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Table 3. Denver West 1:100,000-scale quadrangle isotopic ages.

No. DW-	Unit Name	Sample No.	Latitude (N)	Longitude (W)	71/2-minute quadrangle	Method	Mineral	Age in Ma	Analytical uncertainty in Ma	Reference	Comment
001	Silver Plume Granite	LP-4	39°43'28"	105°54'05"	Loveland Pass	Fission-track	Apatite	19.0	7.9	Naeser and others (2002)	Annealing age[2]
002	Amphibolite	LP-2	39°43'31"	105°53'38"	Loveland Pass	Fission-track	Apatite	19.5	3.3	Naeser and others (2002)	Annealing age[2]
003	Silver Plume Granite	GP-2	39°43'23"	105°50'38"	Grays Peak	Fission-track	Apatite	21.7	4.5	Naeser and others (2002)	Annealing age
004	Silver Plume Granite	GP-7	39°43'03"	105°47'33"	Grays Peak	Fission-track	Apatite	21.8	5.8	Naeser and others (2002)	Annealing age[2]
005	Silver Plume Granite	GP-3	39°42'14"	105°51'02"	Grays Peak	Fission-track	Apatite	23.4	6.2	Naeser and others (2002)	Annealing age
006	Silver Plume Granite	GP-1	39°42'40"	105°49'50"	Grays Peak	Fission-track	Apatite	25.9	6.3	Naeser and others (2002)	Annealing age[2]
007	Amphibolite	LP-7	39°43'05"	105°54'40"	Loveland Pass	Fission-track	Apatite	32.3	5.8	Naeser and others (2002)	Annealing age[2]
008	Silver Plume Granite	GP-6	39°43'06"	105°49'44"	Grays Peak	Fission-track	Apatite	34.3	5.5	Naeser and others (2002)	Annealing age
009	Silver Plume Granite	GP-4	39°43'07"	105°49'19"	Grays Peak	Fission-track	Apatite	43.4	14.3	Naeser and others (2002)	Laramide annealing or Tertiary annealing or partial annealing[2]
010	Silver Plume Granite	GP-5	39°43'14"	105°49'35"	Grays Peak	Fission-track	Apatite	48.3	6.8	Naeser and others (2002)	Laramide annealing or Tertiary annealing or partial annealing
011	Gneiss	00GP02	39°38'09"	105°48'40"	Grays Peak	Fission-track	Apatite	43.0	3.7	Kelley and Chapin (2004)	Annealing age[2]
012	Biotite-quartz-feldspar gneiss	MS-1	39°30'06"	105°55'58"	Keystone	Fission-track	Apatite	45.1	5.9	Bryant and Naeser (1980)	Annealing age
013	Biotite monzogranite gneiss	334	39°36'46"	105°25'50"	Meridian Hill	Fission-track	Apatite	68.5	5	Bryant and Naeser (1980); Naeser and others (2002)	Laramide annealing zone[2]
014	Hornblende-biotite granodiorite gneiss	337	39°38'11"	105°31'19"	Idaho Springs	Fission-track	Apatite	66.5	4	Bryant and Naeser (1980); Naeser and others (2002)	Laramide annealing zone[2]

No. DW-	Unit Name	Sample No.	Latitude (N)	Longitude (W)	71/2-minute quadrangle	Method	Mineral	Age in Ma	Analytical uncertainty in Ma	Reference	Comment
015	Granodiorite gneiss	338	39°38'02"	105°33'01"	Idaho Springs	Fission-track	Apatite	57.8	8.7	Bryant and Naeser (1980); Naeser and others (2002)	Laramide annealing zone[2]
016	Biotite granodiorite gneiss	346	39°37'56"	105°36'13"	Idaho Springs	Fission-track	Apatite	98.0	5	Bryant and Naeser (1980); Naeser and others (2002)	Laramide partial annealing zone[2]
017	Granodiorite gneiss	345	39°34'48"	105°37'50"	Mount Evans	Fission-track	Apatite	90.2	12.7	Bryant and Naeser (1980); Naeser and others (2002)	Laramide partial annealing zone[2]
018	Biotite monzogranite gneiss	341	39°34'16"	105°38'30"	Mount Evans	Fission-track	Apatite	134	7	Bryant and Naeser (1980); Naeser and others (2002)	Laramide partial annealing zone[2]
019	Gneiss	94CC02	39°44'47"	105°26'10"	Squaw Pass	Fission-track	Apatite	47.7	6.5	Kelley and Chapin (2004)	Laramide annealing zone[2]
020	Gneiss	94CC04	39°44'35"	105°24'23"	Squaw Pass	Fission-track	Apatite	52.4	5.8	Kelley and Chapin (2004)	Laramide annealing zone
021	Granitic gneiss	95CC12	39°44'04"	105°22'02"	Evergreen	Fission-track	Apatite	53.3	3.9	Kelley and Chapin (2004)	Laramide annealing zone[2]
022	Granite	96COCO1	39°52'44"	105°16'14"	Eldorado Springs	Fission-track	Apatite	58.1	7.1	Kelley and Chapin (2004)	Laramide annealing zone[2]
023	Metarhyolite	96COCO2	39°52'46"	105°16'23"	Eldorado Springs	Fission-track	Apatite	50.8	5.2	Kelley and Chapin (2004)	Laramide annealing zone
024	Gneiss	97VBO1	39°48'14"	105°15'31"	Ralston Buttes	Fission-track	Apatite	59.3	4.9	Kelley and Chapin (2004)	Laramide annealing zone[2]
025	Gneiss	97VB02	39°48'07"	105°15'30"	Ralston Buttes	Fission-track	Apatite	48.8	6.9	Kelley and Chapin (2004)	Laramide annealing zone[2]
026	Schist	97VB03	39°49'19"	105°17'04"	Ralston Buttes	Fission-track	Apatite	63.1	7.1	Kelley and Chapin (2004)	Laramide annealing zone[2]
027	Schist	97VB04	39°48'53"	105°17'26"	Ralston Buttes	Fission-track	Apatite	67.3	4.8	Kelley and Chapin (2004)	Laramide annealing zone[2]
028	Gneiss	97VB05	39°50'00"	105°19'42"	Ralston Buttes	Fission-track	Apatite	52.8	5.9	Kelley and Chapin (2004)	Laramide annealing zone[2]
029	Gneiss	97VB06	39°50'50"	105°21'16"	Ralston Buttes	Fission-track	Apatite	52.6	4.1	Kelley and Chapin (2004)	Laramide annealing zone[2]
030	Monzonite	97VB07	39°49'34"	105°24'04"	Blackhawk	Fission-track	Apatite	67.8	4.6	Kelley and Chapin (2004)	Laramide annealing zone[2]
031	Monzonite	97VB08	39°49'38"	105°23'50"	Blackhawk	Fission-track	Apatite	74.7	5.2	Kelley and Chapin (2004)	Laramide annealing zone[2]

