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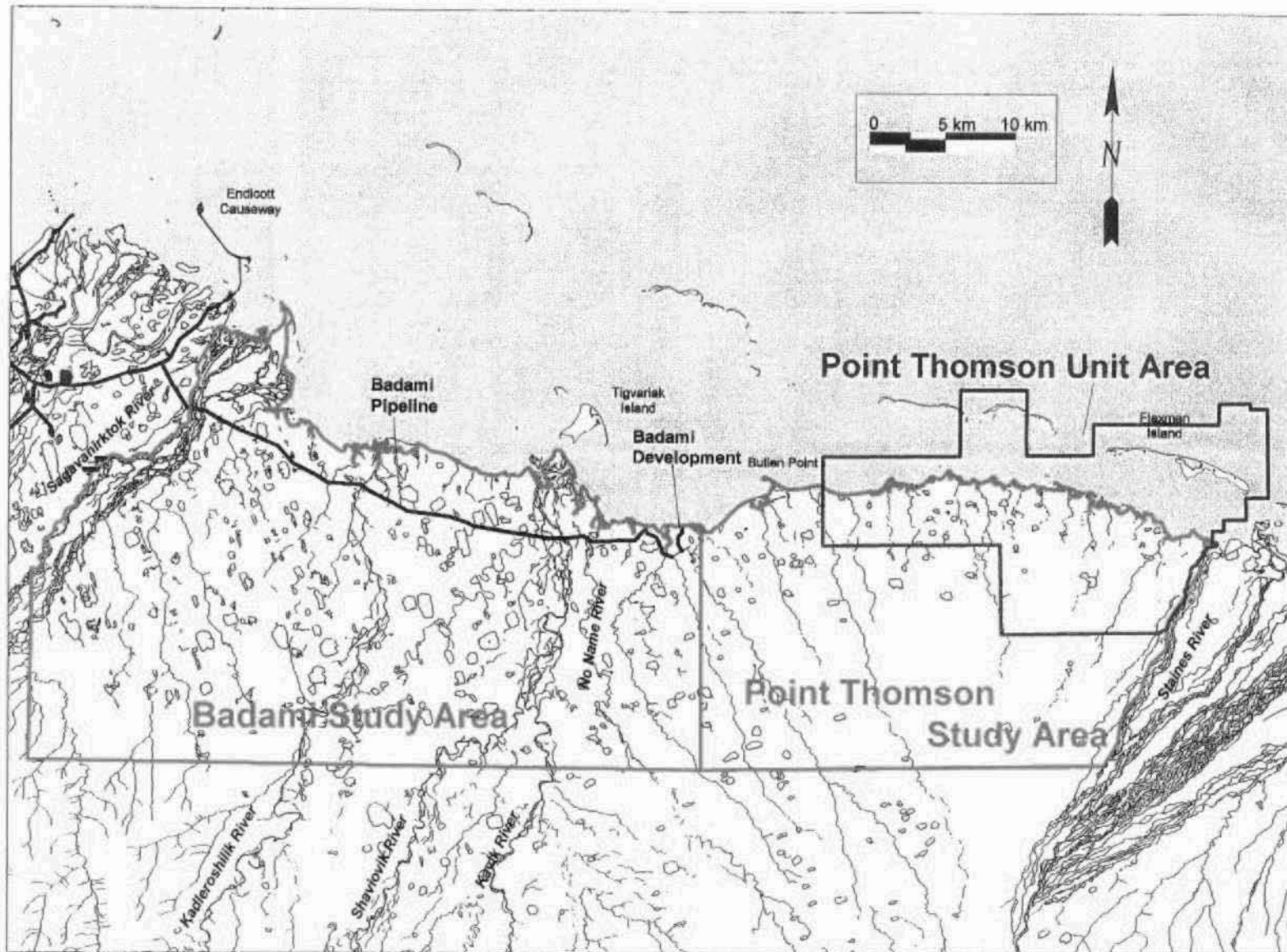


Figure 1. The Arctic fox den study area including the Badami and Point Thomson Study Areas and the Point Thomson Unit Area, Alaska, 1999.

