Table 1. Conodont species distribution in the Wahoo Limestone in the study section, eastern Sadlerochit Mountains, northeast Brooks Range, Alaska
[R, redeposited; R?, redeposition uncertain; 1?, assignment to taxon uncertain; Pb?, assignment to element type uncertain; ?, element type indeterminate]

Stratigraphic columns (left side of table): SYSTEM: PERMIAN; PENNSYLVANIAN; PENNSYLVANIAN(?); MISSISSIPPIAN (PART). SERIES/SUBSERIES: LOWER ATOKAN; UPPER MORROWAN AND (OR) LOWER ATOKAN; MORROWAN; MORROWAN(?); CHESTERIAN (PART). CONODONT ZONE/FAUNA: *Idiognathodus* Fauna; *minutus* Fauna; lower *minutus* Fauna; *noduliferus* - *primus* Zone; Upper *muricatus* Subzone. FORMATION/MEMBER: ECHOOKA FORMATION; WAHOO LIMESTONE, UPPER MEMBER; LOWER MEMBER.

CONODONT SPECIES AND ELEMENTS

USGS collection No. (30801-PC)	Meters above base of Wahoo Limestone	Sample weight (kg)	*Adetognathus lautus* Pa	*A. spathus* Pa	*Adetognathus* spp. indet. Pa	*Adetognathus* spp. indet. Pb	*Cavusgnathus altus* Pa	*C.? tytthus* Pa	*C.? tytthus* Pb	*C. unicornis* Pa	*C. unicornis* Pb	*C. unicornis* M	*C. unicornis* Sc	*Cavusgnathus* spp. indet. Pa	cavusgnathoids Pa	*Declinognathodus noduliferus japonicus* Pa	*D. n. noduliferus* Pa	*D. noduliferus* subspp. indet. Pa	*Diplognathodus? ellesmerensis?* Pa	*Gnathodus bilineatus bilineatus* Pa	*G. bilineatus* subsp. indet. Pa	*G. defectus* Pa	*G. girtyi girtyi* Pa	*G. girtyi simplex* Pa	*G. girtyi* subspp. indet. Pa	*G. girtyi* subspp. trans. to *Declino.* spp. Pa	*Gnathodus* spp. indet. Pa	*Gnathodus* spp. indet. M
30801	262.5	8.1																										
30800	261.5	8.4			15																							
30799	260.5	7.8	8																									
30798	257.5	7.4	1	3	3																							
30797	253	6.9																										
30796	250	7.9														16	1											
30795	246	9.2	23	1	2																							
31713	243	6.8	3															5										
30794	241	8.5	10	3												3		2										
31712	237	6.1														15		2										
30793	232	8.6		5	3											7												
30792	227	7.8	3	1	2																							
30791	222	9.7																										
30790	217.5	8.5															34											
31711	212	8																										
30789	207	8.8														2	24	4										
31710	203	7.3	12															1?	1									
30788	197.5	8.7															23											
30787	191.5	9.3	4	1	7																							
30786	187	7.5	2	1	7												33											
31709	182	6.1			2																							
31708	181	5.7	2																									
31707	180	6.2			2																							
31706	179	5.6			1																							
31705	178	6.6			1												21											
30785	177	9.3	1	1													23											
31704	174	5.9														1												
30784	173	7.3	1		2												1											
31703	171	6.4	3		1																							
31702	169	5.5	4													7												
30783	167	9			1													1?										
30782	162	8.4	23	8	13											10	31											
30781	157	7.5	8	10	11																	1						
30780	152	8.6		1													34											
30779	142	7.1	4	5	12												15											
31701	137	7.9	3												9		2											
30778	133.5	7.8	7	12	17												24											
30777	122	9	23		11												7	1										
30776	118	9	6		5												1											
30775	113	8.9	45	2	19												2											
30774	107	8.3	26		10																							
30773	102	9.3	17		13																	3						
30772	97	9.2			7																							
30771	95	9.6	14		3											1												
30770	91	8.8	22		4																							
30769	88	9.2																										
30768	85	7	16		10												2					4						
30767	84	7.7	15		12										1													
30766	80.8	7.8																										
30765	76.8	6			1																							
30764	76.5	6.3						1																				
30763	74	6.2						1															1R?					
30762	69	7			9	2		8										1		1R?			9R?			3		
30761	65	5.9			4			2?										1										
30760	62	5.8			6			2							2	12												
30759	59	6.4			61			37								51	7									1		
30758	56	10.1				1?		6							10	8												
31700	56	6.1						9							17	11												
31699	55.5	5.8						3							2													
31698	54.9	11.6						21	3						14							1?	3	1		2		
30757	53	8.6												1						2	2		22	37		3		1
30756	50.5	8.6						4		11				5	12													
30755	47	7.9						1		36				27	29													
30754	42	8.7								16				5	11													
30753	37	7.4								4				4	22					2	1		1	2				
30752	32	8.4								35				18	33								3	3				
30751	27	7						3		5				2	12								5					
30750	22	7.3					2	1		22				45	41													
30749	17.1	7.4								4				5														
30748	13.2	6.7								45		4		10	15												2?	
30747	7	7.2					1			82	1	4			79					1			2	12				
30746	6	6.9								80	1				85					1				17				
30745	0.4	6.7								75	9	18	6		25					1			10		54		3	
TOTAL			306	54	277	3	3	99	3	415	11	26	6	122	419	144	265	18	1	8	3	9	56	72	54	9	5	1

