Table 2. Depositional environments interpreted from carbonate-microlithofacies and conodont-biofacies data, Wahoo Limestone, eastern Sadlerochit Mountains, northeast Brooks Range, Alaska

[Conodont genera: Ad., Adetognathus; C.?, Cavusgnathus? (includes only C.? tytthus); Cav., Cavusgnathus; De., Declinognathodus; Gn., Gnathodus; Hi., Hindeodus; Idg., Idiognathodus; Idd., Idiognathoides; Idp., Idioprioniodus; Kld., Kladognathus; Rh., Rhachistognathus; Vo., Vogelgnathus; 1?, assignment to taxon uncertain]

Meters (abw) ¹	Carbonate Texture	Abun- dant (>50%)	Common (10-50%)	Minor (1-10%) ER MEMBER	Rare (<1%)	Sorting	Micrit- ization	Abrasion	Depositional Environment (Microlithofacies)	Conodont Genera (Includes only genera having more than 5 specimens in each sample) C.? Ca. Gn. Hi. Kld Rh Vo.						ole)	Conodont Biofacies	Depositional Environment (Conodont-based)	Univ. Alaska Museum Sample No.
				RESTRICTE						J C	Ca.	611.	111.	1	TAI	٧٥.		(CONOCON-Dased)	Sample No.
13.2	Grainstone	Y		★●Q	≈90	weil	Α	moderate	open marine or open platform, high energy		59			8	9	10	cavusgnathid	open platform	AK22M16.2
22	Grainstone, packstone	Y#	*	≈A&• Q Ò	0	moderate	М	moderate	open marine or open platform, moderate to high energy	1	69		1				cavusgnathid	open platform, near restricted(?)	AK22M25
32	Grainstone		Y## ★	•	≈A&XQ	moderate	С	moderate	open marine or open platform, moderate energy		53	6		9			cavusgnathid	open platform	AK22M35
42	Grainstone	YA	*	≈&X∙	Q	moderate	0	strong	open marine or open platform, moderate to high energy		21						cavusgnathid	open platform, near restricted(?)	AK22M45
47	Grainstone	Y#	*	≈ 0 88•	A&A	moderate	O	moderate	open marine or open platform, moderate to high energy	1	63			14			cavusgnathid	open platform	AK22M50
50.5	Grainstone	YA	*	≈9A. 0 @ a ∑•	& <i>8</i> ★	moderate	С	moderate	open marine, near restricted platform	4	16						cavusgnathid	open platform, near restricted(?)	AK22M53.5
CAVUS	GNATHID-	KLADO(GNATHID I	BIOFACIES (C	OPEN PLATFO	ORM TO C	PEN MA	RINE)				_							
0.4	Packstone	Y#		₩	Ø/Q	poor	C	moderate	open marine to open platform, moderate energy		108	67		97			cavusgnathid- kladognathid	open platform to open marine	AK22M3.4
6	Grainstone, packstone	YA	*	≈90•	AβΣQ	moderate	Σ	moderate	open platform, near restricted platform		81	18		30	14		cavusgnathid- kladognathid	open platform to open marine	AK22M9
7	Grainstone, packstone	Y	#I ★	≈9A&•	\$ 8⊠Q	well	O	moderate	open marine near restricted platform		88	15		46	15		cavusgnathid- kladognathid	open platform near open marine	AK22M10
27	Grainstone	Y#		≈9 A4	Σ∙	moderate	C	moderate	open marine or open platform, moderate energy	3	7	5		10			cavusgnathid- kladognathid	open platform to open marine	AK22M30
37	Grainstone, muddy	*	Y	•	≈&	moderate	М	moderate	open marine or open platform, moderate energy		8	6		7			cavusgnathid- kladognathid	open marine, near open platform	AK22M40
GNATH	ODID-HIND	EODID	BIOFACIE	S (LOW ENE	RGY, OPEN N	IARINE)													
53	Packstone	Y	0@★	Q	~A&*A	poor	С	weak	open marine, low energy			67	32	5			gnathodid- hindeodid	open marine, low energy	AK22M56

Meters (abw) ¹	Carbonate Texture	Abun- dant (>50%)		Minor (1-10%)	Rare (<1%)	Sorting	Micrit- ization	Abrasion	Depositional Environment (Microlithofacies)	spec	nclude having cimens	more in ea	gene than ch sa	era 5 mple)	Conodont Biofacies	Depositional Environment	Univ. Alaska Museum
	NNSYLVANIAN PART OF THE LOWER MEMBER OF THE WAHOO LIMESTONE DETOGNATHID-RELATED BIOFACIES (NEAR RESTRICTED PLATFORM TO LOW ENERGY, OPEN MARINE) Ad. C.? De. Hi. Rh.											(Conodont-based)	Sample No.				
