 672 ~	6.8	L6 CHONDRITE	C	B		
MET 00 673 ~	26.1	L6 CHONDRITE	C	B		
MET 00 674 ~	46.6	LL6 CHONDRITE	B/C	B		
MET 00 675 ~	16.2	LL6 CHONDRITE	C	A/B		
MET 00 676 ~	13.4	L6 CHONDRITE	C	B		
MET 00 677 ~	34.3	L5 CHONDRITE	B/C	B		
MET 00 678 ~	27.8	L6 CHONDRITE	C	B		
MET 00 679 ~	23.9	L6 CHONDRITE	C	B		
MET 00 680 ~	22.3	LL5 CHONDRITE	B/C	B		
MET 00 681 ~	22.5	L5 CHONDRITE	B	B		

~Classified by using refractive indices.

Sample Number	Weight (g)	Classification	Weathering	Fracturing	% Fa	% Fs
MET 00 682 ~	31.4	L6 CHONDRITE	C	B		
MET 00 683 ~	15.3	H5 CHONDRITE	B/C	B		
MET 00 684 ~	14.9	L5 CHONDRITE	B	B		
MET 00 685 ~	14.9	L6 CHONDRITE	C	B		
MET 00 686 ~	23.1	LL6 CHONDRITE	B/C	B		
MET 00 687 ~	4.6	L6 CHONDRITE	C	B		
MET 00 688 ~	7.3	L6 CHONDRITE	C	B		
MET 00 689 ~	7.0	L6 CHONDRITE	B	B		
MET 00 690 ~	47.6	L6 CHONDRITE	C	A/B		
MET 00 691 ~	37.6	L6 CHONDRITE	C	B		
MET 00 692 ~	7.3	LL6 CHONDRITE	A/B	A		
MET 00 693 ~	15.2	L6 CHONDRITE	B	A		
MET 00 694	15.9	CO3 CHONDRITE	A/B	A/B	17-32	2-8
MET 00 695 ~	20.2	L6 CHONDRITE	C	B		
MET 00 696 ~	51.2	H6 CHONDRITE	B/C	A/B		
MET 00 697 ~	24.5	L6 CHONDRITE	C	B		
MET 00 698 ~	14.4	LL6 CHONDRITE	C	B		
MET 00 699 ~	56.4	L5 CHONDRITE	B	B		
MET 00 709	6.8	IRON-IIIAB		A		
MET 00 720 ~	34.1	LL6 CHONDRITE	B	A/B		
MET 00 721 ~	17.3	H5 CHONDRITE	B/C	A/B		
MET 00 722 ~	25.6	H5 CHONDRITE	B/C	A/B		
MET 00 723 ~	27.6	LL6 CHONDRITE	A/B	A/B		
MET 00 724	3.3	IRON-IIIAB		A		
MET 00 725 ~	41.8	H5 CHONDRITE	B/C	A		
MET 00 726	3.1	IRON-IIIAB		A		
MET 00 727 ~	13.2	H6 CHONDRITE	B/C	A		
MET 00 728 ~	9.4	LL5 CHONDRITE	A	A/B		
MET 00 729 ~	2.6	L5 CHONDRITE	A/B	A/B		
MET 00 730 ~	15.3	L5 CHONDRITE	C	B		
MET 00 731 ~	13.4	L5 CHONDRITE	C	B		
MET 00 732 ~	4.1	H6 CHONDRITE	C	B		
MET 00 733 ~	9.0	L4 CHONDRITE	A/B	A/B		
MET 00 734 ~	19.4	LL6 CHONDRITE	B/C	B		
MET 00 735 ~	3.4	L5 CHONDRITE	C	C		
MET 00 736 ~	7.3	LL6 CHONDRITE	B/C	B		
MET 00 737	23.2	CO3 CHONDRITE	A/B	A/B	0-33	1-5
MET 00 738 ~	36.4	H5 CHONDRITE	B/C	B		
MET 00 739	9.2	CK4 CHONDRITE	B	B	30	25
MET 00 740 ~	27.2	L5 CHONDRITE	B/C	B		
MET 00 741 ~	44.8	LL6 CHONDRITE	B/C	C		
MET 00 742	1.2	CV3 CHONDRITE	B	B	1-11	1-9
MET 00 743 ~	9.4	L5 CHONDRITE	C	A/B		
MET 00 744 ~	4.6	LL6 CHONDRITE	A/B	A/B		
MET 00 745 ~	2.2	L6 CHONDRITE	C	B		
MET 00 746 ~	20.4	L5 CHONDRITE	B/C	B		
MET 00 747	5.0	CV3 CHONDRITE	B	B	1-21	1-6
MET 00 748 ~	2.1	H6 CHONDRITE	C	C		
MET 00 749 ~	12.4	H6 CHONDRITE	C	A/B		
MET 00 750 ~	32.9	LL6 CHONDRITE	A/B	A/B		
MET 00 751 ~	13.7	H6 CHONDRITE	C	C		
MET 00 752 ~	6.3	H6 CHONDRITE	C	B		

~Classified by using refractive indices.

