

Zircon (U-Th)/He Data

	Dim. Mass (mg)	Spherical Radius (mm)	⁴ He (nmol/g)	U (ppm)	Th (ppm)	Sm (ppm)	eU	Raw Date (Ma)	Ft	Corrected Date (Ma)	1 σ Error (Ma)	
Chiricahua Mountains												
16CH01: Precambrian granodiorite, 31.9855°N 107.2477°W, Elev. 1834 m												
	z1	5.69	49.11	19.172	170.18	79.95	0.92	189.0	18.79	0.769	24.42	2.31
	z2	7.27	55.03	14.883	101.89	77.44	0.50	120.1	22.93	0.791	28.97	2.41
	z3	2.89	40.26	24.979	185.28	337.25	1.04	264.5	17.46	0.712	24.48	4.23
	<i>Mean ± st. dev.:</i>										25.96 ± 2.61 Ma	
16CH02: Precambrian granodiorite, 31.9908°N 109.2484°W, Elev. 1614 m												
	z1	3.25	41.46	21.621	163.14	265.37	1.33	225.5	17.73	0.721	24.55	4.14
	z2	4.61	50.46	15.363	102.24	96.11	0.44	124.8	22.77	0.772	29.46	2.67
	z3	3.45	43.13	19.771	130.72	165.42	0.59	169.6	21.56	0.734	29.36	4.49
	<i>Mean ± st. dev.:</i>										27.79 ± 2.81 Ma	
Peloncillo Mountains												
16PE01: 33.2 ± 0.2 Ma granite (McLemore et al., 1995), 32.0891°N 108.9734°W, Elev. 1358 m												
	z1	4.70	47.60	133.893	1098.29	587.73	2.81	1236.4	20.05	0.762	26.30	3.30
	z2	1.59	38.41	129.948	1214.82	709.17	5.08	1381.5	17.42	0.710	24.52	2.85
	z3	5.05	52.44	112.370	939.42	504.69	0.83	1058.0	19.67	0.783	25.10	2.03
	<i>Mean ± st. dev.:</i>										25.31 ± 0.90 Ma	
Little Hatchet Mountains												
17LH01: Precambrian granite, 31.7449°N 108.4351°W, Elev. 1646 m												
	z1*	3.56	48.27	105.514	147.07	86.37	1.49	167.4	115.76	0.765	150.84	13.43
	z2	9.32	61.05	28.319	192.07	97.37	9.67	215.0	24.38	0.812	29.99	2.12
	z3	3.42	46.47	48.847	367.23	204.94	1.62	415.4	21.77	0.756	28.75	3.15
	<i>Mean ± st. dev.:</i>										29.37 ± 0.88 Ma	
17LH02: Precambrian granite, 31.7443°N 108.4275°W, Elev. 1438 m												
	z1	11.23	65.55	27.820	223.21	108.84	1.72	248.8	20.71	0.825	25.09	1.94
	z2	5.38	50.78	19.299	198.41	84.47	11.04	218.3	16.37	0.777	21.06	2.12
	z3	3.28	46.19	46.227	321.99	185.53	1.74	365.6	23.40	0.755	30.97	3.31
	<i>Mean ± st. dev.:</i>										25.71 ± 4.98 Ma	
17LH03: Cretaceous sandstone, 31.7824°N 108.4435°W, Elev. 1565 m												
	z1	12.15	65.06	48.745	317.63	144.55	0.24	351.6	25.66	0.824	31.14	2.19
	z2	5.20	52.36	94.974	696.69	158.91	0.39	734.0	23.96	0.785	30.51	2.63
	z3	2.45	38.45	30.445	274.75	113.90	0.57	301.5	18.70	0.709	26.33	4.26
	<i>Mean ± st. dev.:</i>										29.33 ± 2.61 Ma	
Cookes Range												
16CR01: Permian sandstone, 32.4466°N 107.6906°W, Elev. 1495 m												
	z1	6.64	50.53	48.365	189.33	107.81	0.39	214.7	41.64	0.775	53.68	6.05
	z2	3.30	45.70	66.207	159.46	94.36	1.84	181.6	67.21	0.752	89.17	8.29
	z3	2.24	39.24	37.628	61.26	57.81	0.47	74.8	92.48	0.711	129.54	22.64
	z4	4.87	47.27	24.231	48.16	33.34	0.00	56.0	79.70	0.759	104.75	12.86

z5	2.98	41.26	94.117	176.74	87.31	5.60	197.3	87.81	0.728	120.28	18.92
z6	4.01	50.60	64.176	319.62	132.08	0.03	350.7	33.86	0.776	43.56	3.70

