## 9—LINEATION

REF NO	DESCRIPTION	SYMBOL	CARTOGRAPHIC SPECIFICATIONS*	NOTES ON USAGE*
9.1	Approximate plunge direction of inclined generic (origin or type not known or not specified) lineation or linear structure (1st option)	<b>→</b>	lineweight → 6.0 ← mm ∠ 25° → 1.25 mm	Open-arrowed ("2nd option") symbols may be used to show a sec-
9.2	Approximate plunge direction of inclined generic (origin or type not known or not specified) lineation or linear structure (2nd option)	<b>→</b>	all lineweights .2 mm  →→	ond generation or another instance of a particular lineation. Lineation symbols may
9.3	Inclined generic (origin or type not known or not specified) lineation or linear structure (1st option)  —Showing bearing and plunge	<b>→</b> 20	— <b>→</b> 20 HI-6	be used separately or combined with other symbols.
9.4	Inclined generic (origin or type not known or not specified) lineation or linear structure (2nd option) —Showing bearing and plunge	<b>&gt;</b> 30	<b>&gt;</b> 30	For lineation symbols representing a single observation at one
9.5	Horizontal generic (origin or type not known or not specified) lineation or linear structure (1st option) —Showing bearing	$\longleftrightarrow$	lineweight	locality, the point of observation is at one of the following two pla-
9.6	Horizontal generic (origin or type not known or not specified) lineation or linear structure (2nd option) —Showing bearing	€→	all lineweights .2 mm  ←→→	ces: for inclined linea- tions, at the "tail" end (opposite the arrow- head); for horizontal lin-
9.7	Vertical or near-vertical generic (origin or type not known or not specified) lineation or linear structure (1st option)	+	all lineweights 4.5 mm .975 mm	eations, at the midpoint of the bearing line. For a single lineation
9.8	Vertical or near-vertical generic (origin or type not known or not specified) lineation or linear structure (2nd option)	+	+	symbol combined with a single planar-feature (for example, bedding
9.9	Inclined parting lineation in sedimentary materials (1st option)—Showing bearing and plunge	<b>-++&gt;</b> 20	all lineweights 1.25 mm $\frac{4}{\pi}$ 1.25 mm 2.5 mm 1.0 mm	or foliation) symbol, join the "tail" end of the lin- eation arrow to the mid- point of the strike line of
9.10	Inclined parting lineation in sedimentary materials (2nd option)—Showing bearing and plunge	<del>-++&gt;</del> 30	<del>-++&gt;</del> 30	the planar-feature symbol; the junction point is at the point of observa-
9.11	Horizontal parting lineation in sedimentary materials (1st option)—Showing bearing	<del>&lt;</del> ++→	all lineweights 2 mm $2.5 \text{ mm} \xrightarrow{\checkmark} 1.25 \text{ mm}$	tion. For multiple observa- tions at one locality, join
9.12	Horizontal parting lineation in sedimentary materials (2nd option)—Showing bearing	<b>∢</b> ++->	<b>∢</b> ++->	all symbols at their "tail" ends (opposite the arrowheads or other ornamentations); the
9.13	Inclined sole mark, tool mark, scour mark, flute mark, groove, or channel in sedimentary materials (1st option)—Showing bearing and plunge	<b>&gt;</b> 20	2.0 mm lineweight  20 cdraft as shown	junction point is at the point of observation.