Sample Number	Weight (g)	Classification	Weathering	Fracturing	% Fa	% Fs
MET 00 753 ~	7.5	L5 CHONDRITE	C	B		
MET 00 754	4.2	L6 CHONDRITE	C	B/C	24	20
MET 00 755 ~	4.1	H6 CHONDRITE	C	B		
MET 00 756 ~	1.4	H6 CHONDRITE	C	C		
MET 00 757 ~	8.4	H6 CHONDRITE	C	B		
MET 00 758 ~	3.0	LL6 CHONDRITE	A/B	A/B		
MET 00 759 ~	8.3	LL5 CHONDRITE	A	A/B		
MET 00 760 ~	10.1	LL6 CHONDRITE	A/B	A/B		
MET 00 761	6.0	CV3 CHONDRITE	B	B	1-12	0-1
MET 00 762 ~	24.2	L5 CHONDRITE	C	B/C		
MET 00 763 ~	0.2	L5 CHONDRITE	B	B		
MET 00 764 ~	3.4	L5 CHONDRITE	C	B		
MET 00 765 ~	12.5	L5 CHONDRITE	C	C		
MET 00 766 ~	15.7	L6 CHONDRITE	C	C		
MET 00 767 ~	16.0	LL5 CHONDRITE	A/B	B		
MET 00 768 ~	8.1	L5 CHONDRITE	C	C		
MET 00 769 ~	37.1	L5 CHONDRITE	B	B		
MET 00 770 ~	33.0	L5 CHONDRITE	B/C	A/B		
MET 00 771 ~	36.6	LL5 CHONDRITE	A/B	A		
MET 00 772 ~	5.9	LL5 CHONDRITE	C	B		
MET 00 773 ~	14.0	H5 CHONDRITE	C	B		
MET 00 774 ~	26.9	L5 CHONDRITE	C	A/B		
MET 00 775 ~	24.2	LL6 CHONDRITE	B	A/B		
MET 00 776 ~	7.6	L6 CHONDRITE	C	B		
MET 00 777 ~	62.8	H6 CHONDRITE	C	A/B		
MET 00 778 ~	52.8	H5 CHONDRITE	C	B		
MET 00 779 ~	32.6	H5 CHONDRITE	C	B		
MET 00 780 ~	15.4	H5 CHONDRITE	C	A/B		
MET 00 781	5.4	CM2 CHONDRITE	B	B	0-30	3-6
MET 00 782 ~	10.6	H6 CHONDRITE	C	A		
MET 00 783	26.3	EH4 CHONDRITE	C	B		0-1
MET 00 784 ~	7.5	H4 CHONDRITE	B	A/B		
MET 00 785 ~	21.2	L5 CHONDRITE	C	B		
MET 00 786 ~	15.6	L5 CHONDRITE	B	B		
MET 00 787 ~	38.1	H6 CHONDRITE	C	A/B		
MET 00 788 ~	35.3	L5 CHONDRITE	B	B		
MET 00 789 ~	13.9	LL6 CHONDRITE	B/C	A/B		
MET 00 790 ~	35.8	L5 CHONDRITE	B/C	A		
MET 00 791 ~	9.9	L5 CHONDRITE	A/B	A		
MET 00 792 ~	49.6	L5 CHONDRITE	B/C	A/B		
MET 00 793 ~	40.1	H6 CHONDRITE	B/C	A		
MET 00 794 ~	60.9	LL6 CHONDRITE	B	A/B		
MET 00 795 ~	41.7	H6 CHONDRITE	C	A		
MET 00 796 ~	44.7	L5 CHONDRITE	A/B	A/B		
MET 00 797 ~	44.6	LL6 CHONDRITE	B	A/B		
MET 00 798 ~	28.1	H6 CHONDRITE	CE	A		
MET 00 799 ~	51.4	L5 CHONDRITE	B/C	A/B		
MET 00 800	1.7	HOWARDITE	A	A		24-60
MET 00 801 ~	37.2	LL6 CHONDRITE	A	A/B		
MET 00 802 ~	81.2	H6 CHONDRITE	C	B		
MET 00 803 ~	15.4	L5 CHONDRITE	B/C	B		
MET 00 804 ~	19.4	LL6 CHONDRITE	B	B		

~Classified by using refractive indices.

Sample Number	Weight (g)	Classification	Weathering	Fracturing	% Fa	% Fs
MET 00 805 ~	46.5	H6 CHONDRITE	C	B		
MET 00 806 ~	13.6	L5 CHONDRITE	B	A/B		
MET 00 807 ~	38.6	LL6 CHONDRITE	A/B	B		
MET 00 808 ~	30.7	LL6 CHONDRITE	B/C	B		
MET 00 809 ~	35.9	LL6 CHONDRITE	B/C	B		
MET 00 810	5.9	CM2 CHONDRITE	B	B	0-28	2
MET 00 812	5.0	IRON-IIIAB		A		
MET 00 820 ~	32.7	LL6 CHONDRITE	B/C	B		
MET 00 821 ~	18.1	H6 CHONDRITE	C	A		
MET 00 822 ~	6.0	L5 CHONDRITE	C	B		
MET 00 823 ~	21.0	LL5 CHONDRITE	B	A		
MET 00 824 ~	50.9	H5 CHONDRITE	C	A		
MET 00 825 ~	40.4	L5 CHONDRITE	C	A/B		
MET 00 826 ~	38.1	LL6 CHONDRITE	C	B		
MET 00 827 ~	7.0	LL5 CHONDRITE	B	B		
MET 00 828 ~	2.8	LL5 CHONDRITE	B	B		
MET 00 829 ~	13.9	L6 CHONDRITE	B	A/B		
MET 00 834	7.1	IRON-IIIAB		A		
MET 00 855	9.1	DIOGENITE	B/C	B/C		27
MET 00 864	38.0	IRON-IIIAB		A		
MET 00 880 ~	13.1	L5 CHONDRITE	B/C	B		
MET 00 881 ~	23.8	H6 CHONDRITE	C	B		
MET 00 882 ~	36.3	LL6 CHONDRITE	B/C	A/B		
MET 00 883 ~	40.6	LL6 CHONDRITE	B/C	B		
MET 00 884 ~	9.4	H6 CHONDRITE	C	B		
MET 00 885 ~	31.0	L5 CHONDRITE	C	B		
MET 00 886 ~	8.8	LL6 CHONDRITE	C	A/B		
MET 00 887 ~	19.2	H6 CHONDRITE	C	B		
MET 00 888 ~	21.7	L5 CHONDRITE	C	B		
MET 00 889 ~	36.1	LL6 CHONDRITE	C	A/B		
MET 00 890 ~	37.6	L5 CHONDRITE	C	A/B		
MET 00 891 ~	1.4	H6 CHONDRITE	C	A		
MET 00 892 ~	25.5	LL5 CHONDRITE	A	A/B		
MET 00 893 ~	5.0	L5 CHONDRITE	B	B		
MET 00 894 ~	15.1	H6 CHONDRITE	C	A/B		
MET 00 895 ~	18.0	H6 CHONDRITE	C	A/B		
MET 00 896 ~	20.7	L5 CHONDRITE	C	B		
MET 00 897 ~	20.9	L5 CHONDRITE	C	B		
MET 00 898 ~	23.3	H6 CHONDRITE	C	B		
MET 00 899 ~	18.0	H5 CHONDRITE	C	B		
MET 00 900 ~	23.7	L5 CHONDRITE	B/C	A		
MET 00 901 ~	7.0	H6 CHONDRITE	B/C	A		
MET 00 902 ~	21.0	H6 CHONDRITE	B/C	A		
MET 00 903 ~	21.8	H5 CHONDRITE	B/C	A		
MET 00 904 ~	45.0	L5 CHONDRITE	B/C	A/B		
MET 00 905	3.5	IRON-IIIAB		A		
MET 00 906 ~	7.9	H5 CHONDRITE	B/C	A		
MET 00 907 ~	39.0	LL6 CHONDRITE	B/C	A/B		
MET 00 908 ~	13.1	L5 CHONDRITE	B/C	A		
MET 00 909 ~	7.4	H5 CHONDRITE	B/C	A		
MET 00 910 ~	5.1	LL6 CHONDRITE	A/B	A/B		
MET 00 911 ~	33.5	H6 CHONDRITE	B/C	A		

~Classified by using refractive indices.

