13—GLACIAL AND GLACIOFLUVIAL FEATURES

		AND GLACIOFLU		
REF NO	DESCRIPTION	SYMBOL	CARTOGRAPHIC SPECIFICATIONS*	NOTES ON USAGE*
13.1	Crevasse on glacier	1///	lineweights .2 mm color 100% cyan lengths may vary	
13.2	Ice-flow direction		lineweight .25 mm length may vary 100% cyan 60° → 1 1.5 mm	
13.3	Glacial-lake spillway—Arrow shows direction of flow	~~~>	color 1.25 length 100% mm < 25°	
13.4	Glacial-lake spillway—Showing elevation. Arrow shows direction of flow	785'	785' & HI-6 (100% black)	
13.5	Inferred glacial-lake spillway—Arrow shows direc- tion of flow	~~~>>	all lineweights .2 mm	
13.6	Inferred glacial-lake spillway—Showing estimated elevation. Arrow shows direction of flow	785'	785'	
13.7	Glacial meltwater stream—Barbs show direction of flow		all 7.5 mm lineweights 2 mm color 100% cyan 3.0 mm d k 2.25 mm	
13.8	Cutbanks of glacial meltwater stream channel (mapped to scale)—Hachures point into channel		spacing all lineweights .25 mm may vary 1.125 mm ★ 100% cyan ★ ★ ★ \$3.0 mm	
13.9	Flow direction of glacial meltwater in stream chan- nel	A K	color stem lengths may vary 100% cyan all lineweights .2 mm 2.0 mm	
13.10	Crest line of moraine, sense of symmetry unspeci- fied (1st option)	00000000000000	color 100% cyan lineweight .2 mm circle diameter .75 mm; spacing .625 mm	
13.11	Crest line of moraine, sense of symmetry unspeci- fied (2nd option)	• • • • • • • • • • • • • • • • • • • •	color 100% cyan dot diameter .825 mm; spacing .625 mm	
13.12	Crest line of symmetrical moraine	0+0+0+0+0	3.0 mm .5 mm all lineweights 100% cyan .2 mm circle diameter .675 mm; hachure height 1.5 mm	
13.13	Crest line of asymmetrical moraine—Ticks point down steeper slope	0-0-0-0-0	مـــــمــــمــــم hachure height .75 mm	
13.14	Ridges on moraine	~	color 100% cyan lineweight .25 mm lengths and spacing may vary	
13.15	Scarp at top of ice-contact slope—Hachures point downscarp	unununununun M	.5 mm 1.375 + 11111111111111111111111111111111111	
13.16	Ice-contact slope		pattern 521-C in 50% cyan	
13.17	Esker or ice-channel deposit, transport direction unknown	~~~~~	1.25 mm .375 mm .625 mm → → → → → → → → → → → → → → → → → → →	
13.18	Esker or ice-channel deposit, transport direction known (1st option)—Chevrons point in direction of transport	»»»»»»»»»»»»»»»»»»»»»»»»»»»»»»»»»»»»»»	color +1.25 mm 100% cyan 70° →→→→ k lineweight 1.0 mm .2 mm	
13.19	Esker or ice-channel deposit, transport direction known (2nd option)—Chevrons point in direction of transport	$\rightarrow \rightarrow \rightarrow \rightarrow$	$\begin{array}{c} \text{color} \\ 100\% \\ \text{cyan} \\ \text{inspective} \\ 100\% \\ \text{dispective} \\ 100\% \\ \text{dispective} \\ 100\% \\ 100$	
13.20	Drumlin—Showing bearing and direction of flow	-0>	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Point of observation is at the midpoint of the bearing line.
13.21	Drumlin, flow direction unknown (1st option)— Showing bearing	-0-	1.875 mm → 0.0 → mm ←	May also be shown in black or other colors.
13.22	Drumlin, flow direction unknown (2nd option)— Showing bearing	•	1.75 mm lineweight 1.0 mm ↓ → K .2 mm 3.5 mm	
13.23	Drumlin (length mapped to scale)—Showing bear- ing and direction of flow		color 100% cyan $1.25 \text{ mm} \xrightarrow{4}$ 25° draw length to scale all lineweights .2 mm	Use when map scale is large enough to show actual length of drumlin.
13.24	Drumlin (length mapped to scale), flow direction unknown—Showing bearing		draw length to scale	May also be shown in black or other colors.
13.22	Showing bearing Drumlin, flow direction unknown (2nd option)— Showing bearing Drumlin (length mapped to scale)—Showing bear- ing and direction of flow Drumlin (length mapped to scale), flow direction		$\begin{array}{c} & \leftarrow 1.875 \text{ mm} \\ \hline 6.0 \\ \hline mm \\ \hline 6.0 \\ \hline mm \\ \hline 1.75 \text{ mm} \\ \hline 1.0 \text{ mm} \\ \hline 1.75 \text{ mm} \\ \hline mm \\ \hline 1.25 \text{ mm} \\ 1.25 \text{ mm} \\ \hline 1.25 \text{ mm} \\ 1.25 mm$	black or other colors. Use when map scale large enough to shov actual length of drum May also be shown ir