9.14	Inclined sole mark, tool mark, scour mark, flute mark, groove, or channel in sedimentary materials (2nd option)—Showing bearing and plunge	<del>&gt;</del> 30	all lineweights→>30 .2 mm	
9.15	Horizontal sole mark, tool mark, scour mark, flute mark, groove, or channel in sedimentary materials (1st option)—Showing bearing	<del>&lt;-&gt;</del>	2.0 mm lineweight  ⇒	
9.16	Horizontal sole mark, tool mark, scour mark, flute mark, groove, or channel in sedimentary materials (2nd option)—Showing bearing	<b>∢</b> ►>>	all lineweights .2 mm	
9.17	Inclined slickenline, groove, or striation on fault surface (1st option)—Showing bearing and plunge	<b></b> ◆20	lineweight .2 mm	
9.18	Inclined slickenline, groove, or striation on fault surface (2nd option)—Showing bearing and plunge	\$30	all lineweights .2 mm ——⇒30	
9.19	Horizontal slickenline, groove, or striation on fault surface (1st option)—Showing bearing	•	lineweight $30^{\circ}$ $6.0 \times 30^{\circ}$ $1.5 \text{ mm}$ $30^{\circ}$ $1.5 \text{ mm}$ $60^{\circ}$ $1.5 \text{ mm}$	
9.20	Horizontal slickenline, groove, or striation on fault surface (2nd option)—Showing bearing	<b>→</b>	all lineweights .2 mm	
9.21	Inclined surface groove or striation (origin not known or not specified) (1st option)—Showing bearing and plunge	<b>+◆</b> 20	all lineweights  1.25 mm $\frac{1}{\pi}$ $+$ 20 .2 mm $\Rightarrow$ $+$ 3.0 mm	
9.22	Inclined surface groove or striation (origin not known or not specified) (2nd option)—Showing bearing and plunge	<del>+</del> \$30	—+⇒30	
9.23	Horizontal surface groove or striation (origin not known or not specified) (1st option)—Showing bearing	<b>◆</b> + <b>◆</b>	all lineweights 1.25 mm $\frac{1}{x}$ $\leftrightarrow$ $\Rightarrow$ $\Rightarrow$ $\Rightarrow$ $\Rightarrow$ $\Rightarrow$ 3.0 mm	
9.24	Horizontal surface groove or striation (origin not known or not specified) (2nd option)—Showing bearing	<b>◇+</b> ◇	<b>⋄</b> +⋄	

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REF NO	DESCRIPTION	SYMBOL	CARTOGRAPHIC SPECIFICATIONS*	NOTES ON USAGE*
9.25	Inclined aligned-object lineation (1st option)— Showing bearing and plunge	<b>→→</b> 20	dot diameter 1.0 mm $\stackrel{\Rightarrow}{\longrightarrow} 20$ $\stackrel{\Rightarrow}{\longrightarrow} 20$ $\stackrel{\Rightarrow}{\longrightarrow} 20$ $\stackrel{\Rightarrow}{\longrightarrow} 1.25$ mm $\stackrel{\Rightarrow}{\longrightarrow} 2$ mm	Open-arrowed ("2nd option") symbols may be used to show a sec- ond generation or
9.26	Inclined aligned-object lineation (2nd option)— Showing bearing and plunge	<del></del>	all lineweights →→> 30 .2 mm	another instance of a particular lineation.  Lineation symbols may
9.27	Horizontal aligned-object lineation (1st option)— Showing bearing	<del>&lt;•</del> →	dot diameter   6.0   Inneweight   1.0 mm   25°   25°   25 mm   2.2 mm   2.25 mm   1.25 mm	be used separately or combined with other symbols.
9.28	Horizontal aligned-object lineation (2nd option)— Showing bearing	<b>◆◆</b> <i>&gt;</i>	all lineweights <b>←→→</b> .2 mm	For lineation symbols representing a single observation at one
9.29	Inclined aligned-clast or aligned-grain lineation (in sedimentary materials) (1st option)—Showing bearing and plunge	<b>&gt;</b> 20	2.425 mm 30° lineweight → 20 — .2 mm .675 mm ≼ → 2.0 mm	locality, the point of observation is at one of the following two pla-
9.30	Inclined aligned-clast or aligned-grain lineation (in sedimentary materials) (2nd option)—Showing bearing and plunge	<del>&gt;</del> 30	all lineweights →→30 .2 mm	ces: for inclined linea- tions, at the "tail" end (opposite the arrow- head); for horizontal lin-
9.31	Horizontal aligned-clast or aligned-grain lineation (in sedimentary materials) (1st option)—Showing bearing	<b>←●→</b>	$ \begin{array}{c cccc} 2.425 \text{ mm} & & & \text{lineweight} \\ & & & & & & \\ & & & & & & \\ .675 \text{ mm} & & & & & \\ \end{array} $	eations, at the midpoint of the bearing line. For a single lineation