Sample Number	Weight (g)	Classification	Weathering	Fracturing	% Fa	% Fs
MET 00 912 ~	27.6	H6 CHONDRITE	B/C	A		
MET 00 913 ~	17.7	H6 CHONDRITE	B/C	A		
MET 00 914 ~	13.0	LL6 CHONDRITE	B/C	A		
MET 00 915 ~	11.4	LL6 CHONDRITE	B/C	A		
MET 00 916 ~	15.3	H6 CHONDRITE	C	A/B		
MET 00 917 ~	43.9	LL5 CHONDRITE	B	A/B		
MET 00 918 ~	15.0	L5 CHONDRITE	B/C	A		
MET 00 919 ~	7.4	LL6 CHONDRITE	B/C	A		
MET 00 944	19.1	L4 CHONDRITE	A	A	23	19
MET 00 968	9.6	L4 CHONDRITE	B	B	23	10-20
MET 001012	7.1	CM2 CHONDRITE	A/B	A/B	0-23	4-5
MET 001038	3.7	IRON-UNGROUPE		A		
MET 001060	9.8	DIOGENITE	C	C		19
MET 001087	1.6	CM2 CHONDRITE	A	A	0-41	0-1
MET 001136	3.2	IRON-IIIAB		A		
CRE 01 400	141.3	HOWARDITE	B	A		21-53
FIN 01 600	876.2	H5 CHONDRITE	B	B	18	16
FIN 01 601	287.5	L6 CHONDRITE	B	A	24	20
FIN 01 602	94.8	H5 CHONDRITE	B	B	19	16
FIN 01 603	583.8	L5 CHONDRITE	A	B	24	20
FIN 01 604	186.2	H5 CHONDRITE	B	B	18	16
FIN 01 605	102.6	H5 CHONDRITE	B	B	19	16
MET 01 081	27.4	EUCRITE (UNBRECCIATED)	A/B	A		26-56
MET 01 082	22.1	HOWARDITE	B/C	B		21-57
MET 01 084	4.3	DIOGENITE	B	B	30	26
MET 01 086	2.7	EUCRITE (UNBRECCIATED)	A/B	A/B		28-56
MET 01 087	28.4	HOWARDITE	B	B/C	26	19-52
MET 01 090	3.5	L4 CHONDRITE	C	A/B	25	21
MET 01 091 ~	8.6	LL6 CHONDRITE	A	A		
ODE 01 500	5208.9	H5 CHONDRITE	B/C	B/C	19	17
ODE 01 501	20.9	H5 CHONDRITE	B/C	B	18	16

~Classified by using refractive indices.

Table 2: Newly Classified Specimens Listed By Type **

Sample Number	Weight (g)	Classification	Weathering	Fracturing	% Fa	% Fs
Achondrites						
MET 00 855	9.1	DIOGENITE	B/C	B/C		27
MET 001060	9.8	DIOGENITE	C	C		19
MET 01 084	4.3	DIOGENITE	B	B	30	26
MET 01 081	27.4	EUCRITE (UNBRECCIATED)	A/B	A		26-56
MET 01 086	2.7	EUCRITE (UNBRECCIATED)	A/B	A/B		28-56
MET 00 800	1.7	HOWARDITE	A	A		24-60
CRE 01 400	141.3	HOWARDITE	B	A		21-53
MET 01 082	22.1	HOWARDITE	B/C	B		21-57
MET 01 087	28.4	HOWARDITE	B	B/C	26	19-52
Carbonaceous Chondrites						
MET 00 739	9.2	CK4 CHONDRITE	B	B	30	25
QUE 99 752	1.4	CM2 CHONDRITE	C	B	0-23	2-10
MET 00 630	10.8	CM2 CHONDRITE	A	B	0-2	2-7
MET 00 632	9.1	CM2 CHONDRITE	A	B	1-30	1-5
MET 00 633	20.4	CM2 CHONDRITE	B/CE	A/B	0-27	1-4
MET 00 635	2.3	CM2 CHONDRITE	A	B	0-35	1
MET 00 639	13.4	CM2 CHONDRITE	A	B	0-41	2-6
MET 00 781	5.4	CM2 CHONDRITE	B	B	0-30	3-6
MET 00 810	5.9	CM2 CHONDRITE	B	B	0-28	2
MET 001012	7.1	CM2 CHONDRITE	A/B	A/B	0-23	4-5
MET 001087	1.6	CM2 CHONDRITE	A	A	0-41	0-1
MET 00 694	15.9	CO3 CHONDRITE	A/B	A/B	17-32	2-8
MET 00 737	23.2	CO3 CHONDRITE	A/B	A/B	0-33	1-5
MET 00 634	3.1	CV3 CHONDRITE	B	B	3-41	1-2
MET 00 742	1.2	CV3 CHONDRITE	B	B	1-11	1-9
MET 00 747	5.0	CV3 CHONDRITE	B	B	1-21	1-6
MET 00 761	6.0	CV3 CHONDRITE	B	B	1-12	0-1
Chondrites Type - 3						
MET 00 506	301.1	H3.4 CHONDRITE	B	A/B	4-27	2-16
MET 00 552	97.3	H3.4 CHONDRITE	B/C	A	1-17	1-15
MET 00 607	76.6	H3.4 CHONDRITE	B	A	3-25	7-18
MET 00 570	157.0	H3.8 CHONDRITE	C	B	13-19	12-17
MET 00 489	232.0	L3.6 CHONDRITE	A/B	A/B	14-31	4-22
MET 00 621	88.8	L3.6 CHONDRITE	B	A/B	10-28	3-17

