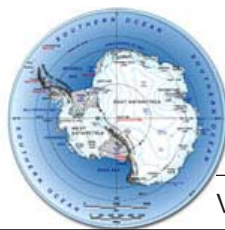


Antarctic Meteorite



Newsletter

Volume 42, Number 2 August 2019

Curator's Comments

Kevin Righter, NASA-JSC

This newsletter reports many new meteorites from the Miller Range 2015 and the Dominion Range 2018 seasons.

Chondritic diversity continues its presence in the Miller Range with the MIL 15 collection featuring an impact melt breccia, a low FeO chondrite, L3 (<3.2), L3.5 (2), LL3.5, H3.7, and an R4. Carbonaceous chondrites include a CM1, two CM2 pairing groups of 7 and 8 members, CO3 (2), and CV3 (4) chondrites. In addition to all the chondrites are two mesosiderite clasts and a brecciated eucrite. This reports the last of the 2015 season MIL samples, re-directing focus of future characterization and newsletters on the 2016 EET and 2017 GRO samples as well as the rest of the newly returned 2018 DOM meteorites.

Achondrites dominate the samples recovered from the DOM 18 season including five pieces of a lunar basaltic breccia, as well as graphite-bearing ureilites (2), eucrites (3), howardites (3), and an ungrouped iron. Notable chondrites include CM2 (2), CO3, and a shocked L5.

Detailed olivine analyses, identification of primitive un-equilibrated chondrites (UOC), and re-assessment of pairing in four US Antarctic dense collection areas

Un-equilibrated ordinary chondrites from 4 different dense collection areas in the Transantarctic Mountains have been surveyed to identify primitive specimens that may be of higher scientific interest. As a result of this survey 19 samples of petrologic grade 3.05 or lower have been identified, based on the high Cr₂O₃ content of olivine in Type II FeO-rich chondrules:

EET 87735, 90066, 90261, 90080, 90628, 90519, 90909, 92100, 90916 (in addition to EET 90161)

LEW 87208, 97202 (in addition to LEW 86134)

MET 00506, 00607, 00621, 01057 (in addition to MET 00452 and 00526)

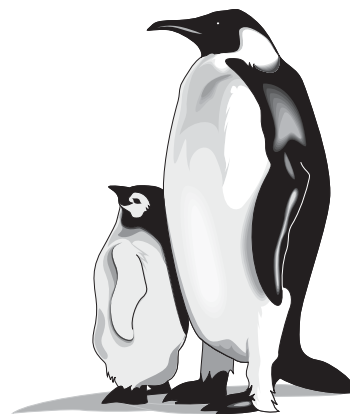
GRO 06054, 95558, 03015, 03061

A periodical issued by the Meteorite Working Group to inform scientists of the basic characteristics of specimens recovered in the Antarctic.

Edited by Cecilia Satterwhite and Kevin Righter, NASA Johnson Space Center, Houston, Texas 77058

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**Sample Request Deadline
August 29, 2019**

**MWG Meets
Sept. 12-13, 2019**



The detailed assessments of all four areas, involving more than 80 meteorites, will be described in more detail in an upcoming publication, but we wanted to provide this updated information ASAP for the benefit of the community.

Reclassification of Miller Range (MIL) equilibrated ordinary chondrites (EOC)

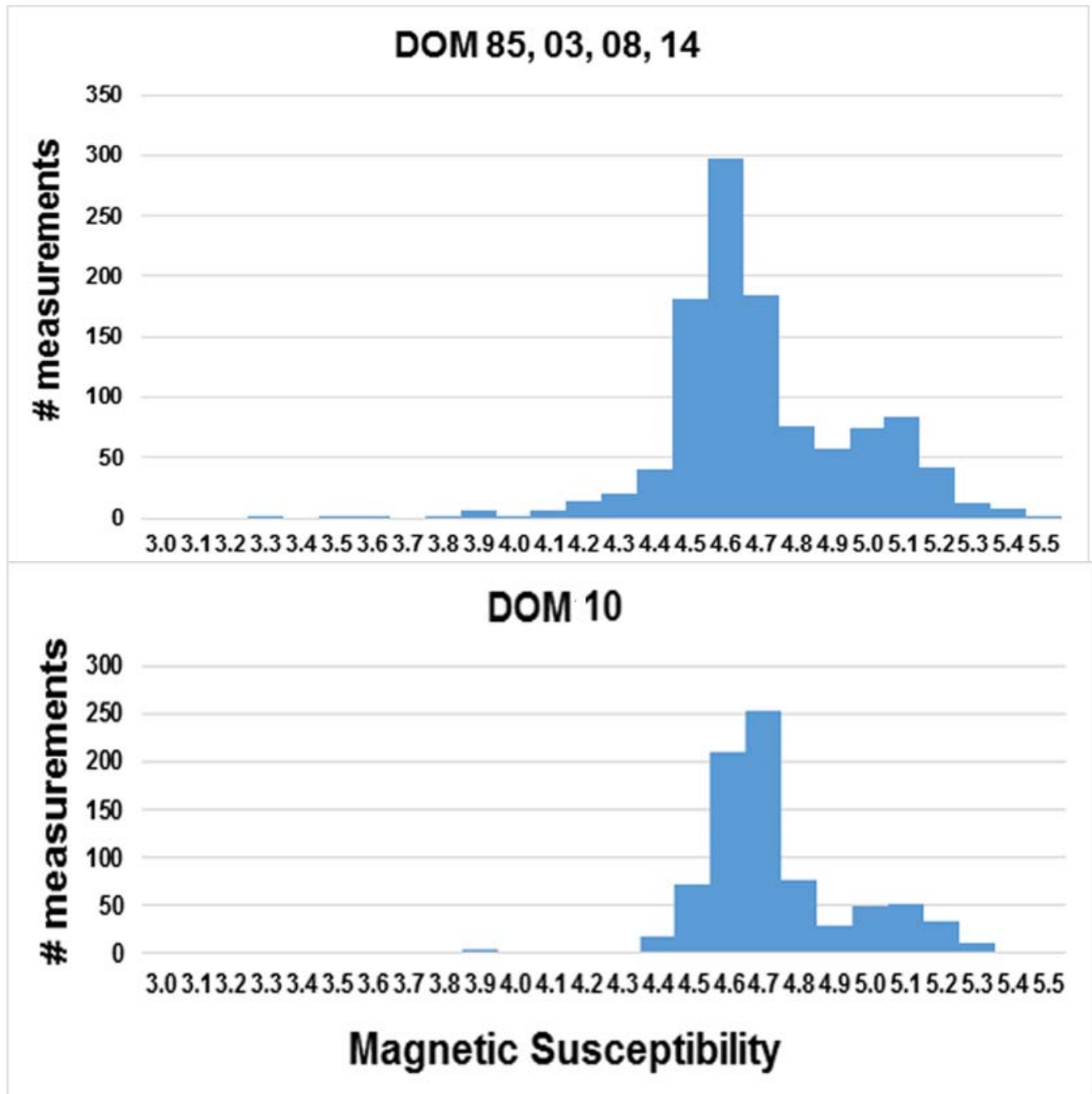
Based on a mismatch between magnetic susceptibility values and classifications based on oil immersion from 2014-2017 (vols. 37 to 40) timeframe newsletters, we identified 27 MIL EOCs with mass > ~100 g for detailed examination of olivine composition to re-assess classification. The following MIL EOCs require reclassification as indicated based on the new electron microprobe olivine data.

<u>Generic</u>	<u>Original Classification</u>	<u>Fa in Olivine</u>	<u>Magnetic Susceptibility</u>	<u>Fa in olivine (microprobe)</u>	<u>Updated Classification</u>
MIL 11007	LL5	-	4.96	18.4	H5
MIL 11009	L6	-	5.19	18.9	H6
MIL 11043	LL5	-	4.92	20.0	H5
MIL 11044	L5	-	5.15	18.5	H5
MIL 11045	LL6	-	4.82	24.7	L6
MIL 11047	LL6	-	4.76	25.2	L6
MIL 11049	LL5	-	5.02	18.9	H5
MIL 11088	LL6	-	4.86	25.3	L6
MIL 11090	LL6	-	4.63	25.6	L6
MIL 11091	L5	-	5.18	18.6	H5
MIL 11093	L5	-	5.08	18.2	H5
MIL 11096	L6	-	5.19	18.9	H6
MIL 11114	L5	-	5.13	18.0	H5
MIL 11145	LL5	-	5.31	19.3	H5
MIL 11165	L6	-	5.06	19.8	H6
MIL 11209	LL6	-	4.81	25.4	L6
MIL 11214	L5	-	5.04	19.1	H5
MIL 11217	L6	-	5.26	19.4	H6
MIL 11219	L6	-	5.07	19.1	H6
MIL 11240	L5	-	5.12	18.0	H5
MIL 11241	LL6	-	4.76	24.9	L6
MIL 11243	L6	-	5.01	19.5	H6
MIL 11297	LL6	-	4.77	25.1	L6
MIL 11302	L5	-	5.11	19.8	H5
MIL 13007	H4	18	4.70	24.6	L4
MIL 13014	LL5	29	5.25	19.4	H5
MIL 13086	LL5	-	4.80	25.1	L5

Magnetic Susceptibility of Dominion Range (DOM 10) and Patuxent Range (PAT 10) meteorites and reclassification of equilibrated ordinary chondrites (EOC)

Magnetic susceptibilities of the Dominion Range (DOM) and Patuxent Range 2010 season meteorites have been measured and are presented below, along with suggested reclassification of specific equilibrated ordinary chondrites (EOC). These measurements are the last installment for DOM EOC samples, and complete the survey started several years ago. Below are plots of magnetic susceptibility values measured for the 2010 DOM samples

showing the majority of samples have values typical of L chondrites (4.4 to 4.9). These new values are compared to those for the other main DOM seasons 1985, 2003, 2008, and 2014, all of which have been classified using either SEM, microprobe, or magnetic susceptibility. The assignment of H, L, or LL follows our previous work reported in AMN 40, no. 1 (Feb. 2017) and AMN 41, no. 2 (Aug. 2018) of ~400 samples from Larkman Nunatak and Dominion Range; all H chondrites had $\log \chi$ values > 5.0, and no LL chondrites had $\log \chi$ values > 4.4. We have reclassified ~500 DOM 10 EOC samples using these ranges as well. (See Tables at the end of the newsletter.)



Report from the Smithsonian

Cari Corrigan, Geologist (Dept. of Mineral Sci.)

This newsletter reports 233 new classifications. Things are going well at the Smithsonian. We think we've recovered from "the Shutdown" but things occasionally crop up that remind us of the impact that five weeks of closure has a widespread effect on all of us. Despite the rough start to the year, we have had some recent successes in the Antarctic Meteorite program. We have been awarded the first allotment of funds to digitize the meteorite data packs sent to us by NASA/JSC. Each meteorite in the U.S. Antarctic program going back to 1976 has a data pack that records every split of every meteorite as it is broken and sent to researchers. This and our databases (at JSC and the SI) allow us to monitor these transactions in order to assist future researchers in obtaining similar (or sometimes even the exact) materials for follow-up research as instrumentation progresses and new questions are asked.

Chris Anders and Greg Polley, who were hired with collections funds awarded to Meteorites Collections Manager Julie Hoskin, have been with us since last October, and have been working hard to help us get caught up with our collection activities, and were essential in helping us make up lost time during the shutdown in January. Their contracts have been renewed for another year with additional funds obtained by Julie, which is great news for all.

Our departmental SEM has seen a lot of attention from repair folks since the last newsletter and in its revitalized state was used to classify almost 200 of the ordinary chondrites in this newsletter. We have begun to discuss the replacement of this instrument, as it is about 14 years young, but that will likely be a few years down the road. New cabinetry was recently delivered for our meteorite vault, which will expand our on-site Museum storage capability, provide more workspace, and enable us to develop a new display case (display case still being constructed). In the meantime, we will continue to work through and continually try to improve the workflow of tasks that allow us to supply you with your research materials!

ANSMET 2019-2020 Field Season

Ralph Harvey, Case Western Reserve University

Jim Karner, University of Utah

As many ANSMET fans know, last season we recovered 865 meteorites from the Davis Nunataks and Mount Ward (DW) icefields. We thought a lot of them were special, and that turned out to be true (as evidenced by the samples described in this newsletter)! That total of 865 meteorites was also much higher than expected; and basically all those meteorites we collected prevented us from completing search efforts in the area. That is the reason we are going back to DW this coming season. The increase in meteorite recovery rates was mostly from areas that had been searched in previous seasons, and while we routinely overlap previously searched areas, we normally find 5-10% more meteorites the second time around. This last season it was closer to 100% more. This extraordinary occurrence was probably due to excellent snow removal during the early season windstorms, i.e., clearing off bare ice areas on the main icefield, Big Tongue, Little Tongue and the informally named Trough (see Fig. 1), but also unclogging moraines and possibly exposing previously covered wind-rows. These snow removal events occur when the katabatic winds are strongest in the spring and fall, when the setting sun starts to exaggerate the differences in solar warming of the near-surface air, destabilizing the dome of radiatively cooled air over the center of the icesheet. This past year a really big katabatic came really late (almost all the way into summer, which is precipitation season) and that timing was fortuitous to us, as we reaped the benefit of meteorites without any blanket of early summer snows. When we return to DW this season we hope our luck continues, and we expect to find several hundreds more meteorites. Hopefully this season closes out our searches in the area (but you won't hear us complain if another positive bump in recoveries postpones it again). Wish us luck!

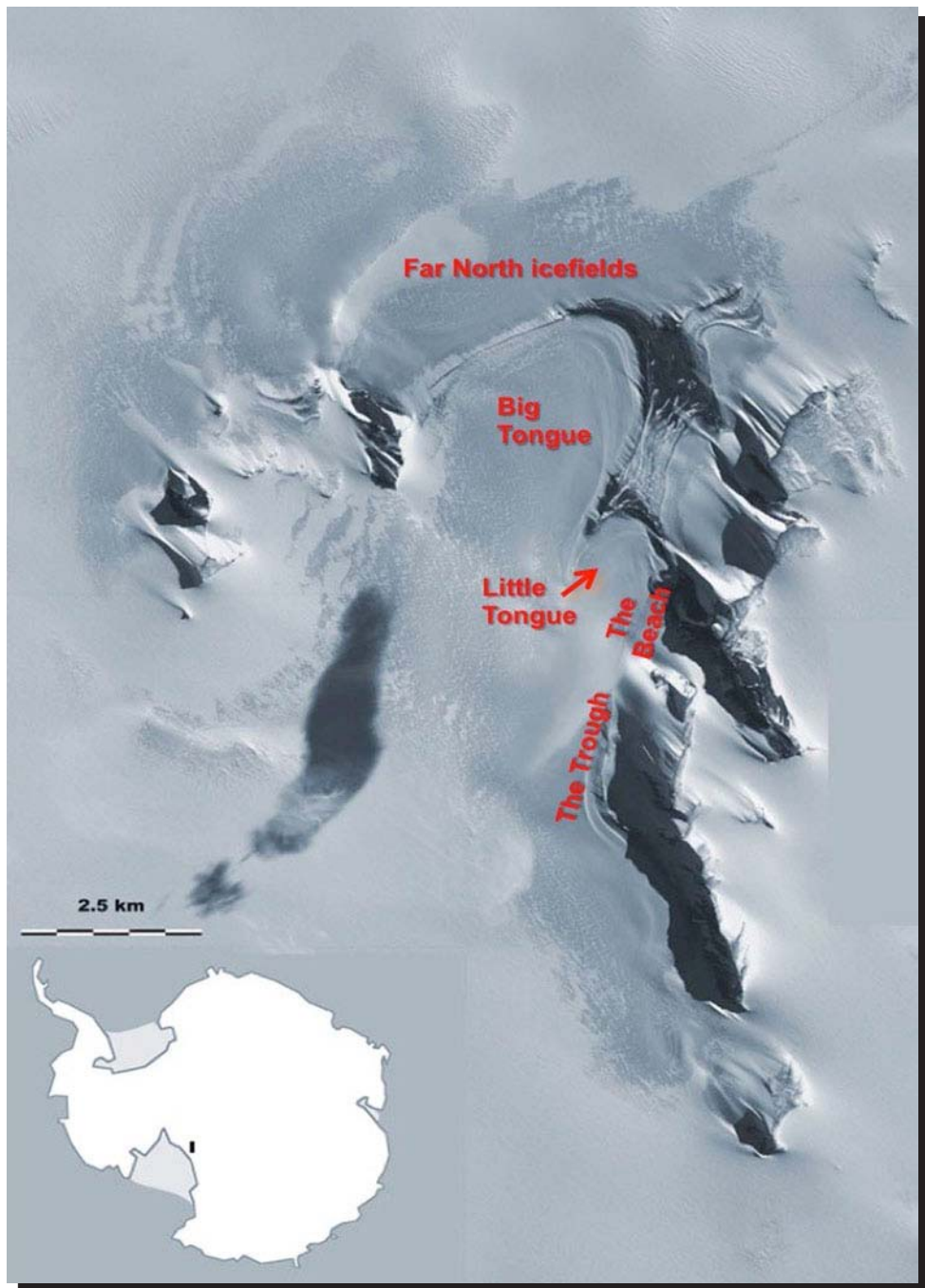


Figure 1. Composite satellite image of the Davis-Ward icefields, with Mt. Ward to the right and Davis Nunataks to the left. The image is oriented with north toward the top. Areas that need further searching are labeled in red.

New Meteorites

2015, 2018 Collection

Pages 7-24 contain preliminary descriptions and classifications of meteorites that were completed since publication of issue 42(1), March, 2019. 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:

Kellye Pando, Curtis Calva, Roger Harrington, Cecilia Satterwhite and Kevin Righter
Antarctic Meteorite Laboratory
NASA Johnson Space Center
Houston, Texas

Cari Corrigan, Julie Hoskin and Tim McCoy
Department of Mineral Sciences
U.S. National Museum of Natural History - Smithsonian Institution
Washington, D.C.