9.32	Horizontal aligned-clast or aligned-grain lineation (in sedimentary materials) (2nd option)—Showing bearing	<b>◆●</b> >	all lineweights ∢◆→ .2 mm	symbol combined with a single planar-feature (for example, bedding
9.33	Inclined aligned-inclusion lineation (in igneous rocks) (1st option)—Showing bearing and plunge	<b>&gt;</b> 20	circle diameter 1.0 mm  → 20 2.5 mm	or foliation) symbol, join the "tail" end of the lin- eation arrow to the mid- point of the strike line of
9.34	Inclined aligned-inclusion lineation (in igneous rocks) (2nd option)—Showing bearing and plunge	<b>&gt;</b> 30	<b>0→3</b> 0	the planar-feature symbol; the junction point is at the point of observa-
9.35	Horizontal aligned-inclusion lineation (in igneous rocks) (1st option)—Showing bearing	<b>←</b> ◇→	circle diameter 1.0 mm  → → ∴ 2 mm 2.5 mm	tion. For multiple observa- tions at one locality, join
9.36	Horizontal aligned-inclusion lineation (in igneous rocks) (2nd option)—Showing bearing	<b>←◇→</b>	40→	all symbols at their "tail" ends (opposite the arrowheads or other ornamentations); the
9.37	Inclined aligned-mineral lineation (1st option)— Showing bearing and plunge	<del>&gt;</del> 20	1.0 mm 1.0 ${\star}$ ${\mapsto}$ ${\leftarrow}$ lineweight $mm \underset{{\star}}{\star} {\mapsto}$ ${\leftarrow}$ .2 mm	junction point is at the point of observation.
9.38	Inclined aligned-mineral lineation (2nd option)— Showing bearing and plunge	<del>&gt;</del> 30	all lineweights —■→30 .2 mm	
9.39	Horizontal aligned-mineral lineation (1st option)— Showing bearing	<del>&lt;=&gt;</del>	1.0 mm 1.0 ${\star}$ ${\leftrightarrow}$ ${\leftarrow}$ lineweight $mm \underset{{\star}}{\star}$ ${\leftarrow}$ .2 mm	
9.40	Horizontal aligned-mineral lineation (2nd option)— Showing bearing	<del>&lt; ■</del> →	all lineweights <b>←■→</b> .2 mm	
9.41	Inclined aligned mineral-aggregate lineation (1st option)—Showing bearing and plunge	<del>&gt;</del> 20	.75 mm 5 mm lineweight .75 ½ 20 2 mm mm ½ 22 × 20 2.0 mm	
9.42	Inclined aligned mineral-aggregate lineation (2nd option)—Showing bearing and plunge	<del>&gt;</del> 30	all lineweights <del>&gt;</del> 30 .2 mm	
9.43	Horizontal aligned mineral-aggregate lineation (1st option)—Showing bearing	<del>&lt;==&gt;</del>	.75 mm .5 mm lineweight .75 \( \frac{1}{2} \) mm \( \frac{1}{4} \) \( \frac{1}{2} \) mm \( \frac{1}{2} \) \( \frac{1}{2}	
9.44	Horizontal aligned mineral-aggregate lineation (2nd option)—Showing bearing	<b>∢==</b> >	all lineweights ∢==> .2 mm	
9.45	Inclined aligned deformed-mineral lineation (1st option)—Showing bearing and plunge	<b>-#→</b> 20	2.75 mm .5 mm lineweight 1.0 mm * 20 .2 mm 30°	
9.46	Inclined aligned deformed-mineral lineation (2nd option)—Showing bearing and plunge	<del></del>	all lineweights  —#→30 .2 mm	
9.47	Horizontal aligned deformed-mineral lineation (1st option)—Showing bearing	<del>&lt;1&gt;</del>	2.75 mm .5 mm lineweight 1.0 mm \( \frac{\psi}{\psi} \) .2 mm	
9.48	Horizontal aligned deformed-mineral lineation (2nd option)—Showing bearing	<b>←#→</b>	all lineweights <b>←#→</b> .2 mm	

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REF NO	DESCRIPTION	SYMBOL	CARTOGRAPHIC SPECIFICATIONS*	NOTES ON USAGE*
9.49	Inclined aligned stretched-object lineation (1st option)—Showing bearing and plunge	<del>&gt;</del> 20	6.0   HI-6   .875 mm * 25   1.75 mm * 25   1.25 mm ↑ 1.25 mm .2 mm	Open-arrowed ("2nd option") symbols may be used to show a sec-
9.50	Inclined aligned stretched-object lineation (2nd option)—Showing bearing and plunge	<del>&gt;</del> 30	all lineweights ——→>30 .2 mm	ond generation or another instance of a particular lineation. Lineation symbols may
9.51	Horizontal aligned stretched-object lineation (1st option)—Showing bearing	<del>&lt;•&gt;</del>	Ineweight	be used separately or combined with other symbols.