Sample Number	Weight (g)	Classification	Weathering	Fracturing	% Fa	% Fs
E Chondrites						
MET 00 636	2.5	EH4 CHONDRITE	C	B		0-1
MET 00 783	26.3	EH4 CHONDRITE	C	B		0-1
Irons						
MET 00 709	6.8	IRON-IIIAB		A		
MET 00 724	3.3	IRON-IIIAB		A		
MET 00 726	3.1	IRON-IIIAB		A		
MET 00 812	5.0	IRON-IIIAB		A		
MET 00 834	7.1	IRON-IIIAB		A		
MET 00 864	38.0	IRON-IIIAB		A		
MET 00 905	3.5	IRON-IIIAB		A		
MET 001136	3.2	IRON-IIIAB		A		
MET 001038	3.7	IRON-UNGROUPE		A		

****Notes to Tables 1 and 2:**

“Weathering” Categories:

- A: Minor rustiness; rust haloes on metal particles and rust stains along fractures are minor.
- B: Moderate rustiness; large rust haloes occur on metal particles and rust stains on internal fractures are extensive.
- C: Severe rustiness; metal particles have been mostly stained by rust throughout.
- e: Evaporite minerals visible to the naked eye.

“Fracturing” Categories:

- A: Minor cracks; few or no cracks are conspicuous to the naked eye and no cracks penetrate the entire specimen.
- B: Moderate cracks; several cracks extend across exterior surfaces and the specimen can be readily broken along the cracks.
- C: Severe cracks; specimen readily crumbles along cracks that are both extensive and abundant.

Table 3: Tentative Pairings for New Specimens

Table 3 summarizes possible pairings of the new specimens with each other and with previously classified specimens based on descriptive data in this newsletter issue. Readers who desire a more comprehensive review of the meteorite pairings in the U.S. Antarctic collection should refer to the compilation provided by Dr. E.R. D. Scott, as published in issue 9(2) (June 1986). Possible pairings were updated in *Meteoritical Bulletins* No. 76 (*Meteoritics* **29**, 100-143), No. 79 (*Meteoritics and Planetary Science* **31**, A161-174), No. 82 (*Meteoritics and Planetary Science* **33**, A221-A239), No. 83 (*Meteoritics and Planetary Science* **34**, A169-A186), No. 84 (*Meteoritics and Planetary Science* **35**, A199-A225), No. 85 (*Meteoritics and Planetary Science* **36**, A293-A322) and No. 86 (*Meteoritics and Planetary Science* **37**, A157-A184).

CM2 CHONDRITES

MET 00630, MET 00632, MET 00633, MET 00635, MET 00639, MET 00781, MET 00810, and MET 001012 with MET 00431

CO3 CHONDRITES

MET 00737 with MET 00694

CV3 CHONDRITES

MET 00742, MET 00747 and MET 00761 with MET 00634

EH4 CHONDRITES

MET 00783 with MET 00636

EUCRITES

MET 01086 with MET 01081

H3 CHONDRITES

MET 00552 and MET 00607 with MET 00506

HOWARDITE

MET 00800, MET 01082 and MET 01087 with MET 96500

IRON - IIIAB

MET 00709, MET 00724, MET 00726, MET 00812, MET 00834, MET 00864, MET 00905 and MET 001136 with MET 00400

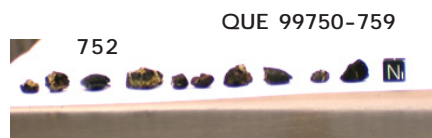
IRON - UNGROUPED

MET 001038 with MET 00428

L3 CHONDRITES

MET 00621 with MET 00489

Petrographic Descriptions

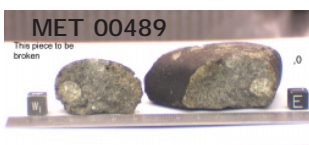


Sample No.: QUE 99752
Location: Queen Alexandra Range
Field No.: 12050
Dimensions (cm): 1.5 x 1.0 x 0.5
Weight (g): 1.384
Meteorite Type: CM2 Chondrite

Macroscopic Description: Kathleen McBride
 90% of the exterior of this carbonaceous chondrite is covered with a dull, brown/black fusion crust with oxidation haloes. The interior is a soft, black matrix with rusty areas.

Thin Section (, 2) Description: Tim McCoy

The sections consist of a few small, unaltered chondrules (up to 1 mm), mineral grains and CAIs set in a black matrix. Olivine compositions are Fa_{0-23} ; orthopyroxene is Fs_{2-10} . The meteorite is a CM2 chondrite.



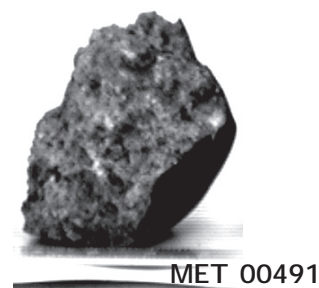
Sample No.: MET 00489;
 MET 00621
Location: Meteorite Hills
Field No.: 12881; 13189
Dimensions (cm): 7.0 x 6.5 x 2.5;
 6.0 x 3.0 x 1.75
Weight (g): 232; 88.835
Meteorite Type: L3 Chondrite
 (Estimated 3.6)

Macroscopic Description:

Kathleen McBride
 The exterior of these two carbonaceous chondrites has black /brown fusion crust. 489 has polygonal fractures and 621 has a rough, pitted crust. The interiors range from medium gray to black matrix. Both have numerous chondrules.

Thin Section (, 2) Description: Tim McCoy

These two meteorites, found within 1 km of each other, are so similar that a single description suffices. The sections exhibit numerous large, well-defined chondrules (up to 3 mm) in a matrix of fine-grained silicates, metal and troilite. Weak shock effects are present. Polysynthetically twinned pyroxene is extremely abundant. Olivines range from Fa_{10-31} ; pyroxenes from Fs_{3-22} . The meteorites are L3 chondrites (estimated subtype 3.6).