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

13—GLACIAL AND GLACIOFLUVIAL FEATURES (continued)

REF NO		SYMBOL	EATURES (continued)	NOTES ON USAGE*
	DESCRIPTION	STWIDOL		
13.25	Kettle	*	color 100% cyan 45 ★ 3.0 mm .2 mm 1.75 mm ⊀	May also be shown in black or other colors.
13.26	Hummocky topography (1st option)		pattern 523-K in 50% black	
13.27	Hummocky topography (2nd option)		pattern 523-DC in 50% black	
13.28	Hummocky topography (3rd option)	بر المعنية موسطيني. والمحت محمل في ماد مجار ما المحتمة المعني مادو الم	pattern 524-K in 50% black	-
13.29	Younger glacial striation or groove—Showing gen- eral bearing and direction of flow	\rightarrow	lineweight .2 mm → 6.0 k mm ∠ 25° color 100% cyan → k_1.25 mm	Point of observation is at the midpoint of the bearing line. May also be shown in black or other colors.
13.30	Younger glacial striation or groove—Showing meas- ured bearing and direction of flow. Dot indicates location of observation point		2.625 mm -> K dot diameter .75 mm	
13.31	Older glacial striation or groove—Showing general bearing and direction of flow	->	2.625 mm ⇒ k all lineweights .2 mm → K.75 mm	
13.32	Older glacial striation or groove—Showing meas- ured bearing and direction of flow. Open circle indicates location of observation point	>	2.625 mm → K→ all lineweights .2 mm circle diameter .75 mm	
13.33	Younger glacial striation or groove, flow direction unknown—Showing general bearing		lineweight .2 mm color 100% cyan → 6.0 k	
13.34	Younger glacial striation or groove, flow direction unknown—Showing measured bearing. Dot indi- cates location of observation point		2.625 mm ≯_≰_ dot diameter .75 mm	
13.35	Older glacial striation or groove, flow direction unknown—Showing general bearing		2.625 mm ⇒ k all lineweights .2 mm .2 mm .2 mm	
13.36	Older glacial striation or groove, flow direction unknown—Showing measured bearing. Open cir- cle indicates location of observation point	—> —	all lineweights .2 mm	
13.37	Younger glacial striation or groove (length mapped to scale)—Arrow shows direction of flow	\longrightarrow	lineweight .2 mm length may vary ∠25° color 100% cyan → 1.5 mm	Use when map scale is large enough to show actual length of striation or groove. May also be shown in black or other colors.
13.38	Younger glacial striation or groove (length mapped to scale), flow direction unknown		length may vary	
13.39	Older glacial striation or groove (length mapped to scale)—Arrow shows direction of flow	`→	lineweight .2 mm 2.125 mm A K color 100% cyan length may vary	
13.40	Older glacial striation or groove (length mapped to scale), flow direction unknown	~	length may vary	-
13.41	Cirque headwall—Hachures point into cirque		color 100% cyan lineweight Ineweight .2 mm hachure height 1.0 mm; spacing 1.0 mm	May also be shown in black or other colors.
13.42	Arête or headwall of adjoining cirques		color 100% cyan lineweight lineweight .2 mm	
13.43	Margin of glacially scoured basin—Identity and existence certain, location accurate. Hachures point into basin		all lineweights color 100% cyan .225 mm H-8	
13.44	Margin of glacially scoured basin—Identity or exis- tence questionable, location accurate. Hachures point into basin	 + + + + + ?+ + + + + + + + + + + + + +	→ 12.0 mm k mm → 2.0 mm	
13.45	Margin of glacially scoured basin—Identity and existence certain, location approximate. Hachures point into basin		3.5 mm 2.0 mm → k → k	
13.46	Margin of glacially scoured basin—Identity or exis- tence questionable, location approximate. Hach- ures point into basin	?	→k →k .75 mm .75 mm	
13.47	Margin of glacially scoured basin—Identity and existence certain, location concealed. Hachures point into basin	****	1.25 mm → <	
13.48	Margin of glacially scoured basin—Identity or exis- tence questionable, location concealed. Hachures point into basin	ттттт?ттттт	TTTTTTTTTT ⇒lk →lk .75 mm .75 mm	