9.52	Horizontal aligned stretched-object lineation (2nd option)—Showing bearing	<b>◆◆</b> →	all lineweights .2 mm  ←→→	For lineation symbols representing a single observation at one
9.53	Inclined aligned stretched-pebble lineation (1st option)—Showing bearing and plunge	<b>&gt;</b> 20	2.125 mm all lineweights → \ \ 20 .2 mm  1.75 mm	locality, the point of observation is at one of the following two pla-
9.54	Inclined aligned stretched-pebble lineation (2nd option)—Showing bearing and plunge	<b>&gt;</b> 30	<b>&gt;&gt;</b> 30	ces: for inclined linea- tions, at the "tail" end (opposite the arrow- head); for horizontal lin-
9.55	Horizontal aligned stretched-pebble lineation (1st option)—Showing bearing	<b>←○→</b>	2.125 mm →   ★ all lineweights .875 mm → .2 mm 1.75 mm	eations, at the midpoint of the bearing line. For a single lineation
9.56	Horizontal aligned stretched-pebble lineation (2nd option)—Showing bearing	<b>♦</b> ○→	40≯	symbol combined with a single planar-feature (for example, bedding
9.57	Inclined aligned stretched-ooid lineation (1st option)—Showing bearing and plunge	<b>~&gt;</b> 20	2.4 mm →	or foliation) symbol, join the "tail" end of the lin- eation arrow to the mid- point of the strike line of
9.58	Inclined aligned stretched-ooid lineation (2nd option)—Showing bearing and plunge	<i>0→30</i>	<i>0</i> →30	the planar-feature symbol; the junction point is at the point of observa-
9.59	Horizontal aligned stretched-ooid lineation (1st option)—Showing bearing	<b>←</b> 0→	2.4 mm →   K 30° all lineweights .2 mm .75 mm ★ ≯ 1.5 mm	tion. For multiple observations at one locality, join
9.60	Horizontal aligned stretched-ooid lineation (2nd option)—Showing bearing	<b>◆</b> 0→	40→	all symbols at their "tail" ends (opposite the arrowheads or other ornamentations); the
9.61	Inclined rodding (1st option)—Showing bearing and plunge	<del>&gt;</del> 20	1.75 mm   lineweight   +   +     20 .2 mm 2.5 mm $  +   +  $ 30°	junction point is at the point of observation.
9.62	Inclined rodding (2nd option)—Showing bearing and plunge	<del>&gt;</del> 30	all lineweights >30 .2 mm	
9.63	Horizontal rodding (1st option)—Showing bearing	<del>&lt;=&gt;</del>	1.75 mm   lineweight   +   +   .2 mm 2.5 mm $\rightarrow   +  $ 30°	
9.64	Horizontal rodding (2nd option)—Showing bearing	<b>←→</b> >	all lineweights →→ .2 mm	
9.65	Inclined mullions (1st option)—Showing bearing and plunge	-∞ <b>→</b> 20	2.0 mm all lineweights  → k .2 mm circle diameters 1.0 mm	
9.66	Inclined mullions (2nd option)—Showing bearing and plunge	<b>∞-&gt;</b> 30	-∞ <b>&gt;</b> 30	
9.67	Horizontal mullions (1st option)—Showing bearing	<b>←∞→</b>	2.0 mm all lineweights  N ← Circle diameters  1.0 mm	
9.68	Horizontal mullions (2nd option)—Showing bearing	<b>←∞</b> →	<b>∢</b> ∞>	
9.69	Inclined boudins (1st option)—Showing bearing and plunge	<del>-&gt;&lt;</del> ▶20	2.8 mm → 20 all lineweights .625 mm radius .2 mm	
9.70	Inclined boudins (2nd option)—Showing bearing and plunge	<del>-&gt;&lt;-&gt;</del> 30	<del>-&gt;&lt;&gt;</del> 30	
9.71	Horizontal boudins (1st option)—Showing bearing	<del>&lt;&gt;</del>	2.8 mm → 4 mm  all lineweights .625 mm radius .2 mm	
9.72	Horizontal boudins (2nd option)—Showing bearing	<del>&lt; \</del> →	<del>∢</del> ※ →	

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REF NO	DESCRIPTION	SYMBOL	CARTOGRAPHIC SPECIFICATIONS*	NOTES ON USAGE*
9.73	Inclined pencil structure (1st option)—Showing bearing and plunge	<b>→</b> 20	all lineweights → 6.0 k Hl-6 .2 mm .75 mm * 20 25 25 1.75 mm 1 30 1.25 mm	Open-arrowed ("2nd option") symbols may be used to show a sec- ond generation or
9.74	Inclined pencil structure (2nd option)—Showing bearing and plunge	<b>→</b> 30	<b>-</b> →>30	another instance of a particular lineation.