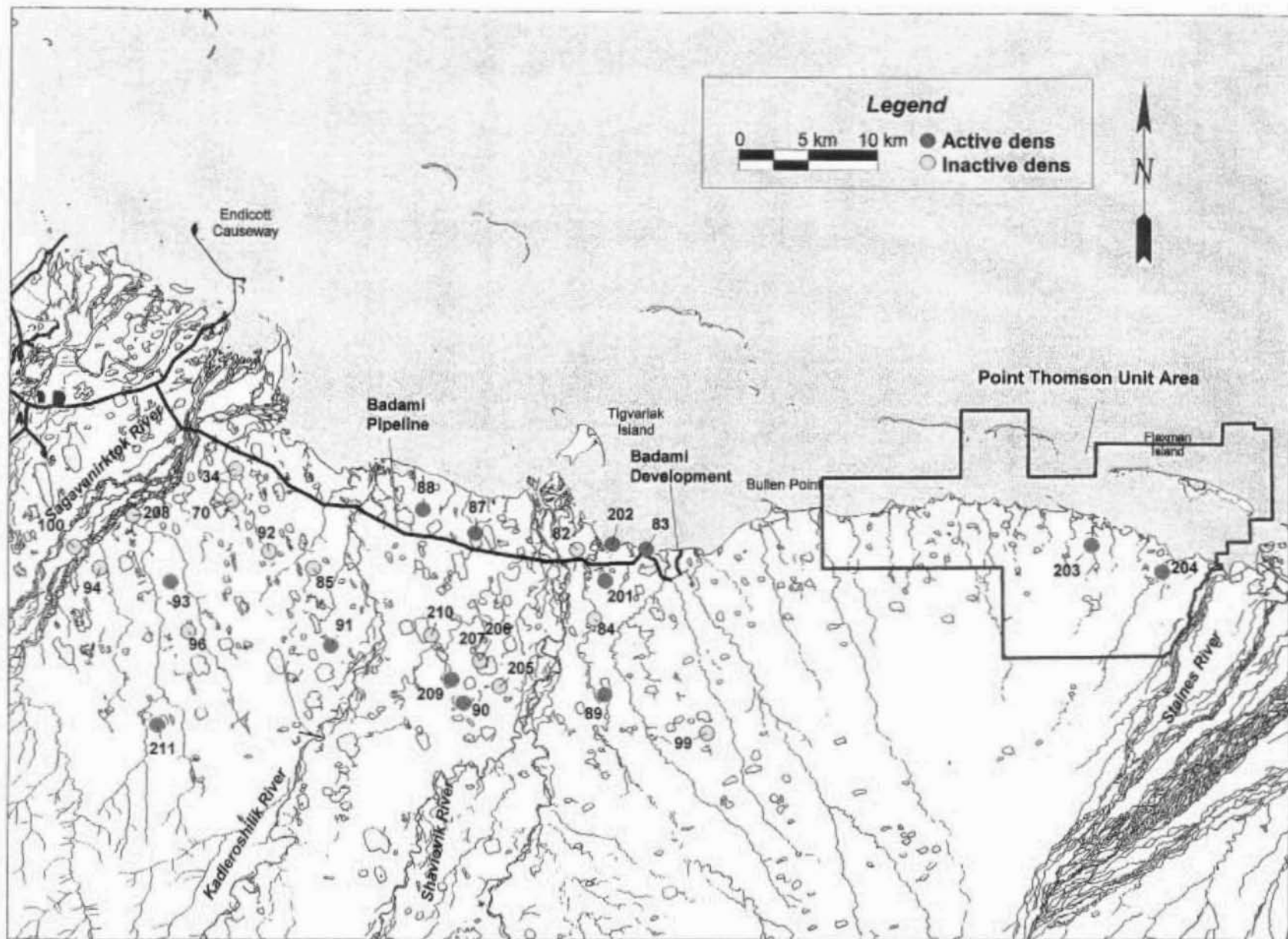


Figure 2. Arctic fox den sites (active and inactive) recorded within the Badami and Point Thomson Study Sites, Alaska, 1999 (n=28).

