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) | → | lineweight .2 mm | Open-arrowed ("2nd option") symbols may be used to show a second |
| 9.2 | Approximate plunge direction of inclined generic (origin or type not known or not specified) lineation or linear structure (2nd option) | → | all lineweights .2 mm —→ | 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 | → 20 | — → 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 | > 30 | > 30 | For lineation symbols representing a single observation at one lo- |
| 9.5 | Horizontal generic (origin or type not known or not specified) lineation or linear structure (1st option) —Showing bearing | \longleftrightarrow | lineweight 6.0 mm 25° | cality, the point of ob- servation 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 | \longleftrightarrow | 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 | 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 | -++> 20 | all lineweights 1.25 mm 20 .2 mm 2.5 mm | or foliation) symbol, join the "tail" end of the line- ation arrow to the mid- point of the strike line of |
| 9.10 | Inclined parting lineation in sedimentary materials (2nd option)—Showing bearing and plunge | -++> 30 | - 1+ > 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 | < ++→ | all lineweights .2 mm 2.5 mm 2.5 mm | tion. For multiple observa- tions at one locality, join |
| 9.12 | Horizontal parting lineation in sedimentary materials (2nd option)—Showing bearing | ← ₩ | ∢ ₩⊅ | all symbols at their "tail" ends (opposite the ar- rowheads or other orna- mentations); the junc- |
| 9.13 | Inclined sole mark, tool mark, scour mark, flute mark, groove, or channel in sedimentary materials (1st option)—Showing bearing and plunge | -→> 20 | 2.0 mm lineweight ⇒ k 20 .2 mm draft as shown | tion 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 | > 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 | ←→ | 2.0 mm lineweight ⇒ k .2 mm draft as shown | |
| 9.16 | Horizontal sole mark, tool mark, scour mark, flute mark, groove, or channel in sedimentary materials (2nd option)—Showing bearing | ↔ > | all lineweights .2 mm | |
| 9.17 | Inclined slickenline, groove, or striation on fault surface (1st option)—Showing bearing and plunge | ◆20 | lineweight 2 mm 20 30° 20 1.5 mm 60° | |
| 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 \rightarrow 6.0 \leftarrow mm \rightarrow 3.5 mm \rightarrow 1.5 mm \rightarrow 60° \mid 60° \mid 60° | |
| 9.20 | Horizontal slickenline, groove, or striation on fault surface (2nd option)—Showing bearing | ◇ —◇ | all lineweights .2 mm ←→ | |
| 9.21 | Inclined surface groove or striation (origin not known or not specified) (1st option)—Showing bearing and plunge | → +◆20 | all lineweights 1.25 mm $\frac{1}{\pi}$ $+$ 20 .2 mm \Rightarrow \Rightarrow 3.0 mm | |
| 9.22 | Inclined surface groove or striation (origin not known or not specified) (2nd option)—Showing bearing and plunge | -+ ⇒30 | -+ ⇒30 | |
| 9.23 | Horizontal surface groove or striation (origin not known or not specified) (1st option)—Showing bearing | *+* | all lineweights 1.25 mm $\frac{1}{\pi}$ \leftrightarrow 3.0 mm | |
| 9.24 | Horizontal surface groove or striation (origin not known or not specified) (2nd option)—Showing bearing | ◇+ ◇ | ◇+ ◇ | |