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

REF NO DESCRIPTION CARTOGRAPHIC SPECIFICATIONS* SYMBOL NOTES ON USAGE* lineweight .45 mm color 100% cyan May also be shown in Glacial limit or terminus-Identity and existence black or other colors. 13.49 ¥^{H-8} certain, location accurate ¥.75 mm Glacial limit or terminus—Identity or existence 13.50 questionable, location accurate → 12.0 mm Glacial limit or terminus—Identity and existence 3.5 mm ≯ ≮ 13.51 certain, location approximate Glacial limit or terminus—Identity or existence 13.52 questionable, location approximate Glacial limit or terminus—Identity and existence 1.5 mm → | < 13.53 certain, location inferred Glacial limit or terminus-Identity or existence ->|≮ .75 mm .75 mm 13.54 _?_ questionable, location inferred Glacial limit or terminus—Identity and existence 13 55 .5 mm certain, location concealed ᢥ 2. . Glacial limit or terminus-Identity or existence ->|← .75 mm ->|≮ .75 mm · · · · ? · · · · · 13.56 questionable, location concealed BL^{& H-8} (100% black) Glacial limit or terminus—Showing name of glacia-BL 13.57 tion (BL, Bull Lake) Limit of significant glacial advance—Identity and exlineweight .3 mm color 100% cvan istence certain, location accurate. Hachures on 13.58 7.5 mm /H-8 side of advancing ice hachure Limit of significant glacial advance-Identity or exislineweight .25 mm ⇒||≼ .75 mm 121 121 13.59 tence questionable, location accurate. Hachures on side of advancing ice hachure height 1.25 mm; spacing 4.0 mm Limit of significant glacial advance—Identity and ex-13.60 istence certain, location approximate. Hachures 3.5 mm on side of advancing ice ≯<mark></mark> |≮ Limit of significant glacial advance-Identity or exis-ا الح →|< .75 mm tence questionable, location approximate. Hach-.75 mm 13.61 ures on side of advancing ice Limit of significant glacial advance-Identity and existence certain, location concealed. Hachures on 13.62 5 mm side of advancing ice ^{i∥}€ -1...1*?*.1..1*?*.1..1. Limit of significant glacial advance-Identity or exis-.75 mm tence questionable, location concealed. Hachures .1..121..121..1. .75 mm 13.63 on side of advancing ice Retreatal position of stagnant ice margin-Identity lineweight .3 mm color 100% cyan 13.64 *∠H-8* and existence certain, location accurate Y. Retreatal position of stagnant ice margin—Identity .75 mm 13.65 or existence questionable, location accurate → 12.0 mm Retreatal position of stagnant ice margin-Identity 3.5 mm → ← 13.66 and existence certain, location approximate →|← →|← .75 mm .75 mm Retreatal position of stagnant ice margin—Identity 13.67 or existence questionable, location approximate Retreatal position of stagnant ice margin-Identity 1.5 mm → | < 13.68 and existence certain, location inferred Retreatal position of stagnant ice margin—Identity <u> ال</u>د 13 69 .75 mm .75 mm or existence questionable, location inferred Retreatal position of stagnant ice margin—Identity .5 mm 13.70 and existence certain, location concealed ≯⊬ Retreatal position of stagnant ice margin—Identity -≯|← .75 mm 13.71 .75 mm or existence questionable, location concealed H-8 (100% black) Retreatal position of stagnant ice margin-Showing Qsf 13.72 Osf name of depositional unit

13—GLACIAL AND GLACIOFLUVIAL FEATURES (continued)

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