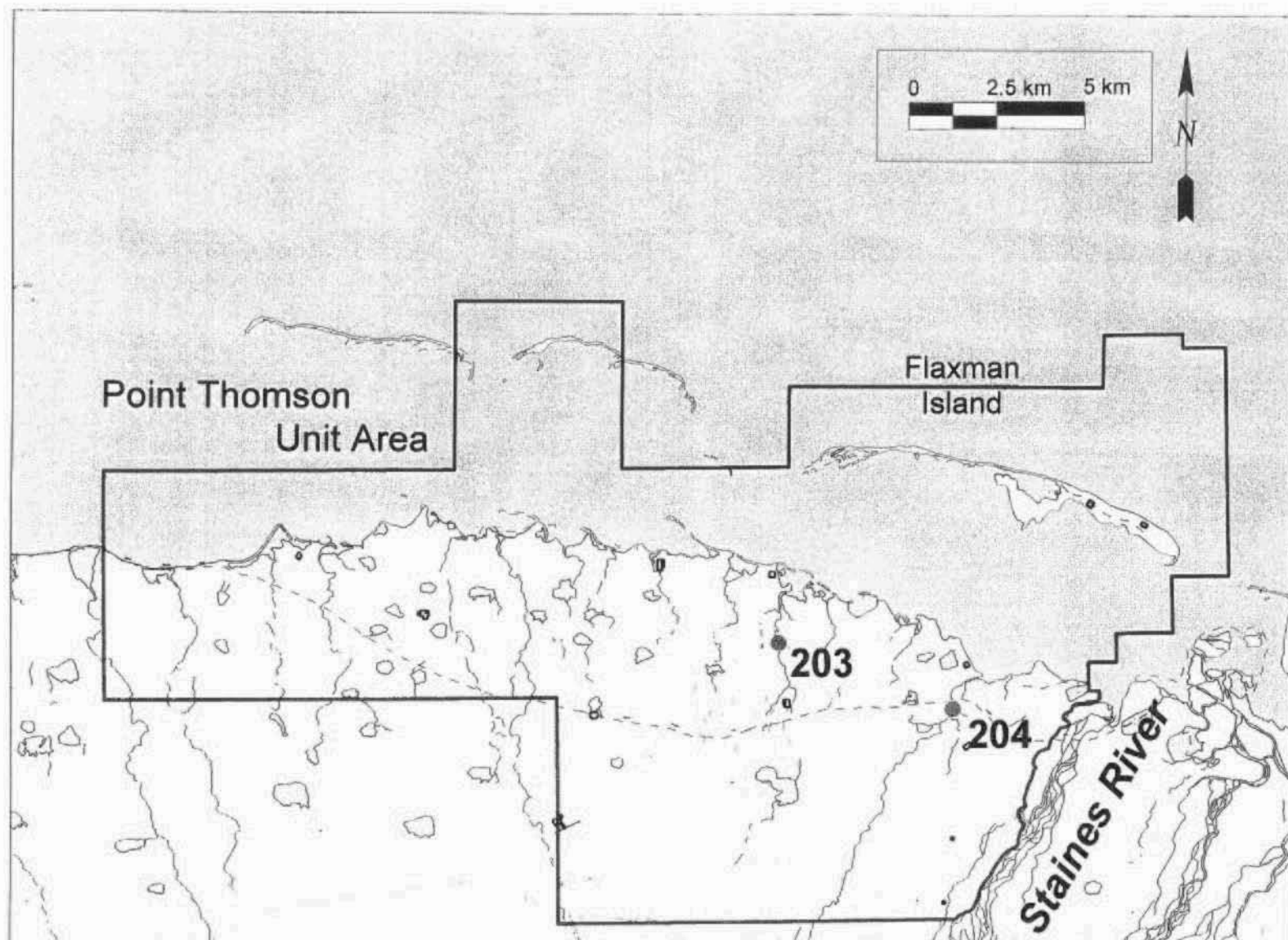


Figure 3. Location of Arctic fox dens previously identified (WCC and ABR 1983) in the Point Thomson Unit Area, Alaska, Summer 1999.

Table 1. Location and characteristics of Arctic fox den sites within the Badami and Point Thomson Study Sites, Alaska, 1999 (Coordinates in WGS 1984).

