

# SURFACE DEPOSITS

## Units, Ages, Dates, and Terms from published maps and reports

arranged by Senior Author - click Code, Title, Year or Terms column heading for re-sort, others for explanation

Code	Title	Sr Author	Year	Unit	Age	reported dates			Terms Glacial & Alluvial	Comments & Other Terms
						Date	Method	Ash		
r17	San Jaun Mountains	Atwood	1932	W	LP					Wisconsin till with outwash
r17	San Jaun Mountains	Atwood	1932	D	MP				Durango	till with outwash
r17	San Jaun Mountains	Atwood	1932	C	EP				Cerro Till	till with outwash
m115	Breeze Mountain	Barkmann	2015	Qa1a	H-LP					
m115	Breeze Mountain	Barkmann	2015	Qa1b	H-LP					
m115	Breeze Mountain	Barkmann	2015	Qamfo	P					"mud flows" on pediments
m115	Breeze Mountain	Barkmann	2015	Qao	P					
m115	Breeze Mountain	Barkmann	2015	Qgo	P					
m115	Breeze Mountain	Barkmann	2015	QTbb	EP-PI					maybe as old as Miocene
m073	Cañon City	Beach	1983	Qpp	H					post Piney Creek
m073	Cañon City	Beach	1983	Qp	H					Piney Creek
m073	Cañon City	Beach	1983	Qb	Q					Broadway
m073	Cañon City	Beach	1983	Ql	Q					Louviers
m073	Cañon City	Beach	1983	Qs	Q					Slocum
m073	Cañon City	Beach	1983	Qv	Q					Verdos
m073	Cañon City	Beach	1983	Qrf	Q					Rocky Flats
m073	Cañon City	Beach	1983	Qn	Q					Nussbaum
m074	Florence	Beach	1983	Qpp	H					post Piney Creek
m074	Florence	Beach	1983	Qp	H					Piney Creek
m074	Florence	Beach	1983	Qb	Q					Broadway
m074	Florence	Beach	1983	Ql	Q					Louviers
m074	Florence	Beach	1983	Qs	Q					Slocum
m074	Florence	Beach	1983	Qv	Q					Verdos
m048	Masters	Berry	2015	Qaa	LH					post-Piney Creek
m048	Masters	Berry	2015	Qa1	LH					post-Piney Creek
m048	Masters	Berry	2015	Qa2	LH					post-Piney Creek
m048	Masters	Berry	2015	Qa3	H-LP	5-12	<sup>14</sup> C			Piney Creek
m048	Masters	Berry	2015	Qba	LP	15-31	<sup>14</sup> C, OSL, Th/U			Broadway
m048	Masters	Berry	2015	Qlv	MP					Louviers
m048	Masters	Berry	2015	Qai	MP	320-390	Th/U			Slocum
m048	Masters	Berry	2015	Qa0	EP	1500	COR			Rocky Flats
m049	Orchard	Berry	2015	Qaa	LH					post-Piney Creek
m049	Orchard	Berry	2015	Qa1	LH					post-Piney Creek
m049	Orchard	Berry	2015	Qa2	LH					post-Piney Creek
m049	Orchard	Berry	2015	Qa3	H-LP					Piney Creek
m049	Orchard	Berry	2015	Qba	LP	15-31	<sup>14</sup> C, OSL, Th/U			Pinedale, Broadway
m049	Orchard	Berry	2015	Qlv	MP	130-190	COR			Bull Lake, Louviers
m051	Fort Morgan	Berry	2018	Qa1	LH					post-Piney Creek
m051	Fort Morgan	Berry	2018	Qa2	LH					post-Piney Creek
m051	Fort Morgan	Berry	2018	Qay	H	0.1-3	<sup>14</sup> C			Piney Creek
m051	Fort Morgan	Berry	2018	Qa3, Qba	H-LP	15-31	<sup>14</sup> C, OSL, Th/U			Pinedale, Broadway
m051	Fort Morgan	Berry	2018	Qlv	MP	320-390	Th/U			Louviers
m051	Fort Morgan	Berry	2018	Qv	MP	640	COR	14-17		Verdos
										LCB Ash in

## Units, Ages, Dates, and Terms from published maps and reports

arranged by Senior Author - click Code, Title, Year or Terms column heading for re-sort, others for explanation

Code	Title	Sr Author	Year	Unit	Age	reported dates			Terms Glacial & Alluvial	Comments & Other Terms
						Date	Method	Ash		
m051	Fort Morgan	Berry	2018	Qao	EP					
m051	Fort Morgan	Berry	2018	QNn	EP-PI				Nussbaum	
m050	Weldona	Berry	2018	Qa1	LH					
m050	Weldona	Berry	2018	Qa2	LH				post-Piney Creek	
m050	Weldona	Berry	2018	Qa3	H-LP	15-31	<sup>14</sup> C, OSL, Th/U		Piney Creek	
m050	Weldona	Berry	2018	Qba	LP	8-9.5	OSL <sub>rejected</sub>		Pinedale, Broadway	
m050	Weldona	Berry	2018	Qai1	MP	320-390	Th/U			
m050	Weldona	Berry	2018	Qai2	MP					
m050	Weldona	Berry	2018	Qv	MP				Verdos	
r18	WY Rocky Mountains	Blackwelder	1915		H					canyon cycle
r18	WY Rocky Mountains	Blackwelder	1915	Pd	LP				Pinedale	type Pinedale, lenore cycle
r18	WY Rocky Mountains	Blackwelder	1915	BL	LP				Bull Lake	type Bull Lake, lenore cycle
r18	WY Rocky Mountains	Blackwelder	1915	BF	MP					Buffalo, circle cycle
r18	WY Rocky Mountains	Blackwelder	1915	PI2	EP					Plain 2, black rock cycle
r18	WY Rocky Mountains	Blackwelder	1915	PI3,4	EP					Plains 3 - 4, union pass cycle
r18	WY Rocky Mountains	Blackwelder	1915	SP	PI					Summit Pene, freemont cycle
m062	Sulphur Mountain	Bohannan	2009	Qa	H					
m062	Sulphur Mountain	Bohannan	2009	Qay	LP	14-24	MIS-2		Pinedale	MIS-2
m062	Sulphur Mountain	Bohannan	2009	Qai	MP					
m062	Sulphur Mountain	Bohannan	2009	Qpy	MP					
m062	Sulphur Mountain	Bohannan	2009	Qpo	EP					
m062	Sulphur Mountain	Bohannan	2009	QTwm	EP-LPI					
m054	Greeley - 1 deg	Braddock	1978	Qa	H				Piney Creek	hand colored, no legend; guessed bo
m054	Greeley - 1 deg	Braddock	1978	Qg	UP				Broadway	
m054	Greeley - 1 deg	Braddock	1978	Qgo	MP				Louviers	
m056	Laporte	Braddock	1988	Qal	Q					
m056	Laporte	Braddock	1988	Qtg	Q					
m133	Lyons	Braddock	1988	Qal	H					
m133	Lyons	Braddock	1988	Qtge	P					
m133	Lyons	Braddock	1988	Qtgd	P					
m133	Lyons	Braddock	1988	Qtgc	P					
m133	Lyons	Braddock	1988	Qtgb	P					
m133	Lyons	Braddock	1988	Qtga	P					
m143	Rocky Mtn National Pa	Braddock	1990	Qa	H-UP					
m143	Rocky Mtn National Pa	Braddock	1990	Qh	H					till
m143	Rocky Mtn National Pa	Braddock	1990	Qp	UP				Pinedale	till
m143	Rocky Mtn National Pa	Braddock	1990	Qb	UP				Bull Lake	till
m143	Rocky Mtn National Pa	Braddock	1990	Qpb	P				pre-Bull Lake	till
m143	Rocky Mtn National Pa	Braddock	1990	Qg	P				pre-Bull Lake	gravel
m143	Rocky Mtn National Pa	Braddock	1990	QNd	Q-N					diamicton
m097	Placerville	Bush	1959	Qal	Q					
m097	Placerville	Bush	1959	Qtg	Q					Wisconsin
m097	Placerville	Bush	1959	Qd	Q				Cerro Till	

## Units, Ages, Dates, and Terms from published maps and reports

arranged by Senior Author - click Code, Title, Year or Terms column heading for re-sort, others for explanation