No. DW-	Unit Name	Sample No.	Latitude (N)	Longitude (W)	71/2-minute quadrangle	Method	Mineral	Age in Ma	Analytical uncertainty in Ma	Reference	Comment
032	Granitic gneiss	95CC09	39°45'07"	105°21'31"	Ralston Buttes	Fission-track	Apatite	54.0	4.3	Kelley and Chapin (2004)	Laramide annealing zone[2]
033	Gneiss	94CC03	39°44'46"	105°26'17"	Squaw Pass	Fission-track	Apatite	55.6	5.9	Kelley and Chapin (2004)	Laramide annealing zone
034	Granitic gneiss	95CC10	39°44'53"	105°21'40"	Evergreen	Fission-track	Apatite	57.2	6.0	Kelley and Chapin (2004)	Laramide annealing zone
035	Granite	95CC07	39°44'32"	105°17'36"	Evergreen	Fission-track	Apatite	59.7	4.0	Kelley and Chapin (2004)	Laramide annealing zone[2]
036	Granitic lens in amphibolite	95GGC01	39°47'07"	105°21'19"	Ralston Buttes	Fission-track	Apatite	60.1	4.1	Kelley and Chapin (2004)	Laramide annealing zone[2]
037	Schist	95GGC02	39°47'04"	105°19'48"	Ralston Buttes	Fission-track	Apatite	62.5	4.2	Kelley and Chapin (2004)	Laramide annealing zone[2]
038	Phyllite/schist	96GGC03	39°47'05"	105°14'32"	Golden	Fission-track	Apatite	142.8	10.2	Kelley and Chapin (2004)	Laramide partial annealing zone[2]
039	Granitic gneiss	95CC08	39°44'19"	105°17'05"	Evergreen	Fission-track	Apatite	61.0	4.9	Kelley and Chapin (2004)	Laramide annealing zone[2]
040	Gneiss	94CC05	39°44'29"	105°19'40"	Evergreen	Fission-track	Apatite	62.3	4.6	Kelley and Chapin (2004)	Laramide annealing zone[2]
041	Schist	95GG02	39°47'04"	105°19'48"	Ralston Buttes	Fission-track	Apatite	62.5	4.2	Kelley and Chapin (2004)	Laramide annealing zone[2]
042	Granitic gneiss	95CC11	39°44'37"	105°22'02"	Evergreen	Fission-track	Apatite	66.8	5.8	Kelley and Chapin (2004)	Laramide annealing zone
043	Granitic gneiss	96CC13	39°44'47"	105°16'52"	Evergreen	Fission-track	Apatite	61.8	4.5	Kelley and Chapin (2004)	Laramide annealing zone[2]
044	Granitic gneiss	96CC14	39°44'43"	105°16'56"	Evergreen	Fission-track	Apatite	56.0	3.8	Kelley and Chapin (2004)	Laramide annealing zone[2]
045	Granitic gneiss	96CC15	39°44'35"	105°16'56"	Evergreen	Fission-track	Apatite	63.1	5.8	Kelley and Chapin (2004)	Laramide annealing zone[2]
046	Granitic gneiss	96CC16	39°44'34"	105°16'58"	Evergreen	Fission-track	Apatite	59.4	4.8	Kelley and Chapin (2004)	Laramide annealing zone[2]
047	Migmatitic gneiss	94CC01	39°44'51"	105°15'01"	Evergreen	Fission-track	Apatite	98.9	7.0	Kelley and Chapin (2004)	Laramide partial annealing zone[2]
048	Gneiss	92GO02	39°44'58"	105°14'20"	Morrison	Fission-track	Apatite	100.8	5.6	Kelley and Chapin (2004)	Laramide partial annealing zone[2]
049	Granitic gneiss	96CC06	39°45'15"	105°14'13"	Golden	Fission-track	Apatite	115.7	19.4	Kelley and Chapin (2004)	Laramide partial annealing zone
050	Gneiss	92GO01	39°45'14"	105°14'31"	Golden	Fission-track	Apatite	149.7	19.0	Kelley and Chapin (2004)	Laramide partial annealing zone[2]

No. DW-	Unit Name	Sample No.	Latitude (N)	Longitude (W)	71/2-minute quadrangle	Method	Mineral	Age in Ma	Analytical uncertainty in Ma	Reference	Comment
051	Gneiss	92GO03	39°44'50"	105°14'38"	Morrison	Fission-track	Apatite	196	13.2	Kelley and Chapin (2004)	Laramide partial annealing zone[2]
052	Gneiss	92GO04	39°44'38"	105°14'29"	Morrison	Fission-track	Apatite	263	17.6	Kelley and Chapin (2004)	Laramide partial annealing zone[2]
053	Granite and biotite schist	99DC04	39°32'46"	105°09'36"	Indian Hills	Fission-track	Apatite	233.1	13.3	Kelley and Chapin (2004)	Laramide partial annealing zone[2]
054	Granite	99DC05	39°32'39"	105°10'08"	Indian Hills	Fission-track	Apatite	135.0	15.6	Kelley and Chapin (2004)	Laramide partial annealing zone
055	Granitic gneiss	96SPR45	39°30'57"	105°39'36"	Mount Evans	Fission-track	Apatite	71.7	5.0	Kelley and Chapin (2004)	Laramide annealing zone[2]
056	Biotite Gneiss	96SPR47B	39°30'07"	105°41'00"	Mount Evans	Fission-track	Apatite	58.5	4.1	Kelley and Chapin (2004)	Laramide annealing zone
057	Pegmatite	Fission-track-01	39°50'00"[1]	105°16'00"	Ralston Buttes	Fission-track	Apatite	63.9	9.0	Marvin and Dobson (1979)	Laramide annealing zone
058	Gneiss	Fission-track-02	39°46'00"	105°15'45"	Ralston Buttes	Fission-track	Apatite	109	12	Marvin and Dobson (1979)	Laramide partial annealing zone
059	Quartzite of Coal Creek	84-CA-4	39°53'25"	105°19'49"	Eldorado Springs	U-Pb $^{207}Pb/^{206}Pb$ $^{207}Pb/^{206}Pb$ $^{207}Pb/^{206}Pb$	Zircon (detrital) Zircon (rounded, pale pink) Zircon (euhedral, pale pink) Zircon (dark magnetic)	1,800-1,880 1,786 1,724 1,536	[6] [6] [6] [6] [6]	Aleinikoff and others (1993b)	Longitude is corrected value. Estimated provenance ages. Probable multiple lead loss in three fractions of 1,800–1,880 Ma zircon.
060	Sillimanite-biotite-quartz gneiss	HP-5R	39°39'12"[1]	105°12'18"	Morrison	Rb/Sr	Whole-rock	1,728[3]	30	Peterman and others (1968)	Isochron from seven samples of high-grade metamorphic rocks of which three are in Denver West 1:100,000 quad
061	Muscovite-biotite-quartz-feldspar gneiss	HP-7R	39°44'42"[1]	105°26'24"	Squaw Pass	Rb/Sr	Whole-rock	1,728[3]	30	Peterman and others (1968)	Isochron from seven samples of high-grade metamorphic rocks
062	Quartz-biotite-hornblende	HP-13R	39°44'30"[1]	105°15'30"	Evergreen	Rb/Sr	Whole-rock	1,728[3]	30	Peterman and others (1968)	Isochron from seven samples of high-

