

25—PLANETARY GEOLOGY FEATURES

REF NO	DESCRIPTION	SYMBOL	CARTOGRAPHIC SPECIFICATIONS*	NOTES ON USAGE*
25.1	Contact, planetary—Location accurate		lineweight .15 mm	OK
25.2	Contact, planetary—Location approximate		3.5 mm 1.5 mm .75 mm	OK
25.3	Contact, planetary—Location inferred		1.5 mm .75 mm	OK
25.4	Contact, planetary—Location concealed		.5 mm .75 mm	OK
25.5	Fault, planetary, sense of offset unspecified—Location accurate		lineweight .375 mm	OK
25.6	Fault, planetary, sense of offset unspecified—Location approximate		3.5 mm 1.5 mm .75 mm	OK
25.7	Fault, planetary, sense of offset unspecified—Location inferred		1.5 mm .75 mm	OK
25.8	Fault, planetary, sense of offset unspecified—Location concealed		.5 mm .75 mm	OK
25.9	Normal fault, planetary—Location accurate. Ball and bar on downthrown block		lineweight .375 mm tick length 1.0 mm; lineweight .175 mm .875 mm diameter	OK
25.10	Normal fault, planetary—Location approximate. Ball and bar on downthrown block		3.5 mm 1.5 mm .75 mm	OK
25.11	Normal fault, planetary—Location inferred. Ball and bar on downthrown block		1.5 mm .75 mm	OK
25.12	Normal fault, planetary—Location concealed. Ball and bar on downthrown block		.5 mm .75 mm	OK
25.13	Strike-slip fault, planetary, right-lateral offset—Location accurate. Arrows show relative motion		lineweight .375 mm 1.75 mm 25° 5.0 mm arrow lineweight .2 mm	OK
25.14	Strike-slip fault, planetary, right-lateral offset—Location approximate. Arrows show relative motion		3.5 mm 1.5 mm .75 mm	OK
25.15	Strike-slip fault, planetary, right-lateral offset—Location inferred. Arrows show relative motion		1.5 mm .75 mm	OK
25.16	Strike-slip fault, planetary, right-lateral offset—Location concealed. Arrows show relative motion		.5 mm .75 mm	OK
25.17	Strike-slip fault, planetary, left-lateral offset—Location accurate. Arrows show relative motion		lineweight .375 mm 1.75 mm 25° 5.0 mm arrow lineweight .2 mm	OK
25.18	Strike-slip fault, planetary, left-lateral offset—Location approximate. Arrows show relative motion		3.5 mm 1.5 mm .75 mm	OK
25.19	Strike-slip fault, planetary, left-lateral offset—Location inferred. Arrows show relative motion		1.5 mm .75 mm	OK
25.20	Strike-slip fault, planetary, left-lateral offset—Location concealed. Arrows show relative motion		.5 mm .75 mm	OK
25.21	Thrust fault, planetary—Location accurate. Sawteeth on upper plate		sawtooth height 1.5 mm lineweight .375 mm 60°	OK
25.22	Thrust fault, planetary—Location approximate. Sawteeth on upper plate		3.5 mm 1.5 mm .75 mm	OK
25.23	Thrust fault, planetary—Location inferred. Sawteeth on upper plate		1.5 mm 2.5 mm .75 mm	OK
25.24	Thrust fault, planetary—Location concealed. Sawteeth on upper plate		.5 mm 2.5 mm .75 mm	OK

*For more information, see general guidelines on pages A-i to A-v.

you should
use the
Sketch tool
for
mapping

25—PLANETARY GEOLOGY FEATURES (continued)