Code	Title	Sr Author	Year	Unit	Age	reported dates			Terms Glacial & Alluvial	Comments & Other Terms
						Date	Method	Ash		
m103	Vernal 1 deg Surf	Carrara	1980	Qal	H					
m103	Vernal 1 deg Surf	Carrara	1980	Qg, Qm1	P				Pinedale	
m103	Vernal 1 deg Surf	Carrara	1980	Qgo, Qm2	P				Bull Lake	
m103	Vernal 1 deg Surf	Carrara	1980	QTg, Qmo	P-PI				pre-Bull Lake	
m002	Palisade	Carrara	2000	Qal1	H					
m002	Palisade	Carrara	2000	Qal2	H-LP					
m002	Palisade	Carrara	2000	Qt1, Qp1	LP	12-35	COR <sub>r</sub>		Pinedale	
m002	Palisade	Carrara	2000	Qt2, Qp2	MP	140-150	COR <sub>d</sub>		Bull Lake	
m002	Palisade	Carrara	2000	Qt3	M-EP	925	COR	8		LCB Ash under
m002	Palisade	Carrara	2000	Qp4	EP					
m002	Palisade	Carrara	2000	Qp5	EP-PI					Horse Mountain
m002	Palisade	Carrara	2000	Tg	PI	3800	IR <sub>gm</sub>			
m003	Clifton	Carrara	2001	Qal1	H					
m003	Clifton	Carrara	2001	Qal2	H-LP					
m003	Clifton	Carrara	2001	Qt1	LP	12-41	C <sup>14</sup>		Pinedale	
m003	Clifton	Carrara	2001	Qt2	MP	140-150	COR <sub>d</sub>		Bull Lake	
m003	Clifton	Carrara	2001	Qt3	EP	960	IR			
m003	Clifton	Carrara	2001	Qt4	EP	1200	IR			
m003	Clifton	Carrara	2001	Qt5	EP	1440	IR			
m001	Durango East	Carroll	1999	Qa	H					
m001	Durango East	Carroll	1999	Qt1, Qma	LP					Animas City
m001	Durango East	Carroll	1999	Qt2, Qms	LMP					Spring Creek
m001	Durango East	Carroll	1999	Qt3, Qmd	MP					Durango
m001	Durango East	Carroll	1999	Qt4	MP	>600	COR <sub>g</sub>	19, 20		LCB Ash under
m018	Center Mountain	Carroll	2014	Qa	H-LP					
m018	Center Mountain	Carroll	2014	Qao	P					
m018	Center Mountain	Carroll	2014	QTbg	EP-LT					
m030	W Uncompahgre P	Case	1991	Qal	Q					
m030	W Uncompahgre P	Case	1991	QTg	Q-T					
m099	Gateway	Cater	1954	Qal	Q					
m099	Gateway	Cater	1954	Qg	Q					
m099	Gateway	Cater	1954	Qfg	Q					
r13	Grand Mesa	Cole	1981	Qp1	LP				Pinedale	
r13	Grand Mesa	Cole	1981	Qp2	LP				Pinedale	
r13	Grand Mesa	Cole	1981	Qb1	LMP				Bull Lake	
r13	Grand Mesa	Cole	1981	Qb2	LMP				Bull Lake	
r13	Grand Mesa	Cole	1981	Qpb1	MP				pre-Bull Lake	
r13	Grand Mesa	Cole	1981	Qpb2	EP-PI				pre-Bull Lake	
m057	Estes Park - 1 deg	Coles	2000	Qa	H-UP					
m057	Estes Park - 1 deg	Coles	2000	Qva	H-UP					Mountain Valley
m057	Estes Park - 1 deg	Coles	2000	Qbr, Qgy	UP	12-30	COR <sub>m</sub>		Pinedale, Broadway	
m057	Estes Park - 1 deg	Coles	2000	Qlv	U-MP	120-300	COR <sub>m</sub>		Bull Lake, Louviers	
m057	Estes Park - 1 deg	Coles	2000	Qs	MP				Slocum	

## Units, Ages, Dates, and Terms from published maps and reports

arranged by Senior Author - click Code, Title, Year or Terms column heading for re-sort, others for explanation

Code	Title	Sr Author	Year	Unit	Age	reported dates			Terms Glacial & Alluvial	Comments & Other Terms
						Date	Method	Ash		
m057	Estes Park - 1 deg	Coles	2000	Qv, Qgo	MP	639	COR <sub>m</sub>	1,11-17	Verdos	LCB Ash locally
m057	Estes Park - 1 deg	Coles	2000	Qrf, Qgo	LP				Rocky Flats	
m057	Estes Park - 1 deg	Coles	2000	Qprf	LP				pre-Rocky Flats	
m057	Estes Park - 1 deg	Coles	2000	Ng	PI-M					
m053	Boulder-Ft. Collins- Grl	Colton	1976	Qpp	UH				post-Piney Creek	
m053	Boulder-Ft. Collins- Grl	Colton	1976	Qpc	UH				Piney Creek	
m053	Boulder-Ft. Collins- Grl	Colton	1976	Qb	P				Pinedale, Broadway	
m053	Boulder-Ft. Collins- Grl	Colton	1976	Qlo	P				Bull Lake, Louviers	
m053	Boulder-Ft. Collins- Grl	Colton	1976	Qs	P				Slocum	Illinoian, Sangamon
m053	Boulder-Ft. Collins- Grl	Colton	1976	Qv	P				Verdos	Kansan, Yarmouth
m053	Boulder-Ft. Collins- Grl	Colton	1976	Qrf	P				Rocky Flats	Nebraskan, Aftonian
m053	Boulder-Ft. Collins- Grl	Colton	1976	Qprf	P				pre-Rocky Flats	Nebraskan
m140	Almont	Coogan	2005	Qa	H					
m140	Almont	Coogan	2005	Qt1	UP	~48	<sup>14</sup> C			
m140	Almont	Coogan	2005	Qt2	UP					
m140	Almont	Coogan	2005	Qt3	UP					
m140	Almont	Coogan	2005	Qah	Q					
m140	Almont	Coogan	2005	Ts	PI					
m106	Banty Point	Cullins	1968	Qal	H					
m106	Banty Point	Cullins	1968	Qt1	P					
m106	Banty Point	Cullins	1968	Qt2	P					
m105	Rangely	Cullins	1971	Qal	H					
m105	Rangely	Cullins	1971	Qt1	P					
m105	Rangely	Cullins	1971	Qt2	P					
m105	Rangely	Cullins	1971	Qt3	P					
r21	Cerro Till	Dickenson	1965	Qls	Q				Cerro Till	Cerro Till reclassified as Is
m142	Cerro Summit	Dickinson	1965	Qac	P					
m142	Cerro Summit	Dickinson	1965	Qpa	P					
m142	Cerro Summit	Dickinson	1965	Qpb	P					
m142	Cerro Summit	Dickinson	1965	Qvf	EP		map	28, 29 30	Ash mapped	Bostwick Park, Shinn Park
m142	Cerro Summit	Dickinson	1965	Qsg	EP					Shinn Park
m142	Cerro Summit	Dickinson	1965	QTg	EP-PI					Pool Gulch headwaters
m142	Cerro Summit	Dickinson	1965	Tc	PI-M					Poverty Mesa
m101	Moab 1 deg UGS	Doelling	2002	Qal	H-LP					
m101	Moab 1 deg UGS	Doelling	2002	Qgt	H-LP					La Sal Mountains
m101	Moab 1 deg UGS	Doelling	2002	Qap	LP					
m101	Moab 1 deg UGS	Doelling	2002	Qat	LP-MP					
m101	Moab 1 deg UGS	Doelling	2002	QTaf	EP-PI					La Sal Mountains
m006	Parachute	Donnell	1986	Qal	H					
m006	Parachute	Donnell	1986	Qga	LP				Pinedale	Grand Mesa till
m006	Parachute	Donnell	1986	Qoa	MP				pre Bull Lake	
m007	North Maam Peak	Donnell	1989	Qal	H					
m007	North Maam Peak	Donnell	1989	Qga	LP				Pinedale	Grand Mesa till

## Units, Ages, Dates, and Terms from published maps and reports

arranged by Senior Author - click Code, Title, Year or Terms column heading for re-sort, others for explanation