| 9.26 Inclined aligned-object lineation (2nd option)— Showing bearing and plunge 9.27 Horizontal aligned-object lineation (1st option)— Showing bearing Horizontal aligned-object lineation (2nd option)— Showing bearing Horizontal aligned-object lineation (2nd option)— Showing bearing Horizontal aligned-object lineation (2nd option)— Showing bearing Inclined aligned-clast or aligned-grain lineation (in sedimentary materials) (1st option)—Showing bearing and plunge Inclined aligned-clast or aligned-grain lineation (in sedimentary materials) (1st option)—Showing bearing and plunge Inclined aligned-clast or aligned-grain lineation (in all lineweights | NOTES ON USAGE* Open-arrowed ("2nd option") symbols may be used to show a second generation or another instance of a particular lineation. |
|---|--|
| 9.26 Inclined aligned-object lineation (2nd option)— Showing bearing and plunge Horizontal aligned-object lineation (1st option)— Showing bearing Horizontal aligned-object lineation (2nd option)— Showing bearing Horizontal aligned-object lineation (2nd option)— Showing bearing Horizontal aligned-object lineation (2nd option)— Showing bearing Inclined aligned-clast or aligned-grain lineation (in sedimentary materials) (1st option)—Showing bearing and plunge Inclined aligned-clast or aligned-grain lineation (in sedimentary materials) (1st option)—Showing bearing and plunge Inclined aligned-clast or aligned-grain lineation (in all lineweights | tion") symbols may be used to show a second generation or another instance of a particular |
| 9.26 Inclined aligned-object lineation (2nd option)— Showing bearing and plunge Horizontal aligned-object lineation (1st option)— Showing bearing Horizontal aligned-object lineation (2nd option)— Showing bearing Horizontal aligned-object lineation (2nd option)— Showing bearing Horizontal aligned-object lineation (2nd option)— Showing bearing Inclined aligned-clast or aligned-grain lineation (in sedimentary materials) (1st option)—Showing bearing and plunge Inclined aligned-clast or aligned-grain lineation (in sedimentary materials) (1st option)—Showing bearing and plunge Inclined aligned-clast or aligned-grain lineation (in all lineweights all lineweights 2 mm 1.25 mm 1.25 mm 1.25 mm 1.25 mm 1.25 mm 1.25 mm 2.425 mm 30 lineweights 2.2 mm | instance of a particular |
| 9.27 Showing bearing Horizontal aligned-object lineation (2nd option)— Showing bearing Inclined aligned-clast or aligned-grain lineation (in sedimentary materials) (1st option)—Showing bearing and plunge Inclined aligned-clast or aligned-grain lineation (in sedimentary materials) (1st option)—Showing bearing and plunge Inclined aligned-clast or aligned-grain lineation (in all lineweights | Lineation symbols may |
| 9.28 Horizontal aligned-object lineation (2nd option)— Showing bearing Inclined aligned-clast or aligned-grain lineation (in sedimentary materials) (1st option)—Showing bearing and plunge Inclined aligned-clast or aligned-grain lineation (in sedimentary materials) (1st option)—Showing bearing and plunge Inclined aligned-clast or aligned-grain lineation (in all lineweights | be used separately or combined with other symbols. |
| 9.29 sedimentary materials) (1st option)—Showing bearing and plunge Inclined aligned-clast or aligned-grain lineation (in all lineweights | For lineation symbols representing a single observation at one lo- |
| | cality, the point of ob- servation is at one of the following two pla- |
| 9.30 sedimentary materials) (2nd option) — Showing →→ 30 →→ 30 .2 mm bearing and plunge | ces: for inclined linea- tions, at the "tail" end (opposite the arrow- head); for horizontal lin- |
| 9.31 (in sedimentary materials) (1st option)—Showing | eations, at the midpoint of the bearing line. For a single lineation |