No. DW-	Unit Name	Sample No.	Latitude (N)	Longitude (W)	71/2-minute quadrangle	Method	Mineral	Age in Ma	Analytical uncertainty in Ma	Reference	Comment
	gneiss										grade metamorphic rocks
063	Biotite quartz monzonite	HP-14R	39°52'12"[1]	105°24'06"	Blackhawk	Rb/Sr	Whole-rock	1,664[3]	40	Peterman and others (1968)	Isochron based on five samples from Boulder Creek pluton.
		HP-14M				Rb/Sr	Microcline	1,312[3]	70		Rock-mineral isochron for this sample
		HP-14Pl				Rb/Sr	Plagioclase	1,312[3]	70		
064	Biotite granodiorite	HP-15R	39°59'12"[1]	105°27'00"	Tungsten	Rb/Sr	Whole-rock	1,664[3]	40	Peterman and others. (1968)	Isochron based on four samples from Boulder Creek pluton
065	Biotite granodiorite	HP-16R	39°59'36"[1]	105°25'54"	Tungsten	Rb/Sr	Whole-rock	1,664[3]	40	Peterman and others (1968)	Isochron based on four samples from Boulder Creek pluton
066	Amphibolite inclusion in Boulder Creek	GP721	39°56'57"[1]	105°21'42"	Eldorado Springs	U-Pb	Zircon	1,725[8]	[6]	Stern and others (1971)	One of six samples forming chord with upper intercept at 1,725 Ma
067	Boulder Creek leuco-quartz monzonite gneiss	GP509	39°56'11"[1]	105°20'39"	Eldorado Springs	U-Pb	Zircon	1,725[8]	[6]	Stern and others (1971)	One of six samples forming chord with upper intercept at 1,725 Ma
068	Boulder Creek quartz monzonite	83-02	39°56'36"	105°20'58"	Eldorado Springs	U-Pb	Zircon	1,672	8	Premo and Van Schmus (1989)	Upper intercept on concordia diagram
069	Boulder Creek quartz monzonite	83-03	39°56'24"	105°20'48"	Eldorado Springs	U-Pb	Zircon	1,670	4	Premo and Van Schmus (1989)	Upper intercept on concordia diagram
070	Boulder Creek quartz monzonite	83-02	39°56'36"	105°20'58"	Eldorado Springs	U-Pb	Zircon	1,713	10	Premo and Fanning (2000)	Upper intercept on concordia diagram. SHRIMP[7] data, 31 determinations
071	Boulder Creek quartz monzonite	83-03	39°56'24"	105°20'48"	Eldorado Springs	U-Pb	Zircon	1,721	15	Premo and Fanning (2000)	Upper intercept on concordia diagram. SHRIMP[7] data, 12 determinations

No. DW-	Unit Name	Sample No.	Latitude (N)	Longitude (W)	71/2-minute quadrangle	Method	Mineral	Age in Ma	Analytical uncertainty in Ma	Reference	Comment
072	Monzogranite of Mt. Evans pluton	A509182	39°36'29"	105°37'30"	Mount Evans	U-Pb	Zircon	1,442	1.1	Aleinikoff and others (1993a)	Interior of Mt. Evans pluton
073	Granite of Rosalie Peak	A509181	39°34'21"	105°37'49"	Mount Evans	U-Pb	Zircon	1,448	9	Aleinikoff and others (1993a)	Field relations and isotopic data indicate that the granite of Rosalie Peak and the Mt. Evans pluton are about 1,442±2 Ma
074	Silver Plume Granite	[6]	39°41'50"[1]	105°44'12"	Georgetown	U-Pb	Zircon	1,422	[6]	Graubard and Mattison (1990)	Preliminary result; final not published
075	Biotite gneiss inclusion in Mt. Evans pluton	R0706-2	39°36'27"	105°37'30"	Harris Park/Mount Evans	$^{40}Ar/^{39}Ar$	Biotite	1,283	2	Shaw and others (1999)[10]	Preferred/plateau age
076	Hornblende gneiss in inclusion or intrusion of felsic gneiss in Mt. Evans pluton	R0706-3	39°36'41"	105°37'11"	Harris Park	$^{40}Ar/^{39}Ar$	Hornblende Biotite	1,400 1,228	3 1	Shaw and others (1999)[10]	Preferred/plateau age
077	Mafic inclusion in Mt. Evans pluton	R0706-4	39°36'19"	105°36'29"	Harris Park	$^{40}Ar/^{39}Ar$	Hornblende megacryst Hornblende Biotite Microcline	1,390 1,410 1,298 1,134	3 3 1.5 2	Shaw and others (1999)[10]	Preferred/plateau age
078	Amphibolite layer	R0706-1	39°41'24"	105°25'28"	Squaw Pass	$^{40}Ar/^{39}Ar$	Hornblende	1,418	3	Shaw and others (1999)[10]	Preferred/plateau age
079	Amphibolite lens	R0706-5	39°44'25"	105°24'48"	Squaw Pass	$^{40}Ar/^{39}Ar$	Hornblende	1,442	2	Shaw and others (1999)[10]	Preferred/plateau age
080	Amphibolite layer	R0706-6	39°46'25"	105°14'48"	Golden	$^{40}Ar/^{39}Ar$	Hornblende Hornblende	1,570 1,571	2 2	Shaw and others (1999)[10]	Preferred/plateau age
081	Amphibolite with fragmental texture	R30326-3	39°50'39"	105°17'22"	Ralston Buttes	$^{40}Ar/^{39}Ar$	Hornblende	1,550	2	Shaw and others (1999)[10]	Preferred/plateau age.
082	Mica gneiss	R30326-6	39°49'35"	105°16'50"	Ralston Buttes	$^{40}Ar/^{39}Ar$	Biotite Muscovite	1,379 1,380	2 2	Shaw and others (1999)[10]	Preferred/plateau age. Rocks nearby contain randomly

No. DW-	Unit Name	Sample No.	Latitude (N)	Longitude (W)	71/2-minute quadrangle	Method	Mineral	Age in Ma	Analytical uncertainty in Ma	Reference	Comment
											oriented undeformed andalusite megacrysts
083	Amphibolite, crudely layered	R30416-1	39°51'44"	105°17'28"	Ralston Buttes	$^{40}40/^{39}Ar$	Hornblende	1,550	2	Shaw and others (1999)[10]	Preferred/plateau age
084	Hornblende-biotite granodiorite, weakly foliated	R30416-2	39°56'45"	105°21'12"	Eldorado Springs	$^{40}Ar/^{39}Ar$	Hornblende Biotite	1,444 1,371-1,364	2 6	Shaw and others (1999)[10]	Preferred/plateau age. Mafic phase of Boulder Creek Granodiorite
085	Foliated and lineated biotite granodiorite in shear zone	R30416-4	39°50'34"	105°23'39"	Blackhawk	$^{40}Ar/^{39}Ar$	Biotite K-feldspar	1,370-1,380 1,226	6 1	Shaw and others (1999)[10]	Preferred/plateau age
086	Fragments of pegmatitic muscovite in breccia	88B 88C	39°48"15"[1]	105°31'14"	Central City	K-Ar	Muscovite	1,360 1,350	30 30	Rice and others (1982)	Regional mica age
087	Gangue, Schwartzwalder Mine	D2377F D2378F	39°50'40"[1]	105°16'50"	Ralston Buttes	K-Ar K-Ar	K-feldspar K-feldspar	707 175	12 3	(Marvin and Dobson (1979)	Possible mixture of Proterzoic country rock feldspar and feldspar from vein. Orthoclase and adularia from gangue of network of uranium veins. Mixed age
088	Pegmatite in Schwartzwalder mine	Sch-74 Sch-164	39°51'00"[1]	105°17'00"	Ralston Buttes	K-Ar K-Ar	Muscovite Muscovite	1,455 1,415	35 35	Marvin and Dobson (1979)	Pegmatite in country rock is in contact with ore minerals. Minimum age of pegmatite. Sheared pegmatite in country rock
089	Feldspar-quartz-biotite-muscovite pegmatite	22500	39°57'03"	105°29'06"	Tungsten	K-Ar Rb/Sr $^{40}Ar/^{39}Ar$	Biotite, coarse	1,176[3] 1,264[3] 1,220	6 6 6	Hart (1964) Berger (1975)	Regional cooling age