REF NO	DESCRIPTION	SYMBOL	CARTOGRAPHIC SPECIFICATIONS*	NOTES ON USAGE*
25.25	Graben trace, planetary (shown as single line where bounding normal faults cannot be mapped separately)—Location accurate		lineweight .375 mm 	OK
25.26	Graben trace, planetary (shown as single line where bounding normal faults cannot be mapped separately)—Location approximate			OK
25.27	Graben trace, planetary (shown as single line where bounding normal faults cannot be mapped separately)—Location inferred			OK
25.28	Graben trace, planetary (shown as single line where bounding normal faults cannot be mapped separately)—Location concealed			OK
25.29	Regional fracture, planetary		lineweight .3 mm color 100% cyan 	OK
25.30	Partly buried regional fracture, planetary			OK
25.31	Arcuate fracture, planetary		lineweight .2 mm color 100% purple 	OK
25.32	Partly buried arcuate fracture, planetary			OK
25.33	Radial fracture, planetary (associated with coronae)		lineweight .325 mm color 100% purple 	OK
25.34	Concentric fracture, planetary (associated with coronae)		lineweight .25 mm color 100% violet 	OK
25.35	Fold crest, planetary		lineweight .3 mm color 100% red 	OK
25.36	Broad warp, planetary		lineweight .635 mm color 100% red 	OK
25.37	Wrinkle ridge, planetary		lineweight .25 mm color 100% magenta 	OK
25.38	Ribbon trends, planetary		lineweight .25 mm color 100% green 	OK
25.39	Ridge belt, planetary		all lineweights .25 mm color 100% red 	OK
25.40	Broad ridge crest, planetary (generally associated with coronae)		lineweight .635 mm color 100% red 	OK
25.41	Ridge crest, planetary (1st option)		lineweight .25 mm 3.0 mm 	OK
25.42	Ridge crest, planetary (2nd option)		all lineweights .25 mm 	OK
25.43	Ridge crest, planetary (1st option)—Arrowhead shows abrupt termination of ridge		65° 1.375 mm 	OK
25.44	Ridge crest, planetary (2nd option)—Arrowhead shows abrupt termination of ridge			OK
25.45	Ridge crest (possible dike), planetary		70° 3.5 mm all lineweights .25 mm 	OK
25.46	Corona annulus ridge, planetary—Showing axial trace and plunge. Short arrow indicates steeper limb or scarp bounding corona trough		3.75 mm all lineweights .25 mm 75° 2.0 mm 	OK

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25—PLANETARY GEOLOGY FEATURES (continued)

REF NO	DESCRIPTION	SYMBOL	CARTOGRAPHIC SPECIFICATIONS*	NOTES ON USAGE*
25.47	Groove (generic), planetary		lineweight .25 mm	OK
25.48	Sharp groove, planetary		all lineweights .25 mm ↓ 1.5 mm ↑ .825 mm	OK
25.49	Subdued groove, planetary		all lineweights .25 mm ↓ 1.5 mm ↑	OK
25.50	Radially grooved ejecta (schematic), planetary		.75 mm .75 mm .25 mm ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ .75 mm .75 mm .75 mm	OK
25.51	Furrow, planetary		lineweight .25 mm ↓ 1.75 mm ↑ 1.75 mm	OK
25.52	Trough or narrow depression, planetary		lineweight .25 mm 65° ↓ 3.0 mm ↑ 65°	OK
25.53	Depression (mapped to scale), planetary		all lineweights .25 mm hachure height .875 mm; spacing 3.5 mm	OK
25.54	Large depression (mapped to scale), planetary		all lineweights .25 mm hachure height .625 mm; spacing 3.5 mm pattern 118-K	OK
25.55	Shallow, linear depression or valley, or narrow channel, planetary		lineweight .25 mm color 100% cyan	OK
25.56	Channel (canali), planetary		lineweight .25 mm long dash 2.5 mm; short dash .5 mm; spacing .5 mm	OK
25.57	Channel (canali), planetary—Two short dashes where structureless or indefinite		lineweight .25 mm long dash 2.5 mm; short dashes .5 mm; spacing .5 mm	OK
25.58	Narrow channel (possible lava channel), planetary—Arrows point in direction of flow		all lineweights .175 mm 4.0 mm ↓ 45° 1.875 mm	OK
25.59	Erosional boundary, planetary—Erosion increases in direction of arrows		2.5 mm 30° lineweight .175 mm ↓ 1.0 mm ↓ 20° ↓ 1.5 mm	OK
25.60	Angular unconformity, planetary—Hachures indicate truncated beds		lineweight .3 mm hachure height 1.75 mm; spacing 2.5 mm lineweight .2 mm	OK
25.61	Angular unconformity, planetary—Uncertain. Hachures indicate truncated beds		2.25 mm ↓ .5 mm TTTTTTTT	OK
25.62	Layer, planetary		1.125 mm ↓ .75 mm lineweight .2 mm	OK
25.63	Lineament, planetary		lineweight .3 mm 1.5 mm ↓ .5 mm	OK
25.64	Layering in canyon wall, planetary		all lineweights .2 mm lengths and spacing will vary	OK
25.65	Fabric of short radar-bright lineaments (schematic), planetary		all lineweights .25 mm lengths and spacing will vary	OK
25.66	Penetrative lineations, within tessera terrain, planetary		all lineweights .125 mm lengths and spacing will vary	OK
25.67	Flow direction, planetary		lineweight .175 mm length may vary 3.0 mm ↓ 30° ↓ 1.5 mm	OK
25.68	Wind streaks, planetary—Arrow points in inferred wind direction		all lineweights .2 mm length may vary 3.5 mm ↓ 30° ↓ 1.875 mm	OK
25.69	Area of channelized erosion and scouring, planetary—Arrow points in direction of interpreted flow		lineweight .375 mm length may vary 2.75 mm ↓ 30° ↓ 6.0 mm	OK
25.70	Area of eolian transport, planetary—Arrow points in direction of air flow		all lineweights .375 mm	OK

