Table DR 1. Paleomagnetic sample positions, polarities, and notes

Paleomag samples collected January, 2004. Thicknesses compiled and revised by Dorsey June 10, 2005.
Revised again: March 2006, based on field work February, 2006

Paleomag	Site	Latitude N			Longitude W			Height above	Height above	Height above	Cumulative			Site	# Samples	Site	
Site #	Number	Deg	Min	Sec	Deg	Min	Sec	previous site (m)	Base of MPI	Base of Pw	Height (m)	Unit Name	Lithology	Number	Analyzed	Polarity	Comments
02Tdm4	02Tdy4	32	58	49.2	116	8	38.9	11		550.0	1037.5	CONTACT		02Tdy4	2	r	Base of the Yuha mbr at "Yuha Bend" (site 02Pm4 is *at* contact)
04Pm48	04Pm48	32	58	50.0	116	8	38.1	11		539.0	1026.5	Mud Hills mbr	sst-siltst. rhythmites	04Pm48	2	n	"Yuha Bend" sxn
02Tdm3	02Tdm3	32	58	50.7	116	8	37.1	7		528.0	1015.5	Mud Hills mbr	sst-siltst. rhythmites	02Tdm3	3	n	"Yuha Bend" sxn
02Tdm2	02Tdm2	32	58	51.2	116	8	36.5	6		521.0	1008.5	Mud Hills mbr	sst-siltst. rhythmites	02Tdm2	1	n	"Yuha Bend" sxn
02Tdm1	02Tdm1	32	58	51.9	116	8	35.7	2		515.0	1002.5	Mud Hills mbr	sst-siltst. rhythmites	02Tdm1	2	n	"Yuha Bend" sxn
04Pm54	04Pm54	32	59	3.5	116	8	43.4	10		513.0	1000.5	Mud Hills mbr	sst-siltst. rhythmites	04Pm54	1	n	"Yuha Bend" sxn
04Pm53	04Pm53	32	59	3.0	116	8	42.7	17		503.0	990.5	Mud Hills mbr	sst-siltst. rhythmites	04Pm53	2	n	"Yuha Bend" sxn
04Pm52	04Pm52	32	59	4.8	116	8	40.9	18		486.0	973.5	Mud Hills mbr	sst-siltst. rhythmites	04Pm52	1	n	"Yuha Bend" sxn
04Pm51	04Pm51	32	59	4.6	116	8	39.5	8		468.0	955.5	Mud Hills mbr	sst-siltst. rhythmites	04Pm51	1	n	"Yuha Bend" sxn
04Pm34	04Pm34	32	58	58.4	116	7	46.1	?		?	950.0	Mud Hills mbr	sst-siltst. rhythmites	04Pm34			Did not measure, prob ~30 m above site 04Pm33
04Pm50	04Pm50	32	59	3.7	116	8	38.4	23		460.0	947.5	Mud Hills mbr	sst-siltst. rhythmites	04Pm50	2	n	"Yuha Bend" sxn
04Pm55	04Pm55	32	59	2.2	116	8	34.0	6		437.0	924.5	Mud Hills mbr	sst-siltst. rhythmites	04Pm55	1	n	"Yuha Bend" sxn
04Pm33	04Pm33	32	59	2.0	116	7	41.5	5		431.0	918.5	Mud Hills mbr	sst-siltst. rhythmites	04Pm33	2	n	"rhythmite wall" sxn
04Pm66	04Pm66	32	59	3.1	116	8	33.4	20		426.0	913.5	Mud Hills mbr	sst-siltst. rhythmites	04Pm66	1	n	"Yuha Bend" sxn
04Pm35	04Pm35	32	59	4.9	116	7	36.7	20		406.0	893.5	Mud Hills mbr	sst-siltst. rhythmites	04Pm35	2	n	"rhythmite wall" sxn
04Pm72	04Pm72	32	59	6.8	116	7	36.1	20		386.0	873.5	Mud Hills mbr	sst-siltst. rhythmites	04Pm72	3	r	"rhythmite wall" sxn
04Pm32	04Pm32	32	59	8.0	116	7	34.2	6		372.0	853.5	Mud Hills mbr	sst-siltst. rhythmites	04Pm32	1	r	"rhythmite wall" sxn
04Pm71	04Pm71	32	59	9.6	116	7	34.1	15		366.0	847.5	Mud Hills mbr	sst-siltst. rhythmites	04Pm71	2	r	"rhythmite wall" sxn
04Pm70	04Pm70	32	59	10.8	116	7	33.9	15		351.0	832.5	Mud Hills mbr	sst-siltst. rhythmites	04Pm70	2	n	"rhythmite wall" sxn
04Pm69	04Pm69	32	59	11.6	116	7	33.9	15		336.0	817.5	Mud Hills mbr	sst-siltst. rhythmites	04Pm69			"rhythmite wall" sxn
04Pm68	04Pm68	32	59	12.6	116	7	33.9	20		321.0	802.5	Mud Hills mbr	sst-siltst. rhythmites	04Pm68	**1**	n	"rhythmite wall" sxn
04Pm67	04Pm67	32	59	13.6	116	7	34.0	2		301.0	782.5	Mud Hills mbr	sst-siltst. rhythmites	04Pm67			"rhythmite wall" sxn
								13		299.0	780.5	Mud Hills mbr					correlate across covered syncline axis, estimate 13 m covered interval
04Pm47	04Pm47	32	59	18.9	116	7	25.8	5		**286.0**	**767.5**	Mud Hills mbr		04Pm47	**1**	**n**	Highest site on south side of Fish Creek before correlation across fold axis ...
