Table DR1. List of paleomagnetic poles shown in Figures 1 and 2.

ROCKNAME	*POLE NAME*	*POLE LAT.*	*POLE LONG.*	*DP*	*DM*	*AGE ESTIM. (MA)*	*AUTHORS*	*YEAR*	*JOURNAL*	*VOL.*	*PAGES*
NORTH AUSTRALIA											
Elgee-Pentecost combined	EP	5.4	31.8	2.3	4.5	~1800	Schmidt, P.W., Williams, G.E.	2008	Precambrian Res.	167	267-280
							Li, Z.X.	2000	Geophys. J. Int.	142	173-180
Mt. Isa Dolerite Dykes	IAR	-9.5	31.1	17.4	17.4	1140 ± 1	Tanaka, H., Idnurm, M.	1994	Precambrian Res.	69	241-258
Alcurra dykes+sills	ADS	2.8	80.4	7.2	10.7	1085-1066	Schmidt et al.	2006	Geophys. J. Int.	167	626-634
Walsh Tillite cap dolomite	WTD	21.5	102.4	13.7	13.7	750-700	Li, Z.X.	2000	Precambrian Res.	100	359-370
SOUTH+WEST AUSTRALIA											
Frere Formation	FF	45.2	40.0	1.3	2.4	~1800	Williams, G.E. et al.	2004	Precambrian Res.	128	367-383
Hamersley Province overprint	HP3	35.3	31.9	3.0	3.0	~1800	Li, Z.X. et al.	2000	MERIWA Project No. M242Report	199	216 pp.
Bangemall Sills	BBS	33.8	95.0	8.3	8.3	1070 ± 6	Wingate, M.T.D. et al.	2002	Terra Nova	14	121-128
Wooltana Volcanics	WV	-62.0	142.0	16.0	18.0	~820	McWilliams, M.O., McElhinny, M.W.	1980	J. Geol.	88	1-26
Mundine Well Dykes	MDS	45.3	135.4	4.1	4.1	755 ± 3	Wingate, M.T.D., Giddings, J.W.	2000	Precambrian Res.	100	335-357
Yaltipena Formation	YF	44.2	172.7	5.9	11.4	~640	Sohl, L.E. et al.	1999	Geol. Soc. Amer. Bull.	111	1120-1139
MEAN Elatina Formation	EM	49.9	164.4	13.5	13.5	~635	Embleton,B.J.J., Williams,G.E.	1986	Earth Planet. Sci. Lett.	79	419-430
							Schmidt,P.W. et al.	1991	Earth Planet. Sci. Lett.	105	355-367
							Schmidt,P.W., Williams,G.E.	1995	Earth Planet. Sci. Lett.	134	107-124
							Sohl,L.E. et al.	1999	Geol. Soc. Amer. Bull	111	1120-1139
Nuccaleena Fm	NL	32.3	170.8	2.2	3.9	~630	Schmidt, P.W. et al.	2009	Precambrian Res.	174	35-52
SOUTH CHINA											
Xiaofeng Dykes	XD	13.5	91.0	10.5	11.3	802 ± 10	Li, Z.X. et al.	2004	Earth Planet. Sci. Lett.	220	409-421
Liantuo Formation	LF	4.4	161.1	12.9	12.9	750-660	Evans, D.A.D. et al.	2000	Precambrian Res.	100	313-334
Nantuo Formation	NF	0.2	151.2	5.4	7.5	~640	Zhang, Q.R., Piper, J.D.A.	1997	Precambrian Res.	85	173-199
LAURENTIA											
Chengwatana Volcanics	1.09	30.9	186.1	6.5	10.3	1095 ± 2	Kean, W.F. et al.	1997	Geophys. Res. Lett.	24	1523-1526
Portage Lake Volcanics	1.09	26.7	178.0	3.5	6.3	1095 ± 3	Hnat, J.S. et al.	2006	Tectonophysics	425	71-82
Cardenas Basalts and Intrusions	1.09	32.0	185.0	6.8	9.3	1091 ± 5	Weil, A.B. et. al.	2003	Tectonophysics	375	199-220
Lake Shore Traps	1.09	22.2	180.8	4.5	4.5	1087 ± 2	Diehl, J.F., Haig, T.D.	1994	Canad. J. Earth Sci.	31	369-380
Freda Sandstone	1.05	2.2	179.0	3.0	5.9	~1050	Henry, S.G. et al.	1977	Canad. J. Earth Sci.	14	1128-1138
Nonesuch Shale	1.05	7.6	178.1	3.9	7.8	~1050	Henry, S.G. et al.	1977	Canad. J. Earth Sci.	14	1128-1138
Tsezotene Sills Combined	0.78	1.6	137.8	5.0	5.0	778 ± 2	Park, J.K. et al.	1989	Canad. J. Earth Sci.	26	2194-2203
Tobacco Root Dykes - B	0.78	14.6	127.0	9.2	11.6	775 ± 3	Harlan, S.S. et al.	2008	Precambrian Res.	163	239-264
Christmas Lake Dyke	0.78	7.4	137.0	4.4	8.3	774 ± 4	Harlan, S.S. et al.	1997	USGS Prof. Paper	1580	16 pp.
Mount Moran Dyke	0.78	11.6	148.9	5.1	10.2	775 ± 10	Harlan, S.S. et al.	1997	USGS Prof. Paper	1580	16 pp.
Uinta Mountain Group	0.75?	0.8	161.3	3.3	6.6	800-750	Weil, A.B. et al.	2006	Precambrian Res.	147	234-259
Franklin event grand mean	0.72	6.7	162.1	3.0	3.0	723 +4/-2	Denyszyn S.W. et al.	2009	Canad. J. Earth Sci.	46	155-167
Long Range Dykes	LRD	19.0	355.3	14.8	20.5	615 ± 2	Murthy, G.S. et al.	1992	Canad. J. Earth Sci.	29	1224-1234