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25—PLANETARY GEOLOGY FEATURES (continued)

REF NO	DESCRIPTION	SYMBOL	CARTOGRAPHIC SPECIFICATIONS*	NOTES ON USAGE*
25.71	Scarp, planetary—Hachures point downscarp		all lineweights .25 mm 	OK
25.72	Lobate scarp, planetary—Hachures point downscarp		all lineweights .25 mm 	OK
25.73	Basal scarp, planetary—Hachures point downscarp		all lineweights .25 mm 	OK
25.74	Base of scarp, planetary—Barb points downscarp		lineweight .25 mm 	OK
25.75	Dome, edifice, or circular scarp, planetary (mapped to scale)—Hachures point downscarp		all lineweights .25 mm 	OK
25.76	Very small shield, dome, or volcanic construct, planetary (not mapped to scale)		all lineweights .4 mm 	OK
25.77	Small shield, dome, or volcanic construct, planetary (not mapped to scale)		all lineweights .6 mm 	OK
25.78	Large, steep-sided shield, dome, or volcanic construct, planetary (not mapped to scale)		all lineweights .375 mm circle diameter 4.0 mm 	OK
25.79	Mesa, planetary (not mapped to scale)		all lineweights .375 mm circle diameter 4.0 mm all barb lengths 1.625 mm 	OK
25.80	Large shield, dome, or volcanic construct, planetary (mapped to scale)—Hachures point downscarp		all lineweights .3 mm 	OK
25.81	Large cone, planetary (mapped to scale)—Hachures point downscarp		all lineweights .25 mm 	OK
25.82	Knob or central peak, planetary (not mapped to scale)		all lineweights .25 mm circle diameter 2.0 mm 	OK
25.83	Knob, planetary (mapped to scale)—Bar and ball indicate apical fissure. Hachures point downscarp		dot diameter 1.25 mm all lineweights .25 mm 	OK
25.84	Elevated plateau, planetary (mapped to scale)—Hachures point downscarp		all lineweights .25 mm 	OK
25.85	Steep-sided edifice, planetary (not mapped to scale)		2.0 mm all lineweights .25 mm 	OK
25.86	Steep-sided edifice, planetary (not mapped to scale)—Dotted where concealed or buried		short dashes .5 mm; spacing .5 mm 	not possible
25.87	Large edifice, planetary (not mapped to scale)		all lineweights .25 mm 	OK
25.88	Very small tholi, planetary (not mapped to scale)		lineweight .25 mm 	OK
25.89	Small tholi, planetary (not mapped to scale)		all lineweights .25 mm circle diameter 3.0 mm 	OK
25.90	Small tholi, planetary (mapped to scale)		all lineweights .25 mm 	OK
25.91	Corona, planetary		lineweight .25 mm dash length 1.5 mm; spacing .75 mm 	OK
25.92	Nova, planetary		lineweight .5 mm dash length 2.25 mm; spacing .75 mm 	OK
25.93	Palimpsest ring, planetary		dot diameter .875 mm; spacing .375 mm 	OK

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25—PLANETARY GEOLOGY FEATURES (continued)