No. DW-	Unit Name	Sample No.	Latitude (N)	Longitude (W)	71/2-minute quadrangle	Method	Mineral	Age in Ma	Analytical uncertainty in Ma	Reference	Comment
090	Amphibolite included in pegmatite	9400	39°57'20"	105°30'58"	Nederland	K-Ar $^{40}Ar/^{39}Ar$	Hornblende	1,375 1,405	[6] [6]	Hart (1964) Berger (1975)	Regional cooling age
091	Kimberlite	Green Mountain diatreme	39°59'21"	105°18'04"	Eldorado Springs	Sm-Nd isochron	Rock, high-Cr and low-Cr garnet and clino-pyroxene xenocrysts.	572	49	Lester and others (2001)	Green Mountain diatreme
						Fission-track	Sphene	367	15	Larson and Amini (1981)	Emplacement age
						Fission-track	Apatite	77.1	5		Laramide partial(?) annealing zone
092	Monzonite	75CS69	39°58'58"	105°34'45"	Nederland	K-Ar	Biotite	65.5	2.4	Marvin and others (1989)	Caribou stock
093	Quartz monzonite	75CS78	39°57'14"	105°36'20"	Nederland	K-Ar	Hornblende	68.2	4.1	Marvin and others (1989)	Caribou stock
094	Hornblendite	75CS72a	39°58'42"	105°35'10"	Nederland	Rb/Sr	Whole-rock	60.0		Simmons and Hedge (1978)	Caribou stock
095	Pyroxenite	75CS70a	39°58'57"	105°34'46"	Nederland	Rb/Sr	Whole-rock	60.0		Simmons and Hedge (1978)	Caribou stock
096	Mafic monzonite	75CS69	39°58'58"	105°34'45"	Nederland	Rb/Sr	Whole-rock	60.0		Simmons and Hedge (1978)	Caribou stock
097	Quartz monzonite(?)	458	39°58'40"[1]	105°34'55"	Nederland	Fission-track	Zircon	62.6	6.3	Marvin and others (1974)	Caribou stock
098	Biotite hornblende felsic gneiss	EL-3	39°57'06"	105°35'08"	Nederland	K-Ar	Biotite	59.0	2.2	Brookins and Abashian (1981)	Gneiss cut by apophyses of Eldora stock
099	Pegmatite-bearing felsic gneiss	EL-6B	39°57'06"	105°35'06"	Nederland	K-Ar	Biotite	58.6	2.2	Brookins and Abashian (1981)	Biotite degassed by heat from Eldora stock
100	Biotite-hornblende-plagioclase gneiss	EL-24a	39°57'05"	105°29'19"	Tungsten	K-Ar	Biotite	1,029	35	Brookins and Abashian (1981)	Biotite partly degassed by heat from stock(?)
101	Biotite – hornblende-plagioclase gneiss	EL-26	39°55'14"	105°35'49"	Nederland	K-Ar	Biotite	57.9	2.2	Brookins and Abashian (1981)	Biotite degassed by heat from Eldora stock

No. DW-	Unit Name	Sample No.	Latitude (N)	Longitude (W)	71/2-minute quadrangle	Method	Mineral	Age in Ma	Analytical uncertainty in Ma	Reference	Comment
102	Biotite-hornblende gneiss	EL-27a	39°55'18"	105°36'32"	Nederland	K-Ar K-Ar	Biotite K-feldspar	57.9 70.1	2.2 2.7	Brookins and Abashian (1981)	Biotite degassed and K-feldspar partly degassed by heat from Eldora stock
103	Biotite-hornblende gneiss	EL-28	39°55'18"	105°36'23"	Nederland	K-Ar	K-feldspar	68.4	2.5	Brookins and Abashian (1981)	K-feldspar partly degassed by heat from stock
104	Biotite-hornblende-pyroxene gneiss	EL-29a	39°55'14"	105°36'16"	Nederland	K-Ar K-Ar	Biotite K-feldspar	67 147	2.5 6	Brookins and Abashian (1981)	Biotite and K-feldspar partly degassed by heat from stock
105	Quartz monzonite	BCOA	39°57'05"[1]	105°35'12"	Nederland	K-Ar K-Ar Rb/Sr	Biotite, coarse Biotite and hornblende, fine-grained Biotite, coarse	56.2[3] 55.1[3] 62[3]	[6] [6] 9	Hart (1964)	Eldora stock
106	Quartz Monzonite	L-1124	39°57'[1]	105°35'30"	Nederland	K-Ar	Biotite	60.6[3]	1.8	McDowell (1971); Marvin and others (1974)	Eldora stock
107	Quartz monzonite	EC-1	39°57'[1]	105°35'30"	Nederland	Fission-track Fission-track	Sphene Apatite	67.1 73	7.5 7	Marvin and others (1974)	Eldora stock
108	Biotite-hornblende quartz monzonite	E-1	39°57'06"	105°35'16"	Nederland	Fission-track Fission-track Fission-track	Zircon Zircon Apatite	66.6 61.8 58.6	6.4 6.3 9.4	Cunningham and others (1994)	Eldora stock
109	Quartz-bearing monzonite	Hmn-13	39°57'00"	105°35'07"	Nederland	Rb/Sr	Whole-rock	59.0	[6]	Simmons and Hedge (1978)	Eldora stock
110	Quartz-bearing monzonite	75CS78	39°57'14"	105°36'20"	Nederland	Rb/Sr	Whole-rock	59.0	[6]	Simmons and Hedge (1978)	Eldora stock
111	Quartz-bearing monzonite	76CS102	39°56'57"	105°35'07"	Nederland	Rb/Sr	Whole-rock	59.0	[6]	Simmons and Hedge (1978)	Eldora stock
112	Quartz-bearing monzonite	76CS103	39°56'58"	105°37'01"	Nederland	Rb/Sr	Whole-rock	59.0	[6]	Simmons and Hedge (1978)	Eldora stock

