

Charlevoix Québec, Canada	CHA-04	Shocked and brecciated anorthosite, summit of Mont des Éboulements ✓	
	CHA-05	Shocked anorthosite, summit of Mont des Éboulements	
	CHA-06	Limestone shatter cone, Cap-aux-Oies ✓	
	CHA-07	Granite shatter cone St-Hilarion	
	CHA-08	Biotite schist shatter cone, Cap-aux-Oies	
	CHA-09	Gneiss shatter cone, Lac de la Tourelle	
	CHA-10	Shatter-coned clastic dyke, Cap-aux-Oies ✓	
	CHA-11	Clast-rich pseudotachylite, Ste-Marie-de-Charlevoix ✓	
	CHA-12	Impact-epigenetic ilmenite ore, St-Urbain	
	Chesapeake Bay, Virginia, USA	CHE-01	Bediasite tektite, Grimes County, Texas
	Chicxulub, Mexico	CHI-01	K/T boundary layer with spherules, Beloc, Haiti
		CHI-02	K/T boundary layer, Agost, Spain
CHI-03		K/T boundary layer with Ni-rich pyrite spherules, Zumaya, Spain	
CHI-04		K/T boundary layer, Stevens Klint, Denmark	
CHI-05		K/T boundary layer, Bidart, France	
CHI-06		K/T boundary layer, Monte Conero, Ancona, Italy	
CHI-07		K/T boundary layer, Gams, Steiermark, Austria	
Clearwater East, Québec, Canada	CWE-01	Brown clast-rich impact melt rock (DCW-5) ✓	
	CWE-02	Grey clast-rich vesicular impact melt rock (DCW-2-63 / DCW-3)	
	CWE-03	Black impact melt rock (DCW-9-1105)	
	CWE-04	Grey-brown impact melt rock (DCW-5)	
	CWE-05	Grey impact melt rock (DCW-2-63/DCW-13-1115)	
	CWE-06	Brown-black impact melt rock (DCW-8)	
	CWE-07	Grey impact melt rock (DCW-2-63-1005/DCW-11)	
	CWE-08	Brown impact melt rock (DCW-2-63-1045/DCW-7)	
	CWE-09	Grey impact melt rock (DCW-2-63-965)	
	CWE-10	Brown impact melt rock (DCW-4)	
	CWE-11	Shocked granite (DCW-64-472)	
	CWE-12	Grey impact melt rock with millerite (NiS) needles (DCW-2)	
	CWE-13	Shocked granite with shatter cones (DCW-1-64-1442)	
Clearwater West, Québec, Canada	CWW-01	Black impact melt rock (DCW-20-62C)	
	CWW-02	Shocked granite (DCW-1-63-428)	
	CWW-03	Lithic impact breccia (DCW-77-F28-315)	
	CWW-04	Brown impact melt rock (DCW-77-37-2/DCW-22)	
	CWW-05	Black impact melt rock (DCW-77-17/DCW-23)	
	CWW-06	Red impact melt rock (DCW-150-63) ✓	
	CWW-07	Brown impact melt rock (DCW-77-17)	

Crooked Creek, Missouri, USA	CRO-01	Shocked chert
Dellen, Sweden	DEL-01	Black clast-rich Impact melt rock ('dellenite') ✓
	DEL-02	Brown clast-rich impact melt rock ✓
	DEL-03	Black glassy impact melt rock with spinifex texture ✓
	DEL-04	Suevite with large gneiss inclusions ✓
Gardnos, Norway	GAR-01	Black Suevite ✓
	GAR-02	Suevitic impact breccia
	GAR-03	Polymictic lithic impact breccia
Gosses Bluff, Australia	GOS-01	Polymictic lithic impact breccia ✓
	GOS-02	Sandstone shatter cone
	GOS-03	Sandstone shatter cone ✓
Henbury, Australia	HEN-01	Black Henbury glass
Ilyinets, Ukraine	ILY-01	Strongly socked and heated basement granite ✓
	ILY-02	Shocked target rock gneiss with melt vein
Jänisjärvi, Russia	JAN-01	Impact metamorphic quartzite ✓
Kara, Russia	KAR-01	Grey impact melt rock ✓
	KAR-02	Black to brown impact melt rock ✓
	KAR-03	Brown glass-rich suevite ✓
	KAR-04	Grey clast-rich suevite
Karikkoselkä, Finland	KARI-01	Lithic impact breccia ✓
	KARI-02	Shocked sandstone ✓
Kentland; Indiana, USA	KEN-01	Polymictic lithic impact breccia
	KEN-02	Dolomite shatter cone
Keurusselkä; Finland	KEU-01	Sandstone shatter cone
	KEU-02	Pseudotachylitic breccia ✓
	KEU-03	Granite ✓
Lake Saint Martin; Manitoba, Canada	LSM-01	Red impact melt rock; E of central uplift ✓
	LSM-02	Brown vesicular impact melt rock (LSM-21A-78)
	LSM-03	Shocked granite (LSM-13A-78)
	LSM-04	Polymictic lithic post-impact breccia; E of central uplift