Antarctic Meteorite Locations

ALH — Allan Hills	MCY — MacKay Glacier
AMU — Amundsen Glacier	MET — Meteorite Hills
BEC — Beckett Nunatak	MIL — Miller Range
BOW — Bowden Neve	ODE — Odell Glacier
BTN — Bates Nunataks	OTT — Outpost Nunatak
BUC — Buckley Island	PAT — Patuxent Range
CMS — Cumulus Hills	PCA — Pecora Escarpment
CRA — Mt. Cranfield Ice Field	PGP — Purgatory Peak
CRE — Mt. Crean	PRA — Mt. Pratt
DAV — David Glacier	PRE — Mt. Prestrud
DEW — Mt. DeWitt	QUE — Queen Alexandra Range
DNG — D'Angelo Bluff	RBT — Roberts Massif
DOM — Dominion Range	RKP — Reckling Peak
DRP — Derrick Peak	SAN — Sandford Cliffs
EET — Elephant Moraine	SCO — Scott Glacier
FIN — Finger Ridge	STE — Stewart Hills
GDR — Gardner Ridge	SZA — Szabo Bluff
GEO — Geologists Range	TEN — Tentacle Ridge
GRA — Graves Nunataks	TIL — Thiel Mountains
GRO — Grosvenor Mountains	TYR — Taylor Glacier
HOW — Mt. Howe	WIS — Wisconsin Range
ILD — Inland Forts	WSG — Mt. Wisting
KLE — Klein Ice Field	
LAP — LaPaz Ice Field	
LAR — Larkman Nunatak	
LEW — Lewis Cliff	
LON — Lonewolf Nunataks	
MAC — MacAlpine Hills	
MBR — Mount Baldr	

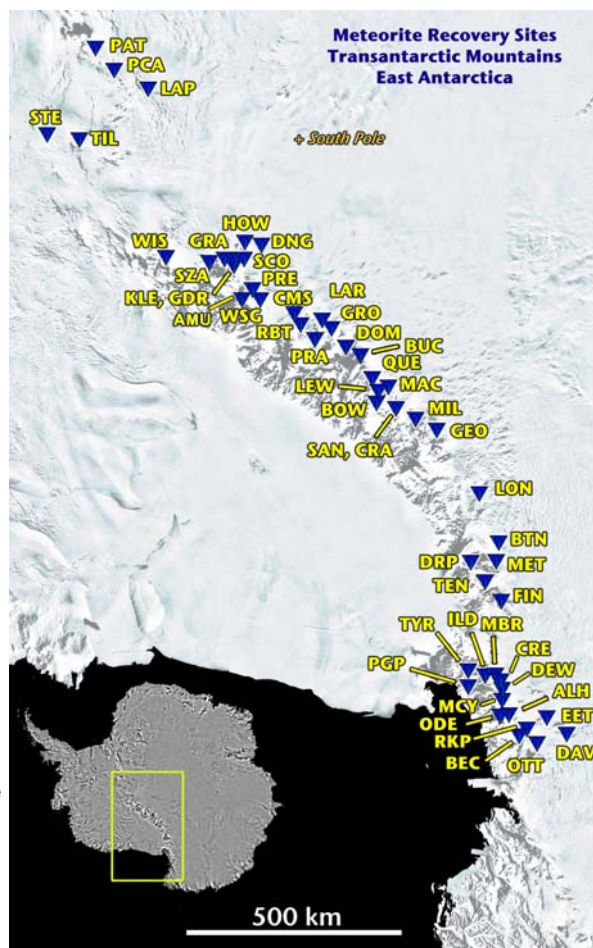


Table 1
Newly Classified Antarctic Meteorites

<u>Sample Number</u>	<u>Weight (g)</u>	<u>Classification</u>	<u>Weathering</u>	<u>Fracturing</u>	<u>%Fa</u>	<u>%Fs</u>
MIL 15001	1921.22	H4 CHONDRITE	A/B	B	21	
MIL 15002	6661.5	LL5 CHONDRITE	A/B	A/B		24
MIL 15003	1261.12	LL4 CHONDRITE	A/B	A/B	29	
MIL 15004	2335.5	H5 CHONDRITE	B	B/C	20	17
MIL 15005	2400.28	LL4 CHONDRITE	A/B	A/B	30	
MIL 15006	1404.96	H5 CHONDRITE	C	A/B	21	
MIL 15007	800.17	L6 CHONDRITE	A/B	A/B	25	21
MIL 15008	839.26	LL6 CHONDRITE	B	A	29	
MIL 15010	157.601	H6 CHONDRITE	B/C	B	20	
MIL 15011	198.598	L6 CHONDRITE	B/C	A	23	
MIL 15013	195.353	LL6 CHONDRITE	B/C	A/B	25	
MIL 15014	123.523	LL CHONDRITE (IMPT MELT)	C	A	11-31	25
MIL 15015	115.621	L4 CHONDRITE	B/C	A	26	
MIL 15016	84.065	H5 CHONDRITE	B/C	B	21	
MIL 15017	109.365	L6 CHONDRITE	B/C	A	26	
MIL 15018	70.715	L5 CHONDRITE	B/C	A	26	
MIL 15019	59.372	H5 CHONDRITE	Be	A	17	15
MIL 15020	169.52	LL5 CHONDRITE	B	A/B	27	24
MIL 15021	221.69	LL6 CHONDRITE	B	A/B	28	25
MIL 15022	220.31	H5 CHONDRITE	B	B	20	18
MIL 15023	121.7	L5 CHONDRITE	C	B	23	
MIL 15024	180.33	LL6 CHONDRITE	C	A	29	
MIL 15025	96.07	L5 CHONDRITE	B/C	B	23	
MIL 15026	78.46	H5 CHONDRITE	B/C	A/B	20	18
MIL 15027	60.69	L6 CHONDRITE	B	A/B	25	
MIL 15032	876.09	LL5 CHONDRITE	B	B	30	
MIL 15033	321.32	LL6 CHONDRITE	B/C	A	28	
MIL 15034	384.52	L6 CHONDRITE	A/B	B	25	
MIL 15043	277.8	CHONDRITE UNGROUPED	C	A	15	5-13
MIL 15050	794.7	L6 CHONDRITE	B/C	B	25	
MIL 15051	464.0	H5 CHONDRITE	A/B	B	18	16
MIL 15053	205.573	L3.5 CHONDRITE	B	A	10-25	15-19
MIL 15054	241.1	L3.5 CHONDRITE	A/Be	A	4-42	2-16
MIL 15055	155.711	L5 CHONDRITE	B/Ce	B	24	20
MIL 15056	134.261	H6 CHONDRITE	B/C	A/B	18	
MIL 15057	156.525	H6 CHONDRITE	B	A/B	20	18
MIL 15058	99.86	MESOSIDERITE	B/C	B/C		27-37
MIL 15059	111.82	L3.5 CHONDRITE	B	A	10-37	23-25
MIL 15060	162.113	H6 CHONDRITE	B/C	A	20	
MIL 15061	87.927	L6 CHONDRITE	B	A/B	26	22
MIL 15062	268.7	LL5 CHONDRITE	A/B	A/B	27	23
MIL 15063	164.376	H6 CHONDRITE	B/C	B	20	
MIL 15064	162.608	H6 CHONDRITE	B/C	A	20	18
MIL 15065	103.958	L5 CHONDRITE	A/B	A/B	26	
MIL 15066	66.484	L6 CHONDRITE	A/B	A/B	25	
MIL 15067	69.151	L4 CHONDRITE	A/B	A/B	26	
MIL 15068	101.774	H6 CHONDRITE	B/C	B	21	

<u>Sample Number</u>	<u>Weight (g)</u>	<u>Classification</u>	<u>Weathering</u>	<u>Fracturing</u>	<u>%Fa</u>	<u>%Fs</u>
MIL 15069	81.96	H6 CHONDRITE	B/C	A/B	20	
MIL 15070	57.84	H6 CHONDRITE	C	B/C	20	
MIL 15071	84.23	LL5 CHONDRITE	B/C	A	30	
MIL 15072	65.86	H5 CHONDRITE	B	B	20	
MIL 15073	58.42	H5 CHONDRITE	B/C	B/C	20	18
MIL 15074	82.76	H5 CHONDRITE	C	B/C	20	
MIL 15075	117.58	L5 CHONDRITE	A/B	A/B	21	
MIL 15076	203.2	H5 CHONDRITE	B/C	A/B	21	
MIL 15077	142.36	L6 CHONDRITE	B/C	A	25	
MIL 15078	86.88	H6 CHONDRITE	C	A	19	
MIL 15079	112.85	H5 CHONDRITE	B/C	A/B	20	
MIL 15101	5.16	H6 CHONDRITE	B/C	A	21	
MIL 15102	2.42	L6 CHONDRITE	B/C	A	25	
MIL 15106	3.69	L6 CHONDRITE	B/C	A	24	
MIL 15107	6.38	H5 CHONDRITE	B/C	B	21	
MIL 15108	2.12	LL5 CHONDRITE	B	A/B	28	
MIL 15110	34.99	LL5 CHONDRITE	A/B	A/B	30	
MIL 15111	17.26	H6 CHONDRITE	C	A	20	
MIL 15113	25.24	LL6 CHONDRITE	A/B	A	30	
MIL 15115	12.52	H6 CHONDRITE	B/C	A	21	
MIL 15116	14.65	H6 CHONDRITE	A/B	A/B	20	
MIL 15117	15.14	H6 CHONDRITE	C	A	21	
MIL 15118	27.97	H6 CHONDRITE	C	A	21	
MIL 15119	22.19	H5 CHONDRITE	B/C	A/B	20	
MIL 15129	70.178	H4 CHONDRITE	B	A/B	17-19	16
MIL 15160	34.416	LL6 CHONDRITE	A/Be	A	29	
MIL 15161	53.058	LL5 CHONDRITE	A/B	A	28	
MIL 15162	36.847	L5 CHONDRITE	A/B	A	26	
MIL 15164	45.335	H5 CHONDRITE	B	A	19	
MIL 15165	22.244	LL6 CHONDRITE	B	A/B	30	
MIL 15166	24.76	H6 CHONDRITE	B/C	A	20	
MIL 15167	37.556	LL5 CHONDRITE	A/B	A/B	28	
MIL 15168	25.292	L5 CHONDRITE	B	A/B	25	
MIL 15169	22.427	LL5 CHONDRITE	B	A	30	
MIL 15181	2.024	MESOSIDERITE	B/C	A/B		23-57
MIL 15189	10.845	H4 CHONDRITE	B	A	17	15
MIL 15213	15.1	L5 CHONDRITE	B/C	A/B	25	
MIL 15232	34.17	H6 CHONDRITE	A/B	A	21	
MIL 15233	24.54	H6 CHONDRITE	B	A	19	
MIL 15234	28.31	LL6 CHONDRITE	B	A	29	
MIL 15235	63.99	H6 CHONDRITE	B	A/B	21	
MIL 15236	38.35	H5 CHONDRITE	B/C	A	20	
MIL 15237	29.78	H5 CHONDRITE	B/C	A/B	20	
MIL 15238	20.88	L6 CHONDRITE	B/C	A	25	
MIL 15239	18.46	H6 CHONDRITE	C	A	19	
MIL 15242	7.44	H6 CHONDRITE	B/C	A	19	
MIL 15243	5.29	L5 CHONDRITE	B/C	A	24	
MIL 15244	9.67	H6 CHONDRITE	B/C	A	21	
MIL 15245	7.89	H5 CHONDRITE	B/C	A	20	

<u>Sample Number</u>	<u>Weight (g)</u>	<u>Classification</u>	<u>Weathering</u>	<u>Fracturing</u>	<u>%Fa</u>	<u>%Fs</u>
MIL 15246	7.39	H6 CHONDRITE	B/C	A/B	20	
MIL 15248	7.33	L6 CHONDRITE	C	A	25	
MIL 15249	6.97	L6 CHONDRITE	C	A	24	
MIL 15259	15.297	LL5 CHONDRITE	A/B	A	28	21
MIL 15280	15.93	H6 CHONDRITE	A/B	A	18	16
MIL 15294	2.308	LL6 CHONDRITE	A/B	A	29	23
MIL 15300	0.831	CM2 CHONDRITE	B	A/B	1-44	
MIL 15301	1.319	CM2 CHONDRITE	B	A	1-51	5-7
MIL 15302	1.039	CM2 CHONDRITE	B	A	1-48	
MIL 15303	1.964	CM2 CHONDRITE	B	A	1-39	
MIL 15304	3.38	CM2 CHONDRITE	Be	A	0.5-51	
MIL 15305	3.233	CM2 CHONDRITE	B	A	1-39	
MIL 15306	9.012	CV3 CHONDRITE	B	A	0.4-29	1
MIL 15329	49.1	LL5 CHONDRITE	A/B	B	30	24
MIL 15347	5.37	CM1 CHONDRITE	Be	A/B		
MIL 15350	159.31	L6 CHONDRITE	A/B	A/B	24	
MIL 15351	150.34	L3.2 CHONDRITE	B	A/B	1-42	1-8
MIL 15352	137.42	L5 CHONDRITE	B/C	A/B	25	
MIL 15353	102.14	L6 CHONDRITE	B/C	A	25	
MIL 15354	85.98	H6 CHONDRITE	B/C	A	21	
MIL 15355	89.03	H6 CHONDRITE	B/C	A	20	
MIL 15356	156.91	LL6 CHONDRITE	B	A/B	31	
MIL 15358	73.129	H6 CHONDRITE	B/C	B	20	
MIL 15359	84.36	L6 CHONDRITE	B	A/B	25	
MIL 15382	273.68	LL5 CHONDRITE	B/C	A	28	
MIL 15384	181.68	H6 CHONDRITE	B/C	A	20	
MIL 15400	4.738	H4 CHONDRITE	B/C	A	18	16
MIL 15401	3.927	H5 CHONDRITE	B/C	A	17	15
MIL 15402	2.549	H6 CHONDRITE	B	A	21	
MIL 15403	5.831	L6 CHONDRITE	B/C	A	26	
MIL 15404	6.125	H5 CHONDRITE	B/Ce	A/B	20	
MIL 15405	3.375	H6 CHONDRITE	B/C	A	21	
MIL 15406	5.151	L6 CHONDRITE	B/C	A/B	26	
MIL 15407	12.143	H6 CHONDRITE	B	A	19	
MIL 15408	2.867	CM2 CHONDRITE	B	A	1-37	
MIL 15409	2.38	CM2 CHONDRITE	Be	A	0.5-40	
MIL 15410	1.079	CM2 CHONDRITE	A/B	A/B	1-41	
MIL 15411	2.618	H6 CHONDRITE	B	A	20	
MIL 15412	3.283	H6 CHONDRITE	B/C	A	16	
MIL 15413	3.439	L4 CHONDRITE	B	A	26	
MIL 15414	1.718	L5 CHONDRITE	B	A	26	
MIL 15415	2.587	L4 CHONDRITE	A/B	A/B	24	
MIL 15419	0.563	CM2 CHONDRITE	A/B	A	1-47	8-12
MIL 15420	6.632	H6 CHONDRITE	B/C	A	20	
MIL 15421	5.924	L5 CHONDRITE	B/Ce	A	24	20
MIL 15422	7.422	L5 CHONDRITE	B	A/B	24	
MIL 15423	6.34	H6 CHONDRITE	B/C	A	21	
MIL 15424	3.944	L5 CHONDRITE	B/C	A	26	
MIL 15425	8.425	L6 CHONDRITE	B/Ce	A	25	

<u>Sample Number</u>	<u>Weight (g)</u>	<u>Classification</u>	<u>Weathering</u>	<u>Fracturing</u>	<u>%Fa</u>	<u>%Fs</u>
MIL 15426	8.364	H6 CHONDRITE	B/C	A	20	
MIL 15427	7.458	H6 CHONDRITE	B/C	A	20	
MIL 15428	8.955	EUCRITE (BRECCIATED)	A/B	A		17-63
MIL 15429	8.115	CM2 CHONDRITE	Be	A/B	1-45	
MIL 15435	1.72	H6 CHONDRITE	B	A	19	
MIL 15450	5.057	CM2 CHONDRITE	B	A/B	1-36	25
MIL 15451	3.395	H5 CHONDRITE	B/C	A	20	
MIL 15452	5.863	H6 CHONDRITE	B/C	A	19	
MIL 15453	5.029	L5 CHONDRITE	B/C	A	26	
MIL 15454	4.216	H5 CHONDRITE	B/C	A/B	21	
MIL 15455	2.974	L5 CHONDRITE	B/C	A	25	
MIL 15456	7.187	LL5 CHONDRITE	B/C	A	28	
MIL 15457	7.575	LL4 CHONDRITE	B	A	28	20
MIL 15458	8.847	H6 CHONDRITE	B/C	A	18	16
MIL 15459	7.406	H6 CHONDRITE	B/C	A	20	
MIL 15460	8.57	H5 CHONDRITE	B	A	19	
MIL 15461	9.352	LL6 CHONDRITE	B/C	A	28	
MIL 15462	13.383	L6 CHONDRITE	A/B	A	25	
MIL 15463	17.74	LL6 CHONDRITE	B/C	A	28	
MIL 15464	8.396	CO3 CHONDRITE	B/C	B	1-45	1-30
MIL 15465	13.478	L6 CHONDRITE	A/B	A	26	
MIL 15466	11.079	L6 CHONDRITE	A/B	A/B	25	
MIL 15467	7.667	H3.7 CHONDRITE	B/C	A/B	3-20	16
MIL 15468	4.298	CM2 CHONDRITE	Be	A	1-41	
MIL 15469	11.579	LL5 CHONDRITE	B	A	28	23
MIL 15471	1.52	L6 CHONDRITE	B	A	26	
MIL 15472	2.32	CV3 CHONDRITE	A	A	0.3-7	1-4
MIL 15473	1.59	H5 CHONDRITE	B	A	19	
MIL 15474	1.54	H5 CHONDRITE	B	A	19	
MIL 15475	1.89	H6 CHONDRITE	B	A	21	
MIL 15476	2.27	LL5 CHONDRITE	A/B	A	28	23
MIL 15479	1.32	CM2 CHONDRITE	A	B	1-35	
MIL 15480	10.816	CV3 CHONDRITE	B	A	1-10	
MIL 15481	12.893	H6 CHONDRITE	B/C	A	21	
MIL 15482	12.29	L6 CHONDRITE	A/B	A	26	
MIL 15483	17.642	H6 CHONDRITE	B/C	A	20	
MIL 15484	21.046	H5 CHONDRITE	B	A/B	18	16
MIL 15485	20.954	H6 CHONDRITE	B/Ce	A	20	
MIL 15486	9.203	L6 CHONDRITE	B/C	A	25	
MIL 15487	11.872	H6 CHONDRITE	B	A/B	20	
MIL 15488	6.556	H6 CHONDRITE	B/C	A	18	
MIL 15489	30.237	CM2 CHONDRITE	Be	A	1-52	
MIL 15490	2.861	H6 CHONDRITE	B/C	A	21	
MIL 15491	2.555	H6 CHONDRITE	B/C	A	21	
MIL 15492	3.632	L6 CHONDRITE	B/C	A	25	22
MIL 15493	5.577	H6 CHONDRITE	B/C	A	20	
MIL 15494	6.713	H6 CHONDRITE	B/C	A/B	20	
MIL 15495	3.562	L6 CHONDRITE	B	B	24	20
MIL 15496	2.765	L6 CHONDRITE	B/C	A	26	