90.16 ± 35.14 Ma

16CR02: Precambrian granite, 32.3919°N 107.7148°W, Elev. 1435 m

z1	1.81	39.11	297.308	286.10	86.97	1.97	306.5	177.14	0.716	245.67	33.02
z2	2.04	39.05	222.478	280.75	81.09	14.88	299.8	135.99	0.716	189.00	31.09
z3	2.33	41.04	164.542	255.46	85.36	4.53	275.5	109.73	0.728	150.08	21.59

194.91 ± 48.07 Ma

Florida Mountains

16FL05: Cambrian granite, 32.0556°N 107.6722°W, Elev. 2118 m

z1	3.24	46.06	61.669	439.43	415.49	4.79	537.1	21.24	0.752	28.23	3.08
z2	3.97	48.32	56.230	438.54	494.11	3.68	554.7	18.76	0.761	24.61	2.24
z3	4.96	49.25	69.661	589.83	626.32	3.68	737.0	17.49	0.766	22.81	2.47

25.22 ± 2.76 Ma

East Potrillo Mountains

16EP01: Cretaceous sandstone, 31.8860°N 107.0170°W, Elev. 1526 m

z1	3.28	42.44	25.057	123.20	51.98	1.59	135.4	34.22	0.736	46.45	7.46
z2	2.33	43.03	19.533	195.12	164.75	0.00	233.8	15.47	0.737	20.98	2.12
z3	2.01	39.92	31.198	130.50	64.98	9.17	145.8	39.54	0.720	54.83	7.66

40.76 ± 17.63 Ma

Franklin Mountains

17FR02: Cambrian quartzite, 31.8006°N 106.4747°W, Elev. 1381 m

z1*	4.45	48.66	247.584	122.55	87.25	7.79	143.1	312.33	0.765	404.65	38.43
z2	5.28	51.23	97.848	302.70	304.02	14.85	374.1	48.26	0.775	62.18	5.70
z3*	3.21	44.31	249.788	77.07	57.80	0.00	90.7	489.80	0.744	648.99	89.06

17FR03: Precambrian granite, 31.8397°N 106.4859°W, Elev. 1434 m

z1	5.33	51.94	173.588	600.98	166.22	1.43	640.0	50.11	0.783	63.93	5.74
z2*	2.97	40.75	186.550	292.32	228.43	1.21	346.0	99.13	0.721	137.03	8.94
z3	3.03	43.00	11.644	132.93	82.70	1.04	152.4	14.16	0.737	19.19	2.46

41.56 ± 31.64 Ma

17FR04: Precambrian granite, 31.8931°N 106.4758°W, Elev. 1477 m

z1	1.95	34.78	92.779	138.8	79.948	7.0064	157.54	108.18	0.68	158.51	31.43
z2	4.66	50.03	123.690	94.4	75.031	3.5539	112.03	201.21	0.77	259.55	24.29
z3	5.55	50.92	46.577	81.1	57.195	0.0210	94.58	90.62	0.78	116.57	11.60