	Date	Den number ¹	Study Site	Longitude (°W)	Latitude (°N)	Activity	Den site habitat type	Age of den	Den site exposure	Comments ²
1	8-Jul	34	Badami	147.8728160	70.2016740	I	pingo	Mature	open	
2	8-Jul	70	Badami	147.8789240	70.1816730	I	pingo	Mature	open	
3	8-Jul	82	Badami	147.2261210	70.1530720	I	river bank	?	E	
4	8-Jul	83	Badami	147.0930620	70.1537400	A	coastal bank	Mature	open	20m off Pt. Thomson #3 pad
5	8-Jul	84	Badami	147.1191947	70.1091820	I	streambank	Mature	SE	S facing bank of stream
6	9-Jul	85	Badami	147.7250240	70.1394520	I	pingo	?	open	
7	8-Jul	87	Badami	147.4194620	70.1630690	A	pingo	Mature	SE	golden eagle on den upon arrival
8	8-Jul	88	Badami	147.5191900	70.1777900	A	pingo	Mature	SE	
9	8-Jul	89	Badami	147.1727730	70.0608470	A/I	streambank	Mature	SE	S facing bank of stream
10	8-Jul	90	Badami	147.4394470	70.0550090	A	pingo	Old	E	Q/S Den 9
11	8-Jul	91	Badami	147.6900160	70.0905620	A/I	pingo	Old	SE	
12	9-Jul	92	Badami	147.8069720	70.1494510	I	pingo	Mature/Old	E	Q/S Den 74
13	8-Jul	93	Badami	147.9925310	70.1297250	A	pingo	Mature	NE	
14	8-Jul	94	Badami	148.1230910	70.1372230	I	pingo	Old	open	
15	8-Jul	96	Badami	147.9572470	70.0983350	I	low pingo	Mature	SW	
16	8-Jul	99	Badami	146.9780410	70.0364050	I	pingo	Old	SE	
17	8-Jul	100	Badami	148.1711500	70.1500000	I	river bank	?	E	W edge of Sag R. channel
18	8-Jul	201	Badami	147.1714333	70.1331667	A	peat bank	Youthful	SE	Found by caribou crew in drained lake bed
19	8-Jul	202	Badami	147.1583500	70.1565666	A	sand dune	Youthful	SE	Coastal sand dune
20	8-Jul	203	Pt. Thomson	146.2506000	70.1547500	A	streambank	Mature	open	W/C den, S bank
21	8-Jul	204	Pt. Thomson	146.1198166	70.1373666	A/I	streambank	Old	NE	W/C den, E bank
22	12-Aug	205	Badami	147.3719000	70.0657000	I	pingo	Senile	NE	old, collapsed den, Q/S Den 11
23	12-Aug	206	Badami	147.4080000	70.0825000	I	pingo	Senile	E	Q/S Den 10?; on ridge with den 207
24	12-Aug	207	Badami	147.4079000	70.0815833	I	pingo	Senile	E	Q/S Den 10?; on ridge with den 206
25	12-Aug	208	Badami	148.0655330	70.1713166	I	old riverbank	Senile	W	Q/S Den 12, E side of Sag R.
26	12-Aug	209	Badami	147.4659333	70.0702333	A	pingo	Old	NE	Q/S Den 11
27	12-Aug	210	Badami	147.5009666	70.0979166	I	pingo	Senile	SW	Q/S Den 73
28	12-Aug	211	Badami	148.0118000	70.0381166	A	pingo	Old	W	Q/S Den 5

¹ Location of den numbers 34-100, are originally from Burgess and Banyas (1993); den numbers 203, 204, are from WCC and ABR (1983); and den numbers 206-211 are from Quimby and Snarski (1974).

² Q/S refers to fox dens first documented by Quimby and Snarski (1974), while W/C refers to dens first documented by WCC and ABR (1983).

Table 2. Evidence of Arctic fox presence at active den sites within the Badami and Point Thomson Study Sites, Alaska, 1999.

Den number	Date	Activity ¹	Presence								
			Visual		Recent Scats		Tracks		Hair	Odor	Other
			Adult	Pup	Adult	Pup	Adult	Pup			
83	8-Jul	A	-	-	-	yes	yes	-	-	-	-
87	8-Jul	A	-	-	-	yes	-	-	-	-	Ad in den
88	8-Jul	A	1	-	-	yes	-	yes	-	yes	-
89	8-Jul	A/I	-	-	yes	-	-	-	yes	yes	-
90	8-Jul	A	1	5	-	-	-	-	-	-	-
91	8-Jul	A/I	-	-	yes	-	-	-	-	yes	-
93	8-Jul	A	F	-	-	yes	-	-	-	-	-
201	8-Jul	A	-	-	-	-	yes	-	-	-	-
202	8-Jul	A	-	-	-	yes	yes	-	-	-	-
203	8-Jul	A	1	-	-	yes	-	-	-	-	-
204	8-Jul	A/I	-	-	yes	yes	-	-	-	-	-
209	12-Aug	A	-	-	yes	yes	-	-	yes	yes	-
211	12-Aug	A	-	-	yes	yes	yes	-	-	yes	-

¹ A = active den site at time of ground survey; A/I = active den site earlier in the year, but vacant at time of ground survey. Den activity based on physical evidence at time of ground survey (see methods).

