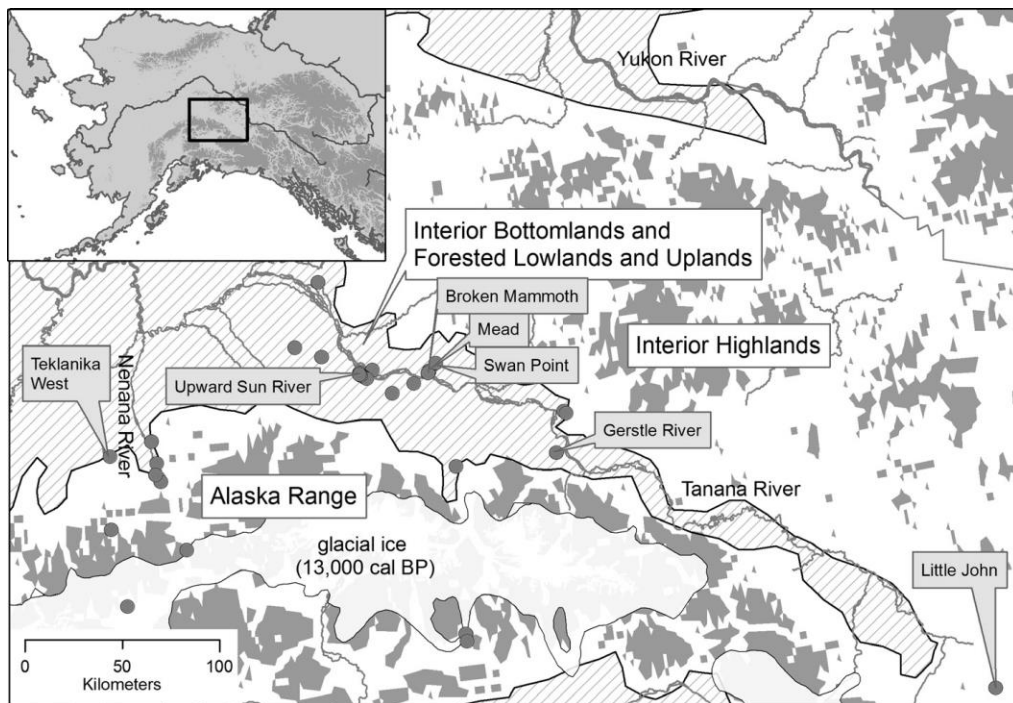


**NEW RADIOCARBON DATES FROM THE
LITTLE JOHN SITE (KdV_o-6) OBTAINED
WITH THE SUPPORT OF THE YUKON
COLLEGE RESEARCH FUND**



Map of Tanana valley showing the locations of sites dating between ~14,000 and 10,000 cal yr BP.

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Report to Yukon College Research Fund

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**NEW RADIOCARBON DATES FROM THE LITTLE JOHN SITE
(KdVo-6) OBTAINED WITH THE SUPPORT OF THE YUKON
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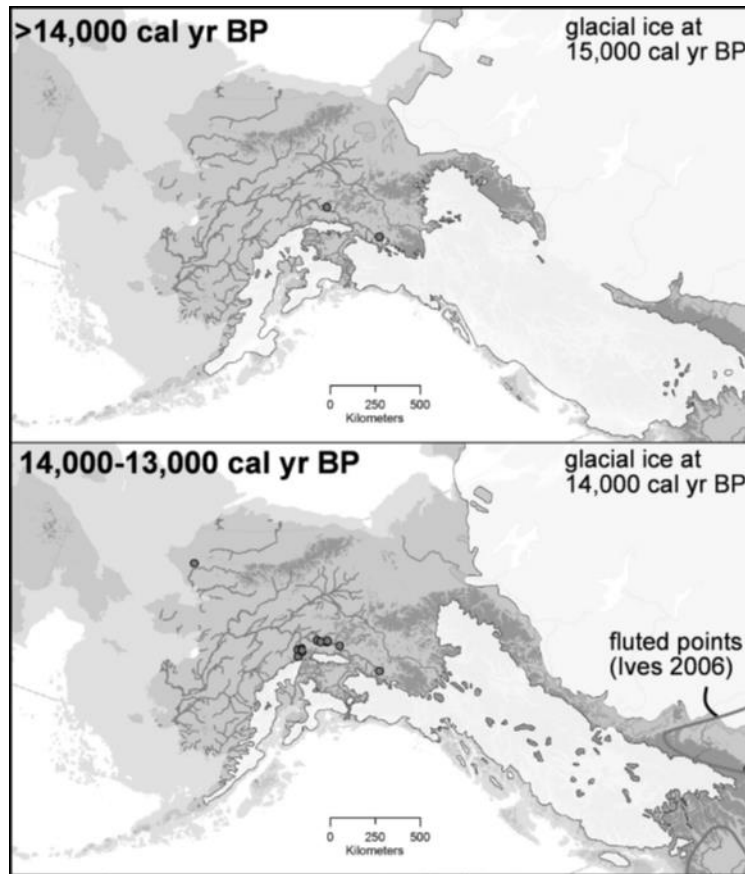
With the generous support from the recently established Yukon College Research Fund, ten new radio-carbon dates were obtained over the past year that have contributed to the further refinement of the chronology of human occupation at the Little John site. The new dates range from 1,780 to 12,400 Radiocarbon years ago, which when calibrated range from c. 1715 to 14,500 Calendar years before present. The new dates are summarized in the Table below. The entire suite of acceptable dates at the site now consists of 37 AMS measured dates ranging from the most recent past to the Wisconsin Interstadial (MIS 3) c. 42,000 plus years ago. The earliest cultural material at the site is dated to c. +14,000 years before present. The new dates allow for a more refined cultural chronology at the Little John site and will be incorporated into a major peer-reviewed publication in development and future reports and publications on our continuing work at this unique multi-component site.