04Pm46	04Pm46	32	59	18.8	116	7	24.2	6.5		281.0	762.5	Mud Hills mbr	muddy turbidites	04Pm46			
04Pm45	04Pm45	32	59	19.1	116	7	23.4	10		274.5	756.0	Mud Hills mbr	muddy turbidites	04Pm45	1	r	
04Pw31	04Pm31	32	59	18.9	116	7	22.6	9		264.5	746.0	Mud Hills mbr	muddy turbidites	04Pm31			
04Pm44	04Pm44	32	59	19.0	116	7	21.6	5		255.5	737.0	Mud Hills mbr	muddy turbidites	04Pm44	1	r	
04Pm43	04Pm43	32	59	19.0	116	7	20.8	11		250.5	732.0	Mud Hills mbr	muddy turbidites	04Pm43			
04Pm42	04Pm42	32	59	19.2	116	7	19.4	6		239.5	721.0	Mud Hills mbr	muddy turbidites	04Pm42			
04Pm41	04Pm41	32	59	19.2	116	7	18.8	6		233.5	715.0	Mud Hills mbr	mudstone	04Pm41	1	n	
04Pm40	04Pm40	32	59	19.8	116	7	18.0	5.5		227.5	709.0	Mud Hills mbr	mudstone	04Pm40			
04Pm39	04Pm39	32	59	19.9	116	7	17.1	2.5		222.0	703.5	Mud Hills mbr	mudstone	04Pm39	2	n	
04Pm38	04Pm38	32	59	20.0	116	7	16.2	60		219.5	701.0	Mud Hills mbr	mudstone	04Pm38	1	n	
								7		166.5	648.0	CONTACT					base of Mud Hills Mbr
02Pw32	02Pw32	32	59	21.5	116	7	8.3	12		159.5	641.0	Wind Caves mbr		02Pw32	3	n	
04Pw30	04Pw30	32	59	22.1	116	7	6.8	20		147.5	629.0	Wind Caves mbr		04Pw30	3	n	
04Pw29	04Pw29	32	59	21.9	116	7	3.1	can't measure	43.0	127.5	609.0	Wind Caves mbr		04Pw29	3	n	
									43.0		583.0						
								COMPLEX	FAULTED	INTERVAL	in Pw						
04Pw28	04Pw28	32	59	38.1	116	7	8.3	8		84.5	566.0	Wind Caves mbr	sandy turbidites	04Pw28	3	r	04Pw28 is the highest site in lower Pw "intact section"; sxn continues above that
04Pw27	04Pw27	32	59	38.5	116	7	7.5	10.5		76.5	558.0	Wind Caves mbr	sandy turbidites	04Pw27	3	r	
02Pw31	02Pw31	32	59	25.5	116	6	57.2	7.5		**73.5**	**555.0**	Wind Caves mbr	sandy turbidites	02Pw31	**6**	**r**	02Pw31 is 13 m above base of lateral spread unit, = 7.5 m above 04Pw26
04Pw26	04pw26	32	59	39.0	116	7	7.2	11.5		66.0	547.5	Wind Caves mbr	sandy turbidites	04pw26	3	r	
04Pw25	04Pw25	32	59	39.4	116	7	6.0	7.5		54.5	536.0	Wind Caves mbr	sandy turbidites	04Pw25	3	r	
04Pw24	04Pw24	32	59	39.6	116	7	5.5	10		47.0	528.5	Wind Caves mbr	sandy turbidites	04Pw24	3	n	
04Pw23	04Pw23	32	59	40.4	116	7	4.4	7		37.0	518.5	Wind Caves mbr	sandy turbidites	04Pw23	1	r	
04Pw22	04Pw22	32	59	41.1	116	7	3.5	17.5		30.0	511.5	Wind Caves mbr	sandy turbidites	04Pw22	2	r	
04Pw21	04Pw21	32	59	42.2	116	7	2.4	10.5		12.5	494.0	Wind Caves mbr	sandy turbidites	04Pw21	1	r	NOTE: sharp base of C-suite sst is 8.5 m above site 21, = 21 m above base of Pw
02Pw30	02Pw30	32	59	39.8	116	7	0.4	2		2.0	483.5	Wind Caves mbr	sandy turbidites	02Pw30	3	r	