<u>Sample Number</u>	<u>Weight (g)</u>	<u>Classification</u>	<u>Weathering</u>	<u>Fracturing</u>	<u>%Fa</u>	<u>%Fs</u>
MIL 15497	4.803	H6 CHONDRITE	B/C	A	19	
MIL 15498	2.936	LL6 CHONDRITE	B/C	A/B	28	
MIL 15499	8.346	L5 CHONDRITE	B/C	A	24	20
MIL 15512	5.92	H6 CHONDRITE	B	A/B	20	
MIL 15513	5.89	L6 CHONDRITE	B/C	A/B	24	
MIL 15514	6.27	H6 CHONDRITE	B/C	A	20	
MIL 15517	5.26	H6 CHONDRITE	B/C	A	21	
MIL 15550	2.502	H5 CHONDRITE	B/C	A	19	17
MIL 15551	3.748	H6 CHONDRITE	B/C	A/B	18-19	17
MIL 15552	2.187	R4 CHONDRITE	B	A/B	39	9-16
MIL 15554	5.18	H5 CHONDRITE	B/C	A	20	
MIL 15555	4.483	CV3 CHONDRITE	B	A	1-10	
MIL 15556	3.556	H6 CHONDRITE	B/C	A	20	
MIL 15557	4.228	H6 CHONDRITE	B/C	A	20	
MIL 15558	3.626	CO3 CHONDRITE	B	A	1-50	1-2
MIL 15559	6.097	H5 CHONDRITE	B/C	A	20	
DOM 18003	1150.82	L5 CHONDRITE	A/B	A/B	24	20
DOM 18071	43.255	CM2 CHONDRITE	Be	B	1-58	1-12
DOM 18130	14.814	UREILITE	B/C	B	24	13-19
DOM 18165	53.1	HOWARDITE	A/B	A/B		21-63
DOM 18166	24.927	L5 CHONDRITE	A/B	A	24	20
DOM 18173	49.378	IRON-UNGROUPE	B	A		
DOM 18255	36.393	UREILITE	B/C	B	24	13-19
DOM 18262	6.777	LUNAR-BASALTIC BRECCIA	A/B	A	71-95	29-79
DOM 18286	20.33	CO3 CHONDRITE	A/B	B	1-52	1
DOM 18291	15.88	EUCRITE (BRECCIATED)	A	A/B		25-62
DOM 18292	10.66	EUCRITE (BRECCIATED)	A	A		25-62
DOM 18303	21.59	H5 CHONDRITE	C	A	19	16
DOM 18304	29.165	HOWARDITE	A/B	A/B		28-63
DOM 18329	20.48	L5 CHONDRITE	C	A	24	21
DOM 18352	14.58	L6 CHONDRITE	B	A	24	20
DOM 18469	2.28	LL6 CHONDRITE	A/B	A	29	25
DOM 18509	16.52	LUNAR-BASALTIC BRECCIA	A	A	90-99	29-85
DOM 18543	13.59	LUNAR-BASALTIC BRECCIA	A	A	93	22-77
DOM 18629	17.64	EUCRITE (UNBRECCIATED)	A/B	A		40-60
DOM 18636	3.62	CM2 CHONDRITE	B	B	1-46	
DOM 18666	45.87	LUNAR-BASALTIC BRECCIA	A	A/B	99	26-80
DOM 18678	11.64	LUNAR-BASALTIC BRECCIA	A/B	A/B	95	29-63
DOM 18787	3.443	HOWARDITE	A/B	A	12	20-52

Table 2
Newly Classified Meteorites Listed by Type

Achondrites

<u>Sample Number</u>	<u>Weight(g)</u>	<u>Classification</u>	<u>Weathering</u>	<u>Fracturing</u>	<u>%Fa</u>	<u>%Fs</u>
MIL 15428	8.955	EUCRITE (BRECCIATED)	A/B	A		17-63
DOM 18291	15.88	EUCRITE (BRECCIATED)	A	A/B		25-62
DOM 18292	10.66	EUCRITE (BRECCIATED)	A	A		25-62
DOM 18629	17.64	EUCRITE (UNBRECCIATED)	A/B	A		40-60
DOM 18165	53.1	HOWARDITE	A/B	A/B		21-63
DOM 18304	29.165	HOWARDITE	A/B	A/B		28-63
DOM 18787	3.443	HOWARDITE	A/B	A	12	20-52
DOM 18262	6.777	LUNAR-BASALTIC BRECCIA	A/B	A	71-95	29-79
DOM 18509	16.52	LUNAR-BASALTIC BRECCIA	A	A	90-99	29-85
DOM 18543	13.59	LUNAR-BASALTIC BRECCIA	A	A	93	22-77
DOM 18666	45.87	LUNAR-BASALTIC BRECCIA	A	A/B	99	26-80
DOM 18678	11.64	LUNAR-BASALTIC BRECCIA	A/B	A/B	95	29-63
DOM 18130	14.814	UREILITE	B/C	B	24	13-19
DOM 18255	36.393	UREILITE	B/C	B	24	13-19

Carbonaceous Chondrites

<u>Sample Number</u>	<u>Weight(g)</u>	<u>Classification</u>	<u>Weathering</u>	<u>Fracturing</u>	<u>%Fa</u>	<u>%Fs</u>
MIL 15347	5.37	CM1 CHONDRITE	Be	A/B		
MIL 15300	0.831	CM2 CHONDRITE	B	A/B	1-44	
MIL 15301	1.319	CM2 CHONDRITE	B	A	1-51	5-7
MIL 15302	1.039	CM2 CHONDRITE	B	A	1-48	
MIL 15303	1.964	CM2 CHONDRITE	B	A	1-39	
MIL 15304	3.38	CM2 CHONDRITE	Be	A	0.5-51	
MIL 15305	3.233	CM2 CHONDRITE	B	A	1-39	
MIL 15408	2.867	CM2 CHONDRITE	B	A	1-37	
MIL 15409	2.38	CM2 CHONDRITE	Be	A	0.5-40	
MIL 15410	1.079	CM2 CHONDRITE	A/B	A/B	1-41	
MIL 15419	0.563	CM2 CHONDRITE	A/B	A	1-47	8-12
MIL 15429	8.115	CM2 CHONDRITE	Be	A/B	1-45	
MIL 15450	5.057	CM2 CHONDRITE	B	A/B	1-36	25
MIL 15468	4.298	CM2 CHONDRITE	Be	A	1-41	
MIL 15479	1.32	CM2 CHONDRITE	A	B	1-35	
MIL 15489	30.237	CM2 CHONDRITE	Be	A	1-52	
DOM 18071	43.255	CM2 CHONDRITE	Be	B	1-58	1-12
DOM 18636	3.62	CM2 CHONDRITE	B	B	1-46	
MIL 15464	8.396	CO3 CHONDRITE	B/C	B	1-45	1-30
MIL 15558	3.626	CO3 CHONDRITE	B	A	1-50	1-2
DOM 18286	20.33	CO3 CHONDRITE	A/B	B	1-52	1

MIL 15306	9.012	CV3 CHONDRITE	B	A	0.4-29	1
MIL 15472	2.32	CV3 CHONDRITE	A	A	0.3-7	1-4
MIL 15480	10.816	CV3 CHONDRITE	B	A	1-10	
MIL 15555	4.483	CV3 CHONDRITE	B	A	1-10	

Chondrites

<u>Sample Number</u>	<u>Weight(g)</u>	<u>Classification</u>	<u>Weathering</u>	<u>Fracturing</u>	<u>%Fa</u>	<u>%Fs</u>
MIL 15043	277.8	CHONDRITE UNGROUPED	C	A	15	5-13
MIL 15014	123.523	LL CHONDRITE (IMPT MELT)	C	A	11-31	25
MIL 15467	7.667	H3.7 CHONDRITE	B/C	A/B	3-20	16
MIL 15351	150.34	L3.2 CHONDRITE	B	A/B	1-42	1-8
MIL 15053	205.573	L3.5 CHONDRITE	B	A	10-25	15-19
MIL 15054	241.1	L3.5 CHONDRITE	A/Be	A	4-42	2-16
MIL 15059	111.82	L3.5 CHONDRITE	B	A	10-37	23-25
MIL 15552	2.187	R4 CHONDRITE	B	A/B	39	9-16

Iron/Stony Iron

<u>Sample Number</u>	<u>Weight(g)</u>	<u>Classification</u>	<u>Weathering</u>	<u>Fracturing</u>	<u>%Fa</u>	<u>%Fs</u>
DOM 18173	49.378	IRON-UNGROUPED	B	B		
MIL 15058	99.86	MESOSIDERITE	B/C	B/C		27-37
MIL 15181	2.024	MESOSIDERITE	B/C	A/B		23-57

****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.

Classification of the ordinary chondrites in Table 1 & 2 was done by Energy Dispersive Spectroscopic (EDS) methods using a Scanning Electron Microscope (SEM). This can include the analysis of several olivine and pyroxene grains to determine the approximate Fayalite and Ferrosilite values of the silicates, grouping them into H, L or LL chondrites. Petrologic types are determined by optical microscopy and are assigned based on the distinctiveness of chondrule boundaries on broken surfaces of a 1-3 g chip. While this technique is suitable for general characterization and delineation of equilibrated ordinary chondrites, those undertaking detailed study of any meteorite classified by optical methods alone should use caution. It is recommended that a polished thin section be requested to accompany any chip and appropriate steps for a more detailed characterization should be undertaken by the user. (Cari Corrigan, Smithsonian Institution)

Table 3

Tentative Pairings for New Meteorites

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 the Antarctic Meteorite Newsletter vol. 9 (no. 2) (June 1986). Possible pairings were updated in Meteoritical Bulletins 76, 79, 82 through 106, which are available online from the Meteoritical Society webpage:

<http://www.lpi.usra.edu/meteor/metbull.php>

CM2 CHONDRITE

MIL 15301, MIL 15302, MIL 15305, MIL 15450, MIL 15479 and MIL 15489 with MIL 15300

MIL 15304, MIL 15408, MIL 15409, MIL 15410, MIL 15419, MIL 15429 and MIL 15468 with MIL 15303

CV3 CHONDRITE

MIL 15555 with MIL 15480

EUCRITE

DOM 18292 with DOM 18291

HOWARDITE

DOM 18304 with DOM 18165

LUNAR-BASALTIC BRECCIA

DOM 18509, DOM 18543, DOM18666 and DOM 18678 with DOM 18262

MESOSIDERITE

MIL 15058 with MIL 13174

UREILITE

DOM 18255 with DOM 18130

Petrographic Descriptions

Sample No.	Location	Field No.	Dimensions (cm)	Weight (g)	Classification
MIL 15014	Miller Range	24095	5.5 x 4.3 x 3.5	123.523	LL Chondrite (Impt Melt)

Macroscopic Description: Cecilia Satterwhite

Most of exterior of this meteorite is weathered brown with some black pitted fusion crust. The interior is black matrix with brown weathered areas.

Thin Section (.2) Description: Cari Corrigan, Tim McCoy

The section is dominated by a >1 cm region of shock melt which contains relict clasts and chondrules in a fine grained matrix with metal and sulfide blebs. A corner of the section is unmelted chondritic material of petrologic type 5 with relict chondrules. Olivines are Fa_{11-31} and pyroxenes are $Fs_{25}Wo_2$. This meteorite is an ordinary chondrite impact melt breccia, probably an LL chondrite.

Sample No.	Location	Field No.	Dimensions (cm)	Weight (g)	Classification
MIL 15043	Miller Range	23075	7.8 x 5.4 x 3.6	277.8	Chondrite Ungrouped

Macroscopic Description: Kellye Pando

90% of the exterior is covered by dark brown fusion crust with round dark colored weathering spots and some orange rust. Exposed surface is a gray matrix with black, brown and light gray inclusions. Fresh interior is a light colored matrix with some large (~1 mm) gray inclusions and extensive orange rust throughout.

Thin Section (.2) Description: Cari Corrigan, Tim McCoy

The section exhibits a few poorly defined chondrules (up to 1 mm) in a matrix of coarse metal and sulfide. Olivine is Fa_{15} and pyroxenes are Fs_5 and Fs_{13} . The meteorite is moderately weathered. The meteorite is a low FeO chondrite of type 5 (Russell et al. MAPS 1998). While the meteorite is similar in mineral composition to Willaroy and Suwahib (Buwah), the texture suggests that it is not paired with either MIL 15293 or MIL 15362 (classified in the Spring 2019 Antarctic Meteorite Newsletter).

Sample No.	Location	Field No.	Dimensions (cm)	Weight (g)	Classification
MIL 15053	Miller Range	23350	8.0 x 5.5 x 2.5	205.573	L3.5 Chondrite

Macroscopic Description: Cecilia Satterwhite

The exterior has black fusion crust with some exposed gray matrix, inclusions/chondrules are visible. Most of the interior is brown with metal and abundant inclusions/chondrules of various sizes and color; some dark gray matrix is visible.

Thin Section (.2) Description: Cari Corrigan, Tim McCoy

The section exhibits numerous large, well-defined chondrules (up to 2 mm) in a black matrix of fine-grained silicates, metal and troilite. Polysynthetically twinned pyroxene is present. Weak shock effects are present. Weathering in the meteorite is minor. Silicates are unequilibrated; olivines range from Fa_{10-25} , and pyroxenes from Fs_{15-19} . The meteorite is an L3 chondrite (estimated subtype 3.5).

Sample No.	Location	Field No.	Dimensions (cm)	Weight (g)	Classification
MIL 15058	Miller Range	23342	5.0 x 3.9 x 2.8	99.86	Mesosiderite

Macroscopic Description: Kellye Pando

Exterior of this meteorite is mottled red-brown and dark brown-black with iridescent oxidation spots and extensive fracturing. There are a few spots of possible fusion crust that are rough and black. Fresh interior is very crumbly gray-brown matrix with reflective mineral inclusions and extensive red-orange weathering throughout.

Thin Section (,2) Description: Cari Corrigan, Tim McCoy

The section consists of mineral fragments of pyroxene, feldspar and SiO₂ grains in a matrix with abundant metal and sulfide. Metal occurs as stringers that reach 2 mm in maximum dimension and also as blebs. One area of the section is notably rich in sulfide and poor in FeNi metal. Pyroxene compositions are Fs₃₇Wo₃ and Fs₂₇Wo₄₂. Feldspars are An₉₀₋₉₄Or_{0.2}. Fe/Mn is ~29. The meteorite is likely a clast from a mesosiderite. Pairing with MIL 13174 should be considered.

Sample No.	Location	Field No.	Dimensions (cm)	Weight (g)	Classification
MIL 15059	Miller Range	23320	6.2 x 4.5 x 3.0	111.82	L3.5 Chondrite

Macroscopic Description: Cecilia Satterwhite

Brown/black fusion crust with oxidation halos and fractures cover the exterior of this ordinary chondrite. The exterior has some pitted areas and exposed gray matrix. The interior is a gray matrix with heavy oxidation. Some large and small light/dark/aged inclusions/chondrules and minor metal are visible.

Thin Section (,2) Description: Cari Corrigan, Tim McCoy

The section exhibits numerous large, well-defined chondrules (up to 2 mm) in a black matrix of fine-grained silicates, metal and troilite. Weak shock effects are present. Polysynthetically twinned pyroxene is present. The meteorite is moderately weathered and moderately shocked. Silicates are unequilibrated; olivines range from Fa₁₀₋₃₇ and pyroxenes from Fs₂₃₋₂₅. The meteorite is an L3 chondrite (estimated subtype 3.5).

Sample No.	Location	Field No.	Dimensions (cm)	Weight (g)	Classification
MIL 15181	Miller Range	24199	1.6 x 1.2 x 0.6	2.024	Mesosiderite

Macroscopic Description: Cecilia Satterwhite

50% of the exterior surface has black/brown fusion crust with oxidation and rust. The exposed areas are weathered brown with some inclusions/chondrules visible. The interior is a rusty brown with metal and some minor areas of darker matrix are visible.

Thin Section (,2) Description: Cari Corrigan, Tim McCoy

This section contains mineral fragments and polymineralic clasts composed of pyroxene and feldspar grains up to 2 mm. Abundant sulfide and rarer metal are present in the matrix. Pyroxene compositions are mostly Fs₂₃₋₅₇Wo₂₋₄, with two analyses of Fs₃₀Wo₄₀. Feldspars are An₈₈₋₉₁Or_{0.4}. Fe/Mn is ~32. The meteorite is likely a clast from a mesosiderite but does not appear to be paired with MIL 15058.