| Horizontal aligned-clast or aligned-grain lineation (in sedimentary materials) (2nd option)—Showing bearing Horizontal aligned-clast or aligned-grain lineation (in sedimentary materials) (2nd option)—Showing dearing | symbol combined with a single planar-feature (for example, bedding |
| Inclined aligned-inclusion lineation (in igneous 1.0 mm 20 2 mm | or foliation) symbol, join the "tail" end of the line- ation 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 →→30 | 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 Horizontal aligned-inclusion lineation (in igneous circle diameter 1.0 mm 2.2 mm 2.5 mm | tion. For multiple observa- tions at one locality, join |
| 9.36 Horizontal aligned-inclusion lineation (in igneous | all symbols at their "tail" ends (opposite the ar- rowheads or other orna- |
| | mentations); the junction point is at the point of observation. |
| 9.38 Inclined aligned-mineral lineation (2nd option)— Showing bearing and plunge >30 >30 all lineweights 2 mm | |
| 9.39 Horizontal aligned-mineral lineation (1st option)— Showing bearing 1.0 mm 1.0 k k lineweight mm k k 2.5 mm | |
| 9.40 Horizontal aligned-mineral lineation (2nd option)— Showing bearing All lineweights 2 mm | |
| 9.41 Inclined aligned mineral-aggregate lineation (1st option)—Showing bearing and plunge 9.41 Inclined aligned mineral-aggregate lineation (1st option)—Showing bearing and plunge -==>20 7.5 mm 5 mm 1ineweight 2.2 mm 2.2 mm 2.2 mm 2.2 mm 2.2 mm 2.2 mm 2.2 mm | |
| 9.42 Inclined aligned mineral-aggregate lineation (2nd option)—Showing bearing and plunge Inclined aligned mineral-aggregate lineation (2nd option)—Showing bearing and plunge Inclined aligned mineral-aggregate lineation (2nd option)—30 -==>30 -===>30 -===>30 -===>30 -===>30 -===>30 -===>30 -===>30 -===>30 -===>30 -===>30 -===>30 -===>30 -=====30 -=====30 -=====30 -====30 -====30 -====30 -====30 -====30 -====30 -====30 -====30 -====30 -====30 -===30 -====30 -===30 | |
| 9.43 Horizontal aligned mineral-aggregate lineation (1st option)—Showing bearing Horizontal aligned mineral-aggregate lineation (1st option)—Showing bearing | |
| 9.44 Horizontal aligned mineral-aggregate lineation (2nd option)—Showing bearing | |
| 9.45 Inclined aligned deformed-mineral lineation (1st option)—Showing bearing and plunge 2.75 mm .5 mm lineweight 1.0 mm \(\frac{1}{4} \) \(\frac{1}{20} \) \(\frac{2}{2} \) mm \(\frac{30^{\chappa}}{30^{\chappa}} \) | |
| 9.46 Inclined aligned deformed-mineral lineation (2nd option)—Showing bearing and plunge | |
| 9.47 Horizontal aligned deformed-mineral lineation (1st option)—Showing bearing 2.75 mm 5 mm lineweight 1.0 mm 1 lineweight 2.75 mm 30° | |
| 9.48 Horizontal aligned deformed-mineral lineation (2nd option)—Showing bearing All lineweights all lineweights 2 mm | |

| REF NO | DESCRIPTION | SYMBOL | CARTOGRAPHIC SPECIFICATIONS* | NOTES ON USAGE* |
|--------|---|---------------------------|--|---|
| 9.49 | Inclined aligned stretched-object lineation (1st option)—Showing bearing and plunge | > 20 | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | Open-arrowed ("2nd option") symbols may be used to show a second |
| 9.50 | Inclined aligned stretched-object lineation (2nd option)—Showing bearing and plunge | > 30 | all lineweights →→>30 .2 mm | generation or another instance of a particular lineation. |
| 9.51 | Horizontal aligned stretched-object lineation (1st option)—Showing bearing | ←→ > | lineweight | Lineation symbols may be used separately or combined with other symbols. |
| 9.52 | Horizontal aligned stretched-object lineation (2nd option)—Showing bearing | ∢● → | all lineweights .2 mm ←→> | For lineation symbols representing a single observation at one lo- |