Table 3. Number and density of Arctic fox dens within the Badami and Point Thomson Study Sites, Alaska, 1999.

Area	Area (km ²)	Number of active fox dens	Total number of fox dens	Density
Overall Study Area	1700	13	28	1 den/ 60.7 km ²
Badami Study Area	1060	11	26	1 den/ 40.8 km ²
Point Thomson Study Area ¹	640	2	2	1 den/ 320 km ²
Point Thomson Area ^{1,2}	180	2	2	1 den/ 90 km ²

¹ Active fox dens included only den numbers 203 and 204.

² The Point Thomson Area is located within the Point Thomson Study Area. Active dens in the Point Thomson Study Area and the Point Thomson Area were the same two dens.

Table 4. Arctic fox scat analysis describing presence of natural prey species and anthropogenic material during 1999 denning season in the Badami and Point Thomson Study Sites, Alaska, 1999.

Den #	Microtine	Ground Squirrel	Eggshell Fragments	Feathers	Insects	Vegetation	Artificial Food	Other	Prey Remains Found Near Den Site
34	bones	bones	Y*	--	--	Y	--	leg bone (goose)	Big bird pelvis (not recent; goose?), bird long bone (goose?)
70	bones	bones	Y	Y	--	Y	--		Sandpiper head and feathers
83	bones	bones	--	--	--	Y	styrofoam	bird leg bones	
84	bones	hair	--	Y	--	Y	wood bits (processed)	large white feather (Goose, snowy owl, or ptarmigan?)	
87	bones	bones	Y	Y	--	Y	--	seeds	Medium-sized dark feathers
88	bones	bones	bluish; goose	Y	--	Y	--	Guard hair (caribou?), atlas/axis piece of medium-size mammal	Medium-sized dark feathers (goose?)
89	bones	--	--	Y	--	Y	--	Some feathers are goose	Goose egg, ground squirrel skull, small mammal ulna (ungulate? caribou calf?), waterfowl (?) radius/ulna
90	bones	hair	Y	Y	beetle parts	Y	--	goose and shorebird feathers, guard hair, some downy feathers, rock	Fresh goose wing bone (meat still on it), scoot/scales from a waterfowl leg. Medium-sized dark feathers, big feather stem, ground squirrel-turned inside-out
91	bones	bones	Y	--	--	Y	--	Egg frags (goose and blotched shorebird)	
93	bones	bones	Y	Y	--	Y	--	Bird breastbone and femur	Medium-sized dark feathers (goose?)
96	bones	-	Y	Y	--	Y	--		Feathers - white, brown with light tan blotches, 1 with lower white upper dark brown (ptarmigan ?)
99	bones	bones	Y	Y	--	Y	--	goose feathers	
202	bones	bones/hair	Y	Y	--	Y	--	bird bones	Bird breastbone, seaweed, styrofoam with bite marks
203	bones	bones	Y	Y	--	Y	--	unknown black mass	3/4 goose egg, ground squirrel skull, bird skull cap (waterfowl?), small mammal rib bone (caribou calf?), caribou hair, bird femur bone
204	bones	bones/hair	--	Y	parts/wing	Y	--	bird skull, pebbles	
209	bones	paw	Y	Y	parts/wing	Y	--	ground squirrel paw, egg frags (goose?), also light-bluish egg shell	Waterfowl skull, bird breastbone, medium-sized dark feathers (goose?), goose egg
211	bones	bones	Y	Y	beetle parts	Y	--	egg frags (goose?), some downy feathers	Small/medium bird pelvis (ptarmigan or shorebird?), small bird wing intact with feathers (juvenile passerine?), goose egg, 3 eggs - white with dark blotches (Scolopacidae)

* "Y" indicates presence of material.