Sample No.	Location	Field No.	Dimensions (cm)	Weight (g)	Classification
MIL 15300	Miller Range	24018	1.3 x 0.7 x 0.3	0.831	CM2 Chondrite
MIL 15301		24074	1.3 x 1.0 x 1.0	1.319	
MIL 15302		24004	1.3 x 1.2 x 0.6	1.039	
MIL 15305		24046	1.6 x 1.5 x 1.0	3.233	
MIL 15450		25268	1.0 x 1.5 x 1.2	5.057	
MIL 15479		25286	1.5 x 1.2 x 1.0	1.320	
MIL 15489		25250	3.5 x 2.5 x 2.2	30.237	

Macroscopic Description: Kellye Pando, Cecilia Satterwhite

The exteriors of these meteorites have rough, fractured brown-black fusion crust covering up to 85% of the surfaces. Some rust is visible. The exposed areas are black with most exhibiting white specks. Fresh interiors are black matrix with white-gray specks/inclusions and some minor oxidation.

Thin Section (,2) Description: Cari Corrigan, Tim McCoy

The sections consist of a few small chondrules (up to 0.5 mm), mineral grains and CAIs set in a black matrix; rare metal and sulfide grains are present. Olivine compositions are Fa_{1-52} , pyroxene is Fs_{5-25} . Aqueous alteration of the matrix is substantial, but the chondrules are extensively altered, apparently more so than those we group with MIL 15303, although this distinction may reflect the particular sections examined rather than real differences between these groups of meteorites. These meteorites are CM2 chondrites.

Sample No.	Location	Field No.	Dimensions (cm)	Weight (g)	Classification
MIL 15303	Miller Range	24098	1.9 x 1.6 x 0.6	1.964	CM2 Chondrite
MIL 15304		24073	2.0 x 2.0 x 0.6	3.380	
MIL 15408		24019	1.7 x 1.5 x 1/2	2.867	
MIL 15409		24045	1.6 x 1.3 x 0.9	2.380	
MIL 15410		24014	1.5 x 1.0 x 0.8	1.079	
MIL 15419		23630	1.3 x 0.8 x 0.8	0.563	
MIL 15429		24059	3.0 x 2.2 x 1.5	8.115	
MIL 15468		25287	2.3 x 1.6 x 1.3	4.298	

Macroscopic Description: Cecilia Satterwhite

All of the exteriors of these carbonaceous chondrites have black fractured fusion crust ranging from 15% to 80%. Some surfaces have frothy areas. Areas without fusion crust show a black matrix, some rust/oxidation is visible. The interiors are a black matrix with white specks, evaporites and minor oxidation.

Thin Section (,2) Description: Cari Corrigan, Tim McCoy

The sections consist of a few small chondrules (up to 0.5 mm), mineral grains and CAIs set in a black matrix; rare metal and sulfide grains are present. Olivine compositions are $Fa_{0.5-51}$, pyroxene is Fs_{2-12} . Aqueous alteration of the matrix is substantial, but the chondrules are only modestly altered, apparently less so than those we group with MIL 15300, although this distinction may reflect the particular sections examined rather than real differences between these groups of meteorites. The meteorites are CM2 chondrites.

Sample No.	Location	Field No.	Dimensions (cm)	Weight (g)	Classification
MIL 15306	Miller Range	23003	3.5 x 2.8 x 0.9	9.012	CV3 Chondrite

Macroscopic Description: Cecilia Satterwhite

The exterior has black fusion crust with fractures, abundant inclusions/chondrules of various sizes and colors and some oxidation. The interior is a dark gray matrix with abundant large and small inclusions/chondrules of various colors.

Thin Section (,2) Description: Cari Corrigan, Tim McCoy

This section exhibits large chondrules (up to 3 mm) and CAIs in a dark matrix. Fine-grained sulfides occur in the matrix. The texture appears more compact, though the origin of the compaction is unclear. Olivines range from $Fa_{0.4-29}$ and pyroxene is Fs_1 . The meteorite is an unequilibrated CV3 chondrite.

Sample No.	Location	Field No.	Dimensions (cm)	Weight (g)	Classification
MIL 15347	Miller Range	25855	2.2 x 2.1 x 1.0	5.370	CM1 Chondrite

Macroscopic Description: Cecilia Satterwhite

The exterior has black/brown fusion crust, frothy in areas with some evaporites visible. The interior is a dark gray to black matrix with some weathering and tiny light inclusions.

Thin Section (.2) Description: Cari Corrigan, Tim McCoy

The section consists of small (up to 0.5 mm) completely altered chondrules set in an altered matrix. Rare sulfide grains are present. No unaltered mafic silicates remain. A few rare calcite grains were encountered. The meteorite is a CM1 chondrite.

Sample No.	Location	Field No.	Dimensions (cm)	Weight (g)	Classification
MIL 15351	Miller Range	23660	6.9 x 3.9 x 3.3	150.340	L3.2 Chondrite

Macroscopic Description: Kellye Pando

95% of exterior is covered with a dark brown-black fusion crust that has light gray weathering along fracture lines and areas of very dark red rust. Exposed surfaces are light brown with dark red-orange rust spots. Fresh interior is dark brown matrix with round, light gray inclusions (up to 2 mm) and some areas of orange rust.

Thin Section (.4) Description: Cari Corrigan, Tim McCoy

The section consists of abundant chondrules (up to 2 mm in diameter) in a fine grained matrix of silicates, metal, and sulfide. Polysynthetically twinned pyroxene is abundant and some chondrules contain glassy mesostasis. The meteorite is moderately weathered and shocked. Olivine compositions range from Fa_1 to Fa_{42} with an average of Fa_{14} and a standard deviation of 12. Pyroxenes are $Fs_{1-8}Wo_{0.5}$. The meteorite is likely an L3 chondrite of very low petrologic subtype, likely less than or equal to L3.2.

Sample No.	Location	Field No.	Dimensions (cm)	Weight (g)	Classification
MIL 15428	Miller Range	23086	2.2 x 2.0 x 1.0	8.955	Eucrite (Brecciated)

Macroscopic Description: Cecilia Satterwhite

85% of the exterior has shiny black fusion crust, fractured in areas with large white inclusions visible. Some gray matrix is visible on exposed surface. The interior is a gray matrix with abundant light/dark inclusions of various sizes and a rusty vein runs through the interior.

Thin Section (.2) Description: Cari Corrigan, Tim McCoy

This section consists dominantly of coarse-grained pyroxene and plagioclase fragments and polymineralic igneous clasts with sizes up to 2 mm. A single coarse gabbroic clast approaching 1 cm in maximum dimension sits on one edge of the section, which contains laths of feldspar and equant pyroxenes with grain sizes up to 2 mm. Pyroxene compositions span the range from $Fs_{17-63}Wo_{1-44}$. This meteorite is a brecciated eucrite.

Sample No.	Location	Field No.	Dimensions (cm)	Weight (g)	Classification
MIL 15464	Miller Range	25299	2.7 x 2.5 x 1.3	8.396	CO3 Chondrite

Macroscopic Description: Cecilia Satterwhite

Fractured black fusion crust with some oxidation covers the exterior surface. The interior is black with some oxidation.

Thin Section (.2) Description: Cari Corrigan, Tim McCoy

The section consists 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. The section consists of two regions, one of which contains more abundant metal suggesting the meteorite may be a breccia. Olivine ranges in composition from Fa_{1-45} . Two pyroxene analyses range from Fs_{1-30} . Terrestrial weathering effects are modest. The meteorite is a CO3 chondrite.

Sample No.	Location	Field No.	Dimensions (cm)	Weight (g)	Classification
MIL 15467	Miller Range	23619	1.4 x 1.8 x 1.5	7.667	H3.7 Chondrite

Macroscopic Description: Cecilia Satterwhite

50% of the exterior has black/brown fusion crust with rusty areas and oxidation. The interior is a weathered brown matrix with metal.

Thin Section (.2) Description: Cari Corrigan, Tim McCoy

The section exhibits small, well-defined chondrules (up to 1.5 mm) in a black matrix silicates, metal and troilite. Weak shock effects are present. Polysynthetically twinned pyroxene is rare. The meteorite is moderately weathered and moderately shocked. Silicates are unequilibrated; olivines range from Fa_{3-20} (with most Fa_{18}), and pyroxenes are Fs_{16} . The meteorite is an H3 chondrite (estimated subtype 3.7).

Sample No.	Location	Field No.	Dimensions (cm)	Weight (g)	Classification
MIL 15472	Miller Range	23608	1.9 x 1.4 x 0.9	2.32	CV3 Chondrite

Macroscopic Description: Kellye Pando

Exterior is very dark brown-black with round inclusions that are 1-3 mm and are various colors including light orange, light gray and dark gray. Fresh interior looks the same as the exterior with dark matrix and round inclusions of various color.

Thin Section (.2) Description: Cari Corrigan, Tim McCoy

This section exhibits large chondrules (up to 3 mm) and CAIs in a dark matrix. Fine-grained sulfides occur in the matrix. Olivines range from $Fa_{0.3-7}$, pyroxenes Fs_{1-4} . The meteorite is a CV3 chondrite.

Sample No.	Location	Field No.	Dimensions (cm)	Weight (g)	Classification
MIL 15480	Miller Range	23680	3.0 x 2.5 x 0.8	10.816	CV3 Chondrite
MIL 15555		23616	2.1 x 1.5 x 0.5	4.483	

Macroscopic Description: Cecilia Satterwhite

The exteriors have black/brown fusion crust, areas without fusion crust are brown/black with oxidation. The interiors are a dark gray to black matrix with some oxidation and light colored and weathered inclusions.

Thin Section (.2) Description: Cari Corrigan, Tim McCoy

These sections exhibit large chondrules (up to 3 mm) and CAIs in a dark matrix. Fine-grained sulfides occur in the matrix. Olivines range from Fa_{1-10} . The meteorites are similar enough to be paired and are unequilibrated CV3 chondrites.

Sample No.	Location	Field No.	Dimensions (cm)	Weight (g)	Classification
MIL 15550	Miller Range	23663	1.4 x 1.0 x 1.0	2.502	H5 Chondrite

Macroscopic Description: Cecilia Satterwhite

Most of the exterior is a rusty brown with patches of fusion crust. The interior is rusty brown.

Thin Section (.2) Description: Cari Corrigan, Tim McCoy

The section is an H5 chondrite with a network of shock veins containing metal/sulfide blebs cross-cutting the sample. Olivine is Fa_{19} , pyroxene is Fs_{17} .

Sample No.	Location	Field No.	Dimensions (cm)	Weight (g)	Classification
MIL 15552	Miller Range	23658	1.8 x 1.0 x 0.6	2.187	R4 Chondrite

Macroscopic Description: Cecilia Satterwhite
 Exterior has 90% black fractured fusion crust with exposed dark gray to black interior. The interior is a dark gray to black matrix with some oxidation. Light colored and weathered inclusions/chondrules are visible.

Thin Section (.2) Description: Cari Corrigan, Tim McCoy
 This section consists of ~50% distinct chondrules (up to 2 mm) and chondrule fragments set in a slightly recrystallized matrix of silicates, sulfides and chromite. Olivines are homogenous at Fa_{39} , while pyroxenes range from Fs_{9-16} . The meteorite is heavily shocked. The meteorite is an R4 chondrite.

Sample No.	Location	Field No.	Dimensions (cm)	Weight (g)	Classification
MIL 15558	Miller Range	23006	1.8 x 1.5 x 1.0	3.626	CO3 Chondrite

Macroscopic Description: Cecilia Satterwhite
 85% black fusion crust with oxidation covers the exterior. The interior is a dark gray to black matrix with oxidation and weathered inclusions/chondrules.

Thin Section (.2) Description: Cari Corrigan, Tim McCoy
 The section consists 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_{1-50} . Two pyroxene analyses range from Fs_{1-2} . Terrestrial weathering effects are modest. The meteorite is a CO3 chondrite.

Sample No.	Location	Field No.	Dimensions (cm)	Weight (g)	Classification
DOM 18071	Dominion Range	25421	5.0 x 4.9 x 2.5	43.255	CM2 Chondrite

Macroscopic Description: Cecilia Satterwhite
 The exterior is a black to dark gray color and is heavily fractured and pitted. Small inclusions/chondrules are visible on the exposed areas. It has a coarse grained texture and minor oxidation. No fusion crust is present. The interior is a dark gray to black fined grained matrix with some light/weathered inclusions/chondrules, oxidation and a thin band of evaporites is visible.

Thin Section (.2) Description: Cari Corrigan, Tim McCoy
 The section consists of numerous small chondrules (up to 0.5 mm), mineral grains and CAIs set in a black matrix; rare metal and sulfide grains are present. Aqueous alteration of the matrix is substantial, but the chondrules are only minimally altered. Olivine compositions are Fa_{1-58} , pyroxene is Fs_{1-12} . The meteorite is a CM2 chondrite.

Sample No.	Location	Field No.	Dimensions (cm)	Weight (g)	Classification
DOM 18130	Dominion Range	24843	2.5 x 2.3 x 1.9	14.814	Ureilite
DOM 18255		25665	4.8 x 2.3 x 1.8	36.393	

Macroscopic Description: Cecilia Satterwhite
 Both of these samples have patches of pitted brown/black fusion crust, with oxidation haloes and fractures. Areas without fusion crust have a pebbly texture and are brown/black in color with abundant inclusions visible. The rusty brown interiors are crumbly and friable with a coarse grained texture and abundant metal.

Thin Section (.2) Description: Cari Corrigan, Tim McCoy
 The sections consist of an aggregate of large olivine and pyroxene grains up to 3.5 mm across. Individual olivine grains are rimmed by carbon-rich material containing traces of metal. Olivines have cores of Fa_{24} , with rims reduced to Fa_4 . Pigeonite is $Fs_{19}Wo_{12}$. Subcalcic augite is $Fs_{13}Wo_{33}$. The meteorites are ureillites and are likely paired.

Sample No.	Location	Field No.	Dimensions (cm)	Weight (g)	Classification
DOM 18165	Dominion Range	24209	4.9 x 3.4 x 2.0	53.1	Howardite
DOM 18304		25065	3.7 x 3.5 x 1.6	29.165	

Macroscopic Description: Kellye Pando, Cecilia Satterwhite

Patchy black fusion crust that is shiny in some areas, glassy in others and rough in others covers between 10% and 85% of the exteriors of these meteorites. Exposed surfaces are heavily pitted, with a tan-gray matrix with some weathered areas ranging from dark gray to orange rust concentrated near pits. Light/dark and weathered minerals are visible. Fresh interior is light gray matrix with small (<1 mm) black inclusions, larger (up to 2 mm) white and yellow inclusions and a few large (3-4 mm) dark gray-brown clasts and minor oxidation. Some larger white clasts contain smaller dark gray-black inclusions of their own.

Thin Section (.2) Description: Cari Corrigan, Tim McCoy

These two sections consist of a comminuted matrix of mineral fragments up to 1 mm in size, with clasts including coarse ophitic and medium grained granoblastic textures. Clasts reach up to 5 mm in maximum dimension. Pyroxenes are $Fs_{21-63}Wo_{2-44}$ and feldspars are $An_{86-89}Or_1$. The meteorites are similar enough that one description suffices, and are both howardites.

Sample No.	Location	Field No.	Dimensions (cm)	Weight (g)	Classification
DOM 18166	Dominion Range	24234	3.0 x 2.5 x 1.8	24.927	L5 Chondrite

Macroscopic Description: Cecilia Satterwhite

Exterior of this meteorite is gray with some rusty oxidation and fractures. The interior is a fine grained mottled light/dark gray matrix with some light minerals, metal and oxidation.

Thin Section (.2) Description: Cari Corrigan, Tim McCoy

The meteorite is an L5 chondrite that is cross-cut by shock veins and has metal and sulfide melt blebs throughout. Olivines are Fa_{24} , pyroxenes are Fs_{20} .

Sample No.	Location	Field No.	Dimensions (cm)	Weight (g)	Classification
DOM 18173	Dominion Range	25137	4.3 x 2.0 x 1.6	49.378	Iron-Ungrouped

Macroscopic Description: Cari Corrigan, Tim McCoy

This meteorite has an overall convex shape that bears a striking resemblance to the asteroid Eros. The concave surface is brown, lightly weathered and pitted. The convex surface has two prominent protrusions and is also lightly weathered and moderately pitted. Hints of a lip between the convex and concave surfaces are visible on each of the long surfaces of the mass.

Thin Section (.1) Description: Cari Corrigan, Tim McCoy

The section consists of equant kamacite grains up to 1.5 mm in dimension with interstitial ribbons of taenite and occasional schreibersite. Graphite blebs of a few tens of microns in size form swarms whose occurrence is independent of the kamacite grains structure. No fusion crust is observed on the section although α_2 structure is present along some margins of the meteorite and occasionally along kamacite-kamacite grain boundaries suggestive of an origin by shock. The average Ni concentrations determined from two perpendicular longitudinal traverses is 7 wt. % Ni. The meteorite contains less than 0.1 wt. % P. The meteorite is likely an ungrouped iron, not paired with other DOM irons.

Sample No.	Location	Field No.	Dimensions (cm)	Weight (g)	Classification
DOM 18262	Dominion Range	24951	2.0 x 1.5 x 1.2	6.777	Lunar-Basaltic Breccia
DOM 18509		24847	3.4 x 2.7 x 1.5	16.520	
DOM 18543		24538	2.5 x 2.5 x 2.0	13.590	
DOM 18666		25119	4.5 x 3.2 x 2.3	45.870	
DOM 18678		24969	2.6 x 2.3 x 1.4	11.640	

Macroscopic Description: Kellye Pando, Cecilia Satterwhite

These samples exhibit similar fusion crusts that are mostly dark brown-black-green in color, and have shiny, glassy, frothy and/or rough textures. Areas without fusion crust are mostly dark gray matrix with inclusions of varying colors, dark brown to white measuring up to 2 mm in size. Fresh interiors are mostly dark gray-black with tan inclusions and some minor oxidation.