No. DW-	Unit Name	Sample No.	Latitude (N)	Longitude (W)	71/2-minute quadrangle	Method	Mineral	Age in Ma	Analytical uncertainty in Ma	Reference	Comment
113	Mafic monzonite	HMN-2	39°59'15"	105°36'09"	Nederland	Rb/Sr	Whole-rock	58.0	[6]	Simmons and Hedge (1978)	Caribou stock
114	Hornblendite	HMN-3	39º59'16"	105°36'09"	Nederland	Rb/Sr	Whole-rock	58.0	[6]	Simmons and Hedge (1978)	Caribou stock
115	Quartz-bearing monzonite	HMN-1	39°59'47"	105°35'26"	Nederland	Rb/Sr	Whole-rock	60.0	[6]	Simmons and Hedge (1978)	Caribou stock
116	Biotite latite	HMN-8	39°57'28"	105°30'22"	Nederland	Rb/Sr	Whole-rock	58.0	[6]	Simmons and Hedge (1978)	Dike
117	Hornblende latite	HMN-10	39°57'08"	105°33'40"	Nederalnd	Rb/Sr	Whole-rock	58.0	[6]	Simmons and Hedge (1978)	Dike
118	Hornblende Latite	75-CS79	39°57'21"	105°31'00"	Nederland	Rb/Sr	Whole-rock	58.0	[6]	Simmons and Hedge (1978)	Dike
119	Bostonite	76CS101	39°50'29"	105°35'38"	Central City	Rb/Sr	Whole-rock	58.0	[6]	Simmons and Hedge (1978)	Dike
120	Granodiorite	75CS88	39°45'37"	105°40'11"	Empire	K-Ar Rb/Sr	Biotite Whole-rock	61.6 65.0	2.2 [6]	Marvin and others (1989) Simmons and Hedge (1978)	Miller Creek stock
121	Monzonite	[6]	39°46'00"[1]	105°43'00"	Empire	K-Ar	Hornblende	54.6[3]	[6]	Marvin and others (1974)	Empire stock
122	Hornblende-pyroxene monzonite	75CS67	39°45'36"	105°43'08"	Empire	Rb/Sr	Whole-rock	65.0	[6]	Simmons and Hedge (1978)	Empire stock
123	Leucocratic monzonite	75CS76	39°45'37"	105°38'00"	Empire	Rb/Sr	Whole-rock	65.0	[6]	Simmons and Hedge (1978)	Mapped as sanidinite dike by Braddock (1969)
124	Pyroxenite	76CS92	39°45'36"	105°42'50"	Empire	Rb/Sr	Whole-rock	65.0	[6]	Simmons and Hedge (1978)	Empire stock
125	Monzonite	[6]	39°45'46"[1]	105°43'09"	Empire	Fission-track	Sphene	67.8	4.5	Marvin and others (1974)	Empire stock
126	Hornblende-pyroxene monzonite	EM-1	39°45'48"	105°43'20"	Empire	Fission-track Fission-track	Sphene Apatite	66.0 37.4	6.2 2.8	Cunningham and others (1994)	Empire stock
127	Rhyolite-B porphyry	DF-2692	39°46'02"	105°41'43"	Empire	Fission-track	Zircon	39.4	4.3	Bookstrom and others (1987)	Mad Creek stock, which cuts Empire stock
128	Explosion breccia	DF-2693	39°46'02"	105°41'53"	Empire	Fission-track	Zircon	40.5	6.5	Bookstrom and others (1987)	Surrounds Mad Creek stock

No. DW-	Unit Name	Sample No.	Latitude (N)	Longitude (W)	71/2-minute quadrangle	Method	Mineral	Age in Ma	Analytical uncertainty in Ma	Reference	Comment
129	East Knob porphyry	2, Table 4	39°46'00"[1]	105°50'00"	Berthoud Pass	Fission-track	Zircon	27.2	2.6	Naeser and others (1973); Geissman and others (1992)	[9]
130	East Knob porphyry	1, Table 4	39°46'00"[1]	105°50'00"	Berthoud Pass	Fission-track	Zircon	28.5	2.2	Naeser and others (1973); Geissman and others (1992)	[9]
131	Rhyolite	3, Table 1	39°46'00"[1]	105°50'30"	Berthoud Pass	K-Ar	Sanidine	27.7[3]	3	Taylor and others (1968)	[9]Red Mountain plug
132	Urad mine porphyry	13, Table 4	39°46'00"[1]	105°50'00"	Berthoud Pass	Fission-track	Zircon	23.8	2.3	Geissman and others (1992); Naeser and others, (1973)	[9]Henderson mine
133	Urad mine porphyry	11, Table 4	39°46'00"[1]	105°50'00"	Berthoud Pass	K-Ar	Biotite	33.7	2.5	Geissman and others (1992); Shannon, (1982)	[9]Henderson mine
134	Urad mine porphyry	12, Table 4	39°46'00"[1]	105°50'00"	Berthoud Pass	K-Ar	Orthoclase	28.5	1.2	Geissman and others (1992); Shannon (1982)	[9]Henderson mine
135	Mineralized porphyry	No. 3	39°45'20"[1]	105°49'30"	Berthoud Pass	K-Ar	Sericite	26.7[3]	0.9	Schassberger (1972)	[9]Urad mine
136	Rhyolite	72-123	39°45'30"[1]	105°49'40"	Berthoud Pass	Fission-track	Zircon	27.6	2.9	Naeser and others (1973); Marvin and others (1974)	[9]Red Mountain-Henderson
137	Rhyolite	72-125	39°45'30"[1]	105°50'00"	Berthoud Pass	Fission-track	Zircon	27.6	2.1	Naeser and others (1973); Marvin and others (1974)	[9]Red Mountain-Henderson
138	Rhyolite	72-126	39°45'30"[1]	105°50'00"	Berthoud Pass	Fission-track	Zircon	26.9	2.7	Naeser and others (1973); Marvin and others (1974)	[9]Red Mountain-Henderson
139	Rhyolite	72-143	39°45'30"[1]	105°50'00"	Berthoud Pass	Fission-track	Zircon	25.1	2.7	Naeser and others (1973); Marvin and others (1974)	[9]Red Mountain-Henderson
140	Rhyolite	72-144	39°45'30"[1]	105°50'00"	Berthoud Pass	Fission-track	Zircon	22.8	2.3	Naeser and others (1973); Marvin and others (1974)	[9]Red Mountain-Henderson
141	Rhyolite	70-169	39°45'30"[1]	105°50'00"	Berthoud Pass	Fission-track	Zircon	27.6	2.9	Naeser and others (1973); Marvin and others (1974)	[9]Red Mountain-Henderson
142	Kersantite	KA-82-585	39°46'09"	105°50'55"	Berthoud Pass	Fission-track	Zircon	28.6	3.3	Bookstrom and others (1987)	Dike, Henderson mine; 7,500 level

No. DW-	Unit Name	Sample No.	Latitude (N)	Longitude (W)	71/2-minute quadrangle	Method	Mineral	Age in Ma	Analytical uncertainty in Ma	Reference	Comment
143	Rhyolite-A porphyry	DF-2700	39°45'10"	105°51'16"	Berthoud Pass	Fission-track	Zircon	29.6	1.9	Bookstrom and others (1987)	Dike in radial swarm around Red Mtn.
144	Granite-A porphyry	DF-4830	39°45'49"	105°50'37"	Berthoud Pass	Fission-track	Zircon	27.2	3.1	Bookstrom and others (1987)	Urad stock, Henderson mine, 8,100 level
145	Granite-A porphyry	DF-4829	39°45'48"	105°50'40"	Berthoud Pass	Fission-track	Zircon	25.1	3.1	Bookstrom and others (1987)	Urad stock, Henderson mine, 7,550 level
146	Granite-A	DF-4831	39°45'32"	105°50'25"	Berthoud Pass	Fission-track	Zircon	20.4	3.2	Bookstrom and others (1987)	Henderson stock, Henderson mine, 7,500 level
147	Kersantite	82-287	39°46'09"	105°50'55"	Berthoud Pass	Rb/Sr	Whole-rock	26.6	3.3	Bookstrom and others (1988)	From composite kersantite-rhyolite dike at ~ 2,275 m altitude
148	Leucorhyolite porphyry	70-164	39°45'30"[1]	105°50'00"	Berhoud Pass	Rb/Sr	Whole-rock	28.5	1.2	Bookstrom and others (1988)	[9]Near contact of Urad stock. ~ 2,700 m altitude in Henderson mine
149	Leucorhyolite porphyry	CX122-4820	39°45'30"[1]	105°50'00"	Berthoud Pass	Rb/Sr	Whole-rock	28.5	1.2	Bookstrom and others (1988)	[9]Interior of Urad stock. ~ 2,000 m altitude in Henderson mine
150	Leucogranite	CX165-3265	39°45'30"[1]	105°50'00"	Berthoud Pass	Rb/Sr	Whole-rock	28.5	1.2	Bookstrom and others (1988)	[9]Interior of Urad stock. ~ 2,100 m altitude in Henderson mine
151	Leucogranite porphyry	77-133	39°45'30"[1]	105°50'00"	Bethoud Pass	Rb/Sr	Whole-rock	27.5	2	Bookstrom and others (1988)	[9]Henderson stock. ~ 2,150 m altitude in Henderson mine
152	Leucogranite	CX127-3980	39°45'30"[1]	105°50'00"	Berthoud Pass	Rb/Sr	Whole-rock	25	2	Bookstrom and others (1988)	[9]Vasquez stock. ~ 2,100 m altitude in Henderson mine
153	Leucogranite	H-480-1046	39°45'30"[1]	105°50'00"	Berthoud Pass	Rb/Sr	Whole-rock	23.8	2.3	Bookstrom and others (1988)	[9]Post-ore Dailey stock. ~ 2,050 m altitude in Henderson mine