								30			481.5	top of upper Mbx					Thickness of upper m-breccia increases dramatically north of here
04MPI20	04MI20	32	59	44.1	116	6	57.2	10	97.5		451.5	base of upper Mbx		04MI20	3	r	Site is at the base of upper megabreccia
02Mly29	02Mly29	32	59	43.0	116	6	56.1	12	87.5		441.5	Latrania Fm	sandy turbidites	02Mly29	2	r	
04MPI19	04MI19	32	59	44.0	116	6	55.5	10.5	75.5		429.5	Latrania Fm	sandy turbidites	04MI19	3	n	
								3	65		419.0	**correlation datum**	sandy turbidites				Datum is top of a thick sandstone turbidite bed
04MPI18	04MI18	32	59	56.4	116	6	54.9	9.5	62		416.0	Lycium Mbr	sandy turbidites	04MI18	3	n	
04MPI17	04MI17	32	59	59.7	116	6	54.4	5.5	52.5		406.5	Lycium Mbr	sandy turbidites	04MI17	2	n	
02Mly28	02Mly28	32	59	46.2	116	6	50.5	5	47		401.0	Lycium Mbr	sandy turbidites	02Mly28	2	n	
04MPI16	04MI16	33	0	1.0	116	6	53.5	9	42		396.0	Lycium Mbr	sandy turbidites	04MI16	2	n	
02Mly27	02Mly27	33	0	3.0	116	6	52.4	16.5	33		387.0	Lycium Mbr	sandy turbidites	02Mly27	2	r	
04MPI15	04MI15	33	0	3.3	116	6	51.1	9	16.5		370.5	Lycium Mbr	sandy turbidites	04MI15	1	r	
04MPI14	04MI14	33	0	3.8	116	6	50.5	7.5	7.5		361.5	Lycium Mbr	muddy turbidites	04MI14	1	r	
								60			354.0	CONTACT					Base of Latrania Fm: turbidites rest directly on top of m-breccia
04Lbx13	04Lbx13	33	0	10.7	116	6	49.4	35			294.0	CONTACT	lowermegabreccia	04Lbx13	1	n	Base of Split Mt Sturzstrom (~ 60 m)
								22			259.0	CONTACT					Base of "red&grey" unit of lower m-breccia (~35 m), complex geometries, see notes
04Me12	04Me12	33	0	20.3	116	6	44.9	16			237.0	Elephant Trees Congl	conglomerate	04Me12	1	r	

02Me26	02Me26	33	0	22.6	116	6	43.9	3			221.0	Elephant Trees Congl	conglomerate	02Me26	2	r	
04Me11	04Me11	33	0	22.7	116	6	43.8	21			218.0	Elephant Trees Congl	conglomerate	04Me11	1	r	
04Me10	04Me10	33	0	26.4	116	6	43.2	10			207.0	Elephant Trees Congl	conglomerate	04Me10			
04Me09	04Me9	33	0	25.5	116	6	42.8	23			197.0	Elephant Trees Congl	conglomerate	04Me9	2	r	
04Me08	04Me8	33	0	28.3	116	6	42.4	10			174.0	Elephant Trees Congl	conglomerate	04Me8	1	n	
04Me06	04Me6	33	0	30.9	116	6	42.8	9			164.0	Elephant Trees Congl	conglomerate	04Me6	2	n	
04Me05	04Me5	33	0	33.3	116	6	42.1	48			155.0	Elephant Trees Congl	conglomerate	04Me5	1	n	
02Me25	02Me25	33	0	32.8	116	6	43.8	slightly below 04Me05			slightly below 04Me	Elephant Trees Congl	conglomerate	02Me25	2	n	Did not measure with stick, prob </= 10 below site 04Me05.