Thin Section (,2) Description: Cari Corrigan, Tim McCoy

These sections are similar enough that one description will suffice. These sections consist of a highly brecciated assemblage of mostly single mineral grains ranging up to 0.5 mm in size. Grains are dominated by pyroxene and plagioclase with rare large olivine fragments. Polymineralic igneous fragments/clasts include coarse grained gabbro and symplectites. Melt veins and pockets were observed in all sections. DOM 18262 contains a fine grained apparently anorthositic fragment (~2 mm in max dimension) and a few melt droplets (approx. 100 microns in diameter) were observed. Olivines are fayalitic (Fa_{90-99}), although two grains of Fa_{56} and Fa_{71} were analyzed. Pyroxene is dominantly pigeonite with fine exsolution, with orthopyroxene of $Fs_{27}Wo_3$ and augite $Fs_{50}Wo_{40}$. Rare high-FeO pigeonite (up to Fs_{80}) is observed associated with the symplectite. Fe/Mn of pyroxenes ranges from ~50-70. Plagioclase is calcic with $An_{90-97}Or_{0.1-0.7}$. These meteorites are lunar basaltic breccias, likely regolith breccias.

Sample No.	Location	Field No.	Dimensions (cm)	Weight (g)	Classification
DOM 18286	Dominion Range	24995	2.9 x 2.5 x 1.5	20.330	CO3 Chondrite

Macroscopic Description: Kellye Pando

60% of exterior is covered with a very dark brown, rough, fractured fusion crust that has a few faint orange rust spots. Remaining exterior is covered with a varnish that is also very dark brown with light gray spots that are <1 mm. Fresh interior is dark gray-brown in the center with small light brown inclusions and has a rim of lighter gray matrix near exterior edges.

Thin Section (,2) Description: Cari Corrigan, Tim McCoy

The section consists 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_{1-52} . Two pyroxene analyses are Fs_1 . The meteorite is a CO3 chondrite.

Sample No.	Location	Field No.	Dimensions (cm)	Weight (g)	Classification
DOM 18291	Dominion Range	25042	2.7 x 3.0 x 1.5	15.880	Eucrite (Brecciated)
DOM 18292		25050	2.2 x 2.4 x 1.2	10.660	

Macroscopic Description: Kellye Pando

The exteriors have dark brown-gray fusion crust that is shiny in some areas and rough in others. Exposed interior is light gray with black and white flecks <0.25 mm. Fresh interior is light gray with small black, white and gray inclusions up to 0.5 mm.

Thin Section (,2) Description: Cari Corrigan, Tim McCoy

These two brecciated sections consist of fine to medium grained ophitic basalts with apparent shock darkening as veins and patches. Modest iron oxide staining exists in both sections. One 6 mm (max dimension) clast in DOM 18291 exhibits a fine grained, granular texture. Pyroxenes are $Fs_{26-60}Wo_{2-44}$ and feldspars are $An_{82-86}Or_1$. These two meteorites are similar enough to consider pairing and are basaltic eucrites.

Sample No.	Location	Field No.	Dimensions (cm)	Weight (g)	Classification
DOM 18629	Dominion Range	25336	3.0 x 2.6 x 1.9	17.640	Eucrite (Unbrecciated)

Macroscopic Description: Kellye Pando

Black fusion crust that is rough in some areas and shiny in others covers 90% of the exterior. There is one shiny, smooth brown spot that is about 3 mm in size. Exposed interior is light gray matrix with inclusions that range in color from white to dark gray to black. Fresh interior is a light gray matrix with dark gray and white inclusions and a few very small spots of orange rust, a couple of light grayish-brown inclusions and some dark gray-black reflective mineral grains.

Thin Section (.2) Description: Cari Corrigan, Tim McCoy

This section consist of a medium grained, ophitic basaltic texture of pyroxene and plagioclase cross cut by shock veins. Many pyroxene grains show mosaicism, particularly in association with shock veins. Pyroxenes are $Fs_{40-60}Wo_{5-30}$ and feldspars are $An_{66-90}Or_{0.3-4}$. The meteorite is a eucrite.

Sample No.	Location	Field No.	Dimensions (cm)	Weight (g)	Classification
DOM 18636	Dominion Range	25379	1.7 x 1.6 x 1.0	3.620	CM2 Chondrite

Macroscopic Description: Cecilia Satterwhite

The exterior has heavily fractured black fusion crust, areas exposed are black with white specks and some oxidation. The interior is a fine grained matrix with light specks and heavy evaporites along the fractures.

Thin Section (.2) Description: Cari Corrigan, Tim McCoy

The section consists of abundant small (up to 1 mm) chondrules, chondrule fragments and mineral grains in a dark, altered matrix. Many chondrules show flattening and perhaps a preferred orientation. Aqueous alteration of the matrix is substantial, but the chondrules are only modestly altered. Olivine compositions are Fa_{1-46} . The meteorite is a CM2 chondrite.

Sample No.	Location	Field No.	Dimensions (cm)	Weight (g)	Classification
DOM 18787	Dominion Range	24929	1.5 x 1.2 x 1.2	3.443	Howardite

Macroscopic Description: Cecilia Satterwhite

85% black fusion crust covers the exterior, the exposed interior is tan colored with white and dark clasts/inclusions. The interior is a gray matrix with abundant light/dark inclusions/clasts, some are large, minor oxidation is visible.

Thin Section (.2) Description: Cari Corrigan, Tim McCoy

The section shows a groundmass of comminuted pyroxene and plagioclase (up to 3 mm) with fine- to coarse-grained basaltic clasts ranging up to 4 mm. Some of the clasts are sulfide rich. Most of the pyroxene is orthopyroxene with compositions ranging from $Fs_{20-52}Wo_{1-12}$ (most are Fs_{20-26}) and olivines are Fa_{12} . The meteorite is a howardite.

Table of magnetic susceptibility data and reclassification of DOM 10 EOCs (bolded entries involve reclassification)

<u>Generic</u>	<u>Original Classification</u>	<u>Original Weight</u>	<u>Magnetic Susceptibility</u>	<u>Newsletter</u>	<u>Updated Classification</u>
DOM 10001	H6	3343.2	5.17	36,2	-
DOM 10002	L5	1621.5	4.61	40,1	-
DOM 10003	L5	1104.2	4.53	40,1	-
DOM 10004	L5	898.5	5.12	36,2	H5
DOM 10005	L6	1083.31	4.64	40,1	-
DOM 10006	LL5	821.717	4.88	36,2	L5
DOM 10007	L6	583.7	4.42	40,1	-
DOM 10008	L5	471.2	4.71	40,1	-
DOM 10009	L5	366.0	5.1	37,2	H5
DOM 10010	L5	640.8	5.13	37,2	H5
DOM 10011	H6	22.9	5.23	36,1	-
DOM 10012	L5	44.15	4.54	36,1	-
DOM 10014	LL5	43.75	4.43	36,1	-
DOM 10015	LL6	45.08	4.76	36,1	L6
DOM 10016	LL5	58.7	4.66	36,1	L5
DOM 10017	LL5	36.6	4.54	36,1	L5
DOM 10018	L6	31.59	4.63	36,1	-
DOM 10019	LL5	17.58	4.63	36,1	L5
DOM 10020	L5	27.746	5.14	36,1	H5
DOM 10021	LL5	13.162	4.69	36,1	L5
DOM 10022	LL5	23.505	4.68	36,1	L5
DOM 10023	L6	10.412	4.65	36,1	-
DOM 10024	H6	11.705	5.17	36,1	-
DOM 10026	L5	23.073	5.03	36,1	H5
DOM 10027	L5	15.037	4.69	36,1	-
DOM 10028	L6	18.077	4.69	36,2	-
DOM 10029	H5	25.659	5.04	36,1	-
DOM 10030	H5	67.75	5.09	40,1	-
DOM 10031	L6	80.41	4.68	37,2	-
DOM 10032	L6	56.31	4.66	40,1	-
DOM 10033	L6	124.11	4.88	40,1	-
DOM 10034	H6	79.84	4.68	37,2	L6
DOM 10035	L6	87.78	4.81	40,1	-
DOM 10036	L6	81.3	4.68	40,1	-
DOM 10037	L6	48.46	4.74	40,1	-
DOM 10038	L6	79.29	4.77	40,1	-
DOM 10039	H5	95.23	5.25	40,1	-
DOM 10040	H5	17.36	5.21	36,1	-
DOM 10041	LL6	24.01	4.74	36,1	L6
DOM 10042	L6	26.66	5.03	36,1	H6
DOM 10043	LL6	33.05	4.53	36,1	L6
DOM 10044	LL5	17.83	4.74	36,1	L5
DOM 10045	L6	12.66	5.26	36,1	H6
DOM 10046	LL6	15.07	4.72	36,1	L6
DOM 10047	LL5	22.36	4.59	36,1	L5
DOM 10048	LL6	24.71	4.61	36,1	L6
DOM 10049	H5	12.04	5.26	36,1	-
DOM 10050	LL5	259.79	5.2	37,2	H5

<u>Generic</u>	<u>Original Classification</u>	<u>Original Weight</u>	<u>Magnetic Susceptibility</u>	<u>Newsletter</u>	<u>Updated Classification</u>
DOM 10051	H5	197.0	5.22	40,1	-
DOM 10052	H5	147.72	5.14	40,1	-
DOM 10053	L6	93.24	4.66	40,1	-
DOM 10054	L6	77.71	4.7	40,1	-
DOM 10055	H5	67.84	5.11	40,1	-
DOM 10056	H5	43.15	4.96	40,1	L5
DOM 10057	L6	67.03	4.68	40,1	-
DOM 10058	L6	67.88	4.84	40,1	-
DOM 10059	L6	33.65	4.55	37,1	-
DOM 10060	L6	42.31	4.59	40,1	-
DOM 10061	L6	40.63	4.5	40,1	-
DOM 10062	L6	21.37	4.71	40,1	-
DOM 10063	L6	20.48	4.74	40,1	-
DOM 10064	L5	32.82	4.61	37,1	-
DOM 10065	L6	26.98	4.73	40,1	-
DOM 10066	L6	28.0	4.73	40,1	-
DOM 10067	L6	19.62	4.56	40,1	-
DOM 10068	L6	23.95	4.57	40,1	-
DOM 10069	H5	19.62	4.93	37,1	L5
DOM 10070	L6	12.63	4.5	40,1	-
DOM 10071	H6	14.17	5.0	37,1	-
DOM 10072	H6	17.86	5.04	40,1	-
DOM 10073	L6	8.88	4.65	40,1	-
DOM 10074	H6	14.37	5.15	40,1	-
DOM 10075	L6	22.04	4.53	40,1	-
DOM 10076	H6	18.5	5.04	40,1	-
DOM 10077	CR2	8.56	4.39	37,1	-
DOM 10078	H5	14.13	5.12	40,1	-
DOM 10079	L6	23.25	4.56	40,1	-
DOM 10080	L5	15.11	4.95	37,1	-
DOM 10081	L6	36.26	4.76	40,1	-
DOM 10082	L6	33.95	4.73	40,1	-
DOM 10083	L6	28.31	4.68	40,1	-
DOM 10084	L5	17.16	4.62	40,1	-
DOM 10085	CR2	18.15	4.18	37,1	-
DOM 10086	H6	23.61	4.99	40,1	-
DOM 10087	L6	45.15	4.62	40,1	-
DOM 10088	EL6	33.97	5.32	37,1	-
DOM 10089	H5	21.95	5.28	40,1	-
DOM 10090	LL6	24.638	4.73	37,1	L6
DOM 10091	LL6	13.896	4.7	37,1	L6
DOM 10093	L5	15.635	4.89	37,1	-
DOM 10095	L6	26.523	4.9	37,1	-
DOM 10096	LL6	24.488	4.71	37,1	L6
DOM 10097	L5	18.137	4.86	37,1	-
DOM 10098	LL6	24.291	4.67	37,1	L6
DOM 10099	LL6	12.36	4.77	37,1	L6
DOM 10100	HOWARDITE	425.95	3.38	34,2	-
DOM 10101	CO3	241.8	4.89	37,1	-
DOM 10102	CV3	61.072	4.58	34,2	-
DOM 10103	EUCRITE (BRECCIATED)	73.64	2.91	34,2	-

<u>Generic</u>	<u>Original Classification</u>	<u>Original Weight</u>	<u>Magnetic Susceptibility</u>	<u>Newsletter</u>	<u>Updated Classification</u>
DOM 10104	CO3	200.952	4.78	34,2	-
DOM 10105	HOWARDITE	40.88	3.17	34,2	-
DOM 10106	L5	36.754	5.09	37,1	H5
DOM 10107	L5	39.054	5.14	37,1	H5
DOM 10108	LL6	32.32	4.72	37,1	L6
DOM 10109	LL6	52.748	4.67	37,1	L6
DOM 10110	LL6	44.53	4.65	37,1	L6
DOM 10111	LL6	15.81	4.68	37,1	L6
DOM 10112	LL6	41.45	4.71	37,1	L6
DOM 10113	H6	18.02	5.28	37,1	-
DOM 10114	L (IMPACT MELT)	10.95	4.6	37,1	-
DOM 10115	LL6	22.35	4.63	37,1	L6
DOM 10116	LL6	59.54	4.65	37,1	L6
DOM 10117	LL6	39.88	4.62	37,1	L6
DOM 10118	LL6	33.88	4.72	37,1	L6
DOM 10119	L5	20.96	5.12	37,1	H5
DOM 10120	HOWARDITE	65.72	3.06	34,2	-
DOM 10121	CO3	16.151	4.0	34,2	-
DOM 10123	LL5	31.363	4.69	36,2	L5
DOM 10124	L6	22.453	5.23	36,2	H6
DOM 10125	LL5	26.144	4.69	36,2	L5
DOM 10126	LL5	22.291	4.63	36,2	L5
DOM 10127	LL5	19.256	4.7	36,2	L5
DOM 10128	LL5	26.041	4.77	36,2	L5
DOM 10129	LL5	30.193	4.64	36,2	L5
DOM 10130	L5	50.364	4.62	37,1	-
DOM 10131	L5	72.338	4.93	37,1	-
DOM 10132	H4	65.019	5.08	37,1	-
DOM 10133	LL6	45.885	4.8	37,1	L6
DOM 10134	LL6	90.015	4.84	37,1	L6
DOM 10135	LL6	77.042	4.8	37,1	L6
DOM 10136	LL6	110.873	4.76	37,1	L6
DOM 10137	LL6	125.975	4.78	37,1	L6
DOM 10138	LL6	95.307	4.69	37,1	L6
DOM 10139	LL6	58.844	4.48	37,1	L6
DOM 10140	L5	223.77	4.6	40,1	-
DOM 10141	LL5	177.48	4.75	37,1	L5
DOM 10142	LL6	253.77	4.76	37,1	L6
DOM 10143	L6	124.56	4.67	40,1	-
DOM 10144	L6	80.66	4.67	40,1	-
DOM 10145	L6	71.35	4.56	40,1	-
DOM 10146	L6	42.44	4.61	40,1	-
DOM 10147	H5	42.327	5.06	37,1	-
DOM 10148	L6	54.51	4.7	40,1	-
DOM 10149	H5	61.01	5.12	40,1	-
DOM 10150	L6	23.0	4.72	40,1	-
DOM 10151	L6	31.93	4.77	40,1	-
DOM 10152	L6	34.26	4.65	40,1	-
DOM 10153	L6	35.55	4.51	40,1	-
DOM 10154	L6	27.33	4.71	40,1	-
DOM 10155	L6	52.95	4.65	40,1	-

<u>Generic</u>	<u>Original Classification</u>	<u>Original Weight</u>	<u>Magnetic Susceptibility</u>	<u>Newsletter</u>	<u>Updated Classification</u>
DOM 10156	L6	36.2	4.71	40,1	-
DOM 10157	L5	23.93	4.84	40,1	-
DOM 10158	H6	11.97	4.9	37,1	L6
DOM 10159	H6	14.45	4.98	37,1	-
DOM 10160	H6	5.94	5.07	40,1	-
DOM 10161	H5	10.09	5.28	37,1	-
DOM 10162	L6	14.7	4.62	40,1	-
DOM 10163	L6	10.38	4.63	40,1	-
DOM 10164	H6	11.31	5.05	40,1	-
DOM 10166	L6	11.3	4.68	40,1	-
DOM 10167	H6	2.49	4.94	40,1	L6
DOM 10168	L6	14.0	4.59	40,1	-
DOM 10169	L6	15.0	4.59	40,1	-
DOM 10170	LL5	49.52	4.56	36,2	L5
DOM 10171	LL5	66.79	4.7	36,2	L5
DOM 10172	LL6	33.18	4.66	36,2	L6
DOM 10173	LL5	32.69	4.72	36,2	L5
DOM 10174	L6	35.9	4.53	36,2	-
DOM 10175	LL5	24.61	4.57	36,2	L5
DOM 10176	L5	18.79	4.68	36,2	-
DOM 10177	H6	17.02	4.97	36,2	-
DOM 10178	L6	18.98	4.67	36,2	-
DOM 10179	LL6	25.6	4.52	36,2	L6
DOM 10180	L5	19.58	4.62	37,1	-
DOM 10181	L6	8.73	4.65	40,1	-
DOM 10182	L5	10.03	4.72	40,1	-
DOM 10183	L6	18.67	4.67	37,1	-
DOM 10184	L6	30.03	4.55	40,1	-
DOM 10185	L6	21.06	4.6	40,1	-
DOM 10186	H6	34.12	4.6	37,1	L6
DOM 10187	L6	14.15	4.81	37,1	-
DOM 10188	H5	21.61	4.97	37,1	-
DOM 10189	L6	18.31	4.56	37,1	-
DOM 10190	LL6	90.39	4.57	37,1	L6
DOM 10191	LL6	46.23	4.62	37,1	L6
DOM 10192	LL6	65.68	4.58	37,1	L6
DOM 10193	LL5	65.43	4.52	37,1	L5
DOM 10194	LL6	72.98	4.64	37,1	L6
DOM 10195	L5	98.8	3.16	37,1	LL5
DOM 10196	LL6	77.43	4.72	37,1	L6
DOM 10197	LL6	61.79	4.56	37,1	L6
DOM 10198	LL6	35.92	4.56	37,1	L6
DOM 10199	LL6	29.1	4.45	37,1	-
DOM 10200	L6	445.9	4.55	40,1	-
DOM 10201	LL6	231.0	4.64	37,1	L6
DOM 10202	LL6	245.5	5.12	37,1	H6
DOM 10203	L5	210.7	5.28	37,1	H5
DOM 10204	H6	136.062	4.89	37,1	L6
DOM 10205	LL6	106.215	4.62	37,1	L6
DOM 10206	H6	106.676	5.08	37,1	-
DOM 10207	LL6	133.045	4.61	37,1	L6