| 9.53 | Inclined aligned stretched-pebble lineation (1st option)—Showing bearing and plunge | >> 20 | 2.125 mm all lineweights $.875 \text{ mm} \overset{*}{\underset{k}{\leftarrow}} \longrightarrow 20 \qquad .2 \text{ mm}$ 1.75 mm | cality, the point of ob- servation is at one of the following two pla- |
| 9.54 | Inclined aligned stretched-pebble lineation (2nd option)—Showing bearing and plunge | > 30 | >> 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 | ←○→ | 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 | ♦ ◆> | ◆○ → | symbol combined with a single planar-feature (for example, bedding |
| 9.57 | Inclined aligned stretched-ooid lineation (1st option)—Showing bearing and plunge | <i>−o</i> →20 | 2.4 mm 30° 220 all lineweights .75 mm ★ ≯ 1.5 mm .2 mm | or foliation) symbol, join the "tail" end of the line- ation arrow to the mid- point of the strike line of |
| 9.58 | Inclined aligned stretched-ooid lineation (2nd option)—Showing bearing and plunge | <i>—o→30</i> | <i>−o</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 | ← 0→ | 2.4 mm → K 30° all lineweights .2 mm .75 mm ★ ≯ 1.5 mm | tion. For multiple observa- tions at one locality, join |
| 9.60 | Horizontal aligned stretched-ooid lineation (2nd option)—Showing bearing | ♦ ••• | ← <i>O</i> → | all symbols at their "tail" ends (opposite the ar- rowheads or other orna- mentations); the junc- |
| 9.61 | Inclined rodding (1st option)—Showing bearing and plunge | > 20 | 1.75 mm lineweight $+$ 20 .2 mm $+$ 30° | tion point is at the point of observation. |
| 9.62 | Inclined rodding (2nd option)—Showing bearing and plunge | > 30 | all lineweights →→>30 .2 mm | |
| 9.63 | Horizontal rodding (1st option)—Showing bearing | <∞> | 1.75 mm lineweight \Rightarrow \sim 2 mm \sim 2.5 mm \Rightarrow \sim 30° | |
| 9.64 | Horizontal rodding (2nd option)—Showing bearing | ←→ > | all lineweights ←→→ .2 mm | |
| 9.65 | Inclined mullions (1st option)—Showing bearing and plunge | -∞ ≯20 | 2.0 mm all lineweights ⇒ ★ .2 mm circle diameters 1.0 mm | |
| 9.66 | Inclined mullions (2nd option)—Showing bearing and plunge | -∞ ≯30 | -∞ <i>>30</i> | |
| 9.67 | Horizontal mullions (1st option)—Showing bearing | < ∞→ | 2.0 mm all lineweights → ← | |
| 9.68 | Horizontal mullions (2nd option)—Showing bearing | ←∞ → | ←∞ → | |
| 9.69 | Inclined boudins (1st option)—Showing bearing and plunge | ->(-> 20 | 2.8 mm → \ 4 mm 20 all lineweights .625 mm radius .2 mm | |
| 9.70 | Inclined boudins (2nd option)—Showing bearing and plunge | ->< >30 | - >< > 30 | |
| 9.71 | Horizontal boudins (1st option)—Showing bearing | < % > | 2.8 mm → k .4 mm all lineweights .625 mm radius .2 mm | |
| 9.72 | Horizontal boudins (2nd option)—Showing bearing | ∢ X > | ∢% > | |
| | | | | |

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|--------|---|------------------------------|---|---|
| REF NO | DESCRIPTION | SYMBOL | CARTOGRAPHIC SPECIFICATIONS* | NOTES ON USAGE* |
| 9.73 | Inclined pencil structure (1st option)—Showing bearing and plunge | → 20 | all lineweights → 6.0 k Hl-6 .2 mm .75 mm * 20 25 25 1.75 mm 1 1.25 mm | Open-arrowed ("2nd option") symbols may be used to show a second generation or another |
| 9.74 | Inclined pencil structure (2nd option)—Showing bearing and plunge | →30 | >> 30 | instance of a particular lineation. |
| 9.75 | Horizontal pencil structure (1st option)—Showing bearing | ← >> | all lineweights \$\infty 6.0 \tau \cdot 7.5 mm \\ \tau \tau \cdot 25 \\ \tau \cdot 1.75 mm \\ \tau \cdot 1.25 mm \\ \tau \cdot 2.5 mm \\ | Lineation symbols may be used separately or combined with other symbols. |