Lappajärvi, Finland	LAP-01	Black impact melt rock ('kärnäite') Kärnä island ✓
	LAP-02	Brown suevite, Hietekangas S of crater ✓
	LAP-03	Clast-rich suevitic impact breccia, Hietekangas S of crater ✓
Lockne, Sweden	LOC-01	Lithic 'Lockne' impact breccia ✓
	LOC-02	Green lithic impact breccia with altered glass ✓
	LOC-03	Coarse-grained 'Loftarsten' melt lapilli breccia
	LOC-04	Fine-grained 'Loftarsten' melt lapilli breccia
Logoisk, Byelorussia	LOG-01	Suevite (drill core)
Lonar, India	LON-01	Shocked Dekkan basalt ✓
Lumparn, Finland	LUM-01	Shocked granite with shatter cones ✓
Manicouagan, Québec, Canada	MANI-01	Black clast-poor impact melt rock with columnar jointing, Baie Memory Entrance Island ✓
	MANI-02	Black clast-rich impact melt rock, Baie Memory Entrance Island ✓
	MANI-03	Grey impact melt rock, Baie Memory Entrance Island ✓
	MANI-04	Green melt rock with secondary ore phases, Baie Memory Entrance Island ✓
	MANI-05	Black impact melt dike, E shore of Île René Levasseur ✓
	MANI-06	Red clast-rich impact melt rock, E shore of Île René Levasseur ✓
	MANI-07	Brown clast-rich impact melt rock, E shore of Île René Levasseur
	MANI-09	Grey coarse-grained suevite, E shore of Île René Levasseur ✓
	MANI-10	Grey fine-grained suevite, E shore of Île René Levasseur ✓
	MANI-11	Red suevite, Road 389 (km 275) ✓
	MANI-12	Grey-purple lithic impact breccia, E shore of Île René Levasseur ✓
	MANI-13	Red-grey lithic impact breccia, Road 389 (km 275)
	MANI-14	Shocked and degassed anorthosite, Baie Memory Entrance Island
	MANI-15	Shattered Ordovician graptolitic limestone, E shore of Île René Levasseur
	MANI-16	Shattered Ordovician stromatolitic limestone, E shore of Île René Levasseur
	Mien, Sweden	MIE-01
MIE-02		Flow-shaped impact melt bomb ('flädle'), Ramsö Island
MIE-03		Brown suevite ✓
MIE-04		Green lithic impact breccia ✓
Mistastin, Newfoundland/Labrador, Canada	MIS-01	Brown vesicular impact melt rock (LM-162-13)
	MIS-02	Black vesicular impact melt rock (LM-112-73) ✓
	MIS-03	Anorthosite (LM-29G)
	MIS-04	MIS-06 Mangerite (LM-22)
	MIS-05	Mangerite (TA-66-T35)