<u>Generic</u>	<u>Original Classification</u>	<u>Original Weight</u>	<u>Magnetic Susceptibility</u>	<u>Newsletter</u>	<u>Updated Classification</u>
DOM 10208	L6	133.021	5.14	37,1	H6
DOM 10209	L5	96.019	5.18	37,1	H5
DOM 10210	L5	36.0	4.68	40,1	-
DOM 10211	L6	24.22	4.62	36,2	-
DOM 10212	L5	25.39	4.72	40,1	-
DOM 10213	H6	22.9	4.9	36,2	L6
DOM 10214	L5	21.42	4.6	40,1	-
DOM 10215	L5	18.9	4.53	36,2	-
DOM 10216	L5	33.67	4.74	40,1	-
DOM 10217	H5	18.61	4.97	40,1	-
DOM 10218	L5	33.2	4.6	40,1	-
DOM 10219	L5	11.2	4.61	40,1	-
DOM 10220	L6	78.87	4.69	40,1	-
DOM 10221	L6	52.2	4.66	40,1	-
DOM 10222	L6	46.76	4.59	40,1	-
DOM 10223	L6	49.76	4.65	40,1	-
DOM 10224	L6	49.55	4.76	40,1	-
DOM 10225	L6	60.04	4.61	40,1	-
DOM 10226	L6	32.7	4.67	40,1	-
DOM 10227	L6	44.43	4.55	40,1	-
DOM 10228	H6	59.28	4.94	40,1	L6
DOM 10229	L6	56.34	4.76	40,1	-
DOM 10230	L6	17.83	4.55	40,1	-
DOM 10231	L6	7.71	4.9	37,1	-
DOM 10232	L6	10.5	4.77	37,1	-
DOM 10233	L6	11.34	4.54	40,1	-
DOM 10234	H6	13.72	4.98	40,1	-
DOM 10235	H6	9.07	4.98	40,1	-
DOM 10236	L6	19.23	4.62	40,1	-
DOM 10237	H6	10.18	5.0	40,1	-
DOM 10238	L6	9.23	4.64	40,1	-
DOM 10239	L6	18.83	4.58	40,1	-
DOM 10240	L6	110.53	4.68	40,1	-
DOM 10241	L6	102.54	4.66	40,1	-
DOM 10242	L6	72.7	4.67	40,1	-
DOM 10243	L6	52.38	4.65	40,1	-
DOM 10244	L6	103.15	4.7	40,1	-
DOM 10245	L6	45.95	4.69	40,1	-
DOM 10246	H6	79.4	5.17	40,1	-
DOM 10247	H6	43.8	5.04	40,1	-
DOM 10248	L6	49.39	4.72	37,1	-
DOM 10249	L6	64.14	4.73	40,1	-
DOM 10255	LL5	13.966	4.48	36,2	L5
DOM 10256	LL5	13.917	4.67	36,2	L5
DOM 10257	CV3	11.72	3.69	37,1	-
DOM 10260	H5	34.82	5.01	40,1	-
DOM 10261	L6	36.29	4.76	40,1	-
DOM 10262	L6	31.86	4.91	37,1	-
DOM 10263	L6	30.78	4.57	40,1	-
DOM 10264	L6	21.31	4.8	40,1	-
DOM 10265	L6	16.88	4.69	40,1	-

<u>Generic</u>	<u>Original Classification</u>	<u>Original Weight</u>	<u>Magnetic Susceptibility</u>	<u>Newsletter</u>	<u>Updated Classification</u>
DOM 10266	L6	28.35	4.75	40,1	-
DOM 10267	L6	33.53	4.64	40,1	-
DOM 10268	L6	36.51	4.55	40,1	-
DOM 10269	L6	36.62	4.77	40,1	-
DOM 10270	H6	2.06	4.95	40,1	L6
DOM 10271	L6	2.53	4.55	36,2	-
DOM 10272	L5	5.64	4.58	40,1	-
DOM 10273	L6	2.69	4.53	36,2	-
DOM 10274	L5	7.94	4.67	40,1	-
DOM 10275	LL5	9.16	3.9	36,2	-
DOM 10276	L5	9.36	4.66	40,1	-
DOM 10277	L5	12.42	4.68	40,1	-
DOM 10278	H6	9.47	5.16	36,2	-
DOM 10279	L5	4.67	4.7	40,1	-
DOM 10280	LL5	23.897	4.57	36,2	L5
DOM 10281	LL5	33.575	4.67	36,2	L5
DOM 10282	LL6	33.671	4.49	36,2	L6
DOM 10283	LL5	18.477	3.91	37,1	-
DOM 10284	LL5	23.249	4.61	36,2	L5
DOM 10285	L5	26.014	4.65	36,2	-
DOM 10286	L5	26.316	4.73	36,2	-
DOM 10287	L5	16.093	5.15	36,2	H5
DOM 10288	LL5	47.522	4.67	36,2	L5
DOM 10289	LL5	33.583	4.66	36,2	L5
DOM 10290	L6	48.31	4.69	40,1	-
DOM 10291	L6	39.56	4.71	40,1	-
DOM 10292	L6	44.86	4.79	40,1	-
DOM 10293	H6	41.23	5.01	40,1	-
DOM 10294	L6	45.44	4.82	40,1	-
DOM 10295	H5	42.19	5.03	40,1	-
DOM 10296	L6	48.63	4.72	40,1	-
DOM 10297	L6	28.88	4.64	40,1	-
DOM 10298	H6	46.17	5.14	40,1	-
DOM 10299	CO3	14.808	3.95	34,2	-
DOM 10300	L6	409.6	4.47	40,1	-
DOM 10301	LL6	274.2	4.77	37,1	L6
DOM 10302	L (IMPACT MELT)	227.1	4.69	37,1	-
DOM 10303	LL6	324.4	4.4	37,1	-
DOM 10304	LL6	131.157	4.74	37,1	L6
DOM 10305	H6	87.651	5.06	37,1	-
DOM 10306	LL6	98.381	4.69	37,1	L6
DOM 10307	L5	169.982	5.3	37,1	H5
DOM 10308	LL6	98.67	4.72	37,1	L6
DOM 10309	LL6	71.429	4.66	37,1	L6
DOM 10310	LL5	78.47	4.69	36,1	L5
DOM 10311	LL5	58.62	4.66	36,1	L5
DOM 10312	LL6	40.39	4.79	36,1	L6
DOM 10313	LL5	44.4	4.65	36,1	L5
DOM 10314	LL5	52.64	4.73	36,1	L5
DOM 10315	LL5	54.93	4.64	36,1	L5
DOM 10316	LL6	60.53	4.64	36,1	L6

<u>Generic</u>	<u>Original Classification</u>	<u>Original Weight</u>	<u>Magnetic Susceptibility</u>	<u>Newsletter</u>	<u>Updated Classification</u>
DOM 10317	H6	35.98	5.15	36,1	-
DOM 10318	LL6	57.0	4.63	36,1	L6
DOM 10319	LL6	36.6	4.8	36,1	L6
DOM 10320	LL5	26.51	4.52	36,1	L5
DOM 10321	H6	25.16	4.63	36,1	L6
DOM 10322	LL4-5	11.288	4.21	36,1	-
DOM 10324	H6	16.694	5.04	36,1	-
DOM 10325	LL6	39.066	4.83	36,1	L6
DOM 10326	LL6	24.01	4.61	36,1	L6
DOM 10327	L5	21.25	4.66	36,1	-
DOM 10328	LL6	23.03	4.59	36,1	L6
DOM 10329	LL6	12.238	4.45	36,1	-
DOM 10330	LL6	16.346	4.73	37,1	L6
DOM 10331	L6	17.921	4.84	37,1	-
DOM 10332	LL6	19.675	4.73	37,1	L6
DOM 10333	L6	10.3	5.15	37,1	H6
DOM 10334	LL5	36.078	4.69	37,1	L5
DOM 10335	L6	19.397	5.2	37,1	H6
DOM 10336	LL6	37.008	4.68	37,1	L6
DOM 10337	L6	41.365	4.85	37,1	-
DOM 10338	L5	52.208	5.11	37,1	H5
DOM 10339	LL6	40.282	4.69	37,1	L6
DOM 10340	L6	92.128	4.79	37,1	-
DOM 10341	L5	57.719	5.11	37,1	H5
DOM 10342	LL5	110.269	4.67	37,1	L5
DOM 10343	L5	61.31	5.14	37,1	H5
DOM 10344	LL3.4	68.363	4.3	37,2	-
DOM 10345	LL6	71.215	4.91	37,1	L6
DOM 10346	LL6	59.118	4.71	37,1	L6
DOM 10347	H6	74.474	5.17	37,1	-
DOM 10348	L5	87.317	5.13	37,1	H5
DOM 10349	LL6	106.501	4.84	37,1	L6
DOM 10350	DIOGENITE	27.29	2.88	34,2	-
DOM 10351	CV3	38.374	4.02	34,2	-
DOM 10352	H5	24.776	5.14	36,1	-
DOM 10353	H6	12.174	5.26	36,1	-
DOM 10354	LL6	17.288	4.76	36,1	L6
DOM 10355	LL6	30.539	4.53	36,1	L6
DOM 10356	LL6	21.689	4.66	36,1	L6
DOM 10357	LL6	32.407	4.59	36,1	L6
DOM 10358	LL6	30.725	4.62	36,1	L6
DOM 10359	LL6	22.656	4.72	36,1	L6
DOM 10362	H5	10.691	5.08	36,1	-
DOM 10364	L5	25.402	5.21	36,1	H5
DOM 10369	H6	10.759	4.95	36,1	L6
DOM 10370	H6	18.33	5.26	40,1	-
DOM 10371	H6	24.64	5.2	40,1	-
DOM 10372	L6	19.45	4.61	40,1	-
DOM 10373	L6	30.39	4.54	40,1	-
DOM 10374	L6	57.07	4.6	40,1	-
DOM 10375	L5	73.07	4.75	40,1	-

<u>Generic</u>	<u>Original Classification</u>	<u>Original Weight</u>	<u>Magnetic Susceptibility</u>	<u>Newsletter</u>	<u>Updated Classification</u>
DOM 10376	L5	50.6	4.87	40,1	-
DOM 10377	L6	41.88	4.82	40,1	-
DOM 10378	L6	33.21	4.71	37,1	-
DOM 10379	L6	91.47	4.64	40,1	-
DOM 10380	LL6	19.43	4.64	37,1	L6
DOM 10381	LL6	31.94	4.53	37,1	L6
DOM 10382	LL6	23.01	4.67	37,1	L6
DOM 10383	L6	29.21	5.12	37,1	H6
DOM 10384	H6	14.03	4.42	37,1	L6
DOM 10385	LL6	22.37	4.71	37,1	L6
DOM 10386	LL6	16.86	4.72	37,1	L6
DOM 10387	L5	13.93	4.93	37,1	-
DOM 10388	LL6	16.39	4.69	37,1	L6
DOM 10389	L6	10.72	4.64	37,1	-
DOM 10390	LL6	99.79	4.67	37,1	L6
DOM 10391	LL6	139.731	4.78	37,1	L6
DOM 10392	L5	179.454	5.08	37,1	H5
DOM 10393	L6	75.996	4.68	37,1	-
DOM 10394	LL6	73.569	4.79	37,1	L6
DOM 10395	LL6	52.995	4.7	37,1	L6
DOM 10396	LL6	73.238	4.64	37,1	L6
DOM 10397	L6	59.04	4.65	37,1	-
DOM 10398	LL6	42.793	4.71	37,1	L6
DOM 10399	LL6	44.846	4.67	37,1	L6
DOM 10400	LL5	35.46	4.62	36,2	L5
DOM 10401	LL5	40.8	4.98	36,2	L5
DOM 10402	LL5	36.97	4.66	36,2	L5
DOM 10403	LL5	37.95	4.78	36,2	L5
DOM 10404	H5	38.8	4.92	36,2	L5
DOM 10405	H5-6	23.75	5.02	36,2	-
DOM 10406	LL5	10.59	4.73	36,2	L5
DOM 10407	H6	11.97	5.03	36,2	-
DOM 10408	LL5	14.25	4.67	36,2	L5
DOM 10409	H6	13.29	4.88	36,2	L6
DOM 10413	LL6	11.57	4.7	36,2	L6
DOM 10415	H5	12.54	4.85	36,2	L5
DOM 10418	H6	10.63	4.98	36,2	-
DOM 10419	LL6	15.13	4.7	36,2	L6
DOM 10420	L6	13.753	4.96	37,1	-
DOM 10421	L6	18.807	3.94	37,1	LL6
DOM 10422	LL6	26.109	4.62	37,1	L6
DOM 10423	L5	28.275	5.19	37,1	H5
DOM 10424	LL6	22.595	4.59	37,1	L6
DOM 10425	LL6	41.526	4.71	37,1	L6
DOM 10426	LL6	57.008	4.75	37,1	L6
DOM 10427	L5	39.948	5.08	37,1	H5
DOM 10428	LL6	52.562	4.65	37,1	L6
DOM 10429	LL6	16.732	4.54	37,1	L6
DOM 10430	LL6	5.62	4.42	36,2	-
DOM 10431	L6	10.85	4.02	36,2	LL6
DOM 10432	L6	8.75	4.38	40,1	LL6

<u>Generic</u>	<u>Original Classification</u>	<u>Original Weight</u>	<u>Magnetic Susceptibility</u>	<u>Newsletter</u>	<u>Updated Classification</u>
DOM 10434	H6	8.01	4.89	36,2	L6
DOM 10435	H4	9.32	4.56	36,2	L4
DOM 10436	L5	14.0	4.45	40,1	-
DOM 10437	L5	15.9	4.46	40,1	-
DOM 10438	L5	23.38	4.48	40,1	-
DOM 10440	L (IMPACT MELT)	22.61	4.48	36,2	-
DOM 10441	H5	17.8	5.15	36,2	-
DOM 10442	LL5	38.09	4.35	36,2	-
DOM 10443	L5	46.1	4.57	40,1	-
DOM 10444	L6	42.29	4.59	40,1	-
DOM 10445	L5	41.98	4.61	36,2	-
DOM 10446	L5	35.38	4.53	40,1	-
DOM 10447	L5	78.54	4.59	40,1	-
DOM 10448	L6	55.71	4.45	40,1	-
DOM 10449	L5	89.64	4.74	40,1	-
DOM 10450	LL6	179.426	4.69	37,1	L6
DOM 10451	LL6	173.577	4.82	37,1	L6
DOM 10452	L5	99.541	5.1	37,1	H5
DOM 10453	LL6	75.102	4.72	37,1	L6
DOM 10454	L6	196.371	5.24	37,1	H6
DOM 10455	L5	45.94	4.39	36,2	LL5
DOM 10456	L5	59.8	4.52	36,2	-
DOM 10457	L5	62.33	4.56	40,1	-
DOM 10458	L5	84.58	4.86	36,2	-
DOM 10459	H5	42.39	4.51	36,2	L5
DOM 10460	L6	44.38	4.73	40,1	-
DOM 10461	L6	80.48	4.55	40,1	-
DOM 10462	L6	49.46	4.47	40,1	-
DOM 10463	L6	60.77	4.72	40,1	-
DOM 10464	L6	41.19	4.88	40,1	-
DOM 10465	L6	40.21	4.74	40,1	-
DOM 10466	L6	15.5	4.81	40,1	-
DOM 10467	CR2	28.26	4.16	37,1	-
DOM 10468	L6	24.08	4.61	40,1	-
DOM 10469	L5	23.44	4.68	37,1	-
DOM 10470	LL6	22.737	4.63	37,1	L6
DOM 10471	LL6	22.699	4.63	37,1	L6
DOM 10472	L5	37.814	5.1	37,1	H5
DOM 10473	LL6	42.456	4.52	37,1	L6
DOM 10474	LL6	39.031	4.62	37,1	L6
DOM 10475	LL6	29.503	4.62	37,1	L6
DOM 10476	LL5	32.328	5.01	37,1	-
DOM 10477	L6	27.025	4.7	37,1	-
DOM 10478	LL6	37.935	4.49	37,1	L6
DOM 10479	LL6	20.697	4.72	37,1	L6
DOM 10480	L6	12.94	4.54	36,1	-
DOM 10481	L6	10.23	4.47	36,1	-
DOM 10482	L6	12.83	4.59	36,1	-
DOM 10485	LL6	27.46	4.5	36,1	L6
DOM 10486	L5	24.28	5.1	36,1	H5
DOM 10487	L6	22.93	4.68	36,1	-