| 9.76 | Horizontal pencil structure (2nd option)—Showing bearing | ♦ ○> | ♦ ◇ > | For lineation symbols representing a single observation at one lo- |
| 9.77 | Inclined lineation at intersection of bedding and cleavage (1st option)—Showing bearing and plunge | | 2.5 mm all lineweights 1.25 mm * + + 20 .2 mm 45 75 mm | cality, the point of ob- servation is at one of the following two pla- |
| 9.78 | Inclined lineation at intersection of bedding and cleavage (2nd option)—Showing bearing and plunge | | - ∨ > 30 | 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 | <∀> | 2.5 mm all lineweights 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 | ←⊬ ♪ | ∢⊬ > | 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 | //→ 20 | 2.5 mm all lineweights 1.25 mm 20 .2 mm 45 825 mm | or foliation) symbol, join the "tail" end of the line- ation 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 | -// ≯30 | /-> 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 | ←//→ | 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 | ∜ //→ | ∢ ₩> | all symbols at their "tail" ends (opposite the ar- rowheads or other orna- |
| 9.85 | Inclined lineation at intersection of two fractures or joints (1st option)—Showing bearing and plunge | -□ > 20 | 2.4375 mm all lineweights 1.125 mm | mentations); 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 | <□> | 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 | ∢□ → | <□ > | |
| 9.89 | Inclined lineation at intersection of two foliations (1st option)—Showing bearing and plunge | >> 20 | 2.25 mm all lineweights 1.5 mm $\stackrel{ }{*} \longrightarrow 20$ 2 mm $\stackrel{ }{*} \times 1.5$ mm | |
| 9.90 | Inclined lineation at intersection of two foliations (2nd option)—Showing bearing and plunge | - \$→30 | - ♦→30 | |
| 9.91 | Horizontal lineation at intersection of two foliations (1st option)—Showing bearing | < ♦→ | 2.25 mm all lineweights $\stackrel{?}{\underset{ }{\longrightarrow}}$ 1.5 mm $\stackrel{?}{\underset{ }{\longleftarrow}}$ 2 mm | |
| 9.92 | Horizontal lineation at intersection of two foliations (2nd option)—Showing bearing | ♦♦ ⊁ | ∢ ♦> | |
| 9.93 | Inclined lineation at intersection of two surfaces (origin or type unspecified) (1st option)—Showing bearing and plunge | — ×→ 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 | -×> 30 | -×-> 30 | |
| 9.95 | Horizontal lineation at intersection of two surfaces (origin or type unspecified) (1st option)—Showing bearing | <* > | 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 | ∢ ×> | ∢ ×> | |

| 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 | dot diameter 36.0 k HI-6 (100% black) Open-arrowed ("2nd option") symbols may be color 100% lineweight magenta 2.75 mm 1.25 mm 2.2 mm |
| 9.98 | Inclined fold hinge of generic (type or orientation unspecified) small, minor fold (2nd option)— Showing bearing and plunge | →>30 | all lineweights 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 | ↔ | dor diameter mm 25 22 mm be used separately or 2.75 mm 1.25 mm magenta symbols. |
| 9.100 | Horizontal fold hinge of generic (type or orientation unspecified) small, minor fold (2nd option) — Showing bearing | ↔→ | ************************************** |
| 9.101 | Inclined fold hinge of small, minor penecontempor- aneous soft-sediment fold (1st option)—Showing bearing and plunge | - | color 100% magenta 3.0 mm all lineweights cality, the point of observation is at one of the following two places: for inclined linea- |