Mistastin, Newfoundland/Labrador, Canada	MIS-06	Anorthosite (LM-30A)
Monturaqui, Chile	MON-01	Monturaqui impactite ✓
Morasko, Poland	MOR-01	Morasko meteorite (IICD iron octahedrite)
Neugrund, Estonia	NEU-01	Lithic 'Neugrund Breccia', Osmussaar Island ✓
Paasselkä, Finland	PAA-01	Clast-rich impact melt rock, Sikosärkät till pit ✓
	PAA-02	Impact metamorphic granite, Sikosärkät till pit ✓
	PAA-03	Shocked mica schist with pseudotachylite veins, Sikosärkät till pit
Popigai, Russia	POP-01	Black impact melt rock with granite inclusion ✓
Puchezh-Katunki, Russia	PUC-01	Brown impact melt rock (drill core PK-9)
	PUC-02	Brown impact melt rock (drill core PK-5, 555,5 m)
	PUC-01	Brown suevite rich in glass components ✓
	PUC-02	Shocked basement gneiss ✓
Ries crater, Germany	RIE-01	Red clast-rich impact melt rock; Polsingen quarry ✓
	RIE-02	impact-metamorphosed coarse-grained biotite granite; Polsingen quarry ✓
	RIE-03	Flow-shaped melt 'flädle' from suevite, Heerhof fields
	RIE-04	Suevite, Aumühle quarry
	RIE-05	Suevite, Alte Bürg quarry
	RIE-06	Suevite, Seelbronn quarry ✓
	RIE-07	Polymictic sedimentary lithic impact breccia ('Bunte Breccia'), Aumühle quarry
	RIE-08	Monomictic lithic impact breccia of Jurassic marls with ammonites, Aumühle quarry
	RIE-09	Monomictic limestone impact breccia ('Gries'), Holheim quarry
	RIE-10	Polymictic crystalline impact breccia ('Kristallbrekzie'), Wengenhäuser quarry
	RIE-11	Lithic limestone breccia dike, Alte Bürg quarry
	RIE-12	Shocked kersantite with shatter cones, Wengenhäuser quarry
	RIE-13	Shocked granite with shatter cones, Wengenhäuser quarry
	RIE-14	Altered impact glass, Lehberg quarry, Unterwilflingen
	RIE-15	Shocked amphibolite ('wennenbergite'), Wennenberg summit
	RIE-16	Shattered Ries belemnites, Harburg quarry
	RIE-17	Shattered coprolite, Harburg quarry
	RIE-18	Ries Lake sediments with reworked shocked crystalline target rock clasts, Wennenberg summit
	RIE-19	Ries Lake algal bioherm limestone, Büschelberg quarry, Hainsfarth
	RIE-20	Ries Lake ostracod limestone, Büschelberg quarry, Hainsfarth
	RIE-21	Ries Lake algal bioherm limestone, Wallerstein
	RIE-22	Ries Lake algal-gastropod limestone, Goldberg

Ries crater, Germany	RIE-23	Hydrothermal (?) sinter limestone, Harburg quarry
	RIE-24	Moldavite tektite Besednice, Czech Republic
	RIE-24	Distal limestone ejecta from the 'Brockhorizont', Ziemetshausen quarry ✓
	RIE-25	Distal mudstone ejecta (?) from the 'Brockhorizont' with slickensides, Ziemetshausen quarry
Rochechouart, France	ROC-01	Yellow massive impact melt rock, Babaudus ✓
	ROC-02	Yellow vesicular impact melt rock, Babaudus ✓
	ROC-03	Purple-red clast-rich impact melt rock, Vallette ✓
	ROC-04	Brown-red vesicular clast-rich impact melt rock, Vallette ✓
	ROC-05	Red clast-rich impact melt rock, Montoume quarry ✓
	ROC-06	Brown vesicular impact melt rock, Pressignac-La Chauffie ✓
	ROC-07	Green coarse-grained suevite, Chassenon ✓
	ROC-08	Grey fine-grained injection suevite, Chassenon-Thermes ✓
	ROC-09	Impact-metamorphosed gneiss, Videix ✓
	ROC-10	Polymictic lithic impact breccia, Rochechouart ✓
	ROC-11	Monomictic lithic (granitic) impact breccia, Videix ✓
	ROC-12	Shocked quartzite breccia, Pressignac-La Chauffie
	ROC-13	Black-grey pseudotachylitic breccia, Champagnac quarry ✓
	ROC-14	Grey fine-grained lithic breccia dike, Champagnac quarry
	ROC-15	Granite with pseudotachylitic breccia veinlets, Champagnac quarry
	ROC-16	Granite shatter cone, Champonger quarry
	ROC-17	Gneiss shatter cone, Pressignac-La Chauffie
	ROC-18	Hydrothermal calcite-pyrite breccia, Champagnac quarry
Sääksjärvi, Finland	SAAK-01	Black clast-rich impact melt rock ✓
	SAAK-02	Brown-red impact melt rock ✓
	SAAK-03	Brown suevite ✓
Siljan, Sweden	SIL-01	Red impact melt rock ✓
	SIL-02	Grey-green impact melt rock ✓
	SIL-03	Grey-green impact melt veins in shocked granite, S part of crater ✓
	SIL-04	Shocked granite with red impact melt veins ✓
	SIL-05	Shocked target rock granite, central uplift region ✓
Söderfjärden, Finland	SOD-01	Black fine-grained polymictic lithic impact breccia ✓
	SOD-02	Grey-green coarse-grained polymictic lithic impact breccia ✓
Steinheim basin, Germany	STE-01	Monomictic lithic limestone breccia ('Gries'), Knüll Mountain, Sontheim
	STE-02	Limestone shatter cone, Burgstall, Sontheim
	STE-03	Limestone shatter cone, Steinheim
	STE-04	Shocked chert nodule with planar fractures, Steinheim ✓