Code	Title	Sr Author	Year	Unit	Age	reported dates			Terms Glacial & Alluvial	Comments & Other Terms
						Date	Method	Ash		
m007	North Maam Peak	Donnell	1989	Qla	LMP				Bull Lake	Lands End till
m007	North Maam Peak	Donnell	1989	Qoa, Qop	MP				pre Bull Lake	
m113	Elk Springs 15 min	Dyni	1968	Qa	H					
m113	Elk Springs 15 min	Dyni	1968	Qac	H					
m113	Elk Springs 15 min	Dyni	1968	Qt	Q					
m113	Elk Springs 15 min	Dyni	1968	Qg	Q					
m135	Carbondale 1 deg	Ellis	1984	Qal	H					
m135	Carbondale 1 deg	Ellis	1984	Qg	H-P					
m135	Carbondale 1 deg	Ellis	1984	Qty	P				Pinedale	till
m135	Carbondale 1 deg	Ellis	1984	Qgy	P				Pinedale	
m135	Carbondale 1 deg	Ellis	1984	Qto	P				Bull Lake	
m135	Carbondale 1 deg	Ellis	1984	Qgo	P				Bull Lake	
m135	Carbondale 1 deg	Ellis	1984	QTa	P-PI					
m137	Grand Junct-Delta 1 de	Ellis	1989	Qal	H					
m137	Grand Junct-Delta 1 de	Ellis	1989	Qg	H-P					
m137	Grand Junct-Delta 1 de	Ellis	1989	Qgy	P				Pinedale	
m137	Grand Junct-Delta 1 de	Ellis	1989	Qty	P				Pinedale	
m137	Grand Junct-Delta 1 de	Ellis	1989	Qgo	P				Bull Lake, pre Bull Lake	
m137	Grand Junct-Delta 1 de	Ellis	1989	Qto	P				Bull Lake, pre Bull Lake	
m061	Guffy - 15 min	Epis	1979	Qp	H				Piney Creek	
m061	Guffy - 15 min	Epis	1979	Qpo	UP				Pinedale	
m061	Guffy - 15 min	Epis	1979	Qba	UP				Bull Lake	
m061	Guffy - 15 min	Epis	1979	Qbo	UP				Bull Lake	
m061	Guffy - 15 min	Epis	1979	Qs	MP				Slocum	Illinoian
m061	Guffy - 15 min	Epis	1979	Qv	M-EP				Verdos	Kansan
r19	Rocky Mtn Glaciers	Eschman	1955	AmL	W					Wisconsin, American Lake
r19	Rocky Mtn Glaciers	Eschman	1955	SP	W				Silver Peak	Wisconsin
r19	Rocky Mtn Glaciers	Eschman	1955	G	W				Gould	Wisconsin
r19	Rocky Mtn Glaciers	Eschman	1955	OM	I				Owl Mountain Till	Illinoian
m141	Granby Lake Fishermar	Fish-n-Map	2018	t1	UP					5 ft depth contours
m141	Granby Lake Fishermar	Fish-n-Map	2018	t2	UP					
m047	Collegiate Peaks	Fridrich	1998	Qs	H					
m047	Collegiate Peaks	Fridrich	1998	Qg	P					
m080	Culebra Pk 15 min	Fridrich	2007	Qac	H-LP					
m080	Culebra Pk 15 min	Fridrich	2007	Qty	LP					
m080	Culebra Pk 15 min	Fridrich	2007	Qto	MP					
m080	Culebra Pk 15 min	Fridrich	2007	QTd	P-UPI					
m042	Crested Butte	Gaskill	1986	Qa	H					
m042	Crested Butte	Gaskill	1986	Qm1, Qg1	LP				Pinedale	
m042	Crested Butte	Gaskill	1986	Qm2, Qg2	P				Pinedale	
m042	Crested Butte	Gaskill	1986	Qm03, Qg3	P				Bull Lake	
m042	Crested Butte	Gaskill	1986	Qg4	P				pre-Bull Lake	
m042	Crested Butte	Gaskill	1986	Tg	M					Miocene

## Units, Ages, Dates, and Terms from published maps and reports

arranged by Senior Author - click Code, Title, Year or Terms column heading for re-sort, others for explanation

Code	Title	Sr Author	Year	Unit	Age	reported dates			Terms Glacial & Alluvial	Comments & Other Terms
						Date	Method	Ash		
m043	Gothic	Gaskill	1991	Qa	H					
m043	Gothic	Gaskill	1991	Qm	P					moraine
m092	Bayfield	Gonzales	2008	Qa	H					
m092	Bayfield	Gonzales	2008	Qt1	EH					post Durango
m092	Bayfield	Gonzales	2008	Qt2	LP					Durango
m092	Bayfield	Gonzales	2008	Qt3	LP					Durango
m092	Bayfield	Gonzales	2008	Qt4	LMP				Bull Lake	
m092	Bayfield	Gonzales	2008	Qt5	MP				Bull Lake	
m092	Bayfield	Gonzales	2008	Qt6	MP				Bull Lake	
m092	Bayfield	Gonzales	2008	Qgo	EP					
m136	Westwater 1 deg	Gualtieri	2004	Qal	H					
m136	Westwater 1 deg	Gualtieri	2004	Qp	H-P					
m136	Westwater 1 deg	Gualtieri	2004	Qt	P					
r22	North Park	Hail	1965	Cg	H					Cirque Moraines
r22	North Park	Hail	1965	G3	LP					glaciation 3
r22	North Park	Hail	1965	G2	MP					glaciation 2
r22	North Park	Hail	1965	G3	M-EP					glaciation 1
r22	North Park	Hail	1965	bg	EP-PI					boulder gravel
m055	Colona	Hail	1987	Qal	H					
m055	Colona	Hail	1987	Qat	H					
m055	Colona	Hail	1987	Qtp	P					
m029	Ridgeway	Hail	1989	Qal	H					
m029	Ridgeway	Hail	1989	Qat	H					
m029	Ridgeway	Hail	1989	Qtp	P					
m096	Cortez 1 deg	Haynes	1972	Qa	H-P					
m096	Cortez 1 deg	Haynes	1972	Qat	P					
m024	Roubideau	Hodge	2016	Qa1	H					
m024	Roubideau	Hodge	2016	Qa2	H-LP	11.8	COR			
m024	Roubideau	Hodge	2016	Qa3	LP	90-320	IR <sub>-ash</sub>			
m024	Roubideau	Hodge	2016	Qa4	LMP	330-580	AA			
m024	Roubideau	Hodge	2016	Qa5	MP	610	AA	?		LCB Ash at similar el.
m024	Roubideau	Hodge	2016	Qa6	MP	750	COR			
m024	Roubideau	Hodge	2016	Qa7	EP	840	AA			
m145	Denver Surficial	Hunt	1954	al3	H					protohistoric-historic
m145	Denver Surficial	Hunt	1954	al2	H				Piney Creek	type section
m145	Denver Surficial	Hunt	1954	yg	H					
m145	Denver Surficial	Hunt	1954	alg	P				Broadway	type section, sort of Wisconsin gravel
m145	Denver Surficial	Hunt	1954	QTg	P-PI					upland gravel
m011	Kremmling	Izett	1973	Qal	H					
m011	Kremmling	Izett	1973	Qt1	P					Wisconsin
m011	Kremmling	Izett	1973	Qt2	P					Wisconsin
m011	Kremmling	Izett	1973	Qt3	P					Wisconsin
m011	Kremmling	Izett	1973	Qt4	P					pre-Wisconsin

## Units, Ages, Dates, and Terms from published maps and reports

arranged by Senior Author - click Code, Title, Year or Terms column heading for re-sort, others for explanation

Code	Title	Sr Author	Year	Unit	Age	reported dates			Terms Glacial & Alluvial	Comments & Other Terms
						Date	Method	Ash		
m011	Kremmling	Izett	1973	Qt5	P					pre-Wisconsinan
m011	Kremmling	Izett	1973	Qt6	P					pre-Wisconsinan
m011	Kremmling	Izett	1973	Qt7	P					pre-Wisconsinan
m011	Kremmling	Izett	1973	Tc	PI					
m039	Trail Mountain	Izett	1974	Qal	H					
m039	Trail Mountain	Izett	1974	Qtg	P					
m039	Trail Mountain	Izett	1974	Qt	P					
m039	Trail Mountain	Izett	1974	Qp	P					
m039	Trail Mountain	Izett	1974	Tbc	PI					
m110	Lava Creek B Ash	Izett	1982	LCA Ash	MP	620				Lava Creek A Ash
m110	Lava Creek B Ash	Izett	1982	LCB Ash	MP	620	Sample	No.		Lava Creek B Ash
m110	Lava Creek B Ash	Izett	1982	MF Ash	EP	1270	Sample	No.		Mesa Falls Ash
m110	Lava Creek B Ash	Izett	1982	HR Ash	PI	2020				Huckleberry Ridge Ash
m078	Trinidad 1 deg	Johnson	1969	Qm	Q					
m078	Trinidad 1 deg	Johnson	1969	QTg	Q					
r02	Blue River Valley	Kellog	2016	Pd	LP	12-30	AA		Pinedale	nice glacial-extent map
r02	Blue River Valley	Kellog	2016	BL	MP	120-190	AA		Bull Lake	convergence of 1st ter with fp
m066	Denver West 1 deg	Kellogg	2008	Qva	H-LP					
m066	Denver West 1 deg	Kellogg	2008	Qb, Qg1	LP	10-32	COR		Pinedale, Broadway	
m066	Denver West 1 deg	Kellogg	2008	Qtp	LP				Pinedale	
m066	Denver West 1 deg	Kellogg	2008	Qlv, Qg2	L-MP	130	COR		Bull Lake, Louviers	
m066	Denver West 1 deg	Kellogg	2008	Qtb	L-MP				Bull Lake	
m066	Denver West 1 deg	Kellogg	2008	Qs, Qg3	MP				Bull Lake, Slocum	
m066	Denver West 1 deg	Kellogg	2008	Qv, Qg4	MP				pre-Bull Lake, Verdos	
m066	Denver West 1 deg	Kellogg	2008	QNr	EP-LPI	1500	COR		pre-Bull Lake, Rocky Flats	
m066	Denver West 1 deg	Kellogg	2008	QNrp	EP-LPI				pre-Rocky Flats	
m032	Upper Arkansas V	Kellogg	2017	Qa	H					
m032	Upper Arkansas V	Kellogg	2017	Qpf	LP	17.8	<sup>10</sup> Be		Pinedale	
m032	Upper Arkansas V	Kellogg	2017	Qpfo	LP	19.6	<sup>10</sup> Be		Pinedale	
m032	Upper Arkansas V	Kellogg	2017	Qgby	L-MP				Bull Lake	
m032	Upper Arkansas V	Kellogg	2017	Qgbo	LMP				Bull Lake	
m032	Upper Arkansas V	Kellogg	2017	Qg4	MP				pre Bull Lake	
m032	Upper Arkansas V	Kellogg	2017	Qg3	MP	<639	COR-s	2,3,4,18	pre Bull Lake	LCB Ash under
m032	Upper Arkansas V	Kellogg	2017	Qg2	M-EP				pre Bull Lake	
m032	Upper Arkansas V	Kellogg	2017	Qg1	EP				pre Bull Lake	
m032	Upper Arkansas V	Kellogg	2017	QNg	EP-PI					
m125	Cowdrey-prelim	Kinney	1970	Qa	H					
m125	Cowdrey-prelim	Kinney	1970	Qt3	P				4-H	glaciation 3
m125	Cowdrey-prelim	Kinney	1970	Qt2	P				Walden	glaciation 2
m125	Cowdrey-prelim	Kinney	1970	Qot1	P					pre-Wisconsin
m125	Cowdrey-prelim	Kinney	1970	Qot2	P					pre-Wisconsin
m125	Cowdrey-prelim	Kinney	1970	Qot3	P					pre-Wisconsin
m125	Cowdrey-prelim	Kinney	1970	Tbc	PI					only on Independence Mtn