| 9.102 | Inclined fold hinge of small, minor penecontemporaneous soft-sediment fold (2nd option)—Showing bearing and plunge | - | 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 | < ◊ > | 3.0 mm all lineweights eations, at the midpoint of the bearing line. color 100% magenta draft as shown For a single lineation |
| 9.104 | Horizontal fold hinge of small, minor penecontem- poraneous soft-sediment fold (2nd option) — Showing bearing | < ♥ > | symbol combined with a single planar-feature (for example, bedding of states) |
| 9.105 | Inclined fold hinge of small, minor anticline (1st option)—Showing bearing and plunge | → 20 | color 100% 3.5 mm all lineweights magenta 20 araft as shown all vineweights or foliation) symbol, join the "tail" end of the lineation arrow to the midpoint of the strike line of |
| 9.106 | Inclined fold hinge of small, minor anticline (2nd option)—Showing bearing and plunge | →>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 | <> → | dot diameter 3.5 mm all lineweights tion5 mm .2 mm color 100% draft as shown .4 mm agenta 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 | <→ •> | all symbols at their "tail" ends (opposite the arrowheads or other ornamentations); the junc- |
| 9.109 | Inclined fold hinge of small, minor antiform (1st option)—Showing bearing and plunge | → 20 | color 100% magenta 3.3 mm all lineweights tion point is at the point of observation. draft as shown all lineweights tion 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 | →>30 | black or other colors. |
| 9.111 | Horizontal fold hinge of small, minor antiform (1st option)—Showing bearing. Ball on topographically higher side of fold | 4) •• | dot diameter 3.5 mm all lineweights .5 mm 2 mm color 100% draft as shown 4 mm magenta |
| 9.112 | Horizontal fold hinge of small, minor antiform (2nd option)—Showing bearing. Ball on topographically higher side of fold | < }• ▷ | → → |
| 9.113 | Inclined fold hinge of small, minor syncline (1st option)—Showing bearing and plunge | > 20 | color 100% 2.45 mm all lineweights magenta 20 careful draft as shown |
| 9.114 | Inclined fold hinge of small, minor syncline (2nd option)—Showing bearing and plunge | > 30 | →30 |
| 9.115 | Horizontal fold hinge of small, minor syncline (1st option)—Showing bearing. Ball on topographically higher side of fold | < ↔ | dot diameter 2.45 mm all lineweights .5 mm 2.2 mm color 100% draft as shown 1.3 mm magenta |
| 9.116 | Horizontal fold hinge of small, minor syncline (2nd option)—Showing bearing. Ball on topographically higher side of fold | < <+ > | < <+>> |
| 9.117 | Inclined fold hinge of small, minor synform (1st option)—Showing bearing and plunge | -(→20 | color 100% 3.3 mm all lineweights magenta 20 craft as shown |
| 9.118 | Inclined fold hinge of small, minor synform (2nd option)—Showing bearing and plunge | >30 | >30 |
| 9.119 | Horizontal fold hinge of small, minor synform (1st option)—Showing bearing. Ball on topographically higher side of fold | ← (+) | dot diameter 3.3 mm all lineweights .5 mm |
| 9.120 | Horizontal fold hinge of small, minor synform (2nd option)—Showing bearing. Ball on topographically higher side of fold | √ (+ > | √ (+ > |

| REF NO | DESCRIPTION | SYMBOL | CARTOGRAPHIC SPECIFICATIONS* | NOTES ON USAGE* |
|--------|--|-------------------------|--|---|
| 9.121 | Inclined symmetric minor fold hinge (1st option) — Showing bearing and plunge | →3→20 | | Open-arrowed ("2nd option") symbols may be used to show a second |
| 9.122 | Inclined symmetric minor fold hinge (2nd option)— Showing bearing and plunge | -3 →30 | | generation or another instance of a particular lineation. |
