



**Supplementary Figure S1.** Geology and location of tungsten occurrences in New Brunswick. Numbers in brackets correspond with New Brunswick mineral occurrence database unique reference number (<http://dnr-mrn.gnb.ca/mineraloccurrence/>). From Stewart et al. [17].

**Supplementary Table ST1.** Whole rock geochemistry included as Excel file titled “Supplementary\_Table\_ST1.xlsx”

**Supplementary Table ST2.** Extended laser ablation data from the analysis of titanite in sample from drill core SB0806 at 63.7m (summary presented in Table 2).

Comments	Used for Age Calculation	U (ppm)*	Th (ppm)*	$^{204}\text{Pb}$ cps	$\frac{^{206}\text{Pb}}{^{204}\text{Pb}}$	$\frac{^{207}\text{Pb}}{^{235}\text{U}}$	$2\sigma$	$\frac{^{206}\text{Pb}}{^{238}\text{U}}$	$2\sigma$	err. cor.	$\frac{^{207}\text{Pb}}{^{206}\text{Pb}}$	$2\sigma$	$\frac{^{207}\text{Pb}}{^{235}\text{U}}$	$2\sigma$	$\frac{^{206}\text{Pb}}{^{238}\text{U}}$	$2\sigma$	% conc
63.7m_ttn3c		273	538	54	811	0.514	0.057	0.0678	0.0012	0.58	0.0526	0.0057	417	38	422.9	7.3	101.4
63.7m_ttn2r		281	612	99	466	0.452	0.052	0.0679	0.0013	0.68	0.0477	0.0054	396	35	423.5	7.8	106.9
63.7m_ttn8r-2		226	726	103	368	0.460	0.059	0.0689	0.0015	0.79	0.0493	0.0058	399	41	429.8	9.4	107.7
63.7m_tt5c		277	652	101	463	0.479	0.056	0.0694	0.0013	0.67	0.0488	0.0055	390	41	432.2	7.6	110.8
63.7m_ttn1r		261	729	96	449	0.499	0.060	0.0681	0.0014	0.66	0.0523	0.0058	405	41	424.6	8.3	104.8
63.7m_ttn6r-5	yes	334	935	89	621	0.502	0.062	0.0696	0.0014	0.69	0.0522	0.0061	425	42	433.6	8.5	102.0
63.7m_ttn4r-3	yes	233	605	87	448	0.515	0.067	0.0693	0.0016	0.83	0.0533	0.0063	425	45	432.1	9.7	101.7
63.7m_ttn5r-2	yes	292	1049	121	421	0.516	0.052	0.0688	0.0011	0.56	0.0544	0.0053	413	37	428.8	6.8	103.8
63.7m_ttn4r	yes	164	437	82	341	0.519	0.086	0.0685	0.0016	0.76	0.0544	0.0083	407	61	427.0	9.8	104.9
63.7m_ttn6r-3	yes	362	913	93	640	0.522	0.050	0.0690	0.0014	0.72	0.0547	0.0049	432	34	429.8	8.5	99.5
63.7m_ttn2c	yes	284	742	71	655	0.527	0.051	0.0689	0.0013	0.63	0.0536	0.0050	418	35	429.2	7.6	102.7
63.7m_ttn3r	yes	248	686	75	551	0.528	0.058	0.0697	0.0015	0.74	0.0547	0.0055	424	41	434.6	9.1	102.5
63.7m_ttn4c	yes	249	884	85	504	0.529	0.069	0.0698	0.0015	0.76	0.0538	0.0068	434	48	435.1	9.0	100.3
63.7m_ttn5r	yes	240	623	83	487	0.530	0.073	0.0697	0.0014	0.72	0.0531	0.0071	423	52	434.3	8.6	102.7
63.7m_ttn6c	yes	342	834	68	814	0.532	0.046	0.0685	0.0014	0.69	0.0554	0.0044	434	31	427.2	8.6	98.4
63.7mttn1c	yes	295	836	74	679	0.532	0.050	0.0700	0.0014	0.66	0.0540	0.0047	426	34	436.1	8.4	102.4
63.7m_ttn11r	yes	392	843	78	817	0.534	0.039	0.0690	0.0013	0.68	0.0565	0.0036	436	26	430.1	7.8	98.6
63.7m_ttn9r-2	yes	261	722	70	613	0.534	0.060	0.0700	0.0015	0.72	0.0534	0.0057	433	40	436.0	9.1	100.7
63.7m_ttn7r	yes	256	800	88	475	0.536	0.054	0.0697	0.0013	0.56	0.0545	0.0055	438	37	434.3	7.6	99.2
63.6m_ttn6r	yes	189	525	77	405	0.537	0.088	0.0688	0.0016	0.78	0.0535	0.0090	410	64	428.8	9.8	104.6
63.7_ttn8c		206	438	60	574	0.539	0.068	0.0700	0.0015	0.75	0.0551	0.0063	429	47	435.9	8.7	101.6
63.7m_ttn6r-2		313	1193	84	608	0.540	0.052	0.0692	0.0014	0.68	0.0558	0.0050	434	35	431.5	8.3	99.4
63.7m_ttn10c		257	555	53	789	0.569	0.051	0.0697	0.0012	0.70	0.0598	0.0051	462	34	434.2	7.4	94.0
63.7m_ttn8r-1		202	426	44	753	0.604	0.070	0.0691	0.0016	0.78	0.0623	0.0065	485	44	430.9	9.5	88.8
63.7m_ttn11r-2		274	680	75	608	0.532	0.049	0.0701	0.0012	0.56	0.0547	0.0047	424	33	436.8	7.2	103.0
63.7m_ttn4r-2		306	886	80	631	0.540	0.049	0.0701	0.0013	0.67	0.0549	0.0046	434	32	436.9	8.0	100.7
63.7m_ttn11r-3		251	593	82	499	0.533	0.056	0.0703	0.0012	0.71	0.0546	0.0058	432	40	437.7	7.3	101.3
63.7m_ttn9r		342	853	81	693	0.541	0.046	0.0703	0.0013	0.72	0.0543	0.0043	433	30	438.2	7.9	101.2
63.7m_ttn6r-4		274	534	65	702	0.534	0.054	0.0703	0.0014	0.76	0.0546	0.0049	428	35	437.8	8.7	102.3
63.7m_ttn7c		325	707	89	604	0.598	0.052	0.0703	0.0011	0.67	0.0603	0.0052	468	35	438.1	6.6	93.6
63.7m_ttn7r-3		253	569	61	694	0.542	0.055	0.0709	0.0015	0.75	0.0541	0.0052	431	38	441.3	9.2	102.4

\*U and Th concentrations are semi-quantitative.