## Units, Ages, Dates, and Terms from published maps and reports

arranged by Senior Author - click Code, Title, Year or Terms column heading for re-sort, others for explanation

Code	Title	Sr Author	Year	Unit	Age	reported dates			Terms Glacial & Alluvial	Comments & Other Terms
						Date	Method	Ash		
m121	Gould - prelim	Kinney	1970	Qa	H					
m121	Gould - prelim	Kinney	1970	Qm2	P				Gould	glaciation
m121	Gould - prelim	Kinney	1970	Qt3	P				4-H	surface
m121	Gould - prelim	Kinney	1970	Qt2	P				Walden	surface
m121	Gould - prelim	Kinney	1970	Qm1	P				Owl Mountain Till	
m121	Gould - prelim	Kinney	1970	Qot1	P					pre-Wisconsin
m121	Gould - prelim	Kinney	1970	Qot2	P					pre-Wisconsin
m121	Gould - prelim	Kinney	1970	Qot3	P					pre-Wisconsin
m123	Hyannis Pk -prelim	Kinney	1970	Qa	H					
m123	Hyannis Pk -prelim	Kinney	1970	Qm03,Qgm	P				Silver Creek	glaciation 3
m123	Hyannis Pk -prelim	Kinney	1970	Qt3	P				4-H	surface
m123	Hyannis Pk -prelim	Kinney	1970	Qm2,Qgm2	P				Gould	glaciation 2
m123	Hyannis Pk -prelim	Kinney	1970	Qt2	P				Walden	surface
m123	Hyannis Pk -prelim	Kinney	1970	Qm1	P				Owl Mountain Till	glaciation 1
m123	Hyannis Pk -prelim	Kinney	1970	Qot1	P					pre-Wisconsin
m123	Hyannis Pk -prelim	Kinney	1970	Qot2	P					pre-Wisconsin
m123	Hyannis Pk -prelim	Kinney	1970	Qot3	P					pre-Wisconsin
m123	Hyannis Pk -prelim	Kinney	1970	Tg	P-PI					glaciation
m122	Rand - prelim	Kinney	1970	Qa	H					
m122	Rand - prelim	Kinney	1970	Qm03,Qgm	P				Silver Creek	glaciation 3
m122	Rand - prelim	Kinney	1970	Qt3	P				4-H	surface
m122	Rand - prelim	Kinney	1970	Qm2,Qgm2	P				Gould	glaciation 2
m122	Rand - prelim	Kinney	1970	Qt2	P				Walden	surface
m122	Rand - prelim	Kinney	1970	Qm1	P				Owl Mountain Till	glaciation 1
m122	Rand - prelim	Kinney	1970	Qot1	P					pre-Wisconsin
m122	Rand - prelim	Kinney	1970	Qot2	P					pre-Wisconsin
m122	Rand - prelim	Kinney	1970	Qot3	P					pre-Wisconsin
m122	Rand - prelim	Kinney	1970	Tg	P-PI					glaciation
m124	Walden-prelim	Kinney	1970	Qa	H					
m124	Walden-prelim	Kinney	1970	Qt3	P				4-H	glaciation 3
m124	Walden-prelim	Kinney	1970	Qt2	P				Walden	glaciation 2
m124	Walden-prelim	Kinney	1970	Qot1	P					pre-Wisconsin
m124	Walden-prelim	Kinney	1970	Qot2	P					pre-Wisconsin
m124	Walden-prelim	Kinney	1970	Qot3	P					pre-Wisconsin
m126	Kings Cañ-prelim	Kinney	1971	Qa	H					
m126	Kings Cañ-prelim	Kinney	1971	Qot2	P					
m015	Glenwood Springs	Kirkham	1997	Qa	H-LP					
m015	Glenwood Springs	Kirkham	1997	Qty	LP	12	COR <sub>r</sub>	<sup>14</sup> C		Pinedale
m015	Glenwood Springs	Kirkham	1997	Qtm	LP	35	COR <sub>r</sub>			
m015	Glenwood Springs	Kirkham	1997	Qto	MP	140	COR <sub>r</sub>			Bull Lake
m015	Glenwood Springs	Kirkham	1997	Qtt	MP	150	COR		8	
m015	Glenwood Springs	Kirkham	1997	QTg	EP-PI					
m014	Leon	Kirkham	1998	Qa	H-LP					



## Units, Ages, Dates, and Terms from published maps and reports

arranged by Senior Author - click Code, Title, Year or Terms column heading for re-sort, others for explanation

Code	Title	Sr Author	Year	Unit	Age	reported dates			Terms Glacial & Alluvial	Comments & Other Terms
						Date	Method	Ash		
m014	Leon	Kirkham	1998	Qty	LP	12	COR <sub>r</sub> <sup>14</sup> C			
m014	Leon	Kirkham	1998	Qtm	LP	35	COR <sub>r</sub>	Pinedale		
m014	Leon	Kirkham	1998	Qtt	M-EP			Pinedale		
m014	Leon	Kirkham	1998	QTg	EP-PI					
m014	Leon	Kirkham	1998	QTm	EQ-LT				Missouri Heights	
m095	Durango West	Kirkham	1999	Qa	H					
m095	Durango West	Kirkham	1999	Qt1	LP			Pinedale	Animas City	
m095	Durango West	Kirkham	1999	Qt2	LMP			Bull Lake	Spring Creek	
m095	Durango West	Kirkham	1999	Qt3	MP				Durango	
m095	Durango West	Kirkham	1999	Qt4	MP	<600	COR <sub>g</sub>	19, 20	LCB Ash over	
m095	Durango West	Kirkham	1999	Qva	MP	602			Ash remapped	
m095	Durango West	Kirkham	1999	Qt5	EMP					
m095	Durango West	Kirkham	1999	Qgh	M-EP					
m094	Hesperus	Kirkham	2000	Qa	H					
m094	Hesperus	Kirkham	2000	Qt1	LP			Pinedale	Animas City	
m094	Hesperus	Kirkham	2000	Qm1	LP			Pinedale	Animas City	
m094	Hesperus	Kirkham	2000	Qt2	LMP			Bull Lake	Spring Creek	
m094	Hesperus	Kirkham	2000	Qm2	LMP			Bull Lake	Spring Creek	
m094	Hesperus	Kirkham	2000	Qt3	MP	<600	COR	21	Kansan LCB Ash over	
m094	Hesperus	Kirkham	2000	Qm03	MP			Durango		
m082	Taylor Ranch	Kirkham	2003	Qa1	H				Rito Seco alluvium	
m082	Taylor Ranch	Kirkham	2003	Qa2b	LP	12	COR <sub>r</sub>		Pinedale	
m082	Taylor Ranch	Kirkham	2003	Qa2a	LP	35	COR <sub>r</sub>		Pinedale	
m082	Taylor Ranch	Kirkham	2003	Qm1	LP	12-35	COR <sub>r</sub>		Pinedale	
m082	Taylor Ranch	Kirkham	2003	Qa3b	LMP	130	COR <sub>r</sub>		Bull Lake	
m082	Taylor Ranch	Kirkham	2003	Qa3a	LMP	350	COR <sub>r</sub>		Bull Lake	
m082	Taylor Ranch	Kirkham	2003	Qm2	LMP	130-350	COR <sub>r</sub>		Bull Lake	
m082	Taylor Ranch	Kirkham	2003	Qa4	MP	>639	COR	?	LCB Ash over	
m082	Taylor Ranch	Kirkham	2003	Qm03	MP					
m082	Taylor Ranch	Kirkham	2003	Qva	EMP	639	map	?	Ash mapped	
m059	Fairplay East	Kirkham	2006	Qa1	H					
m059	Fairplay East	Kirkham	2006	Qa2	UP	13-35	MIS-2		Pinedale	
m059	Fairplay East	Kirkham	2006	Qa3	UMP				Pinedale	
m059	Fairplay East	Kirkham	2006	Qa4	MP					
m059	Fairplay East	Kirkham	2006	Qti	MP				till	
m060	Garro	Kirkham	2006	Qa1	H					
m060	Garro	Kirkham	2006	Qa2y	UP	13-35	MIS-2		Pinedale Late	
m060	Garro	Kirkham	2006	Qa2o	UP				Pinedale Early	
m060	Garro	Kirkham	2006	Qa3	UMP					
m060	Garro	Kirkham	2006	Qa4y	MP					
m060	Garro	Kirkham	2006	Qa4o	MP					
m060	Garro	Kirkham	2006	QTg	P-T					
m034	Carbondale	Kirkham	2008	Qa	H-LP					