9.75	Horizontal pencil structure (1st option)—Showing bearing	€0>	all lineweights → 6.0 k .75 mm .2 mm 25 ↓ 25 ↓ 25 1.75 mm 1.75 mm	Lineation symbols may be used separately or combined with other symbols.
9.76	Horizontal pencil structure (2nd option)—Showing bearing	<b>♦</b> ◆>>	<b>♦</b> ○>	For lineation symbols representing a single observation at one
9.77	Inclined lineation at intersection of bedding and cleavage (1st option)—Showing bearing and plunge	<del></del>	2.5 mm all lineweights  1.25 mm  1.25 mm  45  75 mm	locality, the point of observation is at one of the following two pla-
9.78	Inclined lineation at intersection of bedding and cleavage (2nd option)—Showing bearing and plunge	<del></del>	<del></del>	ces: for inclined linea- tions, at the "tail" end (opposite the arrow- head); for horizontal lin-
9.79	Horizontal lineation at intersection of bedding and cleavage (1st option)—Showing bearing	<del>&lt;∀&gt;</del>	2.5 mm all lineweights 1.25 mm  1.25 mm  45	eations, at the midpoint of the bearing line. For a single lineation
9.80	Horizontal lineation at intersection of bedding and cleavage (2nd option)—Showing bearing	<del>&lt;∀&gt;</del> >	<b>∢+/-&gt;</b>	symbol combined with a single planar-feature (for example, bedding
9.81	Inclined lineation at intersection of two cleavages (1st option)—Showing bearing and plunge	<b>-//→</b> 20	2.5 mm all lineweights  1.25 mm  1.25 mm  45  1.825 mm	or foliation) symbol, join the "tail" end of the lin- eation arrow to the mid- point of the strike line of
9.82	Inclined lineation at intersection of two cleavages (2nd option)—Showing bearing and plunge	<b>//→</b> 30	<del>/-&gt;</del> 30	the planar-feature symbol; the junction point is at the point of observa-
9.83	Horizontal lineation at intersection of two cleavages (1st option)—Showing bearing	<b>←//→</b>	2.5 mm all lineweights 1.25 mm  45 825 mm	tion. For multiple observa- tions at one locality, join
9.84	Horizontal lineation at intersection of two cleavages (2nd option)—Showing bearing	<b>∜</b> #≯	<b>∢</b> ₩>	all symbols at their "tail" ends (opposite the arrowheads or other
9.85	Inclined lineation at intersection of two fractures or joints (1st option)—Showing bearing and plunge	<del>-□</del> >20	2.4375 mm all lineweights  1.125 mm  1.125 mm  1.125 mm	ornamentations); the junction point is at the point of observation.