<u>Generic</u>	<u>Original Classification</u>	<u>Original Weight</u>	<u>Magnetic Susceptibility</u>	<u>Newsletter</u>	<u>Updated Classification</u>
DOM 10488	L6	24.14	4.74	36,1	-
DOM 10489	LL6	12.71	4.73	36,1	L6
DOM 10490	LL3.2	115.9	4.23	37,2	-
DOM 10491	LL6	96.74	4.64	37,1	L6
DOM 10492	L6	126.34	5.14	37,1	H6
DOM 10493	L5	265.88	4.98	37,1	-
DOM 10494	LL6	164.44	4.81	37,1	L6
DOM 10495	L6	51.57	4.68	36,1	-
DOM 10496	LL6	55.74	4.72	36,1	L6
DOM 10497	LL6	34.27	4.75	36,1	L6
DOM 10498	LL6	26.98	4.74	36,1	L6
DOM 10499	LL6	34.29	4.63	36,1	L6
DOM 10500	LL6	78.36	4.62	36,1	L6
DOM 10501	LL6	52.13	4.65	36,1	L6
DOM 10502	LL6	53.02	4.66	36,1	L6
DOM 10503	LL6	73.74	4.66	36,1	L6
DOM 10504	LL6	53.81	4.53	36,1	L6
DOM 10505	LL6	56.84	4.6	36,1	L6
DOM 10506	H5	52.1	4.69	36,1	L5
DOM 10507	LL5	35.79	4.54	36,1	L5
DOM 10508	LL6	46.48	4.63	36,1	L6
DOM 10509	L5	38.41	5.07	36,1	H5
DOM 10510	L6	30.0	4.73	36,1	-
DOM 10511	L5	14.49	5.13	36,1	H5
DOM 10512	LL6	32.88	4.58	36,1	L6
DOM 10513	LL6	30.19	4.64	36,1	L6
DOM 10514	LL6	22.52	4.77	36,1	L6
DOM 10515	LL6	23.91	4.49	36,1	L6
DOM 10516	L6	13.26	5.01	36,1	H6
DOM 10517	LL6	19.6	4.69	36,1	L6
DOM 10520	LL6	51.77	4.71	37,1	L6
DOM 10521	LL5	69.8	4.58	37,1	L5
DOM 10522	LL6	44.31	4.61	37,1	L6
DOM 10523	LL6	42.39	4.65	37,1	L6
DOM 10524	L5	34.42	4.95	37,1	-
DOM 10525	LL6	46.75	4.58	37,1	L6
DOM 10526	L5	21.33	5.01	37,1	H5
DOM 10527	L6	39.72	4.61	37,1	-
DOM 10528	LL6	24.82	4.71	37,1	L6
DOM 10529	LL6	18.88	4.79	37,1	L6
DOM 10530	H6	17.85	3.97	36,1	LL6
DOM 10531	H6	15.22	4.44	36,1	-
DOM 10533	LL5	15.41	4.73	36,1	L5
DOM 10534	L6	12.98	4.72	36,1	-
DOM 10536	LL5	17.08	4.66	36,1	L5
DOM 10537	LL6	13.22	4.57	36,1	L6
DOM 10538	LL6	13.9	4.66	36,1	L6
DOM 10539	LL6	29.02	4.54	36,1	L6
DOM 10540	H6	22.306	5.24	36,1	-
DOM 10541	LL5	30.375	4.61	36,1	L5
DOM 10542	L5	38.829	4.58	36,1	-

<u>Generic</u>	<u>Original Classification</u>	<u>Original Weight</u>	<u>Magnetic Susceptibility</u>	<u>Newsletter</u>	<u>Updated Classification</u>
DOM 10543	LL5	33.371	4.81	36,1	L5
DOM 10544	H6	41.587	5.14	36,1	-
DOM 10545	L6	38.234	4.82	40,1	-
DOM 10546	LL5	41.079	4.72	36,1	L5
DOM 10547	LL6	25.168	4.69	36,1	L6
DOM 10548	L6	24.91	4.71	36,1	-
DOM 10549	L5	37.733	4.72	36,1	-
DOM 10550	L5	89.7	5.19	37,1	H5
DOM 10551	LL6	70.402	4.65	37,1	L6
DOM 10552	LL6	47.07	4.7	37,1	L6
DOM 10553	LL6	57.889	4.68	37,1	L6
DOM 10554	LL6	83.648	4.63	37,1	L6
DOM 10555	LL6	62.456	4.75	37,1	L6
DOM 10556	L3.6	119.876	4.44	37,2	-
DOM 10557	LL6	102.026	4.83	37,1	L6
DOM 10558	LL6	86.897	4.62	37,1	L6
DOM 10559	LL6	104.801	4.62	37,1	L6
DOM 10560	LL5	36.78	4.67	37,2	L5
DOM 10561	LL6	71.25	4.62	37,2	L6
DOM 10562	H6	56.55	5.37	37,2	-
DOM 10563	LL6	66.53	4.54	37,2	L6
DOM 10564	LL6	80.51	4.62	37,2	L6
DOM 10565	L6	43.62	4.56	37,2	-
DOM 10566	L5	38.47	4.78	36,1	-
DOM 10567	H6	49.93	5.08	37,2	-
DOM 10568	LL6	50.11	4.63	37,2	L6
DOM 10569	LL6	44.78	4.74	37,2	L6
DOM 10570	L5	15.43	5.21	37,1	H5
DOM 10571	LL6	22.39	4.62	37,1	L6
DOM 10572	L6	18.11	4.73	37,1	-
DOM 10573	L6	17.03	4.74	37,1	-
DOM 10574	LL6	35.83	4.62	37,1	L6
DOM 10575	L5	17.2	5.2	37,1	H5
DOM 10576	LL6	24.87	4.74	37,1	L6
DOM 10577	LL6	41.3	4.69	37,1	L6
DOM 10578	LL6	31.0	4.61	37,1	L6
DOM 10579	L5	33.96	5.19	37,1	H5
DOM 10580	LL6	53.759	4.75	37,1	L6
DOM 10581	LL5	69.479	4.58	37,1	L5
DOM 10582	L6	45.21	5.22	37,1	H6
DOM 10583	LL6	57.038	4.64	37,1	L6
DOM 10584	LL6	83.131	4.69	37,1	L6
DOM 10585	LL6	82.254	4.63	37,1	L6
DOM 10586	LL6	75.035	4.6	37,1	L6
DOM 10587	LL6	55.068	4.63	37,1	L6
DOM 10588	LL6	53.703	4.56	37,1	L6
DOM 10589	L6	38.006	4.58	37,1	-
DOM 10590	L6	20.49	4.63	36,1	-
DOM 10591	H6	39.23	5.11	36,1	-
DOM 10592	LL6	39.15	4.6	36,1	L6
DOM 10593	L6	47.47	4.67	36,1	-

<u>Generic</u>	<u>Original Classification</u>	<u>Original Weight</u>	<u>Magnetic Susceptibility</u>	<u>Newsletter</u>	<u>Updated Classification</u>
DOM 10594	L6	39.29	4.63	36,1	-
DOM 10595	L5	35.02	4.7	36,1	-
DOM 10596	L6	34.34	4.73	36,1	-
DOM 10597	L3.8	47.51	4.04	OUTSIDE	-
DOM 10598	L6	28.08	4.65	36,1	-
DOM 10599	L6	27.18	4.59	36,1	-
DOM 10600	H6	31.41	5.07	36,1	-
DOM 10601	H6	26.15	5	36,1	-
DOM 10602	LL6	16.35	4.78	36,1	L6
DOM 10603	LL6	13.0	4.6	36,1	L6
DOM 10604	LL6	30.07	4.64	36,1	L6
DOM 10605	H6	23.75	4.69	36,1	L6
DOM 10606	LL6	24.95	4.59	36,1	L6
DOM 10607	LL5	27.11	4.65	36,1	L5
DOM 10608	LL6	31.37	4.6	36,1	L6
DOM 10609	H5	31.83	4.79	36,1	L5
DOM 10610	H6	43.048	5.17	37,1	-
DOM 10611	L5	50.233	4.58	37,1	-
DOM 10612	LL6	43.586	4.53	37,1	L6
DOM 10613	LL6	48.509	4.64	37,1	L6
DOM 10614	L5	64.168	5	37,1	H5
DOM 10615	L6	66.146	5.06	37,1	H6
DOM 10616	LL6	35.875	4.55	37,1	L6
DOM 10617	LL6	86.185	4.55	37,1	L6
DOM 10618	LL6	48.395	4.61	37,1	L6
DOM 10619	LL6	40.135	4.6	37,1	L6
DOM 10620	LL6	36.231	4.64	37,1	L6
DOM 10621	LL3.6	45.865	3.96	37,2	-
DOM 10622	LL5	29.266	4.59	37,1	L5
DOM 10623	L5	30.01	5.08	37,1	H5
DOM 10624	LL5	40.554	4.65	37,1	L5
DOM 10625	LL6	28.786	4.73	37,1	L6
DOM 10626	LL5	20.79	4.69	37,1	L5
DOM 10627	LL6	31.841	4.58	37,1	L6
DOM 10628	LL6	41.044	4.8	37,1	L6
DOM 10629	LL6	38.009	4.66	37,1	L6
DOM 10630	LL6	17.26	4.52	36,1	L6
DOM 10631	H5	12.74	5.01	36,1	-
DOM 10632	LL5	14.59	4.68	36,1	L5
DOM 10633	LL6	28.76	4.52	36,1	L6
DOM 10634	H6	20.003	5.04	36,1	-
DOM 10635	LL6	15.17	4.7	36,1	L6
DOM 10636	LL6	17.79	3.7	36,1	-
DOM 10637	LL6	26.99	4.67	36,1	L6
DOM 10638	LL6	15.26	4.79	36,1	L6
DOM 10639	L5	14.59	4.82	36,1	-
DOM 10640	LL6	35.527	4.57	37,1	L6
DOM 10641	LL6	36.609	4.52	37,1	L6
DOM 10642	LL6	27.113	4.58	37,1	L6
DOM 10643	LL6	36.333	4.58	37,1	L6
DOM 10644	LL5	20.734	4.52	37,1	L5

<u>Generic</u>	<u>Original Classification</u>	<u>Original Weight</u>	<u>Magnetic Susceptibility</u>	<u>Newsletter</u>	<u>Updated Classification</u>
DOM 10645	L6	26.203	4.69	37,1	-
DOM 10646	LL6	40.911	4.63	37,1	L6
DOM 10647	LL6	34.952	4.5	37,1	L6
DOM 10648	LL6	32.949	4.88	37,1	L6
DOM 10649	LL6	39.694	4.48	37,1	-
DOM 10650	LL6	15.327	4.75	37,1	L6
DOM 10651	L5	14.015	5.07	37,1	H5
DOM 10652	LL6	28.321	4.65	37,1	L6
DOM 10653	LL6	29.91	4.63	37,1	L6
DOM 10654	LL6	35.07	4.97	37,1	L6
DOM 10655	LL6	52.344	4.55	37,1	L6
DOM 10656	LL6	52.183	4.67	37,1	L6
DOM 10657	LL6	68.986	4.6	37,1	L6
DOM 10658	LL5	24.911	4.57	37,1	L5
DOM 10659	LL6	34.12	4.97	37,1	L6
DOM 10664	LL6	14.9	4.68	37,1	L6
DOM 10667	LL6	10.02	4.72	37,1	L6
DOM 10670	LL6	26.878	4.77	37,1	L6
DOM 10671	LL6	15.843	4.73	37,1	L6
DOM 10672	LL6	15.703	4.47	37,1	-
DOM 10673	LL6	28.186	4.73	37,1	L6
DOM 10674	LL6	22.606	4.59	37,1	L6
DOM 10675	LL5	25.149	4.35	37,1	-
DOM 10676	LL6	18.65	4.64	37,1	L6
DOM 10677	LL6	36.878	4.72	37,1	L6
DOM 10678	L5	32.603	4.98	37,1	-
DOM 10679	LL6	40.779	4.62	37,1	L6
DOM 10680	L6	59.58	4.49	40,1	-
DOM 10681	L6	71.09	4.68	40,1	-
DOM 10682	H6	40.44	5.1	40,1	-
DOM 10683	L6	50.69	4.69	40,1	-
DOM 10684	L6	57.79	4.7	40,1	-
DOM 10685	L6	57.44	4.78	40,1	-
DOM 10686	H6	181.6	5.13	40,1	-
DOM 10687	L6	73.92	4.72	40,1	-
DOM 10688	L6	156.11	4.75	40,1	-
DOM 10689	L6	210.59	4.81	40,1	-
DOM 10693	LL6	19.8	4.73	37,2	L6
DOM 10694	LL6	15.58	4.67	37,2	L6
DOM 10696	H6	22.05	5.03	37,2	-
DOM 10697	H6	21.5	5.12	37,2	-
DOM 10698	LL6	17.77	4.65	37,2	L6
DOM 10699	LL6	11.57	4.64	37,2	L6
DOM 10700	LL6	41.212	4.74	37,1	L6
DOM 10701	LL5	69.133	4.62	37,1	L5
DOM 10702	LL6	53.991	4.62	37,1	L6
DOM 10703	LL6	66.474	4.75	37,1	L6
DOM 10704	LL6	65.382	4.71	37,1	L6
DOM 10705	LL6	80.36	4.58	37,1	L6
DOM 10706	LL6	47.678	4.49	37,1	L6
DOM 10707	L5	35.972	4.96	37,1	-

<u>Generic</u>	<u>Original Classification</u>	<u>Original Weight</u>	<u>Magnetic Susceptibility</u>	<u>Newsletter</u>	<u>Updated Classification</u>
DOM 10708	LL6	31.93	4.49	37,1	L6
DOM 10709	LL6	49.729	4.41	37,1	-
DOM 10710	LL6	21.79	4.58	37,1	L6
DOM 10711	LL6	34.34	4.59	37,1	L6
DOM 10712	LL6	26.19	4.68	37,1	L6
DOM 10713	LL6	33.18	4.52	37,1	L6
DOM 10714	L6	23.42	4.97	37,1	-
DOM 10715	LL6	29.37	4.62	37,1	L6
DOM 10716	LL6	27.83	4.69	37,1	L6
DOM 10717	L6	42.07	4.99	37,1	-
DOM 10718	LL6	34.05	4.71	37,1	L6
DOM 10719	LL6	31.31	4.62	37,1	L6
DOM 10720	LL5	25.95	4.72	37,2	L5
DOM 10721	L6	18.36	4.62	37,2	-
DOM 10722	H6	23.03	4.78	37,2	L6
DOM 10723	LL6	24.83	4.47	37,2	-
DOM 10724	LL6	24.97	4.59	37,2	L6
DOM 10725	LL6	27.46	4.69	37,2	L6
DOM 10726	LL6	13.14	4.7	37,2	L6
DOM 10727	LL6	15.56	4.63	37,2	L6
DOM 10728	H6	16.79	4.75	37,2	L6
DOM 10729	LL6	33.08	4.74	37,2	L6
DOM 10730	LL6	147.679	4.59	37,2	L6
DOM 10731	LL6	100.865	4.43	37,2	-
DOM 10732	LL6	170.611	3.85	37,2	-
DOM 10733	LL6	282.2	4.67	37,2	L6
DOM 10734	L5	152.179	4.54	37,2	-
DOM 10735	LL6	62.89	4.65	37,2	L6
DOM 10736	LL6	86.65	4.73	37,2	L6
DOM 10737	H6	51.92	4.56	37,2	L6
DOM 10738	LL6	41.64	4.71	37,2	L6
DOM 10739	LL6	46.38	4.7	37,2	L6
DOM 10740	L6	23.41	5.13	37,1	H6
DOM 10741	L6	35.97	4.87	37,2	-
DOM 10742	L6	21.93	4.68	37,1	-
DOM 10743	L6	32.22	5.09	37,1	H6
DOM 10744	LL6	22.11	4.39	37,1	-
DOM 10745	LL6	32.38	4.72	37,1	L6
DOM 10746	LL5	41.54	4.62	37,1	L6
DOM 10747	LL6	23.76	4.67	37,1	L6
DOM 10748	LL6	20.48	4.56	37,1	L6
DOM 10749	LL6	22.31	4.61	37,1	L6
DOM 10750	L5	12.25	4.59	37,2	-
DOM 10752	L6	20.7	4.58	37,2	-
DOM 10754	L5	38.0	5.23	37,2	H5
DOM 10755	LL5	37.62	4.67	37,2	L5
DOM 10756	LL5	36.36	4.58	37,2	L5
DOM 10757	L5	11.4	4.58	37,2	-
DOM 10758	LL6	28.41	4.65	37,2	L6
DOM 10759	LL6	18.65	4.62	37,2	L6
DOM 10760	LL6	70.08	4.68	37,1	L6

<u>Generic</u>	<u>Original Classification</u>	<u>Original Weight</u>	<u>Magnetic Susceptibility</u>	<u>Newsletter</u>	<u>Updated Classification</u>
DOM 10761	LL6	49.28	4.62	37,1	L6
DOM 10762	LL6	56.25	4.68	37,1	L6
DOM 10763	LL6	44.88	4.77	37,1	L6
DOM 10764	LL6	45.7	4.72	37,1	L6
DOM 10765	LL5	39.4	4.66	37,1	-
DOM 10766	LL6	26.59	4.45	37,1	-
DOM 10767	LL6	47.69	4.64	37,1	L6
DOM 10768	LL5	27.29	4.72	37,1	L5
DOM 10769	LL6	47.65	4.68	37,1	L6
DOM 10770	LL6	218.04	4.47	37,1	-
DOM 10771	LL6	146.7	4.8	37,1	L6
DOM 10772	LL5	127.42	4.62	37,1	L5
DOM 10773	LL6	76.77	4.61	37,1	L6
DOM 10774	LL6	87.3	4.77	37,1	L6
DOM 10775	LL6	77.88	4.67	37,1	L6
DOM 10776	LL5	195.51	4.49	37,1	L5
DOM 10777	L6	82.52	4.57	37,1	-
DOM 10778	LL6	29.94	4.44	37,1	-
DOM 10779	LL6	29.7	4.86	37,1	L6
DOM 10780	LL6	57.44	4.64	37,1	L6
DOM 10781	LL5	49.97	4.51	37,1	L5
DOM 10782	LL6	59.38	4.65	37,1	L6
DOM 10783	LL6	101.29	4.41	37,1	-
DOM 10784	L6	72.94	4.61	37,1	-
DOM 10785	LL6	34.07	4.6	37,1	L6
DOM 10786	LL6	26.01	4.65	37,1	L6
DOM 10787	LL6	30.98	4.52	37,1	L6
DOM 10788	L5	24.65	5.01	37,1	H5
DOM 10789	LL6	23.14	4.57	37,1	L6
DOM 10790	LL6	23.134	4.54	37,1	L6
DOM 10791	LL6	42.702	4.51	37,1	L6
DOM 10792	LL6	38.343	4.65	37,1	L6
DOM 10793	LL6	37.077	4.56	37,1	L6
DOM 10794	LL6	18.806	4.58	37,1	L6
DOM 10795	L5	14.237	5.22	37,1	H5
DOM 10796	LL6	25.608	4.63	37,1	L6
DOM 10797	L6	25.794	4.65	37,1	-
DOM 10798	LL6	36.149	4.61	37,1	L6
DOM 10799	LL6	25.949	4.67	37,1	L6
DOM 10800	LL5	125.29	4.5	37,1	L5
DOM 10802	LL5	203.713	4.55	37,1	L5
DOM 10803	LL6	75.53	4.65	37,1	L6
DOM 10804	LL6	87.602	4.62	37,1	L6
DOM 10805	LL6	66.679	4.46	37,1	-
DOM 10806	LL5	65.523	4.53	37,1	L5
DOM 10808	LL6	51.75	4.57	37,1	L6
DOM 10809	LL6	65.814	4.63	37,1	L6
DOM 10810	LL6	50.73	4.5	36,1	L6
DOM 10811	L6	48.75	4.56	36,1	-
DOM 10812	L5	33.93	5.18	36,1	H5
DOM 10813	LL6	36.08	4.64	36,1	L6