## Units, Ages, Dates, and Terms from published maps and reports

arranged by Senior Author - click Code, Title, Year or Terms column heading for re-sort, others for explanation

Code	Title	Sr Author	Year	Unit	Age	reported dates			Terms Glacial & Alluvial	Comments & Other Terms
						Date	Method	Ash		
m034	Carbondale	Kirkham	2008	Qty	LP				Pinedale	
m034	Carbondale	Kirkham	2008	Qtm	LP				Pinedale	
m034	Carbondale	Kirkham	2008	Qto	LMP				Bull Lake	
m036	Eagle	Lidke	2002	Qalc	H					
m036	Eagle	Lidke	2002	Qty	LP		<sup>14</sup> C		Pinedale	
m036	Eagle	Lidke	2002	Qtm	L-MP	140-150	COR <sub>p</sub>		Bull Lake	
m036	Eagle	Lidke	2002	Qto	MP	140-150	COR <sub>p</sub>		Bull Lake	
m036	Eagle	Lidke	2002	Qtpl	MP					
m036	Eagle	Lidke	2002	Qtpm	EP					
m036	Eagle	Lidke	2002	Qtpu	EP					
m036	Eagle	Lidke	2002	Tg	M-O					
m075	Cuchara	Lindsey	1995	Qal	H					
m075	Cuchara	Lindsey	1995	Qp1	P				Barela	
m075	Cuchara	Lindsey	1995	Qp2	P				Beshoar	
m075	Cuchara	Lindsey	1995	Qp3	P				San Miguel	
m063	Fort Logan	Lindvall	1978	Qpp	H				post Piney Creek	
m063	Fort Logan	Lindvall	1978	Qp	H				Piney Creek	
m063	Fort Logan	Lindvall	1978	Qb	P				Boadway	
m063	Fort Logan	Lindvall	1978	Qlo	P				Louviers	
m063	Fort Logan	Lindvall	1978	Qs	P				Slocum	
m063	Fort Logan	Lindvall	1978	Qvl	P				Verdos lower	
m063	Fort Logan	Lindvall	1978	Qvu	P				Verdos upper	
m064	Commerce	Lindvall	1980	Qpp	H				post Piney Creek	
m064	Commerce	Lindvall	1980	Qp	H				Piney Creek	
m064	Commerce	Lindvall	1980	Qb	P				Boadway	
m064	Commerce	Lindvall	1980	Qlo	P				Louviers	
m064	Commerce	Lindvall	1980	Qs	P				Slocum	
m064	Commerce	Lindvall	1980	Qv	P				Verdos	
m064	Commerce	Lindvall	1980	Qrf	P				Rocky Flats	
m091	Durango 1 deg	Lipman	1974	Qa	Q					
m091	Durango 1 deg	Lipman	1974	Qd	Q					
m091	Durango 1 deg	Lipman	1974	QTg	Q-T					
m086	Del Norte 22 <sup>5</sup> min	Lipman	1976	Qal	H					
m086	Del Norte 22 <sup>5</sup> min	Lipman	1976	Qo	P				Pinedale	
m086	Del Norte 22 <sup>5</sup> min	Lipman	1976	Qm	P				Pinedale	
m086	Del Norte 22 <sup>5</sup> min	Lipman	1976	Qf	H-P				pre-Pinedale	
m086	Del Norte 22 <sup>5</sup> min	Lipman	1976	QTf	P-UPI					
m084	South Fork 15 min	Lipman	1976	Qal	H					
m084	South Fork 15 min	Lipman	1976	Qo	P				Pinedale	outwash
m084	South Fork 15 min	Lipman	1976	Qm	P				Pinedale	moraine
m084	South Fork 15 min	Lipman	1976	Qf	P				pre-Pinedale	
m089	San Juan Calderas	Lipman	2006	Qal	H					
m089	San Juan Calderas	Lipman	2006	Qg	P				Pinedale	

## Units, Ages, Dates, and Terms from published maps and reports

arranged by Senior Author - click Code, Title, Year or Terms column heading for re-sort, others for explanation

Code	Title	Sr Author	Year	Unit	Age	reported dates			Terms Glacial & Alluvial	Comments & Other Terms
						Date	Method	Ash		
m089	San Juan Calderas	Lipman	2006	Qm	P				Pinedale	
m089	San Juan Calderas	Lipman	2006	Qgo	P				pre-Pinedale	
m089	San Juan Calderas	Lipman	2006	Qmo	P				pre-Pinedale	
m148	Cochetopa Park 1:500C	Lipman	2012	Qal	H					
m148	Cochetopa Park 1:500C	Lipman	2012	Qg,Qf	P				Pinedale	
m148	Cochetopa Park 1:500C	Lipman	2012	Qgo,Qfo	P				pre-Pinedale	
m148	Cochetopa Park 1:500C	Lipman	2012	QTg	Q-T					
m144	Louisville Surficial	Madle	1955	al3	H				post Piney Creek	
m144	Louisville Surficial	Madle	1955	al2	H				Piney Creek	
m144	Louisville Surficial	Madle	1955	alg	P					Wisconsin
m144	Louisville Surficial	Madle	1955	tg	P					Wisconsin Early
m144	Louisville Surficial	Madle	1955	ug	P-PI					upland gravel
m144	Louisville Surficial	Madle	1955	rf	P-PI				Rocky Flats	type section, sort of
m144	Louisville Surficial	Madle	1955	og	P-PI				pre-Rocky Flats	
m116	Craig 1 deg Surf	Madole	1982	a	H-UP					
m116	Craig 1 deg Surf	Madole	1982	os	UP					
m116	Craig 1 deg Surf	Madole	1982	yg	UP	<150	AA			
m116	Craig 1 deg Surf	Madole	1982	og	UP	300-600	map	7 WY	Ash mapped	LCB Ash in uppermost
m116	Craig 1 deg Surf	Madole	1982	pd	UP					pediments
m116	Craig 1 deg Surf	Madole	1982	gd	UP				Pinedale, Bull Lake, pre-Bull Lake	
m116	Craig 1 deg Surf	Madole	1982	vb	P					
m108	Meeker 1 deg Surf	Madole	1989	a	H-UP					
m108	Meeker 1 deg Surf	Madole	1989	yg	UP	10-30	AA			
m108	Meeker 1 deg Surf	Madole	1989	og	MP-EP	130-1700	COR	31, 32		LCB Ash in highest terrace
m108	Meeker 1 deg Surf	Madole	1989	pd	P					
m108	Meeker 1 deg Surf	Madole	1989	gd	P				Pinedale, Bull Lake, pre-Bull Lake	
m108	Meeker 1 deg Surf	Madole	1989	vb	P					
m119	Steamboat 1 deg Surf	Madole	1991	a	H-UP					
m119	Steamboat 1 deg Surf	Madole	1991	yg	UP	10-300	AA		Pinedale, Bull Lake	
m119	Steamboat 1 deg Surf	Madole	1991	og	P	130-1650	COR <sub>iw</sub>	32		LCB Ash in highest terrace
m041	Walden 1 deg surficial	Madole	1991	a	H-UP					
m041	Walden 1 deg surficial	Madole	1991	ao	H-UP					
m041	Walden 1 deg surficial	Madole	1991	yg	UP	10-130	AA		Pinedale, Bull Lake	
m041	Walden 1 deg surficial	Madole	1991	og	P	130-1650	AA	32		LCB Ash in: 6 terrace levels different
m041	Walden 1 deg surficial	Madole	1991	vg	P					
m134	Hygiene	Madole	1998	Qa	H-UP					
m134	Hygiene	Madole	1998	Qlc	MH					Left Hand Creek alluvium
m134	Hygiene	Madole	1998	Qpy	U-MP					pedmont alluvium
m134	Hygiene	Madole	1998	Ql	MP				Louviers	
m134	Hygiene	Madole	1998	Qs	MP				Slocum	
m134	Hygiene	Madole	1998	Qtr	MP					Trevarton Reservoir alluvium
m134	Hygiene	Madole	1998	Qtm	LP					Table Mountain alluvium
m134	Hygiene	Madole	1998	Qpo	LP					older piedmont alluvium