9.86	Inclined lineation at intersection of two fractures or joints (2nd option)—Showing bearing and plunge	—□→30	—□→30	
9.87	Horizontal lineation at intersection of two fractures or joints (1st option)—Showing bearing	<del>&lt;□&gt;</del>	2.4375 mm all lineweights  1.125 mm  1.125 mm  2.4375 mm all lineweights 2.2 mm 1.125 mm	
9.88	Horizontal lineation at intersection of two fractures or joints (2nd option)—Showing bearing	<del>&lt;□</del> >	<del>&lt;□</del> >	
9.89	Inclined lineation at intersection of two foliations (1st option)—Showing bearing and plunge	<del>-</del> ♦►20	2.25 mm all lineweights 1.5 mm $\stackrel{*}{\leftarrow}$ $\stackrel{*}{\leftarrow}$ 20 .2 mm $45 \stackrel{*}{\leftarrow}$ $\times$ 1.5 mm	
9.90	Inclined lineation at intersection of two foliations (2nd option)—Showing bearing and plunge	<del>♦</del> >30	<del>-</del> ♦→30	
9.91	Horizontal lineation at intersection of two foliations (1st option)—Showing bearing	<del>&lt;</del> ♦>	2.25 mm all lineweights 1.5 mm * .2 mm 45 +1.5 mm	
9.92	Horizontal lineation at intersection of two foliations (2nd option)—Showing bearing	<b>♦♦</b> >	<b>∢</b> ♦>	
9.93	Inclined lineation at intersection of two surfaces (origin or type unspecified) (1st option)—Showing bearing and plunge	— <b>×→</b> 20	3.0 mm all lineweights 1.25 mm*  1.25 mm*  4 × 1.25 mm	
9.94	Inclined lineation at intersection of two surfaces (origin or type unspecified) (2nd option)—Showing bearing and plunge	<del>-×&gt;</del> 30	<del>-×-&gt;</del> 30	
9.95	Horizontal lineation at intersection of two surfaces (origin or type unspecified) (1st option)—Showing bearing	<del>&lt;*</del> >	3.0 mm all lineweights 1.25 mm  4	
9.96	Horizontal lineation at intersection of two surfaces (origin or type unspecified) (2nd option)—Showing bearing	<b>∢</b> ×>	<b>∢</b> ×>	

REF NO	DESCRIPTION	SYMBOL	CARTOGRAPHIC SPECIFICATIONS*	NOTES ON USAGE*
9.97	Inclined fold hinge of generic (type or orientation unspecified) small, minor fold (1st option)— Showing bearing and plunge	→>20	color 100%   125 mm 2 mm	Open-arrowed ("2nd option") symbols may be used to show a sec-
9.98	Inclined fold hinge of generic (type or orientation unspecified) small, minor fold (2nd option)— Showing bearing and plunge	→>30	all lineweights →→>30 .2 mm	ond generation or another instance of a particular lineation.
9.99	Horizontal fold hinge of generic (type or orientation unspecified) small, minor fold (1st option)— Showing bearing	<b>↔→</b>	2.75 mm 25 25 color 100% 1.25 mm 1.25 mm magenta	Lineation symbols may be used separately or combined with other symbols.
9.100	Horizontal fold hinge of generic (type or orientation unspecified) small, minor fold (2nd option)— Showing bearing	<b>←→</b>	<b>←→→</b>	For lineation symbols representing a single observation at one
9.101	Inclined fold hinge of small, minor penecontempor- aneous soft-sediment fold (1st option)—Showing bearing and plunge	<del>-                                    </del>	color 100% 20 .2 mm draft as shown	locality, the point of observation is at one of the following two pla-
9.102	Inclined fold hinge of small, minor penecontempor- aneous soft-sediment fold (2nd option)—Showing bearing and plunge	→>30	<del>-                                    </del>	ces: for inclined linea- tions, at the "tail" end (opposite the arrow- head); for horizontal lin-
9.103	Horizontal fold hinge of small, minor penecontem- poraneous soft-sediment fold (1st option)— Showing bearing	<del>&lt; ◊ &gt;</del>	3.0 mm all lineweights .2 mm	eations, at the midpoint of the bearing line. For a single lineation
9.104	Horizontal fold hinge of small, minor penecontem- poraneous soft-sediment fold (2nd option)— Showing bearing	<b>◆◆</b> >	<b>◆◆</b> ◆	symbol combined with a single planar-feature (for example, bedding
9.105	Inclined fold hinge of small, minor anticline (1st option)—Showing bearing and plunge	→→20	magenta 20 .2 mm	or foliation) symbol, join the "tail" end of the lin- eation arrow to the mid- point of the strike line of
9.106	Inclined fold hinge of small, minor anticline (2nd option)—Showing bearing and plunge	→>30	→→30	the planar-feature symbol; the junction point is at the point of observa-
9.107	Horizontal fold hinge of small, minor anticline (1st option)—Showing bearing. Ball on topographically higher side of fold	<del>&lt;&gt;</del> →	draft as shown .4 mm magenta	For multiple observa- tions at one locality, join
9.108	Horizontal fold hinge of small, minor anticline (2nd option)—Showing bearing. Ball on topographically higher side of fold	<del>&lt;→•</del> >	<b>♦+</b>	all symbols at their "tail" ends (opposite the arrowheads or other ornamentations); the
9.109	Inclined fold hinge of small, minor antiform (1st option)—Showing bearing and plunge	→) →20	color 100% 3.3 mm all lineweights magenta 20 .2 mm	junction point is at the point of observation.  May also be shown in
9.110	Inclined fold hinge of small, minor antiform (2nd option)—Showing bearing and plunge	<del></del>		black or other colors.