<u>Generic</u>	<u>Original Classification</u>	<u>Original Weight</u>	<u>Magnetic Susceptibility</u>	<u>Newsletter</u>	<u>Updated Classification</u>
DOM 10814	LL6	23.47	4.59	36,1	L6
DOM 10815	LL6	27.81	4.64	36,1	L6
DOM 10816	L6	22.54	4.59	36,1	-
DOM 10817	LL6	18.06	4.74	36,1	L6
DOM 10818	L5	31.64	4.37	36,1	LL5
DOM 10819	LL6	25.91	4.48	36,1	-
DOM 10820	L6	50.645	4.56	37,1	-
DOM 10821	LL6	41.468	4.68	37,1	L6
DOM 10822	LL6	40.619	4.65	37,1	L6
DOM 10823	L5	40.092	4.64	37,1	-
DOM 10824	LL5	37.815	4.59	37,1	L5
DOM 10825	LL6	45.628	4.47	37,1	-
DOM 10826	LL6	56.381	4.63	37,1	L6
DOM 10827	LL6	58.207	4.53	37,1	L6
DOM 10828	LL6	61.22	4.71	37,1	L6
DOM 10829	LL6	68.601	4.71	37,1	L6
DOM 10830	LL5	62.597	4.59	37,1	L5
DOM 10831	LL6	54.553	4.53	37,1	L6
DOM 10832	LL6	50.319	4.59	37,1	L6
DOM 10833	L5	63.198	5.03	37,1	H5
DOM 10834	LL6	75.399	4.71	37,1	L6
DOM 10835	LL6	39.678	4.64	37,1	L6
DOM 10836	LL6	30.684	4.68	37,1	L6
DOM 10837	HOWARDITE	471.38	3.26	34,2	-
DOM 10838	HOWARDITE	31.89	2.97	34,2	-
DOM 10839	HOWARDITE	58.65	3.16	34,2	-
DOM 10840	LL6	118.596	4.64	37,1	L6
DOM 10841	LL6	90.016	4.67	37,1	L6
DOM 10842	L5	48.363	5.04	37,1	H5
DOM 10843	LL5	84.033	4.55	37,1	L5
DOM 10844	LL6	73.504	4.7	37,1	L6
DOM 10845	LL6	50.8	4.73	37,1	L6
DOM 10846	LL6	67.596	4.73	37,1	L6
DOM 10847	CO3	97.197	4.76	37,1	-
DOM 10848	H (IMPACT MELT)	104.589	5.33	37,1	-
DOM 10849	H6	240.5	5.19	37,1	-
DOM 10850	LL6	75.128	4.75	37,1	L6
DOM 10851	LL6	42.482	4.62	37,1	L6
DOM 10852	LL6	53.927	4.53	37,1	L6
DOM 10853	LL6	27.623	4.79	37,1	L6
DOM 10854	L6	24.205	4.97	37,1	-
DOM 10855	LL5	23.146	4.63	37,1	L5
DOM 10856	LL6	35.524	4.66	37,1	L6
DOM 10857	LL6	20.184	4.72	37,1	L6
DOM 10858	LL6	22.125	4.88	37,1	L6
DOM 10859	LL6	17.71	4.73	37,1	L6
DOM 10860	LL6	34.682	4.68	37,1	L6
DOM 10861	LL6	25.895	4.6	37,1	L6
DOM 10862	LL6	19.062	4.81	37,1	L6
DOM 10863	L6	35.978	4.87	37,1	-
DOM 10864	LL6	28.613	4.61	37,1	L6

<u>Generic</u>	<u>Original Classification</u>	<u>Original Weight</u>	<u>Magnetic Susceptibility</u>	<u>Newsletter</u>	<u>Updated Classification</u>
DOM 10865	LL6	35.694	4.68	37,1	L6
DOM 10866	L6	19.823	5.03	37,1	H6
DOM 10867	LL6	18.999	4.7	37,1	L6
DOM 10868	L6	32.898	5.19	37,1	H6
DOM 10869	LL6	23.084	4.63	37,1	L6
DOM 10870	LL6	18.78	4.82	37,1	L6
DOM 10871	LL6	12.46	4.82	37,1	L6
DOM 10872	LL6	11.89	4.69	37,1	L6
DOM 10873	L5	14.06	5.17	37,1	H5
DOM 10874	LL6	33.68	4.7	37,1	L6
DOM 10875	LL6	20.84	4.66	37,1	L6
DOM 10876	LL6	16.85	4.76	37,1	L6
DOM 10878	LL6	26.7	4.69	37,1	L6
DOM 10879	LL6	17.77	4.67	37,1	L6
DOM 10881	LL6	11.65	4.81	37,1	L6
DOM 10882	LL6	15.58	4.8	37,1	L6
DOM 10883	LL6	16.19	4.77	37,1	L6
DOM 10885	LL6	10.86	4.71	37,1	L6
DOM 10887	LL6	10.02	4.68	37,1	L6
DOM 10888	LL6	10.39	4.69	37,1	L6
DOM 10889	LL5	21.51	4.69	37,1	L5
DOM 10891	H5	12.31	5.06	37,2	-
DOM 10892	L6	12.5	5.05	37,2	H6
DOM 10893	L6	15.2	4.61	37,2	-
DOM 10894	H6	15.51	4.98	37,2	-
DOM 10895	H6	13.1	4.9	37,2	L6
DOM 10896	H6	10.36	4.44	37,2	L6
DOM 10897	LL6	15.11	4.63	37,2	L6
DOM 10898	L5	10.39	5.13	37,2	H5
DOM 10899	L6	18.13	5.06	37,2	H6
DOM 10900	CO3	26.092	5.13	34,2	-
DOM 10901	LL5	19.012	4.69	37,1	L5

Table of magnetic susceptibility data and reclassification of PAT 10 EOCs (bolded entries involve reclassification)

<u>Generic</u>	<u>Original Classification</u>	<u>Original Weight</u>	<u>Magnetic Susceptibility</u>	<u>Newsletter</u>	<u>Updated Classification</u>
PAT 10200	LL5	5908.4	4.77	36,1	L5
PAT 10201	LL5	1674.1	4.72	36,1	L5
PAT 10202	LL5	343.4	4.82	36,1	L5
PAT 10203	L5	538.4	4.54	39,1	-
PAT 10204	LL5	103.61	3.92	36,1	-
PAT 10205	L5	15.93	5.31	36,1	H5
PAT 10206	L5	19.67	4.85	36,1	-
PAT 10207	L6	6.31	5.09	36,1	H6
PAT 10208	L5	13.39	5.07	36,1	H5
PAT 10209	LL5	8.29	4.81	36,1	L5
PAT 10210	LL6	5.63	4.66	36,1	L6
PAT 10211	H5	6.835	5.11	36,1	-
PAT 10212	H6	2.439	5.15	36,1	-
PAT 10213	H6	5.068	5.09	36,1	-
PAT 10214	H6	14.348	5.05	36,1	-
PAT 10215	L6	9.116	5.13	36,1	H6
PAT 10216	LL6	13.605	4.67	36,1	L6
PAT 10217	L6	9.018	4.58	36,1	-
PAT 10218	L6	5.577	4.88	36,1	-
PAT 10219	LL6	2.512	4.57	36,1	L6
PAT 10220	L5	1.78	5.16	36,1	H5
PAT 10221	L6	2.73	5.06	36,1	H6
PAT 10222	L6	3.89	4.58	36,1	-
PAT 10223	L5	2.87	5.11	36,1	H5
PAT 10224	L5	2.71	5.09	36,1	H5
PAT 10225	H6	4.32	5.08	36,1	-
PAT 10226	L5	5.58	5.23	36,1	H5
PAT 10227	H6	2.18	5.01	36,1	-
PAT 10228	LL6	3.3	4.82	36,1	L6
PAT 10229	H6	1.59	4.92	36,1	L6
PAT 10230	L6	7.979	4.54	36,1	-
PAT 10231	H6	9.245	5.02	36,1	-
PAT 10232	H6	18.363	4.9	36,1	L6
PAT 10233	L6	7.397	5.07	36,1	H6
PAT 10234	L6	14.384	4.72	36,1	-
PAT 10235	L5	5.946	4.61	36,1	-
PAT 10236	L6	6.1	5.01	36,1	-
PAT 10237	H6	3.796	5.1	36,1	-
PAT 10238	H6	3.222	5.09	36,1	-
PAT 10239	H5	3.097	4.88	36,1	L6
PAT 10240	L6	11.438	4.81	36,1	-
PAT 10241	H6	4.025	5.13	36,1	-
PAT 10242	H5	4.405	4.88	36,1	L5
PAT 10243	H6	3.993	5.05	36,1	-
PAT 10244	LL6	2.428	3.43	36,1	-
PAT 10245	L6	1.96	5.04	36,1	H6
PAT 10246	LL6	1.134	4.9	36,1	L6
PAT 10247	H6	1.766	4.85	36,1	L6
PAT 10248	L6	2.403	4.44	36,1	LL6
PAT 10249	H6	2.735	4.14	36,1	LL6
PAT 10250	L6	2.402	5.21	36,1	H6
PAT 10251	L6	1.368	5.04	36,1	H6

<u>Generic</u>	<u>Original Classification</u>	<u>Original Weight</u>	<u>Magnetic Susceptibility</u>	<u>Newsletter</u>	<u>Updated Classification</u>
PAT 10252	L6	7.188	4.99	36,1	-
PAT 10253	L6	8.379	5.08	36,1	H6
PAT 10254	L5	2.67	5.14	36,1	H5
PAT 10255	L6	2.827	4.89	36,1	-
PAT 10256	H6	1.823	4.63	36,1	L6
PAT 10257	L6	19.818	4.97	36,1	-
PAT 10258	L5	2.011	5.16	36,1	H5
PAT 10259	H6	6.273	5.14	36,1	-
PAT 10260	L6	2.773	5.11	36,1	H6
PAT 10261	H6	1.615	4.77	36,1	L6
PAT 10262	L5	1.606	5.16	36,1	H5
PAT 10263	L6	8.538	5.05	36,1	H6
PAT 10264	L5	1.222	5.09	36,1	H5
PAT 10265	H6	6.232	4.22	36,1	LL6
PAT 10266	H6	3.343	4.88	36,1	L6
PAT 10267	L5	1.336	5.13	36,1	H5
PAT 10268	L6	3.504	4.77	36,1	-
PAT 10269	L6	1.845	4.96	36,1	-
PAT 10270	L5	4.08	4.95	36,1	-
PAT 10271	L5	1.97	4.3	36,1	LL5
PAT 10272	H6	3.98	5.04	36,1	-
PAT 10273	H6	2.93	4.98	36,1	L6
PAT 10274	H6	2.44	5.19	36,1	-
PAT 10275	L6	4.45	4.88	36,1	-
PAT 10276	L6	3.03	4.73	36,1	-
PAT 10277	H6	1.1	5.03	36,1	-
PAT 10278	H6	1.96	4.7	36,1	L6
PAT 10279	L6	2.84	4.17	36,1	LL6
PAT 10280	L6	1.97	4.61	36,1	-
PAT 10281	H6	3.78	4.83	36,1	L6
PAT 10282	L6	3.97	4.27	36,1	LL6
PAT 10283	H5	5.07	5	36,1	-
PAT 10284	H6	2.52	4.96	36,1	L6
PAT 10285	L6	3.14	4.57	36,1	-
PAT 10286	H5	5.96	4.46	36,1	L5
PAT 10287	H6	1.77	5.08	36,1	-
PAT 10288	H5	10.6	4.93	36,1	L5
PAT 10289	H6	11.6	4.74	36,1	L6
PAT 10290	L6	4.27	4.91	36,1	-
PAT 10291	L6	2.14	5.29	36,1	H6
PAT 10292	L6	15.69	4.7	36,1	-
PAT 10293	L6	2.07	4.33	36,1	LL6
PAT 10294	L6	2.35	4.63	36,1	-
PAT 10295	L6	4.05	3.85	36,1	LL6
PAT 10296	L5	2.65	4.67	36,1	-
PAT 10297	H6	4.08	4.89	36,1	L6
PAT 10298	L6	1.49	4.27	36,1	LL6
PAT 10299	H5	5.16	4.46	36,1	L5
PAT 10300	L6	2.513	4.81	36,1	-
PAT 10301	H5	2.416	5.1	36,1	-
PAT 10302	H6	1.745	4.96	36,1	L6
PAT 10303	H6	2.403	5.11	36,1	-
PAT 10304	H6	1.575	5.01	36,1	-
PAT 10305	L6	1.396	4.75	36,1	-

<u>Generic</u>	<u>Original Classification</u>	<u>Original Weight</u>	<u>Magnetic Susceptibility</u>	<u>Newsletter</u>	<u>Updated Classification</u>
PAT 10306	H6	2.952	4.61	36,1	L6
PAT 10307	L6	1.323	4.85	36,1	-
PAT 10308	L5	1.145	5.24	36,1	H5
PAT 10309	H6	2.082	4.97	36,1	L6
PAT 10310	L6	15.99	5.03	36,1	H6
PAT 10311	LL6	7.7	4.83	39,1	L6
PAT 10312	LL5	9.33	4.79	36,1	L5
PAT 10313	L6	9.41	4.69	36,1	-
PAT 10314	LL6	7.27	4.73	36,1	L6
PAT 10315	L6	6.81	4.87	36,1	-
PAT 10316	L6	5.45	4.96	36,1	-
PAT 10317	H6	6.55	5.2	36,1	-
PAT 10318	L5	4.76	4.49	36,1	-
PAT 10319	L6	5.53	4.62	36,1	-
PAT 10320	L5	1.062	4.95	36,1	-
PAT 10321	L6	1.37	5.02	36,1	H6
PAT 10322	L6	2.454	4.95	36,1	-
PAT 10323	H6	4.195	5.07	36,1	-
PAT 10324	L6	3.294	4.69	36,1	-
PAT 10325	L6	1.356	4.97	36,1	-

Sample Request Guidelines

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 2 weeks prior to the scheduled meeting.

Requests that are received by the MWG secretary by August 29, 2019 deadline will be reviewed at the MWG meeting on Sept. 12-13, 2019 in Washington, D.C. Requests that are received after the deadline may be delayed for review until MWG meets again in the Spring of 2020. Please submit your requests on time. Questions pertaining to sample requests can be directed to the MWG secretary by e-mail, or phone.

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. Sample requests that do not meet the curatorial allocation guidelines will be reviewed by the Meteorite Working Group (MWG). 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 an appropriate funding agency. As a matter of policy, U.S. Antarctic meteorites are the property of the U.S. government, 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 August 2006 have been published in the Meteoritical Bulletins and *Meteoritics* and *Meteoritics and Planetary Science*.

They are also available online at:

<https://meteoritical.org/publications/the-meteoritical-bulletin>

The most current listing is found online at:

http://curator.jsc.nasa.gov/antmet/us_clctn.cfm

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

<http://curator.jsc.nasa.gov/antmet/requests.cfm>

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:

JSC-ARES-MeteoriteRequest@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.

Antarctic Meteorite Laboratory Contact Numbers

Please submit request to: **JSC-ARES-MeteoriteRequest@nasa.gov**

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Meteorites On-Line

Several meteorite web sites 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://curator.jsc.nasa.gov/antmet/
JSC Curator, HED Compendium	http://curator.jsc.nasa.gov/antmet/hed/
JSC Curator, Lunar Meteorite Compendium	http://curator.jsc.nasa.gov/antmet/lmc/
JSC Curator, Martian Meteorite Compendium	http://curator.jsc.nasa.gov/antmet/mmc/
ANSMET	http://caslabs.case.edu/ansmet/
Smithsonian Institution	http://mineralsciences.si.edu/
Lunar Planetary Institute	http://www.lpi.usra.edu
NIPR Antarctic meteorites	http://www.nipr.ac.jp/
Meteoritical Bulletin online Database	http://www.lpi.usra.edu/meteor/metbull.php
Museo Nazionale dell'Antartide	http://www.mna.it/collezioni/catalogo-meteoriti-sede-di-siena
BMNH general meteorites	https://www.nhm.ac.uk/our-science/collections/mineralogy-collections.html
UHI planetary science discoveries	http://www.psr.d.hawaii.edu/index.html
Meteoritical Society	http://www.meteoricalsociety.org/
Meteoritics and Planetary Science	https://onlinelibrary.wiley.com/journal/19455100
Meteorite Times Magazine	https://www.meteorite-times.com/
Geochemical Society	http://www.geochemsoc.org
Washington Univ. Lunar Meteorite	http://meteorites.wustl.edu/lunar/moon_meteorites.htm
Washington Univ. "meteor-wrong"	http://meteorites.wustl.edu/meteorwrongs/meteorwrongs.htm
Portland State Univ. Meteorite Lab	http://meteorites.pdx.edu/
Northern Arizona University	https://www.cefns.nau.edu/geology/naml/
Martian Meteorites	http://www.imca.cc/mars/martian-meteorites.htm

Other Websites of Interest

OSIRIS-REx	http://osiris-rex.lpl.arizona.edu/
Mars Exploration	http://mars.jpl.nasa.gov
Rovers	http://marsrovers.jpl.nasa.gov/home/
Near Earth Asteroid Rendezvous	http://near.jhuapl.edu/
Stardust Mission	http://stardust.jpl.nasa.gov
Genesis Mission	http://genesismission.jpl.nasa.gov
ARES	http://ares.jsc.nasa.gov/
Astromaterials Curation	http://curator.jsc.nasa.gov/
Hayabusa2	http://www.hayabusa2.jaxa.jp/en/