04Me07	04Me7	33	0	35.6	116	6	34.9	24			107.0	Elephant Trees Congl	conglomerate	04Me7	2	r	
04Me04	04Me4	33	0	36.9	116	6	35.8	25			83.0	Elephant Trees Congl	conglomerate	04Me4	2	r	
04Me03	04Me3	33	0	38.1	116	6	35.2	36			58.0	Elephant Trees Congl	conglomerate	04Me3	2	r	
04Me02	04Me2	33	0	40.3	116	6	32.8	14			22.0	Elephant Trees Congl	conglomerate	04Me2	2	r	
04Me01	04Me1	33	0	41.5	116	6	31.7	8			8.0	Elephant Trees Congl	conglomerate	04Me1	2	r	
02Me24	02Me24	33	0	43.5	116	6	31.3	0			0.0	Elephant Trees Sst	pebbly sst	02Me24	2	r	Site is at top of Elephant Trees lower Sst mbr, gravelly beds of Me congl. begin just above it.
02Me 20- 23												Elephant Trees Sst	pebbly sst	02Mr22	6	r	These 4 sites close to each other in red sandstone (possibly Red Rock Fm)

Total: 128

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Table DR 2. Benthic foraminifers in the >150 μm fraction

Stratigraphic Unit Name	Micropaleontology Laboratory Numbers	Field numbers	UTM Coordinates Easting (NAD 27)	UTM Coordinates Northing (NAD 27)	Meters above base of Me Conglomerate	*Alveolophragmium advenum* (Cushman)	*Alveolophragmium columbiensis* (Cushman)	*Ammonia beccarii* (Linne)	*Ammotium planissimum* (Cushman)	*Amphistegina gibbosa* d'Orbigny	*Astrononion stellatum* Cushman and Edwards	*Bolivina interjuncta* Cushman	*Bolivina pacifica* Cushman and McCulloch	*Bolivina subexcavata* Cushman and Wickenden	*Bolivina* spp.	*Bolivina vaughani* Natland	*Buccella tenerrima* Bandy	*Cancris panamensis* Natland	*Cassidulina delicata* Cushman	*Cassidulina limbata* Cushman and Hughes	*Cibicides fletcheri* Galloway and Wissler	*Cibicides mckannai* Galloway and Wissler	*Cyclammina cancellata* Brady	*Cycologyra involvens* (Reuss)	*Cyclammina* spp.	*Dyocibicides perforatus* Cushman and Valentine	*Elphidium* (Linne)	*Elphidium frigidum* Cushman	*Elphidium poeyanum* (d'Orbigny)	*Eponides antillarium* d'Orbigny	*Fissurina orbignyana* Sequenza	*Fursenkoina seminuda* (Natland)	*Gaudryina alazaensis* Cushman	*Globobulimina* spp.
Mud Hills Member	MF11656	FC05-35	579,980	3,649,260	1,031.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MF11655	FC05-34	580,021	3,649,301	1,011.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MF11654	FC05-33	579,872	3,649,697	990.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	57.14	-	-	-	42.86	-	-	-	-	-
	MF11653	FC05-32	579,918	3,649,718	973.5	-	-	4.76	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14.29	-	-	4.76	47.62	-	-	-	-	-
	MF11652	FC05-31	579,983	3,649,685	947.5	-	-	11.11	-	-	-	-	22.22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	44.44	-	-	-	-	-
	MF11651	FC05-30	580,099	3,649,653	924.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.85	-	-	-	50.00	-	-	-	-	-
	MF11650	FC05-29	581,458	3,649,647	920	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.56	-	65.63	-	-	-	-	-
	MF11649	FC05-28	581,582	3,649,737	893.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50.00	-	-	-	-	-	-	-	-	-
	MF11648	FC05-27	581,621	3,649,828	868.5	-	-	2.08	-	-	-	-	0.69	-	-	-	-	-	-	-	-	-	-	-	1.39	-	-	0.69	34.03	-	-	-	-	-