9.111	Horizontal fold hinge of small, minor antiform (1st option)—Showing bearing. Ball on topographically higher side of fold	<del>&lt; )•</del> >	dot diameter 3.5 mm all lineweights .2 mm .2 mm color 100% magenta	
9.112	Horizontal fold hinge of small, minor antiform (2nd option)—Showing bearing. Ball on topographically higher side of fold	<del>⟨-}•</del> ▷	<b>√→←</b>	
9.113	Inclined fold hinge of small, minor syncline (1st option)—Showing bearing and plunge	<del></del> 20	color 100% 2.45 mm all lineweights magenta > 1 20 .2 mm	
9.114	Inclined fold hinge of small, minor syncline (2nd option)—Showing bearing and plunge	<del>&gt;</del> 30	<del>-&lt;</del> →30	
9.115	Horizontal fold hinge of small, minor syncline (1st option)—Showing bearing. Ball on topographically higher side of fold	<b>←↔</b>	dot diameter 2.45 mm all lineweights .5 mm	
9.116	Horizontal fold hinge of small, minor syncline (2nd option)—Showing bearing. Ball on topographically higher side of fold	<b>∢-{*</b> }>	<b>←↔</b>	
9.117	Inclined fold hinge of small, minor synform (1st option)—Showing bearing and plunge	<b>-</b> (→20	color 100% 3.3 mm all lineweights magenta 20 .2 mm	
9.118	Inclined fold hinge of small, minor synform (2nd option)—Showing bearing and plunge	<del>(-</del> >30	<del>-(→</del> 30	
9.119	Horizontal fold hinge of small, minor synform (1st option)—Showing bearing. Ball on topographically higher side of fold	<del>&lt; (+</del> >	dot diameter 3.3 mm all lineweights .5 mm .2 mm .2 mm .2 color 100% draft as shown % 8 mm magenta	
9.120	Horizontal fold hinge of small, minor synform (2nd option)—Showing bearing. Ball on topographically higher side of fold	<b>⟨+(+</b> ▷	<b>←</b> ◆▶	

REF NO	DESCRIPTION	SYMBOL	CARTOGRAPHIC SPECIFICATIONS*	NOTES ON USAGE*
9.121	Inclined symmetric minor fold hinge (1st option)— Showing bearing and plunge	→3→20	color 100% $\Rightarrow$ 6.0 $\leftarrow$ HI-6 (100% black) magenta 20 all lineweights draft as shown $\Rightarrow$ 1.25 mm 2 mm	Open-arrowed ("2nd option") symbols may be used to show a sec-
9.122	Inclined symmetric minor fold hinge (2nd option)— Showing bearing and plunge	<del>-3</del> → 30		another instance of a particular lineation.
9.123	Horizontal symmetric minor fold hinge (1st option) —Showing bearing	<del>&lt;</del> ₹}	color 100% → 6.0 ← all lineweights magenta 25 25 2 mm  1.25 mm → 1.25 mm 2.5 mm ↑ 1.25 mm	Lineation symbols may be used separately or combined with other symbols.