Sample No.: MET 00491
Location: Meteorite Hills
Field No.: 12800
Dimensions (cm): 6.0 x 4.5 x 3.0
Weight (g): 106.568
Meteorite Type: LL6 Chondrite

Macroscopic Description: Kathleen McBride

50% of the exterior of this ordinary chondrite is covered by dull brown/black fusion crust with a rough texture and polygonal fractures. The interior is a gray, soft matrix with minor rust. Within the matrix are off white clasts and black specks.

Thin Section (, 2) Description: Tim McCoy

This LL6 chondrite ($Fa_{30}Fs_{24}$) is highly metamorphosed and brecciated, with clasts reaching several millimeters. It is a typical example of the largest recognized pairing group in the MET 00 sample set, with ~10% of the meteorites from MET 00 being this same brecciated LL6.

MET 00506



MET 00607



Sample No.: MET 00506;
MET 00552;
MET 00607

Location: Meteorite Hills
Field No.: 13365; 13347;
13152

Dimensions (cm): 5.5 x 4.5 x 5.0;
4.9 x 3.9 x 2.7;
7.5 x 3.0 x 2.0

Weight (g): 301.1; 97.3;
76.55

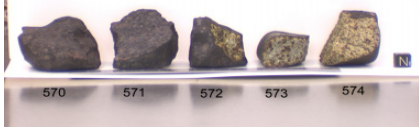
Meteorite Type: H3 Chondrite
(Estimated 3.4)

Macroscopic Description: Kathleen McBride and Cecilia Satterwhite
These ordinary chondrites have dark brown to black fusion crust containing fractures, pits and oxidation haloes. The interiors are rusty brown/black with mm-sized chondrules.

Thin Section (, 2) Description: Tim McCoy

These meteorites are so similar that a single description suffices, although MET 00607 was recovered ~2.5 km from the MET 00506 and MET 00552. The sections exhibit numerous small, well-defined chondrules (up to 2 mm) in a black matrix of fine-grained silicates, metal and troilite. Polysynthetically twinned pyroxene is extremely abundant. Weathering effects are pervasive. Olivines range from Fa_{1-27} and pyroxenes from Fs_{1-18} . The meteorites are H3 chondrites (estimated subtype 3.4).

570



MET 00570 - 00574

Sample No.: MET 00570
Location: Meteorite Hills
Field No.: 13516
Dimensions (cm): 6.5 x 5.0 x 2.5
Weight (g): 157.015
Meteorite Type: H3 Chondrite
(Estimated 3.8)

Macroscopic Description: Kathleen McBride

100% of the exterior is covered with brown/black fusion crust. Some fractures and oxidation haloes are visible. The interior is a black and rust colored matrix with a high metal content. The matrix contains light colored clasts. Some of these clasts are stained with rust. Their sizes ranges from 2 mm – 1 cm in diameter.

Thin Section (, 2) Description: Tim McCoy

The section exhibits numerous chondrules (up to 2 mm), metal and troilite. Chondrules appear somewhat aligned. Terrestrial iron oxides stain the silicates. Olivines range from Fa_{13-19} and pyroxenes from Fs_{12-17} . The meteorite is an H3 chondrite (estimated subtype 3.8).

MET 00...

632

639

810



Sample No.: MET 00630;
MET 00632;
MET 00633;
MET 00635;
MET 00639;
MET 00781;
MET 00810;
MET 001012

Location: Meteorite Hills
Field No.: 13531; 13504;
13503; 13558;
13520; 13518;
13561; 12878

Dimensions (cm): 3.0 x 2.5 x 1.0;
3.0 x 2.0 x 1.0;
3.5 x 2.0 x 2.0;
2.0 x 1.5 x 0.5;
3.75 x 1.0 x 1.0;
3.0 x 2.0 x 1.0;
3.0 x 1.75 x 1.0;
3.0 x 2.5 x 0.2

Weight (g): 10.796; 9.078;
20.439; 2.27;
13.428; 5.365;
5.911; 7.10

Meteorite Type: CM2 Chondrite

Macroscopic Description: Kathleen McBride and Cecilia Satterwhite

The exteriors of these carbonaceous chondrites are black with small patches of purplish colored fusion crust. The interiors are a black, platy or shale like matrix with small (< 1 mm) white specks.

Thin Section (, 2) Description: Tim McCoy

We tentatively describe these as paired given their find sites in a linear array ~4 km in length. The MET 0063X meteorites exhibit the shaly texture seen in other MET 00 meteorites, particularly the MET 00431 grouping (AMN Vol. 24, #2), with which these are spatially associated. The sections consist of a few small, unaltered chondrules (up to 1 mm), mineral grains and CAIs set in a black matrix. Olivine compositions are Fa_{0-41} ; orthopyroxene is Fs_{1-7} . The meteorites are CM2 chondrites.

MET 00634

MET 00636

MET 00694

MET 00761

Sample No.: MET 00634;
MET 00742;
MET 00747;
MET 00761
Location: Meteorite Hills
Field No.: 13578; 13178;
13101; 13034
Dimensions (cm): 2.0 x 0.75 x 1.25;
1.0 x 0.75 x 0.5 ;
2.5 x 1.0 x 1.0;
1.75 x 1.5 x 1.5 ;
Weight (g): 3.064; 1.189;
5.063; 5.984
Meteorite Type: CV3 Chondrite

Macroscopic Description: Kathleen McBride
The exterior of these carbonaceous chondrites has 5-30% black, patchy fusion crust. The black interior has mm-sized light gray and white chondrules. Some rust is visible.

Thin Section (, 2) Description: Tim McCoy
These meteorites were found within 2.5 km of each other and are so similar that a single description suffices. The sections exhibit large chondrules (up to 3 mm) and CAIs in a dark matrix. Olivines range from Fa_{1-11} , with many Fa_{1-5} , and pyroxenes from Fs_{0-9} . The meteorites are CV3 chondrites.

MET 00783

Sample No.: MET 00636;
MET 00783
Location: Meteorite Hills
Field No.: 13571; 13522
Dimensions (cm): 2.0 x 1.0 x 0.75;
3.5 x 2.0 x 2.0
Weight (g): 2.509; 26.252
Meteorite Type: EH4 Chondrite

Macroscopic Description: Kathleen McBride
The exteriors of these meteorites are rust colored. The interiors have a non-descript, brittle, rust colored matrix.