178.21 ± 73.49 Ma

Apatite (U-Th)/He Data

	Dim. Mass (mg)	Spherical Radius (mm)	4He (nmol/g)	U (ppm)	Th (ppm)	Sm (ppm)	eU	Raw Date (Ma)	Ft	Corrected Date (Ma)	1 σ Error (Ma)
<u>Chiricahua Mountains</u>											
16CH01: Precambrian granodiorite, 31.9855°N 107.2477°W, Elev. 1834 m											
a1	2.13	46.09	10.547	85.14	205.65	78.98	133.5	14.53	0.682	21.25	1.83
a2	1.36	37.21	5.959	82.47	84.97	77.95	102.4	10.70	0.618	17.25	2.63
a3	2.81	53.11	14.675	132.06	214.59	65.26	182.5	14.83	0.728	20.34	1.44
<i>Mean \pm st. dev.:</i>										19.61 \pm 2.10 Ma	
16CH02: Precambrian granodiorite, 31.9908°N 109.2484°W, Elev. 1614 m											
a1	3.16	54.00	8.046	106.90	82.86	64.31	126.4	11.74	0.737	15.91	1.21
a2	2.47	45.68	4.597	63.79	39.10	49.45	73.0	11.61	0.694	16.69	1.33
a4	2.33	43.82	2.169	33.01	33.19	34.78	40.8	9.77	0.676	14.41	1.64
a5	2.85	52.98	6.166	84.93	71.57	56.66	101.7	11.17	0.732	15.23	1.10
<i>Mean \pm st. dev.:</i>										15.56 \pm 0.97 Ma	
<u>Peloncillo Mountains</u>											
16PE01: 33.2 \pm 0.2 Ma granite (McLemore et al., 1995), 32.0891°N 108.9734°W, Elev. 1358 m											
a1	1.64	37.77	2.535	6.57	39.60	59.12	15.9	28.54	0.606	46.36	6.87
a2	1.85	39.84	1.834	9.85	44.73	49.00	20.4	16.29	0.630	25.62	3.31
a3*	2.23	43.58	530.850	14.25	38.91	45.16	23.4	3112.95	0.668	4011.63	463.52
<i>Mean \pm st. dev.:</i>										35.99 \pm 14.67 Ma	
<u>Little Hatchet Mountains</u>											
17LH01: Precambrian granite, 31.7449°N 108.4351°W, Elev. 1646 m											
a1	1.91	41.79	2.086	12.10	56.71	68.23	25.4	14.81	0.640	22.92	2.81
<u>Cookes Range</u>											
16CR01: Permian sandstone, 32.4466°N 107.6906°W, Elev. 1495 m											
a6*	3.11	52.22	17.029	2.53	1.19	0.00	2.8	1021.54	0.733	1347.53	105.97
a9*	2.44	46.42	22.117	6.80	4.01	0.00	7.7	506.58	0.699	710.60	51.57
16CR02: Precambrian granite, 32.3919°N 107.7148°W, Elev. 1435 m											
a2	2.20	42.72	0.854	24.39	14.85	41.73	27.9	5.61	0.677	8.25	0.62
a3*	2.19	43.57	6.878	14.00	28.03	46.09	20.6	60.46	0.672	89.21	8.85
a4	7.48	63.87	1.578	37.28	16.35	32.36	41.1	7.07	0.780	9.05	0.66
a5	3.34	47.69	1.824	15.72	33.11	39.55	23.5	14.15	0.697	20.19	1.40
<i>Mean \pm st. dev.:</i>										12.49 \pm 6.68 Ma	
<u>Florida Mountains</u>											
16FL04: Cambrian granite, 32.0595°N 107.6588°W, Elev. 1770											
a1	2.55	43.10	1.156	10.70	52.85	14.35	23.1	9.18	0.655	13.99	1.43
a2	1.76	39.08	1.122	9.99	61.26	28.94	24.4	8.40	0.619	13.51	1.83
a3	1.67	33.53	1.703	16.93	79.74	23.68	35.7	8.77	0.558	15.64	2.82
a4	1.77	39.43	1.190	14.84	57.05	23.44	28.3	7.73	0.630	12.22	1.43

a5	3.34	50.49	0.201	2.31	12.72	2.40	5.3	6.96	0.704	9.87	0.78
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13.05 ± 2.15 Ma

16FL05: Cambrian granite, 32.0556°N 107.6722°W, Elev. 2118 m

a3	1.94	46.25	0.579	2.39	19.81	17.59	7.0	14.85	0.670	22.00	1.70
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Asterisked grains indicate samples with anomalously high ages not included in the mean.