USGS collection No. (30801-PC)	*Hindeodus minutus* Pa	*H. minutus* Pb	*H. minutus* M	*H. minutus* Sa	*H. minutus* Sb	*H. minutus* Sc	*Hindeodus* spp. indet. Pa	*Idiognathodus incurvus?* Pa	*I. sinuosus* Pa	*Idiognathodus* spp. indet. Pa	*Idiognathoides sinuatus* Pa	*Idioprioniodus conjunctus?* Pb	*I. conjunctus?* M	*I. conjunctus?* Sa	*I. conjunctus?* Sb	*I. conjunctus?* Sc	*Idioprioniodus* cf. *I. healdi?* Pb?	*Idioprioniodus* spp. indet. Pa	*Idioprioniodus* spp. indet. Pb	*Idioprioniodus* spp. indet. M	*Idioprioniodus* spp. indet. Sa	*Idioprioniodus* spp. indet. Sb	*Idioprioniodus* spp. indet. ?	*Kladognathus* spp. P	*Kladognathus* spp. M	*Kladognathus* spp. Sa	*Kladognathus* spp. Sb-Sc	*Lochriea commutata* Pa	*L. commutata* M	*Neognathodus?* sp. indet. Pa
30801																														
30800																														
30799																														
30798										1				1	1	1														1
30797							1																							
30796							1	1				1			1	2														
30795								1		6																				
31713									3																					
30794										4					1								2							
31712	1					1			5	3																				
30793							1		8	8			2																	
30792																														
30791																														
30790	2								74	1	3	1?	2	2?	2	3							2							
31711																														
30789									5	10		1	1	1	1?		1						3							
31710							1		1																					
30788	3		1						2	1																				
30787																														
30786									2	17									1											
31709																														
31708																														
31707																														
31706																														
31705																														
30785							1			1												1								
31704	1																													
30784																														
31703																														
31702																														
30783																						1								
30782												3		1?	2															
30781													1								1									
30780																					1									
30779																				2			1							
31701																														
30778	3																	1?	1?	2	1									
30777																						1								
30776																														
30775							7																							
30774																				1?							2R			
30773																				1		1	1							
30772																														
30771																														
30770																					2									
30769																														
30768																														
30767																														
30766																														
30765																														
30764			1																											
30763																														
30762	10	2	3		1	2																					4R			
30761																														
30760																											1R			
30759	1		1																								1R			
30758															2															
31700							1																							
31699																														
31698																				1					1			2		
30757	16	7	7	2									1			1			1	1	1	1			3		2			
30756																											1			
30755	3																							2	1		11			
30754	1				1																			1	1	1	2			
30753							1?																		1	1	5	2?		
30752				1																				1	1		7			
30751		1	1																					3	3	1	3			
30750																														
30749																														
30748																								2	4		2	1		
30747																								15	14	1	16	1		
30746																						1		12	8		10	1	1	
30745																						1		32	15	2	48	1	1	
TOTAL	41	10	14	3	2	3	14	2	100	52	3	6	7	6	9	7	1	1	3	8	6	7	9	68	52	6	115	8	2	1