	MF11647	FC05-26	581,643	3,649,879	847.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MF11646	FC05-25	581,651	3,649,918	832.5	-	-	0.56	-	-	-	-	3.38	-	-	-	-	-	-	-	-	-	-	-	5.92	0.28	-	-	19.72	-	-	-	-	-
	MF11645	FC05-24	581,649	3,649,960	810	-	-	-	-	-	-	-	0.58	-	-	-	-	-	-	-	-	-	-	-	0.58	-	-	-	5.23	-	-	-	-	-
	MF11644	FC05-23	581,653	3,649,997	782	-	-	-	0.30	-	-	-	2.08	-	-	-	-	-	-	-	-	-	-	-	1.49	-	-	-	11.31	-	-	-	-	-
	MF11643	FC05-22	581,868	3,650,170	767.5	-	-	-	2.97	-	-	-	0.99	-	-	-	-	-	-	-	-	-	-	-	13.86	-	-	-	8.42	-	-	-	-	-
	MF11642	FC05-21	581,919	3,650,174	756	-	-	-	-	-	-	-	2.87	-	-	-	-	-	-	-	-	-	-	-	1.15	-	-	-	10.35	-	-	-	-	-
	MF11641	FC05-20	581,970	3,650,177	737	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.74	-	-	-	-	-
	MF11640	FC05-19	582,033	3,650,188	721	-	-	-	-	-	-	-	-	-	-	12.30	-	-	-	-	-	1.19	-	-	-	-	-	-	0.40	-	-	-	-	-
	MF11639	FC05-18	582,066	3,650,195	709	-	-	-	-	-	-	-	-	-	-	2.93	-	-	-	-	-	2.93	0.59	-	-	-	-	-	-	-	-	-	-	-
	MF11638	FC05-17	582,107	3,650,205	701	-	-	-	-	-	-	-	-	-	-	18.87	-	-	-	-	-	0.85	-	-	1.69	-	-	-	0.56	-	-	-	-	-
	MF11637	FC05-16	582,270	3,650,230	663	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wind Caves Member	MF11636	FC05-15	582,310	3,650,261	643	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.00	-	-	-	-	-	-
	MF11635	FC05-14	582,341	3,650,280	631	-	0.35	-	0.35	-	0.17	21.59	5.87	0.35	0.17	0.17	-	2.07	0.17	0.17	0.35	22.97	-	0.52	2.76	-	-	0.52	0.17	-	1.04	0.17	0.35	-
	MF11634	FC05-13	582,449	3,650,269	612.5	-	-	-	0.49	-	-	25.98	7.84	1.72	-	-	0.25	1.23	-	-	-	28.19	7.60	-	-	-	-	-	-	-	-	-	-	-
	MF11633	FC05-12	582,300	3,650,785	571	33.33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33.33	-	-	-	-	-	-	-	-	-	-	-
	MF11632	FC05-11	582,333	3,650,762	558	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.00	-	-	-	-	-	-	-	-	-	-	-
	MF11631	FC05-10	582,377	3,650,815	537	14.29	-	-	-	-	-	71.43	-	-	-	-	-	-	-	-	-	-	-	-	14.29	-	-	-	-	-	-	-	-	-
	MF11630	FC05-9	582,423	3,650,827	519.5	-	-	-	-	-	-	51.43	-	-	-	-	-	-	-	-	-	2.86	-	-	-	-	-	-	-	-	-	-	-	1.43
	MF11737	FC05-8.5	582,452	3,650,863	502.5	-	-	-	-	100.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MF11629	FC05-8	582,480	3,650,899	492	-	-	-	0.44	1.03	-	14.75	-	0.30	-	-	-	0.74	-	-	-	3.25	-	-	-	-	0.15	-	-	0.15	-	-	-	-
umb	MF11628	FC05-7	582,589	3,650,975	460	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lycium Member	MF11627	FC05-6	582,626	3,650,931	441	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MF11626	FC05-5	582,669	3,650,918	429.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MF11625	FC05-4	582,640	3,651,394	412	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MF11624	FC05-3	582,683	3,651,495	394	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MF11623	FC05-2	582,730	3,651,519	384.5	50.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MF11622	FC05-1	582,800	3,651,556	361.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Abundances are given in percent of the total benthic foraminiferal fauna.