56	Packstone- wackestone, grainstone	•	Y★	≈9A.0# @031*	& & \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	moderate	С	weak	open to restricted platform	1	15	19		10	declinognathodid- adetognathid	mixed: near restricted to open platform near shoal	AK22M59
59	Grainstone, packstone	Υ	<i>•••</i>		≈9A& A •	moderate	С	moderate	open marine, moderate energy	61	37	58			adetognathid- declinognathodid	open marine to open platform	AK22M62
69	Packstone (dolomitic)	Y	*	00	& <i>8</i> ₹ A Q	poor	С	strong	open marine, low energy	11	8		18	10	hindeodid- adetognathid	open marine	AK22M72

Meters (abw) ¹	Carbonate Texture	Abun- dant (>50%)	Common (10-50%)	Minor (1-10%)	Rare (<1%)	Sorting	Micrit- ization	Abrasion	Depositional Environment (Microlithofacies)	mo	Conodont Genera (Includes only genera having more than 5 specimens in each sample) Ad. De. Hi. Idg. Idp. Rh.					Conodont Biofacies	Depositional Environment	Univ. Alaska Museum
UPPE		OF THE		LIMESTONE THID BIOFAC	IES(?) (REST	RICTED T	O NEAR	OPEN PL	ATFORM)	Ad.	De.	Hi.	ldg.	ldp.	Rh.		(Conodont-based)	Sample No.
246	Grainstone	•	Q	\$ \$\$\$\$\$\$	80	very poor	A	strong	restricted to open platform	26	1		7		23	adetognathid- rhachistognathid	open platform, near shoal	AK22M249
261.5	Packstone, mudstone		~⊚*•	Y& / ★	A V Q	very poor	0		restricted to open platform	15					18	adetognathid- rhachistognathid	restricted to open	AK22M264.5a
ADET	OGNATHID-		ISTOGNA'	THID BIOFAC	IES (OPEN PL	ATFORM	TO NEA	R SHOAL	AND SHOAL TO TIDAL C	HAN	INEL)						
84	Grainstone	YAT		A@&★	<u> </u>	moderate	С	moderate	open platform, moderate energy	27					31	adetognathid- rhachistognathid	open platform, near	AK22M87
113	Grainstone		Y&/	≈9 0 ★•	0	very well	Α	strong	open platform to open marine, high energy, tidal channel(?)	66		7			142		shoal to tidal channel	AK22M116
118	Grainstone	*	≈YX	&3♥⊖	9A@AO	poor	С	moderate	open platform, near shoal	11	1				11	adetognathid- rhachistognathid	open platform, near shoal	AK22M121
157	Grainstone		⊙ ⊖•	≈ 0 Y### &©16\X	89	moderate	Α	strong	shoal, near platform	29					34	adetognathid rhachistognathid	open platform, near shoal	AK22M160
203	Grainstone		⋆∙	#•		well	Α	strong	open platform	12					18	adetognathid- rhachistognathid	open platform, near shoal	AK22M206
241	Grainstone, packstone		≈# 0 Y ##®	@★\\	<i>ରଥର</i>	moderate	С	moderate	open platform	13	5				11	adetognathid- rhachistognathid	open platform, near shoal	AK22M244