Thin Section (, 2) Description: Tim McCoy
These two meteorites are tentatively paired. Found 4.5 km apart, they exhibit similar features, although these same features are shared by many EH4 chondrites. The sections show an aggregate of chondrules (up to 1 mm), chondrule fragments, and pyroxene grains in a matrix of about 30% metal and sulfide. Weathering is significant, with staining of some enstatite grains and minor alteration of metal and sulfides. Orthopyroxene is Fs_{0-1} and metal contains ~3 wt.% Si. The meteorites are EH4 chondrites.

MET 00737

Sample No.: MET 00694;
MET 00737
Location: Meteorite Hills
Field No.: 13343; 13182
Dimensions (cm): 2.5 x 2.25 x 1.25;
3.5 x 1.5 x 2.0
Weight (g): 15.869; 23.242
Meteorite Type: CO3 Chondrite

Macroscopic Description: Kathleen McBride
Dull, black fusion crust covers most if not all of the exteriors of these two meteorites. The interiors show small chondrules of various light-colored shades. They are hard, with a high metal content and are fine-grained.

Thin Section (, 2) Description: Tim McCoy
A single description suffices for these paired meteorites that were found within 1.5 km of each other. The sections consist of abundant small (up to 1 mm) chondrules, chondrule fragments and mineral grains in a dark matrix. Metal and sulfide occur within and rimming the chondrules. Olivine ranges in composition from Fa_{0-33} , with a clustering of compositions around Fa_{30} . Orthopyroxene is Fs_{1-8} . The meteorites are CO3 chondrite of moderately high subtype (estimated 3.6).

MET 00709



Sample No.: MET 00709;
MET 00724;
MET 00726;
MET 00812;
MET 00834;
MET 00864;
MET 00905;
MET 001136

Location: Meteorite Hills
Field No.: 13311; 13364;
13338; 13552;
13497; 13498;
12323; 12222

Dimensions (cm): 2.0 x 1.0 x 1.0;
1.5 x 0.9 x 0.4;
1.6 x 1.1 x 0.4;
2.0 x 1.75 x 0.75;
1.5 x 1.0 x 0.75;
3.0 x 2.0 x 2.0;
1.6 x 1.0 x 0.6;
1.5 x 1.1 x 0.4

Weight (g): 6.798; 3.32;
3.14; 4.962;
7.053; 38.034;
3.53; 3.21

Meteorite Type: IIIAB Iron

Macroscopic Description: Kathleen McBride and Cecilia Satterwhite
Shiny, rusty-black fusion crust of varying amounts, cover the exteriors of these iron meteorites.

MET 00812



Thin Section Description: Tim McCoy
These 8 meteorites are all paired with each other and with the MET 00400 pairing group. All exhibit the irregular shape and shiny brown surface typical of the MET 00400 irons. All 8 occur along the same ~6 km long linear array at the MET 00400 irons. Slices were removed from MET 00834 and MET 00864, surfaces were polished and etched to reveal the internal structure. Both meteorites exhibited the preterrestrially, heat-altered, medium octahedrite structure typical of the MET 00400 pairing group. The meteorites certainly belong to that group and are probably IIIAB irons.



MET 00864

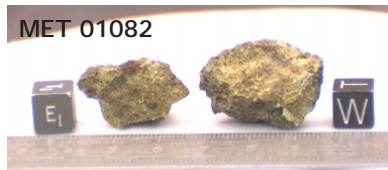
MET 00739



Sample No.: MET 00739
Location: Meteorite Hills
Field No.: 13176
Dimensions (cm): 2.5 x 2.0 x 1.0
Weight (g): 9.207
Meteorite Type: CK4 Chondrite

Macroscopic Description: Kathleen McBride
40% of the exterior is covered with a dull black fusion crust that exhibits very tiny polygonal fractures. The interior reveals 1-2 mm size gray chondrules embedded in a soft, gray matrix.

Thin Section (, 2) Description: Tim McCoy
The section consists of large (up to 2 mm), well-defined chondrules in a matrix of finer-grained silicates, sulfides and very abundant magnetite. The meteorite is little weathered, but extensively shock blackened. Olivine is Fa₃₀ and orthopyroxene is Fs₂₅. Plagioclase exhibits a broad range of compositions (An₂₄₋₇₆). The meteorite is a CK4 chondrite.



Sample No.: MET 00800;
MET 01082;
MET 01087

Location: Meteorite Hills
Field No.: 13588; 13247;
13298

Dimensions (cm): 1.0 x 1.0 x 1.5;
3.0 x 2.5 x 2.0;
5.5 x 3.5 x 1.5

Weight (g): 1.718; 22.143;
28.406

Meteorite Type: Howardite

Macroscopic Description: Kathleen McBride

The exterior of these achondrites has very small patches of black fusion crust. Areas without fusion crust expose an interior that is gray-green in color with yellow-rust colored patches and haloes. The interiors are fine-grained, yellow ochre in color with rust stained, white or gray inclusions and chondrules/chondrule-like spheres. 082 has areas that are black in color.

Thin Section (, 2) Description: Tim McCoy

These meteorites are very similar and tentatively paired. The sections show a groundmass of comminuted pyroxene and plagioclase (up to 0.5 mm) with basaltic and orthopyroxenite clasts ranging up to a few mm. Pyroxene includes orthopyroxene of $Fs_{21}Wo_2$ and finely-exsolved (1-3 μm) orthopyroxene/augite intergrowths of $Fs_{57}Wo_2$ and $Fs_{24}Wo_{40}$, respectively. A single olivine grain in MET 01087 is Fa_{26} ; plagioclase is $An_{85-90}Or_{0.5}$ and a single SiO_2 grain was analyzed. The meteorites are howardites and, on the basis of similarity in find site with MET 01082 and 01087 and petrographic features, may be paired with MET 96500.



Sample No.: MET 00855
Location: Meteorite Hills
Field No.: 13435
Dimensions (cm): 3.0 x 2.25 x 1.25
Weight (g): 9.094
Meteorite Type: Diogenite

Macroscopic Description: Kathleen McBride

20% of the exterior is covered with a smooth, brown fusion crust. The interior is yellow-orange in color. It has a coarse, crystalline texture with platy or cubic crystals. The meteorite is very friable.