20070020

Globocassidulina globosa (Hantken)	*Glandulina laevigata* (d'Orbigny)	*Guttulina quinquecosta* Cushman and Ozawa	*Guttulina* spp.	*Hanzawaia bertheloti* (d'Orbigny)	*Hanzawaia mexicana* Lankford	*Hanzawaia nitidula* (Bandy)	*Hanzawaia* spp.	*Lagena laevis* (Montagu)	*Lagena* cf. *L. laevis* (Montagu)	*Lenticulina cushmani* (Galloway and Wissler)	*Lenticulina* spp.	*Loxostmum bradyi* (Asano)	*Nonionella basispinata* (Cushman and Moyer)	*Nonionella stella* Cushman and Moyer	*Nodosaria catesbyi* d'Orbigny	*Planulina ornata* (d'Orbigny)	*Polymorphina* spp.	*Pullenia quinqueloba* (Reuss)	*Pullenia salisburyi* Stewart and Stewart	*Pyrgo inornata* d'Orbigny	*Quinqueloculina* spp.	*Reophax agglutinatus* Cushman	*Reophax scorpiurus Montfort*	*Reophax* spp.	*Rosalina columbiensis* (Cushman)	*Saracenaria latifrons* (Brady)	*Textularia earlandi* Parker	*Textularia mayori* Cushman	*Textularia schencki* Cushman and Valentine	*Textularia* spp.	*Trifarina angulosa* (Williamson)	*Trochammina globigeriniformis* (Parker and Jones)	*Valvulineria inflata* (d'Orbigny)	Total benthic foraminifers	Diversity (Benthic Foraminifers)	Other microfossils: Planktic Foraminifers	Reworked Cretaceous Planktics	Diatoms	Radiolarians	Ostracodes
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0					
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-	-	-	-	-	-	-	-	-	-	-	-	-	4.76	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23.81	21	6					
-	-	-	-	-	-	22.22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	4		X			
-	-	-	-	-	-	19.23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26.92	26	4					
-	-	-	-	-	-	-	-	-	-	-	-	-	4.69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28.13	64	4					
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-	0.28	-	-	-	-	0.85	-	-	-	-	-	-	0.85	0.28	-	-	-	-	-	-	-	0.28	-	-	-	0.28	-	-	52.68	-	-	-	14.65	355	13			X		
-	-	-	-	0.58	-	-	-	-	-	-	-	-	1.16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	81.98	-	-	-	9.88	172	7			X		
-	-	-	-	-	-	-	-	-	-	-	-	-	1.19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	63.39	-	-	-	20.24	336	7					X