The Little John site is both an archaeological site and the location for the White River First Nation – Yukon College summer research field camp that supports the WRFN-YC Scottie Creek Borderlands Culture History Project, an interdisciplinary investigation of the prehistoric archaeology, cultural geography, linguistics, history, and contemporary sociology of the Yukon – Alaska borderlands in the region about the Alaska Highway. The research began in 1990 with ethnographic work with Upper Tanana Elders of Beaver Creek, Yukon, and Northway, Tetlin, and Tanacross, Alaska, with archaeological work in the region beginning in 1994 in the context of a Yukon College summer field school supported by the Northern Research Endowment Fund; our work in 2015 will represent the 25th year of consecutive field research in the region – by far the longest running sustained program of anthropological research in Yukon. Archaeological work at the Little John site began in 2002 and has continued yearly (with the exception of 2005), accumulating 13 years of research at the site. Despite this, there remains much to be done and discovered at the site. Its areal extent is estimated at about 4

to 5 thousand square meters; to date we have explored less than 300 square meters of the deposits.

Table 1. New Dates for KdVo6 Supported by this Grant								
Lab #	RCBP	Var	2 σ CALBP	Level	Unit	DBS CM	Material	Comments / Associations
Beta 387618 KdVo6 N15W1 8-B2	1780	30	1815 - 1615	B2	N15 W01	c. 8	Charred material	Large B2 hearth feature and artifacts
Beta 387614 KdVo6 Fa08- 045	7200	30	8035 - 7960	P	N18 W07	97	Bone, swan	Fa08-045 long bone fragments
UOC 0642 KdVo6 S11- 16	8972	43	10231 - 9923 2 intercepts	PC	N19 W11	100	Wood	wood sample 2011-16; bottom of PC Hearth Feature 2011-15
Beta 387616 KdVo6 Fa10- 019	9370	30	10680 - 10515	PC3- P4	N16 W12	82.5	Bone, bison	Fa10-019 long bone fragment
UOC 0645 KdVo6 Fa14- 03-04-01/02	9474	65	11083 - 10562 2 intercepts	P2	N20 W08	90	Bone, wapiti	Fa14-03-04-01/02, Wapiti
UOC 0644 KdVo6 Fa10- 21	9502	59	11085 - 10587 2 intercepts	LbPC	N16 W12	85	Bone, caribou	Fa10-21 tibia fragment
Beta 406635 KdVo6 C14S 2014-01	9780	30	11240 - 11185	LbPC 3-P4	N17 W13	102	Charred material	Artifact #s 4375 - 4380
UOC 0643 KdVo6 Fa06- 133	10831	48	12793 - 12679	LbPC	N17 W04	78	Bone, caribou	Fa06-133 innominate with acetabulum, ischilium, mature
Beta 387613 KdVo6 Fa07- 017	11140	40	13080 - 12970	PC	N17 W07	90	Bone, caribou astragulus	Fa07-017 astragulus
Beta 387617 KdVo6 Fa10- 137	12400	40	14715 - 14210	LbPC 3-P4	N16 W12	105 - 115	Bone, bison	Fa10-137 phalanx

The Little John site is recognized as one of the earliest archaeological sites in Eastern Beringia. Based on an earlier published date (Easton et al. 2011) of 12,020 \pm 70 Radiocarbon years that calibrates to between 14,050 to 13,720 Calendar years before present, Potter, Holmes, and Yesner (2013) note that “only two sites are presently older than 13,300 cal yr BP; Swan Point and Little John” (see maps from Potter et al. 2013 below).