Thin Section (, 2) Description: Tim McCoy

The section exhibits a groundmass of orthopyroxene, with large (up to 5 mm) single orthopyroxene crystals and large metal and sulfide grains. Orthopyroxene is homogeneous at $Fs_{27}Wo_2$. The Fe/Mn ratio of the pyroxene is ~28. The meteorite is a diogenite.



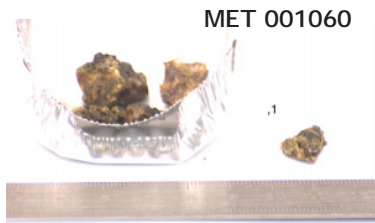
Sample No.: MET 001038
Location: Meteorite Hills
Field No.: 12840
Dimensions (cm): 1.5 x 0.75 x 0.75
Weight (g): 3.694
Meteorite Type: Ungrouped Iron

Macroscopic Description: Kathleen McBride

The exterior of this iron is covered completely with smooth brown/black fusion crust with oxidation visible.

Thin Section Description: Tim McCoy

This meteorite is undoubtedly paired with the ungrouped iron MET 00428. Like MET 00428, it exhibits ~10-20 vol.% of rounded to elongate sulfide inclusions in a matrix of metal. This texture is uncommon in iron meteorites, but is known from at least one member of group IIE (e.g., Mont Dieu). This is probably an ungrouped iron, but may be a member of group IIE.



Sample No.: MET 001060
Location: Meteorite Hills
Field No.: 12827
Dimensions (cm): 2.0 x 2.0 x 1.5
Weight (g): 9.839
Meteorite Type: Diogenite

Macroscopic Description: Kathleen McBride

The exterior of this meteorite is covered with a thick, brown-black fusion crust with polygonal fractures. It has a rough texture with small, shiny patches. The interior is composed of rusty or rust stained crystalline material. It has black accessory minerals and a few rounded, white inclusions. The matrix is mostly greenish in color with rust stained mineral grains with striations on the crystal faces. It is also heavily fractured.

Thin Section (, 2) Description: Tim McCoy

The section is composed of large (up to 3 mm) orthopyroxene crystals. The meteorite is unbrecciated, with abundant 120° triple junctions, although very minor cataclasis may have occurred along grain boundaries. Orthopyroxene has a composition of $Fs_{19}Wo_1$ with an Fe/Mn ratio of ~26. The meteorite is an unbrecciated diogenite.



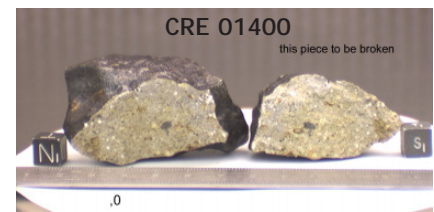
Sample No.: MET 001087
Location: Meteorite Hills
Field No.: 12233
Dimensions (cm): 1.5 x 1.0 x 0.75
Weight (g): 1.597
Meteorite Type: CM2 Chondrite

Macroscopic Description: Kathleen McBride

40% of this carbonaceous chondrite's exterior has thick purplish-black fusion crust with polygonal fractures. The interior is a dark gray to black color with a soft matrix. White to light gray chondrules are visible, <1mm in size.

Thin Section (, 2) Description: Tim McCoy

This meteorite may be paired with the other MET 00 CM2 chondrites, but is a geographic outlier from that cluster. The section consists of a few small, unaltered chondrules (up to 1 mm), mineral grains and CAIs set in a black matrix. Olivine compositions are Fa_{0-41} ; orthopyroxene is Fs_{0-1} . The meteorite is a CM2 chondrite.



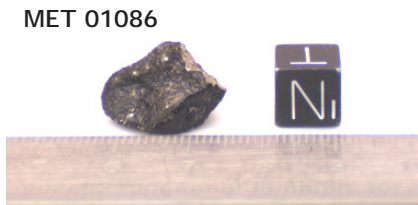
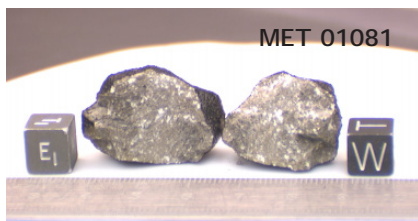
Sample No.: CRE 01400
Location: Mt. Crean
Field No.: 13927
Dimensions (cm): 6.0 x 5.0 x 3.0
Weight (g): 141.295
Meteorite Type: Howardite

Macroscopic Description: Kathleen McBride

Black, shiny fusion crust covers 95% of the exterior of this meteorite. One side has an iridescent sheen. The interior is composed of soft, tan colored matrix with numerous small clasts in a variety of colors, textures and shapes, including rounded white clasts, black clasts, shiny black and green crystalline inclusions.

Thin Section (, 2) Description: Tim McCoy

The section shows a groundmass of comminuted pyroxene and plagioclase (up to 0.5 mm) with clasts of basalt and orthopyroxenite ranging up to 5 mm. Large orthopyroxene grains are $Fs_{21}Wo_2$. Orthopyroxene ($Fs_{52}Wo_3$) and augite ($Fs_{25}Wo_{40}$) occur together in exsolved grains. Pyroxene has an Fe/Mn ratio of ~30. Plagioclase is $An_{85-90}Or_{0.5}$. The meteorite is a howardite.



Sample No.: MET 01081;
MET 01086
Location: Meteorite Hills
Field No.: 13031; 13859
Dimensions (cm) : 3.5 x 3.5 x 1.5;
2.0 x 1.5 x 1.0
Weight (g): 27.404; 2.727
Meteorite Type: Eucrite
(Unbrecciated)

Macroscopic Description: Kathleen McBride

90% of the exteriors are covered with a shiny, black fusion crust with a rough texture or regmaglypt. The interior matrices are crystalline in texture and tan to gray in color. Both contain small (<1 mm) white inclusions and black grains.

Thin Section (, 2) Description: Tim McCoy

These meteorites are so similar that a single description suffices. The meteorites are unbrecciated, medium-grained basalts composed of pyroxene (exsolved on a scale of 1-5 μm), and plagioclase with minor metal and sulfide. The meteorite is extensively shocked, with mosaicism in both pyroxene and plagioclase. Mineral compositions are homogeneous with orthopyroxene ($\text{Fs}_{55}\text{Wo}_4$), with lamellae of augite ($\text{Fs}_{28}\text{Wo}_{36}$), and plagioclase ($\text{An}_{88}\text{Or}_{0.5}$). The Fe/Mn ratio of the pyroxene is ~30. The meteorites are unbrecciated eucrites.