Steinheim basin, Germany	STE-05 STE-06	Crater lake limestone, Sontheim Gastropod crater lake sandstone, Pharion sandpit, Steinheim
Sudbury, Ontario, Canada	SUD-01 SUD-02 SUD-03	Grey fluidal impact melt rock ✓ Black-grey lithic impact breccia ('Black Onaping') ✓ Impact-syngenetic Cu-Ni-PGE ore
Suvasvesi South, Finland	SUVS-01 SUVS-02 SUVS-03	Brown-grey clast-rich impact melt rock, Mannamäki and Lusikkaniemi areas ✓ Grey clast-rich impact melt rock, Mannamäki and Lusikkaniemi areas ✓ Suevite, Mannamäki and Lusikkaniemi areas ✓
Tenoumer, Mauritania	TEN-01 TEN-02 TEN-03	Black-green clast-rich impact melt rock ✓ Black vesicular impact melt rock ✓ Green melt vein in target rock material
Terny, Ukraine	TER-01	Impact melt rock ✓
Tswaing, South Africa	TSW-01 TSW-02	Shocked Nebo Granite with cataclastic veins ✓ Anthropogenic carbonate-silicate slag from the crater ✓
Ullapool, Scotland, UK	ULL-01	Stac Fada suevitic impact breccia
Upheaval Dome, Utah, USA	UPH-01	Shocked sandstone (Kayenta Formation), crater rim ✓
Vredefort Dome, South Africa	VRE-01 VRE-02 VRE-03 VRE-04 VRE-05 VRE-06 VRE-07 VRE-08 VRE-09	Impact melt rock ('Vredefort Granophyre'), 10 km W Parys ✓ Pseudotachylitic breccia, Leeukop quarry ✓ Pseudotachylitic breccia, SunWa River Lodge Shatter cone in 3.4 Ga komatiite, SE part of the Vredefort Dome Shatter cone in sandstone Shatter cone in granite Shocked sandstone ✓ Inlandsee Leucogranofels, near Inlandsee Pan (ultra-)mafic chlorite-actinolite-hornblende-talc rocks, SE part of the Dome
Wabar, Saudi Arabia	WAB-01 WAB-02	Fluidal blue-grey Wabar glass ✓ Altered Wabar meteorite (IIIAB iron)
Zhamanshin, Kazakhstan	ZHA-01	Black-green vesicular impact glass ('zhamanshinite') ✓

Unidentified impact structures

?	ATEK-01	Indochinite tektites, Thailand
?	ATEK-02	Australites, Central Australia
?	ATEK-03	Bicolite tektites, Phillipines
?	LDG	Libyan Desert Glass, Egypt ✓
?	HAM	Possible altered Late Eocene-Oligocene spherules, Hammer, Upper Bavaria, Germany ✓○
?	ROH	Possible altered Late Eocene-Oligocene spherules, Rohrdorf, Upper Bavaria, Germany ✓○
?	LAI	Magnetite spherules from the Laierhöhle cave near Geislingen a. d. Steige, Schwäbische Alb ○
?	LTH	Magnetite spherules from the Laichinger Tiefenhöhle, Schwäbische Alb ○

Unconfirmed impact structures

Åvikebukten, Sweden	AVI-01	Granite/pegmatite with glass vein (?)
Chapadmalal, Argentina	CHA-01	Vesicular Chapadmalal 'impactite'
Darwin, Australia	DAR-01	Brownish to green Darwin glass
Doubblon, Sweden	DOU-01	Breccia
Gallejaur, Sweden	GAL-01	Conglomeratic breccia ✓
	GAL-02	Gneiss/mica schist breccia ✓
	GAL-03	Basalt (?) ✓
Kölfels, Austria	KOF-01	Black-brown fluidal vesicular 'impactite' (?) with crystalline rock clasts
	KOF-02	Grey-white fluidal massive 'pseudotachylite' (?) ✓
Loftahammar, Sweden	LOF-01	Mylonitic augen gneiss ✓
Rubielos de la Cérída, Spain	RUB-01	Siliciclastic-carbonatic breccia ✓
Weaubleau-Osceola, Missouri, USA	WEA-01	Massive quartz-bearing carbonate breccia ✓
	WEA-02	Fossiliferous marine limestone ✓
	WEA-03	Iron concretion

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Images from left to right: (1) lithic impact breccia, Rochechouart, France; (2) shocked quartz with decorated PDFs, impact melt rock, Suvasvesi South, Finland, plane-polarized light; (3) diaplectic quartz glass, suevite, Ries crater, Germany, cross-polarized light; (4) suevite, Logoisk, Byelorussia; (5) limestone shatter cone, Steinheim basin, Germany; (6) ballen silica (cristobalite & quartz) in impact melt rock, Tenoumer, Mauritania.