| 9.123 | Horizontal symmetric minor fold hinge (1st option) —Showing bearing | < ₹> | color 100% → 6.0 ← all lineweights magenta 25 25 2 mm → 2.5 mm → 1.25 mm → 2.5 mm ↑ 1 draft as shown | Lineation symbols may be used separately or combined with other symbols. |
| 9.124 | Horizontal symmetric minor fold hinge (2nd option) —Showing bearing | < } > | < } > | For lineation symbols representing a single observation at one lo- |
| 9.125 | Inclined asymmetric (S-shaped, counterclockwise sense of shear) minor fold hinge (1st option)— Showing bearing and plunge | - \n > 20 | color 100% 3.0 mm all lineweights 2 mm careful as shown | cality, the point of ob- servation 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 | - \0 > 30 | - い >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 | < ∨> | | eations, at the midpoint of the bearing line. For a single lineation |
| 9.128 | Horizontal asymmetric (S-shaped, counterclock- wise sense of shear) minor fold hinge (2nd option) —Showing bearing | < () → | < \/ > | 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 | →>> 20 | | or foliation) symbol, join the "tail" end of the line- ation arrow to the mid- point of the strike line of |
| 9.130 | Inclined asymmetric (Z-shaped, clockwise sense of shear) minor fold hinge (2nd option)—Showing bearing and plunge | —N→30 | — N ⇒30 | the planar-feature symbol; 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 | ∢N> | color 100% 3.0 mm all lineweights 2 mm | For multiple observa- tions at one locality, join |
| 9.132 | Horizontal asymmetric (Z-shaped, clockwise sense of shear) minor fold hinge (2nd option)—Showing bearing | ∢N> | ∢ ₩> | all symbols at their "tail" ends (opposite the ar- rowheads or other orna- mentations); the junc- |
| 9.133 | Inclined crenulation lineation (1st option)—Showing bearing and plunge | - ←>20 | color 100% magenta 3.0 mm all lineweights 20 draft as shown | tion point is at the point of observation. May also be shown in |
| 9.134 | Inclined crenulation lineation (2nd option)— Showing bearing and plunge | ⇒30 | - ₹⇒30 | black or other colors. |
| 9.135 | Horizontal crenulation lineation (1st option)— Showing bearing | ← | color 100% 3.0 mm all lineweights 2 mm | |
| 9.136 | Horizontal crenulation lineation (2nd option)— Showing bearing | ← | ← | |
| 9.137 | Inclined asymmetric (S-shaped, counterclockwise sense of shear) kink-band crenulation lineation (1st option)—Showing bearing and plunge | -\$ 20 | color 100% 3.0 mm all lineweights 20 draft as shown | |
| 9.138 | Inclined asymmetric (S-shaped, counterclockwise sense of shear) kink-band crenulation lineation (2nd option)—Showing bearing and plunge | > 30 | | |
| 9.139 | Horizontal asymmetric (S-shaped, counterclockwise sense of shear) kink-band crenulation lineation (1st option)—Showing bearing | ← }→ | 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 | ← }→ | ← ∫→ | |
| 9.141 | Inclined asymmetric (Z-shaped, clockwise sense of shear) kink-band crenulation lineation (1st option) —Showing bearing and plunge | }> 20 | color 100% 3.0 mm all lineweights 20 draft as shown | |
| 9.142 | Inclined asymmetric (Z-shaped, clockwise sense of shear) kink-band crenulation lineation (2nd option) —Showing bearing and plunge | }30 | - ₹→30 | |
| 9.143 | Horizontal asymmetric (Z-shaped, clockwise sense of shear) kink-band crenulation lineation (1st option)—Showing bearing | ← }→ | color 100% 3.0 mm all lineweights magenta 2 mm | |
| 9.144 | Horizontal asymmetric (Z-shaped, clockwise sense of shear) kink-band crenulation lineation (2nd option)—Showing bearing | ← }→ | ← }→ | |
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