A new date generated by this grant consolidates this assessment. Beta sample 387617 on a bison phalanx (KdVo6 Fa10-137) from the lowest cultural levels below the paleosol complex in Unit N16W12 returned a date of 12,400 \pm 40 Radiocarbon years calibrates to between 14,715 to 14,210 Calendar years before present, firmly placing Little John as contemporaneous with the earliest levels at Swan Point, and the earliest evidence of human occupation in contemporary Canadian geography.

Two of the new dates supported by this grant expand the continuity of occupation at Little John during the Bølling-Allerød interstadial (c. 14,000 – 12,800 years ago) and the onset of the Younger Dryas stadial (12,800 – 11,500 years ago), joining two other previously generated dates (see Table 2, below). This suggests growing intensity of use of the site subsequent to the basal occupation, perhaps representing an expanding population of occupation in the region and/or increased reliance on the site as a dependable location of successful subsistence efforts.

Table 2 - Bølling-Allerød Interstadial Dates								
Lab #	RCBP	Var	2 σ CALBP	Level	Unit	DBS CM	Material	Comments / Associations
UOC 0643 KdVo6 Fa06- 133	10831	48	12793 - 12679	LbP C	N17 W04	78	Bone, caribou	Fa06-133 innominate with acetabulum, ischilium, mature
Beta 303043 KdVo6 11-01	10840	50	12801 – 12682	PC- PC3	N18 W13	92	Wood	Wood fragments sample 11-01
UCI 88769 KdVo6 Fa06- 141	10960	30	12905 - 12715	LbPC	N13 W02	52.5	Bone, Wapiti	Fa06-141 innominate frag with cutmarks
Beta 387613 KdVo6 Fa07- 017	11140	40	13080 - 12970	PC	N17 W07	90	Bone, caribou astragulus	Fa07-017 astragulus
New Dates supported by this grant are in Boldface.								

Table 3. Post Younger Dryas – Early Holocene Dates								
Lab #	RCBP	Var	2 σ CALBP	Level	Unit	DBS CM	Material	Comments / Associations
Beta 387614 KdVo6 Fa08- 045	7200	30	8035 - 7960	P	N18 W07	97	Bone, swan	Fa08-045 long bone fragments
UOC 0642 KdVo6 S11- 16	8972	43	10231 - 9923 2 intercepts	PC	N19 W11	100	Wood	wood sample 2011-16; bottom of PC Hearth Feature 2011-15
Beta 387616 KdVo6 Fa10- 019	9370	30	10680 - 10515	PC3- P4	N16 W12	82.5	Bone, bison	Fa10-019 long bone fragment
UOC 0645 KdVo6 Fa14- 03-04-01/02	9474	65	11083 - 10562 2 intercepts	P2	N20 W08	90	Bone, wapiti	Fa14-03-04-01/02, Wapiti
UOC 0644 KdVo6 Fa10- 21	9502	59	11085 - 10587 2 intercepts	LbPC	N16 W12	85	Bone, caribou	Fa10-21 tibia fragment
Beta 406635 KdVo6 C14S 2014-01	9780	30	11240 - 11185	LbPC 3-P4	N17 W13	102	Charred material	Artifact #s 4375 - 4380

The next series of six dates generated by this grant are all post-Younger Dryas in age (see Table 3, above) and join a robust suite of 12 dates that represents the strongest chronological signature at Little John and clearly represents an expanding intensity of use of the site at the end of the Pleistocene and the onset of the Holocene during the Milankovitch Thermal Maximum. One of the dates is in direct association with a

concentration of artifacts, while another is in association with a well-defined hearth feature that may lie within a structural feature.

The last date generated by this grant is on a well-defined hearth feature located in the B2 stratum and dates to the period between the two White River Volcanic events (c. 1,200 and 1,900 years ago), complimenting earlier dates from the mid-Holocene at Little John and other sites in the region and demonstrating a clear continuity of occupation during this period.

Thanks to the generous support of the Yukon College Research Fund the Little John site now has a suite of over 30 radiocarbon dates detailing the length and intensity of human occupation and 3 more dates related to its environmental history during the Wisconsin glacial period. We expect to generate additional dates in the years to come as we continue to investigate the site's long human and geological history. Our aim is to generate the most detailed and comprehensive cultural historical sequence documented in Yukon. Fortunately, the Little John site is amenable to this goal, containing extensive deposits of archaeological, paleontological, and geological interest, and we continue to enjoy the support of the White River First Nation and Yukon College in pursuit of this objective for which I am grateful.