## Units, Ages, Dates, and Terms from published maps and reports

arranged by Senior Author - click Code, Title, Year or Terms column heading for re-sort, others for explanation

Code	Title	Sr Author	Year	Unit	Age	reported dates			Terms Glacial & Alluvial	Comments & Other Terms
						Date	Method	Ash		
m111	Leadville South	McCalpin	2012	Qal	H					
m111	Leadville South	McCalpin	2012	Qat	H					
m111	Leadville South	McCalpin	2012	Qpoy	LP				Pinedale	
m111	Leadville South	McCalpin	2012	Qpoo	LP				Pinedale	
m111	Leadville South	McCalpin	2012	Qboy	LMP				Bull Lake	
m111	Leadville South	McCalpin	2012	Qboo	LMP	60-70	IS(6, 4)		Bull Lake	
m111	Leadville South	McCalpin	2012	Qpbo	MP					
m111	Leadville South	McCalpin	2012	Qao	M-EP					
m111	Leadville South	McCalpin	2012	QTa	EP-LT					
r03	no surfaces	McElroy	1953							gravel 600m above Derby Cr high T 600' ab SJ River, p 126
r20	San Juan Canyon, UT	Miser	1912	Tg	Q					
m093	Bayfield Surficial	Moore	1995	Qal	H					
m093	Bayfield Surficial	Moore	1995	Qtg1	EH					
m093	Bayfield Surficial	Moore	1995	Qtg2	P					
m093	Bayfield Surficial	Moore	1995	Qtg3	P					
m093	Bayfield Surficial	Moore	1995	Qtg4	P					
m093	Bayfield Surficial	Moore	1995	Qtg5	P					
m071	Pueblo Surficial 1 deg	Moore	2000	asa	H-LP				post Piney Creek Louviere, Slocum	more soils map than surfaces map
m071	Pueblo Surficial 1 deg	Moore	2000	ags	L-MP				Pinedale, Bull Lake	
m071	Pueblo Surficial 1 deg	Moore	2000	tbg	L-MP				Pinedale, Bull Lake	
m071	Pueblo Surficial 1 deg	Moore	2000	ggq	L-MP				Verdos, Rocky Flats	
m071	Pueblo Surficial 1 deg	Moore	2000	agm	M-EP				pre-Bull Lake	
m071	Pueblo Surficial 1 deg	Moore	2000	tbk	M-EP				pre-Bull Lake	
m070	Denver Surficial 1 deg	Moore	2001	asa	H-LP				post Piney Creek Louviere, Slocum	more soils map than surfaces map
m070	Denver Surficial 1 deg	Moore	2001	ags	L-MP				Pinedale, Bull Lake	
m070	Denver Surficial 1 deg	Moore	2001	tbg	L-MP				Pinedale, Bull Lake	
m070	Denver Surficial 1 deg	Moore	2001	ggq	L-MP				Verdos, Rocky Flats	
m070	Denver Surficial 1 deg	Moore	2001	agm	M-EP				pre-Bull Lake	
m070	Denver Surficial 1 deg	Moore	2001	tbk	M-EP				pre-Bull Lake	
m070	Denver Surficial 1 deg	Moore	2001	gge	M-EP				pre-Bull Lake	
m026	Olathe	Morgan	2007	Qa1	H					
m026	Olathe	Morgan	2007	Qa2	H-LP					
m026	Olathe	Morgan	2007	Qa3	LP				Pinedale	
m026	Olathe	Morgan	2007	Qa4	LMP				Bull Lake	
m026	Olathe	Morgan	2007	Qa5	MP					
m027	Delta	Morgan	2008	Qa1	H					
m027	Delta	Morgan	2008	Qa2	H-UP					
m027	Delta	Morgan	2008	Qa3	UP				Pinedale Early	
m027	Delta	Morgan	2008	Qa4	UMP					
m027	Delta	Morgan	2008	Qa5	MP				Bull Lake	
m114	Craig	Morgan	2014	Qa1	LH					
m114	Craig	Morgan	2014	Qa2	EH-LP					

## Units, Ages, Dates, and Terms from published maps and reports

arranged by Senior Author - click Code, Title, Year or Terms column heading for re-sort, others for explanation

Code	Title	Sr Author	Year	Unit	Age	reported dates			Terms Glacial & Alluvial	Comments & Other Terms
						Date	Method	Ash		
m114	Craig	Morgan	2014	Qao	P					
m114	Craig	Morgan	2014	Qgo	P					
m114	Craig	Morgan	2014	Qamfo	P					
r05	RMNP Glaciers <sub>animation</sub>	Nat Park <sub>Serv</sub>	2018	LIA	H	0-11.68	AA			"mud flows" on pediments
r05	RMNP Glaciers <sub>animation</sub>	Nat Park <sub>Serv</sub>	2018	W 1	LP	12-18	AA			Little Ice Age
r05	RMNP Glaciers <sub>animation</sub>	Nat Park <sub>Serv</sub>	2018	W 2	LP	42-48	AA			Wisconsin Last
r05	RMNP Glaciers <sub>animation</sub>	Nat Park <sub>Serv</sub>	2018	W 3	LP	66-72	AA			Wisconsin Middle
r05	RMNP Glaciers <sub>animation</sub>	Nat Park <sub>Serv</sub>	2018	S	LP-MP	80-130	AA			Wisconsin First
r05	RMNP Glaciers <sub>animation</sub>	Nat Park <sub>Serv</sub>	2018	I	MP	132-174	AA			Sangamon
m025	Montrose East	Noe	2007	Qa1	UH-LH					Illinoian
m025	Montrose East	Noe	2007	Qa2	LH-UP	25.2	OSL			
m025	Montrose East	Noe	2007	Qa3	UP					
m025	Montrose East	Noe	2007	Qa4	UMP					
m025	Montrose East	Noe	2007	Qa5, Qg3	MP	640		?	Ash mapped	LCB Ash in
m025	Montrose East	Noe	2007	Qg4	LP-PI				Cerro Till	
m120	Milner	Noe	2013	Qay1	H-LP	10-30	COR			
m120	Milner	Noe	2013	Qay2	LP					
m120	Milner	Noe	2013	Qay3	MP					
m120	Milner	Noe	2013	Qay4	MP					
m120	Milner	Noe	2013	Qay5	MP					
m120	Milner	Noe	2013	Qay6	EP					
m023	Olathe NW	Noe	2013	Qa1	H					
m023	Olathe NW	Noe	2013	Qa2, Qg2	H-LP	11.7-30	COR		Pinedale	MIS-2
m023	Olathe NW	Noe	2013	Qa3, Qg3	LP	58-89	COR			MIS-3, Late Wisconsin
m023	Olathe NW	Noe	2013	Qa4, Qg4	LMP	130-190	COR		Bull Lake	MIS-6
m023	Olathe NW	Noe	2013	Qa5, Qg5	LMP	130-190	COR, OSL			MIS-6
m023	Olathe NW	Noe	2013	Qg6, Qg6	MP	340-480	COR		pre Bull Lake	MIS-10 to 12
m022	Orchard City	Noe	2013	Qag1a	H					
m022	Orchard City	Noe	2013	Qag1b	H-LP	11.6	COR		Pinedale	MIS-2
m022	Orchard City	Noe	2013	Qag2	LP	30	COR		Pinedale	MIS-2
m022	Orchard City	Noe	2013	Qag3	LP	50-89	COR, OSL		Pinedale	MIS-4
m022	Orchard City	Noe	2013	Qag4	LMP	130	COR		Bull Lake	MIS-6
m022	Orchard City	Noe	2013	Qag5	LMP	190	COR		Bull Lake	MIS-6
m022	Orchard City	Noe	2013	Qga6	MP	500-700	COR		pre-Bull Lake	MIS-08 to 12
m016	Hotchkiss	Noe	2014	Qan1a	H					
m016	Hotchkiss	Noe	2014	Qan1b	H-LP	11.7	COR		Pinedale	MIS-2
m016	Hotchkiss	Noe	2014	Qan2	LP	30	COR		Pinedale	MIS-2
m016	Hotchkiss	Noe	2014	Qan3	LP	50-89	COR			MIS-4, Late Wisconsin
m016	Hotchkiss	Noe	2014	Qan4	LMP	130	COR		Bull Lake	MIS-6
m016	Hotchkiss	Noe	2014	Qan5	LMP	190	COR		Bull Lake	MIS-6
m016	Hotchkiss	Noe	2014	Qan6	MP	340-480	COR		pre-Bull Lake	MIS-10 to 12
m016	Hotchkiss	Noe	2014	Qan7	EMP	620-750	COR		pre-Bull Lake	MIS-16 to 20
m016	Hotchkiss	Noe	2014	Qan8	EP	800-850	COR		pre-Bull Lake	MIS-22