RHAC	<u>HISTOGNAT</u>	THID BIC)FACIES (NEAR SHOAL	. TO OPEN PI	_ATFORM)											
95	Grainstone		9 0 Y1 0 ⊖•	≈#\&★A ΣQ	078	well	С	strong	open platform, near shoal or tidal channel	17					41	rhachistognathid	open platform, near shoal	AK22M98
107	Grainstone, packstone		€00	≈9 0 Y&© ♦¥ X Q•	A	well	Α	strong	open platform, near shoal, high energy	36					147	rhachistognathid	open platform, near shoal	AK22M110
257.5	Grainstone, packstone	YA	*	V 8⊚1X⊖		poor	С	moderate	open platform, moderate energy	7					26	rhachistognathid	open platform	AK22M260.5
RHACI	<u>HISTOGNAT</u>	THID BIC		SHOAL OR TI	DAL CHANN	EL)												
85	Grainstone		Y##&★	≈6 0• 0		very well	Α	strong	open platform or tidal channel, high energy	26					118	rhachistognathid	shoal or tidal channel	AK22M88
91	Grainstone (dolomitized)		&•	≈ v Y★0a		very well	Α	strong	open marine, near shoal, or tidal channel, high energy	26					245	rhachistognathid	shoal	AK22M94
97	Grainstone		*0	≈9 0 Y# @ &X⊖•	<i>31</i> 0⊗	well	С	strong	shoal and (or) tidal channel	7					19	rhachistognathid	shoal or tidal channel	AK22M100
102	Grainstone		≈9 0 ★	⊘ Y& ⊙ ⊖•	Q	very well	С	strong	tidal channel or open marine, near shoal, high energy	30					130	rhachistognathid	shoal	AK22M105
122	Grainstone			≈୩୯ Y&★ ⊙•	Ø⊚1⊖a	well	A	strong	open platform, near shoal or tidal channel, high energy	34	8				180	rhachistognathid	shoal or tidal channel	AK22M125
RHACE	HISTOGNAT	THID BIC	FACIES (OPEN MARIN	E, NEAR SHO	AL)												
133.5	Grainstone	Y	*	≈90## 801AX⊖	AO	moderate	С	moderate	open marine to open platform, near shoal, moderate energy	36	24				192	rhachistognathid	open marine, near shoal	AK22M136.5
187	Grainstone, packstone	YA	≈૧	Q• ○V&3/* Ø•	ΣΩ	moderate	С	weak	open platform or open marine, moderate energy	10	33		19		276	rhachistognathid	open marine, near shoal	AK22M190
232	Grainstone	Y#	*	≈9 0.0 & <i>8</i> ©	A@0a	well	С	strong	open marine to open platform, moderate energy	8	7		16		37	rhachistognathid	open marine, near shoal	AK22M235

Meters (abw) ¹	Carbonate Texture	Abun- dant (>50%)	Common (10-50%)	Minor (1-10%) (<1%) Sorting Micritization (Microlithofacies) Sorting (1-10%) (Includes only genera having most package of the support of the					ng mor sample)	Conodont Biofacies	Depositional Environment	Univ. Alaska Museum						
UPPER		OF THE		LIMESTONE OFACIES (OF	PEN MARINE,	NEAR SH	OAL)			Ad.	De.	Hi.	ldg.	ldp.	Idid.	Rh.		(Conodont-based)	Sample No.