REF NO	DESCRIPTION	SYMBOL	CARTOGRAPHIC SPECIFICATIONS*	NOTES ON USAGE*
25.94	Raised rim of larger impact crater, planetary— Hachures point into crater		all lineweights .3 mm hachure height .75 mm; spacing of hachure pairs .5 mm	OK
25.95	Raised rim of smaller impact crater, planetary		lineweight .3 mm	OK
25.96	Raised rim of impact crater, planetary—Showing visible ejecta blanket		lineweight .15 mm	OK
25.97	Degraded impact crater rim, planetary (1st option)		lineweight .3 mm dash length 1.0 mm; spacing .5 mm	OK
25.98	Rimless impact crater, subdued impact crater rim, degraded impact crater rim (2nd option), or buried impact crater rim, planetary		lineweight .3 mm long dash 4.0 mm; short dashes .2 mm; spacing .5 mm	OK
25.99	Secondary impact crater chain and cluster, planetary		lineweight .25 mm dash length 1.5 mm; spacing .5 mm	OK
25.100	Basin ring, planetary		lineweight .375 mm dash length .75 mm; spacing .75 mm	OK
25.101	Central peak of impact crater, planetary (1st option)		ellipse width 1.875 mm; height 2.625 mm all lineweights .2 mm	OK
25.102	Central peak of impact crater, planetary (2nd option)		2.375 mm all lineweights .2 mm	OK
25.103	Pit of impact crater floor, planetary (1st option)		lineweight .2 mm	OK
25.104	Pit of impact crater floor, planetary (2nd option)		dot diameter .875 mm	OK
25.105	Pit-crater chain (mapped to scale), planetary		lineweight .2 mm	OK
25.106	Small endogenic crater, planetary		dot diameter 1.0 mm	OK
25.107	Small endogenic crater (mapped to scale), planetary		lineweight .25 mm	OK
25.108	Medium-sized endogenic crater (mapped to scale), planetary		lineweight .25 mm dot diameter 1.0 mm	OK
25.109	Large endogenic crater (mapped to scale), planetary		all lineweights .25 mm hachure height 1.25 mm; spacing 3.175 mm	OK
25.110	Chain craters or collapsed lava tube (mapped to scale), planetary		lineweight .2 mm	OK
25.111	Caldera, planetary		all lineweights .25 mm hachure height .625 mm; spacing .875 mm	OK
25.112	Volcano, planetary, having summit crater		lineweight .15 mm	OK
25.113	Volcano, planetary, without summit crater—Queried if origin is conjectural		H-8	OK
25.114	Flow front, planetary—Arrow indicates flow direction		1.375 mm lineweight .25 mm arrow lineweight .25 mm 40°	OK
25.115	Mountain (rugged), planetary—Origin uncertain		lineweight .2 mm line color 50% black	OK
25.116	Channel bars, planetary—May be erosional or depositional		lineweight .2 mm line color 30% black	OK
25.117	Slide or slump material, planetary—Arrow indicates direction of movement		lineweight .25 mm 2.5 mm 1.75 mm arrow lineweight .2 mm 60°	OK

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25—PLANETARY GEOLOGY FEATURES (continued)

REF NO	DESCRIPTION	SYMBOL	CARTOGRAPHIC SPECIFICATIONS*	NOTES ON USAGE*	
25.118	Dark-colored ejecta, planetary		<i>pattern 428-K</i>	May also be shown in red or other colors.	OK
25.119	Light-colored ejecta, planetary		<i>pattern 429-K</i>	OK	
25.120	Terrace deposits, planetary		<i>pattern 427-K</i>	OK	
25.121	Dark-colored mantling material, planetary		<i>pattern 214-K (at 45°)</i>	OK	
25.122	Secondary crater field, planetary		<i>pattern 102-R</i>	May also be shown in black or other colors.	OK
25.123	Diffuse highland-lowland boundary scarp, planetary		<i>pattern 134-R</i>	OK	
25.124	Joint or fracture pattern, planetary		<i>pattern 430-K</i>	May also be shown in red or other colors.	OK
25.125	Area of reticulate grooves, planetary—Showing trend		<i>pattern 327-K</i>	OK	
25.126	Detached lobe, planetary—Arrow points in direction of interpreted landslide or debris flow		<i>pattern 116-K</i> 1.75 mm 60° 4.5 mm 0.3 mm	OK	
25.127	Low albedo smooth material, planetary—Interpreted as eolian material		<i>pattern 136-K</i>	not possible so far	
25.128	Airburst spot		<i>pattern 434-K</i>		
25.129	Mantling material, planetary—Light-colored		<i>pattern 435-K in 50% black</i>		
25.130	Splotch, planetary—Circular, radar-bright halo on surface		<i>pattern 116-K</i>		
25.131	Reticulate pattern on plains, planetary		<i>pattern 119-K</i>	OK	
25.132	Fracture zone, planetary		<i>pattern 137-K</i>	not possible so far	
25.133	Superficial crater material having weak radar backscatter coefficient, planetary		<i>pattern 436-K</i>		
25.134	Crater-associated ejecta halo, planetary		<i>pattern 429-K</i>	OK	
25.135	Halo without associated crater, planetary		<i>pattern 429-C</i>	OK	

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