-	-	-	-	-	-	-	-	-	-	-	-	-	-	23.76	-	-	-	-	-	-	-	8.42	-	-	-	-	-	-	24.26	-	-	-	17.33	202	8			X		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	13.22	-	0.58	0.58	-	-	-	-	21.84	-	-	-	-	-	-	22.99	-	-	-	26.44	174	9			X		X
-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.33	-	-	-	-	-	-	-	30.14	-	-	-	-	-	-	32.88	-	-	-	21.92	73	5			X		
-	-	0.40	-	-	-	-	-	-	-	-	-	1.98	3.18	5.95	-	0.40	-	-	-	-	-	1.98	-	-	-	-	-	-	48.41	-	-	5.16	18.65	252	12					
-	0.29	1.76	-	0.29	-	-	-	-	-	-	-	-	0.59	20.24	-	-	-	-	-	-	-	-	-	6.75	-	-	-	-	38.42	-	-	0.29	24.93	341	12			X		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	20.56	-	0.28	-	-	-	-	-	-	-	-	-	-	-	-	9.30	-	0.56	-	47.32	355	9	X		X		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.00	-	-	-	-	1	1					
-	-	-	-	25.00	-	-	-	-	-	-	-	-	50.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	3	X		X	X	
0.52	2.25	2.59	3.45	-	11.40	0.69	0.35	-	-	1.04	1.04	0.35	0.35	-	-	0.17	4.32	-	0.17	0.52	0.69	-	3.11	-	1.38	-	-	0.35	4.49	-	0.52	-	-	579	41	X		X	X	
0.49	0.74	1.72	0.25	0.25	6.62	2.21	-	0.98	0.25	1.72	-	2.45	0.98	-	0.25	0.98	1.23	1.23	-	-	-	-	0.49	-	-	-	-	-	1.96	-	1.96	-	-	408	27	X				
-	-	-	-	-	-	-	-	-	-	-	-	-	11.11	-	-	-	11.11	-	-	-	-	-	-	-	-	-	-	-	11.11	-	-	-	-	9	5			X	X	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1					
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-	-	-	1.43	-	-	41.43	-	-	-	-	-	-	-	-	-	-	1.43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	70	6					
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1.33	-	-	0.89	-	-	27.88	-	-	-	0.15	-	-	-	15.93	-	12.83	0.59	0.44	-	-	-	7.38	-	-	-	-	-	-	11.50	0.30	-	-	-	678	19	X				
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.00	-	-	-	-	-	-	-	-	-	-	1	1					
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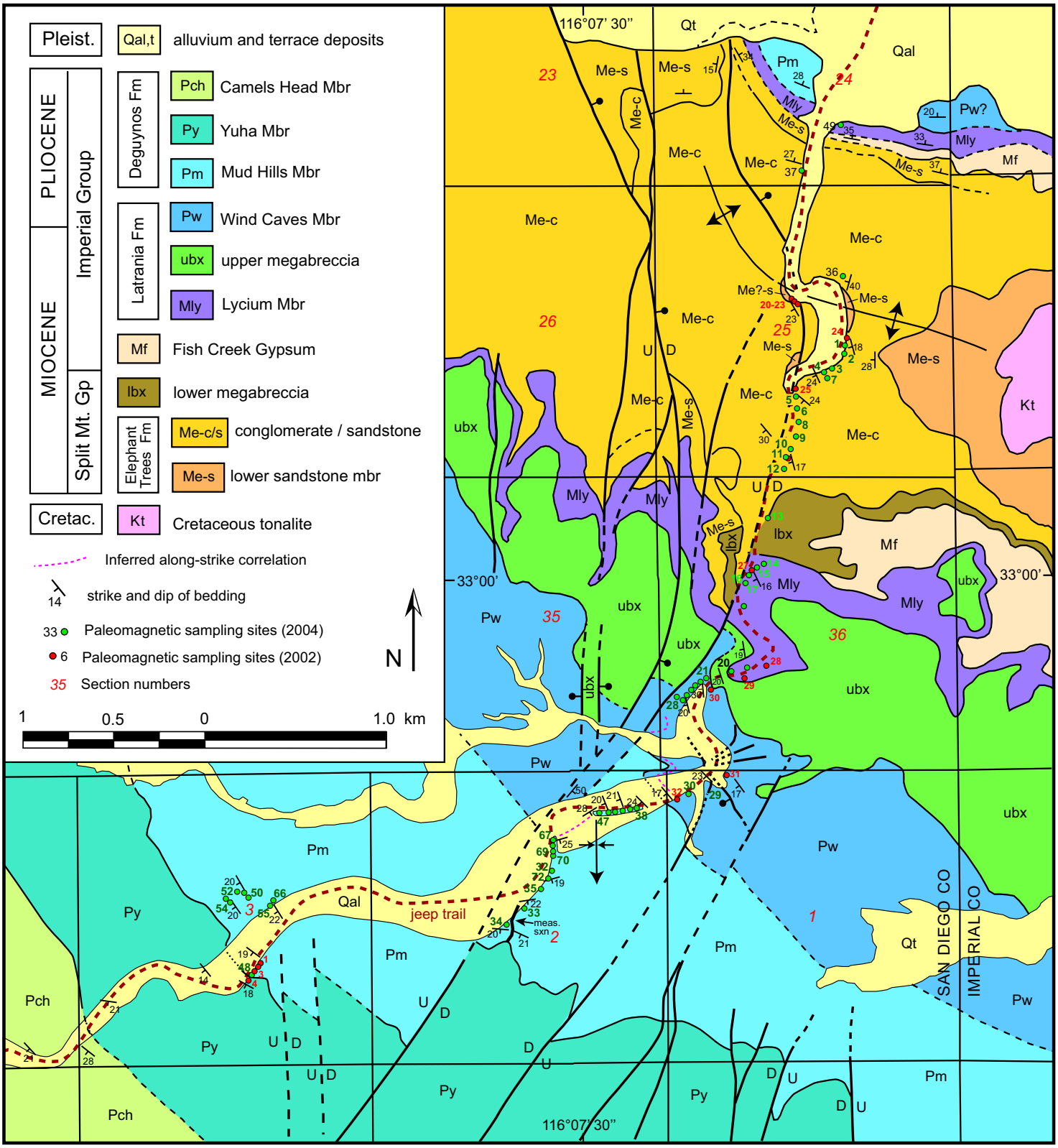

Figure DR1. Geologic map of Split Mountain Gorge and lower Fish Creek area, showing locations of samples collected for paleomagnetic analysis. Map compiled and modified from Winker (1987). Stratigraphic nomenclature of Winker and Kidwell (1996), with minor modifications.