No. DW-	Unit Name	Sample No.	Latitude (N)	Longitude (W)	71/2-minute quadrangle	Method	Mineral	Age in Ma	Analytical uncertainty in Ma	Reference	Comment
154	Urad mine porphyry	15	39°45'30"[1]	105°50'00"	Berthoud Pass	$^{40}Ar/^{39}Ar$	Orthoclase	28.0	0.09	Geissman and others (1992)	[9]Disturbed spectrum, preferred age
155	Urad mine porphyry	16	39°45'30"[1]	105°50'00"	Berthoud Pass	$^{40}Ar/^{39}Ar$	Biotite	28.6	0.3	Geissman and others (1992)	[9]Disturbed spectrum, preferred age
156	Urad mine porphyry	17	39°45'30"[1]	105°50'00"	Berthoud Pass	$^{40}Ar/^{39}Ar$	Biotite	28.3	1.4	Geissman and others (1992)	[9]Plateau age, small sample
157	Pegmatite in Henderson Granite	18	39°45'30"[1]	105°50'00"	Berthoud Pass	$^{40}Ar/^{39}Ar$	Orthoclase	28.1	0.2	Geissman and others (1992)	[9]Excess Ar; loss to 28.1 Ma
158	Pegmatite in Henderson Granite	19	39°45'30"[1]	105°50'00"	Berthoud Pass	$^{40}Ar/^{39}Ar$	Biotite	28.1	0.2	Geissman and others (1992)	[9]Plateau age
159	Pegmatite in Seriate porphyry	20	39°45'30"[1]	105°50'00"	Berthoud Pass	$^{40}Ar/^{39}Ar$	Orthoclase, altered	27.1	0.2	Geissman and others (1992)	[9]Plateau age
160	Pegmatite in Seriate porphyry	21	39°45'30"[1]	105°50'00"	Berthoud Pass	$^{40}Ar/^{39}Ar$	Biotite	27.6	0.1	Geissman and others (1992)	[9]Plateau age
161	Seriate porphyry	22	39°45'30"[1]	105°50'00"	Berthoud Pass	$^{40}Ar/^{39}Ar$	Orthoclase	28.2	0.2	Geissman and others (1992)	[9]Plateau age
162	Seriate porphyry	23	39°45'30"[1]	105°50'00"	Berthoud Pass	$^{40}Ar/^{39}Ar$	Biotite	27.6	0.2	Geissman and others (1992)	[9]Plateau age
163	Pegmatite in Seriate porphyry	24	39°45'30"[1]	105°50'00"	Berthoud Pass	$^{40}Ar/^{39}Ar$	Biotite	27.6	0.2	Geissman and others (1992)	[9]Plateau age
164	Pegmatite in Vasquez porphyry	25	39°45'30"[1]	105°50'00"	Berthoud Pass	$^{40}Ar/^{39}Ar$	Orthoclase	28.71	0.08	Geissman and others (1992)	[9]Disturbed spectrum; preferred age
165	Pegmatite in Vasquez porphyry	26	39°45'30"[1]	105°50'00"	Berthoud Pass	$^{40}Ar/^{39}Ar$	Biotite	27.6	0.3	Geissman and others (1992)	[9]Plateau age
166	Magnetite-sericite alteration zone in Seriate stock	27	39°45'30"[1]	105°50'00"	Berthoud Pass	$^{40}Ar/^{39}Ar$	Muscovite	26.95	0.08	Geissman and others (1992)	[9]Plateau age
167	Magnetite-	28	39°45'30"[1]	105°50'00"	Berthoud	$^{40}Ar/^{39}Ar$	Muscovite	27.51	0.03	Geissman and others	[9]Plateau age

No. DW-	Unit Name	Sample No.	Latitude (N)	Longitude (W)	71/2-minute quadrangle	Method	Mineral	Age in Ma	Analytical uncertainty in Ma	Reference	Comment
	sericite alteration in Seriate stock				Pass					(1992)	
168	Vasquez porphyry	29	39°45'30"[1]	105°50'00"	Berthoud Pass	$^{40}Ar/^{39}Ar$	Biotite	27.6	0.1	Geissman and others (1992)	[9]Plateau age
169	Vasquez porphyry	30	39°45'30"[1]	105°50'00"	Berthoud Pass	$^{40}Ar/^{39}Ar$	Orthoclase	27.83	0.10	Geissman and others (1992)	[9]Plateau age
170	Border of Ute porphyry	31	39°45'30"[1]	105°50'00"	Berthoud Pass	$^{40}Ar/^{39}Ar$	Orthoclase	28.4	0.3	Geissman and others (1992)	[9]Plateau age
171	Border of Ute porphyry	32	39°45'30"[1]	105°50'00"	Berthoud Pass	$^{40}Ar/^{39}Ar$	Biotite	27.6	0.2	Geissman and others (1992)	[9]Plateau age
172	Rhyolite tuff breccia	No. 2, Table 1	39°55'00"[1]	105°46'45"	Fraser	K-Ar	Sanidine	29.8[3]	3	Taylor and others (1968)	Possibly derived from Red Mountain center
173	Granodiorite	75CS84A	39°36'18"	105°54'55"	Keystone	K-Ar	Biotite	37.9	1.4	Marvin and others (1989)	Montezuma stock
174	Quartz monzonite	L-1032	39°36'00"[1]	105°54'00"	Keystone	K-Ar	Biotite	39.6[3]	1.2	McDowell (1971); Marvin and others (1974)	Montezuma stock
175	Granite-B porphyry	DF-1528	39°35'31"	105°49'37"	Montezuma	Fission-track	Zircon	37.4	3.0	Bookstrom and others (1987)	SE margin Montezuma stock
176	Granite-B porphyry	DF-1500	39°35'12"	105°50'28"	Montezuma	Fission-track	Zircon	39.8	4.2	Bookstrom and others (1987)	Montezuma stock
177	Porphyritic quartz monzonite	M-1	39°32'02"	105°49'33"	Montezuma	Fission-track	Zircon	35.0	3.2	Cunningham and others (1994)	Small stock five km south of Montezuma stock
178	Biotite rhyolite-B porphyry dike	DF-2697	39°40'17"	105°46'38"	Grays Peak	Fission-track	Zircon	42.8	4.2	Bookstrom and others (1987)	NE-trending dike in Montezuma-Silver Plume swarm
179	Rhyolite-B porphyry	DF-2695	39°41'48"	105°43'55"	Georgetown	Fission-track	Zircon	41.5	4.8	Bookstrom and others (1987)	NW-trending dike
180	Biotite rhyolite-B porphyry	DF-2698	39°34'16"	105°49'26"	Montezuma	Fission-track	Zircon	39.4	3.6	Bookstrom and others (1987)	Cupola of Montezuma stock
181	Rhyolite-B porphyry	DF-1498	39°31'44"	105°50'13"	Montezuma	Fission-track	Zircon	37.5	3.7	Bookstrom and others (1987)	Plug at Webster Pass
182	Sericitized granite-B porphyry	AB-77G-12A	39°34'47"	105°48'58"	Montezuma	Fission-track	Zircon	37.4	4.3	Bookstrom and others (1987)	Small intrusion interpreted to be cupola of underlying stock

