GSC Open File 3928: 3.5 kHz sub-bottom profiler seabed classification along selected ship's tracks

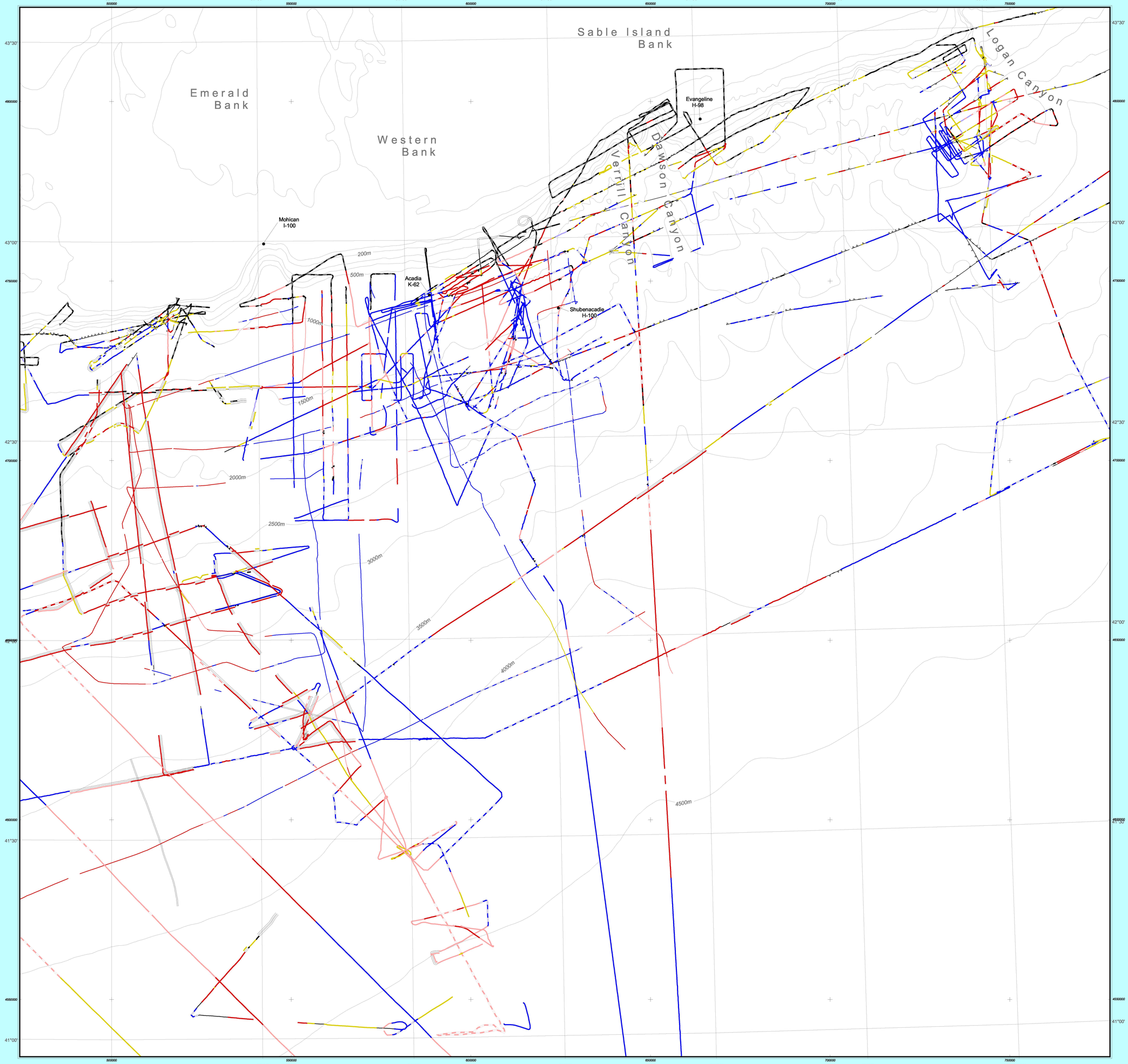
(Scotian Slope, 59°45' to 63°15' West)

Map Projection: UTM Nad83 Zone 20

10 0 10 20

Kilometers

1:400 000



Seabed Classification

- well stratified
- well stratified eroded
- stratified
- stratified eroded
- poorly stratified
- poorly stratified eroded
- debris flow
- intermediate debris flow
- intermediate debris flow stacked
- smooth debris flow
- smooth debris flow stacked
- rough debris flow
- hummocky seabed
- prolonged strong reflector
- high amplitude reflector
- scarp face
- steep slope
- transparent reflector; sub-surface seabed type plotted adjacent to track

thin lines indicate lower quality data

Classification Explanation

Seabed Classification	Abbreviation	Notes
well stratified	ws	continuous parallel or sub-parallel reflectors, no evidence of erosion
well stratified eroded	wse	continuous parallel or sub-parallel reflectors which occasionally terminate abruptly at seabed
stratified	s	reflectors appear parallel, but are not continuous
stratified eroded	se	apparently parallel reflectors which occasionally terminate abruptly at seabed
poorly stratified	ps	diffuse sub-parallel reflectors
poorly stratified eroded	pse	surface of poorly stratified seabed appears irregular, but erosion not obvious in subsurface
debris flow	df	general identifier of disturbed incoherent seabed; includes true debris flows, debris avalanches, and rotational slumps
intermediate debris flow	idf	debris flow with an irregular surface, occasionally returning hyperbolic reflections, and having a transparent or incoherent subsurface
intermediate debris flow stacked	idfs	a succession of intermediate debris flows which appear somewhat layered
smooth debris flow	sdf	debris flow with smooth upper surface and usually transparent sub-surface; can be mistaken for stratified sediment except when debris flow has erosional basal surface and fills hollows
smooth debris flow stacked	sdfs	a succession of smooth debris flows which appear layered
rough debris flow	rdf	debris flow with highly irregular upper surface, returning hyperbolic reflections, and having an incoherent sub-surface
hummocky seabed	h	highly irregular seabed that is not obviously a rough debris flow
prolonged strong reflector	psr	thick dark reflector at seafloor allowing little penetration of subsurface; common in upper slope tills and outer shelf sand
high amplitude reflector	har	thin, dark reflector at seabed; usually found in channels indicating sandy lag or thalweg deposits
transparent surface reflector	t	thin transparent reflector at seabed, usually indicative of Holocene muddy sediment
scarp face	sf	steep slopes on a variety of scales produced by the detachment and mass movement of sediment down slope
steep slope	ss	sudden increase or decrease in water depth; truly steep slopes show hyperbolic reflections and focusing artifacts and it is often impossible to determine the seabed type of the slope itself

3.5 kHz interpretation by Calvin Campbell and Tracie Quinlan.
Cartography by Calvin Campbell.

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