Sample No.: MET 01084
Location: Meteorite Hills
Field No.: 13201
Dimensions (cm): 2.0 x 1.5 x 1.0
Weight (g): 4.292
Meteorite Type: Diogenite

Macroscopic Description: Kathleen McBride

50% of the exterior of this meteorite is covered with black fusion crust with shiny patches. The exposed interior shows gray matrix. The interior matrix is a gray, crystalline with white inclusions <1 mm in size. There are a few small areas with a slight rust color and black veins.

Thin Section (, 2) Description: Tim McCoy

The section shows a groundmass of coarse (up to 2 mm) comminuted pyroxene, with minor plagioclase and olivine. Orthopyroxene has a composition of $\text{Fs}_{26}\text{Wo}_2$; plagioclase is $\text{An}_{88}\text{Or}_{0.5}$; olivine is Fa_{30} . The Fe/Mn ratio of the pyroxene is ~28. The meteorite is a diogenite.

Correction - MET 00546 (H5 ; $\text{Fa}_{18}\text{Fs}_{16}$) was erroneously reported in the last Newsletter (25,2) as MET 00456. MET 00456 is an LL5 chondrite that was visually classified.

Sample Request Guidelines

Requests for samples are welcomed from research scientists of all countries, regardless of their current state of funding for meteorite studies. Graduate student requests should have a supervising scientist listed to confirm access to facilities for analysis. All sample requests will be reviewed in a timely manner. For sample requests that do not meet the curatorial guidelines the Meteorite Working Group (MWG) will review those requests. Issuance of samples does not imply a commitment by any agency to fund the proposed research. Requests for financial support must be submitted separately to the appropriate funding agency. As a matter of policy, U.S. Antarctic meteorites are the property of the National Science Foundation, and all allocations are subject to recall.

Samples can be requested from any meteorite that has been made available through announcement in any issue of the *Antarctic Meteorite Newsletter* (beginning with 1(1) in June, 1978). Many of the meteorites have also been described in five *Smithsonian Contributions to the Earth Sciences*: Nos. 23, 24, 26, 28, and 30. Tables containing all classified meteorites (as of February 2002) have been published in several issues of the *Meteoritical Bulletin* in *Meteoritics* 29, 100-143, and *Meteoritics and Planetary Science* 31, A161-A174; 33, A221-A239; 34, A169-A186; 35, A199-A225; 36, A293-A322; and 37, A157-184.

The most current listing is found online at:

http://www-curator.jsc.nasa.gov/curator/antmet/us_clctn.htm

All sample requests should be made electronically using the form at:

<http://curator.jsc.nasa.gov/curator/antmet/samreq.htm>

The purpose of the sample request form is to obtain all information MWG needs prior to their deliberations to make an informed decision on the request. Please use this form if possible.

The preferred method of request transmittal is via e-mail. Please send requests and attachments to:

cecilia.e.satterwhite1@jsc.nasa.gov

Type **MWG Request** in the e-mail subject line. Please note that the form has signature blocks. The signature blocks should only be used if the form is sent via Fax or mail.

Each request should accurately refer to meteorite samples by their respective identification numbers and should provide detailed scientific justification for proposed research. Specific requirements for samples, such as sizes or weights, particular locations (if applicable) within individual specimens, or special handling or shipping procedures should be explained in each request. Some meteorites are small, of rare type,

or are considered special because of unusual properties. Therefore, it is very important that all requests specify both the optimum amount of material needed for the study and the minimum amount of material that can be used. Requests for thin sections that will be used in destructive procedures such as ion probe, laser ablation, etch, or repolishing must be stated explicitly.

Consortium requests should list the members in the consortium. All necessary information should be typed on the electronic form, although informative attachments (reprints of publication that explain rationale, flow diagrams for analyses, etc.) are welcome.

The Meteorite Working Group (MWG), is a peer-review committee which meets twice a year to guide the collection, curation, allocation, and distribution of the U.S. collection of Antarctic meteorites. The deadline for submitting a request is 3 weeks prior to the scheduled meeting.

Requests that are received by the MWG secretary by Feb. 27, 2003 will be reviewed at the MWG meeting **March 21-22, 2003** in Houston, Tx. Requests that are received after the Feb. 27 deadline may be delayed for review until MWG meets again in the Fall of 2003. **Please submit your requests on time.** Questions pertaining to sample requests can be directed to the MWG secretary by e-mail, fax or phone.

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Meteorites On-Line

Several meteorite web site are available to provide information on meteorites from Antarctica and elsewhere in the world. Some specialize in information on martian meteorites and on possible life on Mars. Here is a general listing of ones we have found. We have not included sites focused on selling meteorites even though some of them have general information. Please contribute information on other sites so we can update the list.

JSC Curator, Antarctic meteorites	http://www-curator.jsc.nasa.gov/curator/antmet/antmet.htm
JSC Curator, martian meteorites	http://www-curator.jsc.nasa.gov/curator/antmet/marsmets/contents.htm
JSC Curator, Mars Meteorite Compendium	http://www-curator.jsc.nasa.gov/curator/antmet/mmc/mmc.htm
Antarctic collection	http://www.cwru.edu/affil/ansmet
LPI martian meteorites	http://cass.jsc.nasa.gov/lpi/meteorites/mars_meteorite.html
NIPR Antarctic meteorites	http://www.nipr.ac.jp/
BMNH general meteorites	http://www.nhm.ac.uk/mineralogy/collections/meteor.htm
UHI planetary science discoveries	http://www.soest.hawaii.edu/PSRdiscoveries
Meteoritical Society	http://www.uark.edu/studorg/metsoc
Meteorite! Magazine	http://www.meteor.co.nz
Geochemical Society	http://www.geochemsoc.org

Other Websi tes of I nterest

Mars Exploration	http://mars.jpl.nasa.gov
Lunar Prospector	http://lunar.arc.nasa.gov
Near Earth Asteroid Rendezvous	http://near.jhuapl.edu/
Stardust Mission	http://stardust.jpl.nasa.gov
Genesis Mission	http://genesismission.jpl.nasa.gov
Contour Mission	http://www.jhuapl.edu/public/pr/CONTOUR/