No. DW-	Unit Name	Sample No.	Latitude (N)	Longitude (W)	71/2-minute quadrangle	Method	Mineral	Age in Ma	Analytical uncertainty in Ma	Reference	Comment
183	Sericitized rhyolite-B porphyry	DF-1497	39°38'57"	105°44'25"	Georgetown	Fission-track	Zircon	37.0	4.0	Bookstrom and others (1987)	Central plug of a cluster of plugs and dikes, Paines Mtn. plug
184	Biotite rhyolite-B porphyry	DF-1496	39°38'12"	105°43'18"	Georgetown	Fission-track	Zircon	36.6	4.2	Bookstrom and others (1987)	Funnel-shaped neck, Otter Mtn. plug
185	Hornblende-biotte dacite porphyry dike	DF-2699	39°33'16"	105°50'07"	Montezuma	Fission-track	Zircon	35.5	3.7	Bookstrom and others (1987)	NW-trending dike south of Montezuma stock
186	Biotite dacite porphyry	DF-1499	39°31'36"	105°50'05"	Montezuma	Fission-track	Zircon	34.8	3.7	Bookstrom and others (1987)	Last pulse of Montezuma magmatism
187	Porphyritic biotite-hornblende quartz monzonite	223	39°30'19"	105°57'47"	Keystone	K-Ar Fission-track	Biotite Biotite Biotite Zircon	44.8 43.1 43.5 35.1	1.5 1.0 1.0 3.6	Bryant and others (1981)	Sill(?) in Pierre Shale. Determinations on three biotite separates from same sample
188	Rhyolite-A porphyry	AB-77-G-27A	39°34'34"	105°48'08"	Montezuma	Fission-track	Zircon	33.3	4.3	Bookstrom and others (1987)	Similar in composition and age to Climax and Red Mountain Mo-bearing porphyries
189	Matrix of breccia in Gold Cup pipe	88A 88H 88H 88F 88F 246A 246B 246C	39°48'50"[1]	105°31'02"	Central City	K-Ar	Sericite	162 138 132 124 114 118 120 96	3 3 3 3 3 3 2 2	Rice and others (1982)	Small admixtures of mica from brecciated Proterozoic rock
190	Altered wall rock	K19	39°48'20"[1]	105°30'79"	Central City	K-Ar	Sericite	340	7	Rice and others (1982)	Dump of Winabago mine
191	Altered wall rock	247	39°47'57"[1]	105°32'51"	Central City	K-Ar	Sericite	305	6	Rice and others (1982)	Upper Eureka Gulch
192	Altered wall rock	K13	39°48'20"[1]	105°31'33"	Central City	K-Ar	Sericite	78	2	Rice and others (1982)	Carroll mine
193	Altered wall rock	E31	39°47'50"[1]	105°29'45"	Blackhawk	K-Ar	Sericite	76	2	Rice and others (1982)	Bobtail Hill

No. DW-	Unit Name	Sample No.	Latitude (N)	Longitude (W)	71/2-minute quadrangle	Method	Mineral	Age in Ma	Analytical uncertainty in Ma	Reference	Comment
194	Altered wall rock	157	39°46'51"[1]	105°30'34"	Central City	K-Ar	Sericite	59.6	1.6	Rice and others (1982)	Dump of Anchor mine
195	Altered wall rock	270	39°45'41"[1]	105°31'17"	Central City	K-Ar	Sericite	58.4	1.2	Rice and others (1982)	Dump of Alcan mine
196	Altered wall rock	125	39°47'33"[1]	105°31'03"	Central City	K-Ar	Sericite	57.5	1.2	Rice and others (1982)	The Patch
197	Altered wall rock	302	39°46'52"[1]	105°30'30"	Central City	K-Ar	Sericite	56.9	2.1	Rice and others (1982)	Dump of Saratoga mine
198	Altered wall rock	276	39°45'53"[1]	105°30'59"	Central City	K-Ar	Sericite	55.9	1.5	Rice and others (1982)	Upper Gibson Gulch
199	Altered wall rock	159	39°47'01"[1]	105°30'16"	Central City	K-Ar	Sericite	54.9	1.3	Rice and others (1982)	Dump of Elkhorn mine
200	Altered wal rock	Y37	39°47'17"[1]	105°29'16"	Blackhawk	K-Ar	Sericite	54.4	1.3	Rice and others (1982)	Dump of Clay Co. mine
201	Altered wall rock	125A 125A	39°47'33"[1]	105°31'30"	Central City	K-Ar	Sericite	53.8 53.7	1.1 1.1	Rice and others (1982)	The Patch
202	Altered wall rock	256	39°47'16"[1]	105°30'07"	Central City	K-Ar	Sericite	52.7	1.2	Rice and others (1982)	Dump of E. Notaway mine
203	Biotite granodiorite	298	39°46'30"[1]	105°34'00"	Central City	K-Ar	Biotite	57.0 57.6	1.2 1.2	Rice and others (1982)	Stock on Fall River
204	Biotite quartz latite	297	39°42'50"[1]	105°34'54"	Idaho Springs	K-Ar	Biotite	57.6 58.4 61.2	1.2 1.2 1.3	Rice and others (1982)	Dike on Chicago Creek
205	Bostonite	78[4] 78[5]	39°45'56"[1]	105°32'34"	Central City	K-Ar	Whole-rock	62.6 63.3	1.3 2.2	Rice and others (1982)	Dike on Bellevue Mtn.
206	Syenite	293C[4] 293C[5]	39°44'27"[1]	105°30'42"	Idaho Springs	K-Ar	Whole-rock	61.6 65.2	1.3 1.4	Rice and others (1982)	
207	Syenite	91[4] 91[5]	39°46'17"[1]	105°29'56"	Blackhawk	K-Ar	Whole-rock	77.5 84.3	2.4 2.2	Rice and others (1982)	
208	Hornblende quartz monzonite	150 150	39°51'31"[1]	105°34'10"	Central City	K-Ar	Hornblende	76.7 79.3	3.1 3.1	Rice and others (1982)	Apex stock
209	Uranium ore, Mena mine	GS/585	39°51'14"[1]	105°17'58"	Ralston Buttes	Pb^{206}/U^{238} Pb^{207}/U^{235} Pb^{207}/Pb^{206}	Pitchblende	73 73 66	0.2 1.7 57	Sheridan and others (1967)	Main ore shoot six feet from portal of the North adit
210	Uranium ore, Schwartzwalder mine	[6]	39°50'38"[1]	105°16'51"	Ralston Buttes	U-Pb	Whole-rock	69.3	1.1	Ludwig and others (1985)	Isochron using nine samples from the Illinois and Titan veins