USGS collection No. (30801-PC)	*Rhachistognathus minutus declinatus* Pa	*R. m. havlenai* Pa	*R. m. minutus* Pa	*R. minutus* subspp. indet. Pa	*R. muricatus* Pa	*R. muricatus* trans. to *R. primus* Pa	*R. muricatus* trans. to *R. websteri* Pa	*R. prolixus?* Pa	*R. websteri* Pa	*Rhachistognathus* spp. indet. Pa	*Vogelgnathus postcampbelli* Pa	Uassigned Pa element	Unassigned Pb element	Unassigned M element	Unassigned Sa element	Unassigned Sb element	Unassigned Sc element	Total generically identifiable elements	Elements per kilogram	Indet. bar, blade, and platform fragments	Color Alteration Index (CAI)
30801																	1	0	<1	0	4
30800	4	2		12								9	6	5		1	1	18	7	112	4
30799	1	1	1							6		1	3	2	2		2	17	3	54	4
30798	16	4	6									8						35	6	21	4
30797		2	2?									7	1					5	2	35	4
30796															2			23	3	15	4,6
30795	4	6	4	9								5	12		3	1	1	54	8	97	4
31713	10																	26	3	22	4
30794	9	2																38	4	36	4,6
31712	1			2								16	1					33	8	37	4,6
30793	30	5								2		22	2					68	11	81	4,6
30792										1		3						5	1	3	Indet.
30791																		0	<1	3	Indet.
30790												5	9	4				126	17	181	4,6
31711		3		1?						3								7	1	11	4,4.5,6
30789	2											2	5		1			55	7	121	4,6
31710	15		3									7	1	3	2		1	34	6	78	4,4.5
30788	7									1		3	2					38	5	99	4,6
30787	4		1									2	3					17	2	12	4,6
30786	276											40		1	1		3	332	51	200	4,6
31709													1					0	<1	0	4
31708																		2	<1	0	4
31707		16											2					16	3	25	4
31706																		0	<1	4	4
31705	1			2									1					24	4	40	4
30785	19	1										20			1			48	7	45	4,6
31704	2														1			4	1	9	4
30784	1									4							1	7	1	22	4,6
31703	1																	4	1	3	4
31702		1	7											2				19	4	45	4
30783	2		2							3								9	1	4	4
30782	16	25	3						1	16		19	4	2	3	1	4	139	22	156	4,6
30781	21	5	3					1		4			3		1		1	56	9	47	3.5
30780												10	1					36	5	28	4
30779		10	3						1	19			1	2			1	60	11	97	4,6
31701			7															21	3	32	4
30778	21	48	55		5				12	51			3	2	1		3	243	34	162	4
30777	8	37	74		22				5	34			7	2			2	212	26	70	4
30776	1	3	2						2	3				1	1			18	3	21	4
30775	2	18	56		3				22	41		17	28		2	1	3	198	30	240	4
30774	34	28	15	7	2				8	53			10				2	176	23	62	4
30773	5	7	22		5				43	48		1	9	7				156	20	170	3,4,6
30772			4		1				8	6								19	3	21	4
30771	3	2			16	3			8	9			1	1			1	56	6	19	4,6
30770			11		174				60				25	7	4	1	11	269	36	153	4
30769	1	1	7		4				1			4						14	2	0	4
30768	1	1	11		33	1			14	57			5	2	1		2	144	23	0	4
30767			1		16					14								47	8	28	4
30766										9		9			1			9	2	18	4
30765																		0	<1	1	4
30764											1	2					1	4	1	1	3.5-4
30763																		2	<1	5	4
30762					8				1	1			3					54	8	147	4
30761													1					3	1	12	4,6
30760													1	1			1	17	4	38	3,4,6
30759					7				1	6			7	1		1	2	113	29	133	4,6
30758					6					1	1			1	1			35	4	41	4,6
31700					3								1					41	7	31	4
31699																		5	1	2	4,4.5,6
31698														1				49	4	47	4,4.5,6
30757											2	1	7	2			3	113	15	107	3,4,6
30756														1			1	33	4	20	3,4,6
30755													3					110	14	44	4,6
30754												1	1					39	5	16	3,4
30753																	1	46	6	43	4,6
30752														2				102	12	91	4,6
30751													5				1	39	6	95	3,4,6
30750													2	1				111	16	11	4,6
30749																		9	1	2	3,4,6
30748					9						10			1		2		104	16	271	3,4,6
30747					13					2			3		1	2		244	35	126	4,6
30746					9		1	2		2				3	2	1		231	34	100	3,4,6
30745											2		7	8	8		3	303	49	561	4,6
TOTAL	518	228	300	33	336	4	1	3	187	396	16	214	187	65	39	11	53	4744		4684	