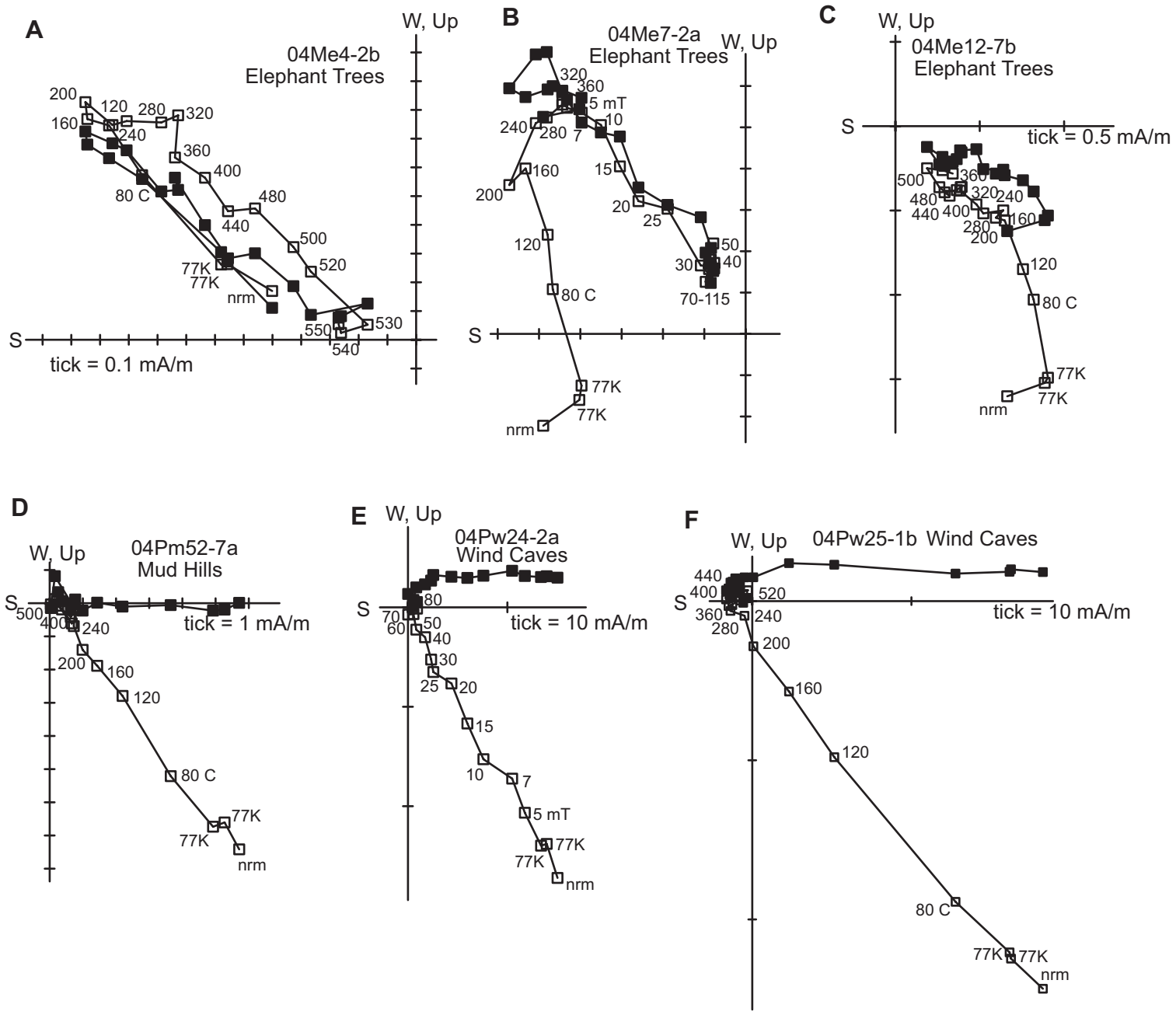

Figure DR2. Orthogonal vector plots for representative samples from Split Mountain Gorge section. All plots in in-situ coordinates. Open symbol is projection of the remanence vector on a vertical plane, closed symbol is projection of the remanence vector on a horizontal plane. All samples were subjected to low temperature (77K) pre-treatment. (A) thermal demagnetization of Elephant Trees conglomerate (matrix), with well-defined reverse polarity characteristic magnetization. (B) hybrid thermal and alternating-field demagnetization, as in A. (C) thermal demagnetization of Elephant Trees conglomerate, with normal polarity characteristic magnetization. (D) thermal demagnetization of Mud Hills Mbr sample, with normal polarity characteristic magnetization. (E) alternating field demagnetization of Wind Caves Mbr sample, with normal polarity characteristic magnetization. (F) thermal demagnetization of Wind Caves Mbr sample, with poorly-resolved, but reverse polarity, second-removed magnetization component.