9.124	Horizontal symmetric minor fold hinge (2nd option) —Showing bearing	<del>&lt; } &gt;</del>	<del>&lt; }</del> →	For lineation symbols representing a single observation at one
9.125	Inclined asymmetric (S-shaped, counterclockwise sense of shear) minor fold hinge (1st option)— Showing bearing and plunge	<del>- \0 &gt;</del> 20	color 100% 3.0 mm all lineweights 2 mm	locality, the point of observation is at one of the following two pla-
9.126	Inclined asymmetric (S-shaped, counterclockwise sense of shear) minor fold hinge (2nd option)— Showing bearing and plunge	<del>- い</del> >30	<del>- \01</del> → 30	ces: for inclined linea- tions, at the "tail" end (opposite the arrow- head); for horizontal lin-
9.127	Horizontal asymmetric (S-shaped, counterclock- wise sense of shear) minor fold hinge (1st option) —Showing bearing	<del>&lt; い &gt;</del>	color 100% 3.0 mm all lineweights 2 mm	eations, at the midpoint of the bearing line. For a single lineation
9.128	Horizontal asymmetric (S-shaped, counterclockwise sense of shear) minor fold hinge (2nd option) —Showing bearing	<del>&lt; 10 &gt;</del>	<del>&lt; (∧</del> >	symbol combined with a single planar-feature (for example, bedding
9.129	Inclined asymmetric (Z-shaped, clockwise sense of shear) minor fold hinge (1st option)—Showing bearing and plunge	<b>→&gt;&gt;</b> 20	color 100% 3.0 mm all lineweights agenta 20 draft as shown	or foliation) symbol, join the "tail" end of the lin- eation arrow to the mid-
9.130	Inclined asymmetric (Z-shaped, clockwise sense of shear) minor fold hinge (2nd option)—Showing bearing and plunge	<del>N</del> ≥ 30	— <b>N</b> ⇒30	point of the strike line of the planar-feature sym- bol; the junction point is at the point of observa-
9.131	Horizontal asymmetric (Z-shaped, clockwise sense of shear) minor fold hinge (1st option)—Showing bearing	<del><n></n></del>	color 100% 3.0 mm all lineweights 2 mm	
9.132	Horizontal asymmetric (Z-shaped, clockwise sense of shear) minor fold hinge (2nd option)—Showing bearing	<b>∢₩</b> ≯	<b>∢₩</b> >	all symbols at their "tail" ends (opposite the arrowheads or other
9.133	Inclined crenulation lineation (1st option)—Showing bearing and plunge	<del>-{</del> →20	20 = 1	ornamentations); the junction point is at the point of observation.  May also be shown in
9.134	Inclined crenulation lineation (2nd option)— Showing bearing and plunge	<del></del> ₹→30	<del>-</del> ₹→30	black or other colors.
9.135	Horizontal crenulation lineation (1st option)— Showing bearing	<del>&lt;</del> ← ← ← ← ← ← ← ← ← ← ← ← ← ← ← ← ← ← ←	color 100% 3.0 mm all lineweights 2 mm	
9.136	Horizontal crenulation lineation (2nd option)— Showing bearing	<b>←</b> {→	<b>←</b> ₹→	
9.137	Inclined asymmetric (S-shaped, counterclockwise sense of shear) kink-band crenulation lineation (1st option)—Showing bearing and plunge	<del>\$→</del> 20	color 100% 3.0 mm all lineweights 2 mm draft as shown	
9.138	Inclined asymmetric (S-shaped, counterclockwise sense of shear) kink-band crenulation lineation (2nd option)—Showing bearing and plunge	<del>&gt;</del> 30	<del>-}→</del> 30	
9.139	Horizontal asymmetric (S-shaped, counterclockwise sense of shear) kink-band crenulation lineation (1st option)—Showing bearing	<del>&lt;</del>	color 100% 3.0 mm all lineweights 2 mm	
9.140	Horizontal asymmetric (S-shaped, counterclock- wise sense of shear) kink-band crenulation linea- tion (2nd option)—Showing bearing	<del>&lt;∫→</del>	<b>←</b> }→	
9.141	Inclined asymmetric (Z-shaped, clockwise sense of shear) kink-band crenulation lineation (1st option) —Showing bearing and plunge	<del>- }&gt;</del> 20	color 100% 3.0 mm all lineweights 2 mm	
9.142	Inclined asymmetric (Z-shaped, clockwise sense of shear) kink-band crenulation lineation (2nd option) —Showing bearing and plunge	<del></del> }>30	— <del>₹</del> →30	
9.143	Horizontal asymmetric (Z-shaped, clockwise sense of shear) kink-band crenulation lineation (1st option)—Showing bearing	<del>&lt;</del> →	color 100% 3.0 mm all lineweights 2 mm	
9.144	Horizontal asymmetric (Z-shaped, clockwise sense of shear) kink-band crenulation lineation (2nd option)—Showing bearing	<b>←</b> }→	<b>←</b> →	
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