## Units, Ages, Dates, and Terms from published maps and reports

arranged by Senior Author - click Code, Title, Year or Terms column heading for re-sort, others for explanation

Code	Title	Sr Author	Year	Unit	Age	reported dates			Terms Glacial & Alluvial	Comments & Other Terms
						Date	Method	Ash		
m016	Hotchkiss	Noe	2014	Qan9	LPI					Late Pliocene
m016	Hotchkiss	Noe	2014	Qan10	LPI					Late Pliocene
m019	Crawford	Noe	2015	Qg1	H					
m019	Crawford	Noe	2015	Qg2	LP					
m019	Crawford	Noe	2015	Qg3	LP					
m019	Crawford	Noe	2015	Qg4	MP					
m019	Crawford	Noe	2015	Qg5	MP					
m019	Crawford	Noe	2015	Qgo	L-MP					
m118	Hayden	Noe	2015	Qay1a	LH-MH					
m118	Hayden	Noe	2015	Qay1b	EH-LP					
m118	Hayden	Noe	2015	Qao	LP-MP					9 terrace levels
m118	Hayden	Noe	2015	Dot	LP-MP					
m118	Hayden	Noe	2015	Qgo	MP					
m021	Lazear	Noe	2015	Qg1	H					
m021	Lazear	Noe	2015	Qg2	LP					
m021	Lazear	Noe	2015	Qg3	LP					
m021	Lazear	Noe	2015	Qg4	LMP					
m021	Lazear	Noe	2015	Qg5	LMP					
m021	Lazear	Noe	2015	Qg6	MP					
m021	Lazear	Noe	2015	Qg7	EMP		COR			
m021	Lazear	Noe	2015	Qg8	EP					
m021	Lazear	Noe	2015	Tg9	LPI					
m021	Lazear	Noe	2015	Tg10	LPI					
m028	North Delta	Noe	2015	Qg1	H-LP					
m028	North Delta	Noe	2015	Qg2	LP	640	COR			LCB Ash in same-age Qfo
m028	North Delta	Noe	2015	Qg3	LP					
m028	North Delta	Noe	2015	Qg4	LMP					
m028	North Delta	Noe	2015	Qg5	LMP					
m028	North Delta	Noe	2015	Qg6	MP					
m028	North Delta	Noe	2015	Qg7	MP					
m020	Paonia	Noe	2015	Qan1a	H	11.7	COR		Pinedale	
m020	Paonia	Noe	2015	Qan1b	H-LP		COR		Pinedale	MIS-2
m020	Paonia	Noe	2015	Qan2	LMP	30	COR		Bull Lake	MIS-2
m020	Paonia	Noe	2015	Qan3	LP	50-89	COR			MIS-4, Late Wisconsinan
m020	Paonia	Noe	2015	Qan4	LMP	130	COR		Bull Lake	MIS-6
m020	Paonia	Noe	2015	Qan5	LMP	190	COR		Bull Lake	MIS-6
m020	Paonia	Noe	2015	Qg6	MP	340-480	COR		pre-Bull Lake	MIS-10 to 12
m020	Paonia	Noe	2015	Qg7	M-EP	620-750	COR		pre-Bull Lake	MIS-16 to 20
m150	Razor Creek Dome	Olson	1976	Qa,Qt	H					
m149	Sawtooth Mountain	Olson	1976	Qa,Qtl, Qtr	H					
m052	Johnstown	Palkovic	2017	Qa1	UH	0.9	<sup>14</sup> C		post-Piney Creek	
m052	Johnstown	Palkovic	2017	Qa2	H-UP	1-12	<sup>14</sup> C		Piney Creek	
m052	Johnstown	Palkovic	2017	Qa3	UP		<sup>14</sup> C, OSL		Broadway	

## Units, Ages, Dates, and Terms from published maps and reports

arranged by Senior Author - click Code, Title, Year or Terms column heading for re-sort, others for explanation

Code	Title	Sr Author	Year	Unit	Age	reported dates			Terms Glacial & Alluvial	Comments & Other Terms
						Date	Method	Ash		
m052	Johnstown	Palkovic	2017	Qg2	MP				Verdos	
r06	Yellowstone	Pierce	1979	Pd 1	LP				Pinedale	
r06	Yellowstone	Pierce	1979	Pd 2					Pinedale	
r06	Yellowstone	Pierce	1979	BL					Bull Lake	
r06	Yellowstone	Pierce	1979	pBL 1	MP	200-700	AA		pre-Bull Lake	
r06	Yellowstone	Pierce	1979	pBL 2	MP-EP	150-1500	AA		pre-Bull Lake	
r06	Yellowstone	Pierce	1979	pBL 3	EP-PI	2000	AA		pre-Bull Lake	
r07	Rocky Mtn Glaciers	Pierce	2003	CM	H					Dryas, summary of Pleistocene dates
r07	Rocky Mtn Glaciers	Pierce	2003	Pd 1	EP	12-14	AA			
r07	Rocky Mtn Glaciers	Pierce	2003	Pd 2	EP	50-80	AA			Wisconsin Early MIS 4
r07	Rocky Mtn Glaciers	Pierce	2003	BL1	MP	130-150	AA			MIS 5d or 6
r07	Rocky Mtn Glaciers	Pierce	2003	BL2	MP	170-190	AA			MIS 6
r07	Rocky Mtn Glaciers	Pierce	2003	pBL	MP	700	COR			MIS 16, LCB in or over
m077	Vermejo Park NM	Pillmore	2003	Qba	UMP	120-130			Verdos	
m077	Vermejo Park NM	Pillmore	2003	Qbe	MP	600			Barela, Slocum	
m077	Vermejo Park NM	Pillmore	2003	Qbeh	MP				Beshoar, Verdos	
m077	Vermejo Park NM	Pillmore	2003	Qsm	LP-PI				Beshoar (high)	
r16	Freemont River	Repka	1997	FR0	H					
r16	Freemont River	Repka	1997	FR1	LP					cautions using Be dates.
r16	Freemont River	Repka	1997	FR2A	LP	51-69			Pinedale	
r16	Freemont River	Repka	1997	FR2B	LP	51-69				
r16	Freemont River	Repka	1997	FR2C	LP	51-69				
r16	Freemont River	Repka	1997	FR3	LP	86-118			Bull Lake	
r16	Freemont River	Repka	1997	FR4	LMP	127-175				
r10	La Sal Mountains	Richmond	1962	Qgau	H				Gold Basin	type section
r10	La Sal Mountains	Richmond	1962	Qbau	LW				Beaver Basin	
r10	La Sal Mountains	Richmond	1962	Qbal	LW				Beaver Basin	type section
r10	La Sal Mountains	Richmond	1962	Qpau	EW				Placer Creek	
r10	La Sal Mountains	Richmond	1962	Qpal	EW				Placer Creek	type section
r10	La Sal Mountains	Richmond	1962	Qhau	IL				Harpole Mesa	type section
r10	La Sal Mountains	Richmond	1962	Qham	KS				Harpole Mesa	
r10	La Sal Mountains	Richmond	1962	Qhal	NB				Harpole Mesa	
r11	Durango Area	Richmond	1965	Pd1	LW				Pinedale Late	
r11	Durango Area	Richmond	1965	Pd2	LW				Pinedale Middle	
r11	Durango Area	Richmond	1965	Pd3	LW				Pinedale Early	
r11	Durango Area	Richmond	1965	BL1	EW				Bull Lake Late	
r11	Durango Area	Richmond	1965	BL2	EW				Bull Lake Early	
r11	Durango Area	Richmond	1965	FG	IL				Florida Gravel	
r11	Durango Area	Richmond	1965	BTg1	KS				Bridgetimber Lower	
r11	Durango Area	Richmond	1965	BTg2	NB				Bridgetimber Upper	
r14	Crested Butte	Robinson	1981	RG	H-LP					Rock Glaciers
r14	Crested Butte	Robinson	1981	Pd1	LP				Pinedale	terrace, moraine
r14	Crested Butte	Robinson	1981	Pd2	LP				Pinedale	

## Units, Ages, Dates, and Terms from published maps and reports

arranged by Senior Author - click Code, Title, Year or Terms column heading for re-sort, others for explanation