177	Grainstone		≈9 0• Y&	Λ#8®★ ΧΟ Θ	ØAQ	poor	Α	moderate	open platform, near shoal, or tidal channel(?)		23					20	declinognathodid- rhachistognathid	open marine, shoal apron	AK22M180
197.5	Grainstone, packstone	Y	*	V ⊙	&3⊖	moderate	С	moderate	open marine, near shoal		23					8	declinognathodid	open marine, near shoal	
207	Grainstone, packstone	Y	AT ® ★	••	ABAX•	moderate to poor	С	İ	open marine, near shoal		30		15	8			declinognathodid- idiognathodid	open marine	AK22M210
DECLI	NOGNATHO	DID-RE	LATED BI	OFACIES (LC	W ENERGY,	OPEN PLA	ATFORM	AND (OR	OPEN MARINE)										
142	Packstone (dolomitized)		Y	Φ# ★Q	≈9 &	poor	0			21	15					33	rhachistognathid- adetognathid	open platform or open marine	AK22M145
152	Mudstone (dolomitized)				*	not applicable	0	not applicable	open marine, low energy		34						declinognathodid	open marine	AK22M155
162	Packstone, wackestone (dolomitized)		Y★	V Q●	₹ ₩0	poor	С	strong	open marine to open platform, low energy	44	41			6		61	rhachistognathid- adetognathid- declinognathodid	open platform or open marine	AK22M165
178	Packstone		Y★	# \DXO	A&31A	poor	С	moderate	open marine, low energy		21						declinognathodid	open marine	AK22M181
217.5	Packstone (dolomitized)		ΦY★	ũ A	8Ω	poor	С	moderate	open marine, low energy		34	Γ	75	12	3		declinognathodid- idiognathodid	open marine	AK22M220.5
237	Packstone		Y★	•	~	poor	0	moderate	open platform to open marine		17		8				declinognathodid- idiognathodid	open marine	AK22M240
250	Wackestone, mudstone (dolomitized)				Y## ★	not applicable	0	not applicable	open marine, low energy		17						declinognathodid	open marine	Ak22M253

Meters (abw) ¹	Carbonate Texture	Abun- dant	Common (10-50%)	Minor (1-10%)	Rare (<1%)	Sorting	Micrit- ization	Abrasion	Depositional Environment (Microlithofacies)					Co	nodor	nt Ger	nera					Univ. Alaska Museum Sample No.
ESTRI	CTED PLATFO	(>50%) DRM	<u></u>	" - "	<u>,,,</u>			L	<u> </u>	Ad.	C.?	Cav	De.	Gn.	Hi.	ldg.	idp.	ldid	Kld.	Rh.	Vo.	Sample No
76.8	Mudstone (dolomitized)						0		intertidal to restricted;	1												AK22M79.8
80.8	Packstone		Y∙Q	&Σ	AO	well	Α	strong	restricted platform; conodonts suggest open platform near		ļ								<u> </u>	9		AK22M83.8
253	Grainstone, mudstone	•	*	⊗&⊄	ΣQ	very well	A	strong	shoal restricted platform; conodonts suggest open platform near shoal						1					4		AK22M256
260.5	Grainstone	•		*		very well	Α	strong	restricted platform; conodonts suggest near shoal, open platform	8										9		AK22M263.
PEN T	O RESTRICTE	D PLATE	ORM					<u> </u>	pidaom				1				-	•	•			
55.5	Packstone, bafflestone	*•		YATI	Ø≭a	poor	С	weak	restricted to open platform; conodonts confirm		3	2										AK22M58.5
65	Grainstone, packstone	YH	*•	V ★Q	& \Delta \I O	poor to weak	Α	moderate to weak	open to restricted platform; conodonts confirm	4	2		1									AK22M68
74	Wackestone, mudstone, packstone		Y★●	O##®♥★.	≈A1	poor	R	weak to	restricted to open platform, low energy; rarity of cono-donts suggest restricted to open platform		1											AK22M77
76.5	packstone		Y•	ض Q	≈ \$&1 ∑0 ⊖	moderate to well	Α	moderate to strong	restricted to open platform; conodonts confirm		1				1						1	AK22M79.5
212	Grainstone, mudstone	•		Y& ∉ ★ *	ঀ৶¥৹	very well	A	strong	restricted to open platform; conodonts suggest restricted to near shoal											7		AK22M215
PEN P	LATFORM	·	1					•				•				-						
88	Packstone, wackestone (dolomitized)		@	Ø★●	≈9 0 AX Q	poor	М	weak	open platform; conodonts suggest open platform near shoal											14		AK22M91
137	Grainstone	YAT	*	00	A3QO	moderate	R	weak	open platform; conodonts confirm	3		9	2							7		AK22M140
167	Grainstone,		≈9 0 Y #0	፟ቜ፞፞፞፞ቘፙፚ፞ዿ፞፞Ω ★⊖●	AO	poor to moderate	С	weak to moderate	open platform; conodonts confirm	1			1?				1			7		AK22M169.