No. DW-	Unit Name	Sample No.	Latitude (N)	Longitude (W)	71/2-minute quadrangle	Method	Mineral	Age in Ma	Analytical uncertainty in Ma	Reference	Comment
211	Quartz syenite	75CS80	39°46'55"	105°34'38"	Central City	Rb/Sr	Whole –rock	60.0	[6]	Simmons and Hedge (1978)	Stock on Fall River
212	Quartz syenite	HMN-9	39°53'45"	105°32'53'	Nederland	Rb/Sr	Whole-rock	60.0	[6]	Simmons and Hedge (1978)	Apex stock
213	Quartz syenite	75CS77a	39°52'30"	105°33'00"	Central City/ Nederland	Rb/Sr	Whole-rock	60.0	[6]	Simmons and Hedge (1978)	Apex stock
214	Hornblende-biotite quartz monzonite	A-1 A-2	39°52'03"	105°33'18"	Central City	Fission-track Fission-track Fission-track Fission-track	Zircon Apatite Zircon Apatite	61.7 71.3 58.5 66.8	6.3 18.0 5.2 7.5	Cunningham and others (1994)	Apex stock Dike intruding A-1
215	mafic latite	R-14	39°49'27"	105°14'23"	Golden	K-Ar	Whole-rock	63.5[3]	2.5	Marvin and others (1974)	Ralston dike
216	Basalt	KA978	39°45'10"[1]	105°09'45"	Golden	K-Ar	Whole-rock	60.2[3]	[6]	Evernden and others (1964)	Flow on South Table Mountain
217	Trachybasalt	[6]	39°45'41"	105°13'27"	Golden	$^{40}Ar/^{39}Ar$	Whole-rock	63.94	1.2	Obradovich (2002); unpub. report from New Mexico geochronologic research lab to R.G. Raynolds, Denver Museum of Nature and Science	Top flow on North Table Mountain. Well-defined plateau age
218	Andesitic cobble	70-0-10	39°45'10"[1]	105°09'45"	Golden	K-Ar	Biotite	65.8	1.4	Obradovich and Cobban (1975); Obradovich (2002); Marvin and others (1974)	50 m below trachybasalt on South Table Mountain, 21 m above K-T boundary, 11 m above KA992 (DW-219)
219	Dacitic pumice	KA992	39°45'10"[1]	105°09'45"	Golden	K-Ar	Plagioclase	66.4[3]	[6]	Evernden and others (1964)	In Denver Formation 11 m below sample 70-0-10 (DW-218)

No. DW-	Unit Name	Sample No.	Latitude (N)	Longitude (W)	71/2-minute quadrangle	Method	Mineral	Age in Ma	Analytical uncertainty in Ma	Reference	Comment
220	Rhyolite tuff	[6]	39°42'33"	105°11'04"	Morrison	$^{40}Ar/^{39}Ar$	Sanidine	63.94	0.28	Obradovich (2002)	Green Mountain Conglomerate, about 250 m above trachybasalt flow
221	Mafic monzonite	76CS89	39°46'47"	105°13'29"	Golden	Rb/Sr	Whole-rock	64.0	[6]	Simmons and Hedge (1978)	Potassic basalt lava flow
222	Mafic monzonite	76CS90	39°46'41"	105°13'23"	Golden	Rb/Sr	Whole-rock	64.0	[6]	Simmons and Hedge (1978)	Potassic basalt lava flow
223	Mafic monzonite	76CS91	39°46'37"	105°13'20"	Golden	Rb/Sr	Whole-rock	64.0	[6]	Simmons and Hedge (1978)	Potassic basalt lava flow
224	Mafic monzonite	76CS93	39°49'39"	105°14'32"	Golden	Rb/Sr	Whole-rock	64.0	[6]	Simmons and Hedge (1978)	Ralston dike
225	Potassic bassalt	[6]	39º49'28"[1]	105º14'25"	Golden	K-Ar	Whole-rock	63.5[3]	2.5	Hoblitt and Larson (1975)	Ralston Reservoir intrusive
226	Red Mountain porphyry	8	39°45'30"[1]	105º50'00"	Berthoud Pass	$^{40}Ar/^{39}Ar$	Orthoclase	29.9	0.3	Geissman and others (1992)	Disturbed spectrum, preferred age
227	Lamprophyre	9	39°45'30"[1]	105º50'00"	Berthoud Pass	$^{40}Ar/^{39}Ar$	Biotite	29.81	0.10	Geissman and others (1992)	Disturbed spectrum, preferred age
228	Rhyolite dike	10	39°45'30"[1]	105º50'00"	Berthoud Pass	$^{40}Ar/^{39}Ar$	Orthoclase	29.4	0.2	Geissman and others (1992)	Disturbed spectrum, excess argon

[1] Location approximate.
[2] Track lengths determined.
[3] Age recalculated using currently accepted decay and abundance constants recommended by the IUGS Subcommission on Geochronology (Steiger and Jäger, 1977). For Rb/Sr ages based on the ^{87}Rb decay constant ($\lambda=1.39x10^{-11}$/yr) used for the earlier determinations were converted to ages based on the currently accepted decay constant ($\lambda=1.42x10^{-11}$/yr) by multiplying the earlier age by 0.9788. The K-Ar ages based on the previously used decay constant ($^{40}K/K=1.19x10^{-4}$ mol/mol) were recalculated to ages using the presently accepted decay constant ($^{40}K/K=1.167x10^{-4}$ mol/mol) with the tables of Dalrymple (1979).
[4] 1–2 mm size fraction.
[5] 2–5 mm size fraction.
[6] No data.
[7] SHRIMP, Sensitive High Resolution Ion MicroProbe.
[8] Dates reported as published by Stern and others (1971) and have not been recalculated using IUGS decay constants.
[9] One of 42 samples from the Henderson mine about 1 km below the valley bottom and in the Red Mountain area on the ridge above. Except for six samples, locations are generalized.
[10] Location, rock type, and some comments are from an unpublished compilation by J.C. Reed, Jr.

No specific locations given

Unit Name	Sample No.	Quadrangle	Method	Mineral	Age in Ma	Analytical uncertainty in Ma	Reference	Comment
Metamorphic rocks	Many samples	Denver West and Estes Park 1:100,000-scale	Rb/Sr	Whole-rocks	1,664[3]	[6]	Hedge (1969)	Interpreted to be time of metamorphism; some metasediments form 1,958[4] Ma isochron
Boulder Creek pluton and associated rocks	Many samples	Denver West and Estes Park 1:100,000-scale	Rb/Sr	Whole-rocks	1,674[3]	40	Hedge (1969)	Samples from Mt. Evans pluton and quartz monzonite associated with Boulder Creek Granodiorite included
Silver Plume Granite	Many samples	Denver West 1:100,000-scale	Rb/Sr	Whole-rocks	1,408[3]	40	Hedge (1969)	Samples from Doublehead pluton and Silver Plume pluton
Granite of Mt. Rosalie, Mt. Evans pluton	Several samples	Denver West 1:100,000-scale	Rb/Sr	Whole-rocks	1,660	60	Bryant and Hedge, (1978); Hedge (1969)	One sample from the granite of Rosalie Peak fits isochron for Mt. Evans pluton. An illustration of one of the complications of Rb/Sr dating
Hornblende-biotite monzogranite	10 samples	Nederland 1:24,000-scale	Rb/Sr	Whole-rock	69.95	7.00	Brookins and Abashian (1984)	Isochron for ten samples from the Eldora stock which are all incorrectly located in the Meridian Hill quadrangle far to the south of that stock

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