191.5	Grainstone, bafflestone		≈9 7 0	VY8 ★A•		poor	Α	moderate	open platform; conodonts confirm	12										5		AK22M194.
222	Grainstone	0	•	ŎY₹X	Φ	well	С	strong	open platform, behind shoal; 3 indet. conodont fragments													AK22M225
243	Grainstone, packstone	Y	₩	@	≈8©A	poor	A	weak	open platform to open marine	3			5			3				10		AK22M246
PEN P	LATFORM OF	OPEN N									-	1_	1								······································	ALCOOME
62	Grainstone, packstone	AY	@★⊖	≈0AXO	ମ& <i>ଌ</i> ପ	poor to moderate	Α	moderate to weak	open platform near shoal; conodonts confirm	5	2	2	12					<u> </u>				AK22M65
169	Grainstone		≈90	\$0 ¥ X ⊙ •	æ (⊚A	very well to well	A	strong	open marine to shoal; conodonts suggest open marine to shoal	4			7							8		AK22M172
171	Grainstone	0	0	•	≈9#/3® ⊖	well to very well	A	strong	shoal to open platform; conodonts confirm	4										1		AK22M174
174	Grainstone		≈®X0	9 ४० ४ <i>५</i> ८८★७⊖•	A@10	moderate to poor	С	moderate	open platform to shoal; conodonts suggest open marine to shoal				1		1					2		AK22M177
181	Grainstone	₽≈	0	૧૯⊛★૦	ΦΥΑΘΣ•	very well to well	A	moderate		2												AK22M184
182	Grainstone	₽≈	Θ	&⊙•		very well to well	Α	moderate		2												AK22M185
227	Grainstone		&⊚⊙•	≈YØ★	A	moderate	С	strong	open platform behind shoal or tidal channel; conodonts confirm	6										1		AK22M230
HOAL	<u> </u>	L	<u></u>	<u> </u>		<u></u>	<u> </u>				•						•					
173	Grainstone	0		≈∦Y&X ⊖•	9A048	well	A	moderate	shoal; conodonts confirm	3			1							5		AK22M176
179	Grainstone	0	1	<u></u>	0 ★	very well	Α	strong	shoal; conodont data inadequate	1												AK22M182
180	Grainstone	0		≈980	BCQY0★ AX•	well	Α	strong	shoal; conodonts confirm	2										16		AK22M183
PEN N	MARINE TO O	PEN PLA	TFORM, LOV	V ENERGY	<u> </u>																	
17.1	Packstone	*	Y	≈A.O.H æ•	802	poor to very poor	С	moderate	open marine to open platform, low energy; conodonts suggest open platform			9										AK22M20.1

		MICRITIZATION				
 SKE	LETAL			NONSKELETAL	1	
Algae Undifferentiated Archaeolithophyllum sp. Asphaltina sp. Donezella sp. Bioclast, undifferentiated Bivalve Brachiopod Bryozoans Undifferentiated Fenestrate Ramose	3&3@ < ★ ★ ♠	Calcisphere Foraminifer Gastropod Oncoid Ostracode Pelmatozoan Sponge spicule Trilobite	⊗ □ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○	Grapestone Intraclast Ooid Superficial ooid Peloid Quartz	0 M C A	None Minor (1-10%) Common (10-50%) Abundant (>50%)