Code	Title	Sr Author	Year	Unit	Age	reported dates			Terms Glacial & Alluvial	Comments & Other Terms
						Date	Method	Ash		
r14	Crested Butte	Robinson	1981	Pd3	LP				Pinedale	
m112	Indian Water Cañ	Rowley	1979	Qfp	H					
m112	Indian Water Cañ	Rowley	1979	Qa	H-P					
m112	Indian Water Cañ	Rowley	1979	Qp	H-P					
m112	Indian Water Cañ	Rowley	1979	Qt	H-P					
m112	Indian Water Cañ	Rowley	1979	Qop	P					
m112	Indian Water Cañ	Rowley	1979	QTs	P-PI					
m037	Granby	Schroeder	1995	Qal	H-LP	12-35	COR_r		Pinedale	
m037	Granby	Schroeder	1995	Qtg	L-MP				Bull Lake, pre-Bull Lake	
m068	Pueblo SW-SE	Scott (1)	1964	?	?					unable to read map or legend on *.ti
m069	Hobson	Scott (1)	1972	Qpp	UH				post Piney Creek	
m069	Hobson	Scott (1)	1972	Qp	UH				Piney Creek	
m069	Hobson	Scott (1)	1972	Qb	P				Pinedale, Broadway	Wisconsin
m069	Hobson	Scott (1)	1972	Ql	P				Bull Lake, Louviers	Wisconsin
m069	Hobson	Scott (1)	1972	Qs	P				Slocum	Illinoian
m069	Hobson	Scott (1)	1972	Qv	P				Verdos	Kansan
m069	Hobson	Scott (1)	1972	Qrf	P				Rocky Flats	Nebraskan
m031	Poncha Springs	Scott (1)	1975	Qal	H				Piney Creek	
m031	Poncha Springs	Scott (1)	1975	Qpy	LP				Pinedale	
m031	Poncha Springs	Scott (1)	1975	Qpo	LP				Pinedale	
m031	Poncha Springs	Scott (1)	1975	Qby	L-MP				Bull Lake	
m031	Poncha Springs	Scott (1)	1975	Qbo	LMP				Bull Lake	
m031	Poncha Springs	Scott (1)	1975	Qi	MP					Illinoian
m031	Poncha Springs	Scott (1)	1975	Qk	M-EP	600	map	4, 5, 6	Ash mapped	Kansan, LCB Ash under
m031	Poncha Springs	Scott (1)	1975	Qna	EP	700	map	?	Ash mapped	Nebraskan, Bishop Ash in
m031	Poncha Springs	Scott (1)	1975	Qn	PI					Nussbaum
m072	Cañon City	Scott (1)	1977	Qpp	H				post Piney Creek	Piney Creek
m072	Cañon City	Scott (1)	1977	Qp	H				Piney Creek	
m072	Cañon City	Scott (1)	1977	Qb	P				Pinedale, Broadway	
m072	Cañon City	Scott (1)	1977	Ql	P				Bull Lake, Louviers	
m072	Cañon City	Scott (1)	1977	Qs2	P				Slocum	Illinoian
m072	Cañon City	Scott (1)	1977	Qs1	P				Slocum	Illinoian
m072	Cañon City	Scott (1)	1977	Qv2	P				Verdos	Kansan
m072	Cañon City	Scott (1)	1977	Qv1	P				Verdos	Kansan
m072	Cañon City	Scott (1)	1977	Qrf2	P				Rocky Flats	Nebraskan
m072	Cañon City	Scott (1)	1977	Qrf1	P				Rocky Flats	Nebraskan
m072	Cañon City	Scott (1)	1977	Qn	P				Nussbaum	Nebraskan
m067	Pueblo 1 deg	Scott (1)	1978	Qpp	UH				post Piney Creek	
m067	Pueblo 1 deg	Scott (1)	1978	Qp	UH				Piney Creek	
m067	Pueblo 1 deg	Scott (1)	1978	Qb	P				Pinedale, Broadway	Wisconsin
m067	Pueblo 1 deg	Scott (1)	1978	Ql	P				Bull Lake, Louviers	Wisconsin
m067	Pueblo 1 deg	Scott (1)	1978	Qs	P				Slocum	Illinoian
m067	Pueblo 1 deg	Scott (1)	1978	Qv	P		map	6	Ash mapped	Kansan, Verdos Pearlette Ash in



## Units, Ages, Dates, and Terms from published maps and reports

arranged by Senior Author - click Code, Title, Year or Terms column heading for re-sort, others for explanation

Code	Title	Sr Author	Year	Unit	Age	reported dates			Terms Glacial & Alluvial	Comments & Other Terms
						Date	Method	Ash		
m067	Pueblo 1 deg	Scott (1)	1978	Qrf	P				Rocky Flats	Nebraskan
m081	Trinidad Gravels 30 mir	Scott (1)	1985	Qa1	H					
m081	Trinidad Gravels 30 mir	Scott (1)	1985	Qup2	UP					
m081	Trinidad Gravels 30 mir	Scott (1)	1985	Qup1	UP					
m081	Trinidad Gravels 30 mir	Scott (1)	1985	Qba2	UMP				Barela	
m081	Trinidad Gravels 30 mir	Scott (1)	1985	Qba1	UMP				Barela	
m081	Trinidad Gravels 30 mir	Scott (1)	1985	Qbe2	L-MP				Boshoar	
m081	Trinidad Gravels 30 mir	Scott (1)	1985	Qbe1	L-MP	>600	COR	?	Boshoar	LCB Ash under base
m081	Trinidad Gravels 30 mir	Scott (1)	1985	Qblb	L-MP	>600	map	?	Ash mapped	
m081	Trinidad Gravels 30 mir	Scott (1)	1985	Qsm	LP-PI				San Miguel	
r12	Animas-La Plata R's	Scott (1)	2007	Qa	H	0-10	AA			Naha-Tsegi Alluvia
r12	Animas-La Plata R's	Scott (1)	2007	Pd1	LP	10-79	AA		Pinedale	Upper Animas City
r12	Animas-La Plata R's	Scott (1)	2007	Pd2	LP	10-79	AA		Pinedale	Lower Animas City
r12	Animas-La Plata R's	Scott (1)	2007	BL1	LP	79-122	AA		Bull Lake	Spring Creek Upper
r12	Animas-La Plata R's	Scott (1)	2007	BL2	LP	70-122	AA		Bull Lake	Spring Creek Lower
r12	Animas-La Plata R's	Scott (1)	2007	pBL1	LMP	140-302	AA		Durango upper	Sacagewea
r12	Animas-La Plata R's	Scott (1)	2007	pBL2	LMP	140-302	AA		Durango lower	Sacagewea
r12	Animas-La Plata R's	Scott (1)	2007	pBL3	EMP	610-770	COR		Florida Gravel	LCB Samples 19, 20 under
r12	Animas-La Plata R's	Scott (1)	2007	pBL4	EP	1300-1680	AA			Animas Gravel
r12	Animas-La Plata R's	Scott (1)	2007	pBL5	PI	2500-3000	AA		Bridgetimber-Mesa	Blancan
m008	New Castle	Scott (2)	1997	Qfp	H-LP					
m008	New Castle	Scott (2)	1997	Qty	LP					
m008	New Castle	Scott (2)	1997	Qtm	MP					
m008	New Castle	Scott (2)	1997	Qto	M-EP					
m008	New Castle	Scott (2)	1997	Qtt	EP					
m008	New Castle	Scott (2)	1997	Tg	PI					
m046	CNM	Scott (2)	2001	Qvf	H-LP					
m046	CNM	Scott (2)	2001	Qrg, Qlg	L-MP					
m009	Rifle Falls	Scott (2)	2001	Qfp	H-LP					
m009	Rifle Falls	Scott (2)	2001	Qg	L-EP					
m009	Rifle Falls	Scott (2)	2001	Qp	MP					
m009	Rifle Falls	Scott (2)	2001	QTg	EP-PI					
m004	Grand Junction	Scott (2)	2002	Qal1	H					
m004	Grand Junction	Scott (2)	2002	Qal2	H-LP					
m004	Grand Junction	Scott (2)	2002	Qt30	MP		COR <sub>d</sub>		Bull Lake	
m004	Grand Junction	Scott (2)	2002	Qt60	MP	>425	IR			
m004	Grand Junction	Scott (2)	2002	Qt100	MP	>625	IR			
m004	Grand Junction	Scott (2)	2002	Qt170	EP	>1085	IR			
m138	Baggs WY 1 deg	Scott (3)	2011	Qal	Q					
m138	Baggs WY 1 deg	Scott (3)	2011	Qt	Q					
m138	Baggs WY 1 deg	Scott (3)	2011	Qpu	Q				Pinedale Upper	
m138	Baggs WY 1 deg	Scott (3)	2011	Qtu	Q-T					
m065	Englewood	Shroba	1980	Qpp	UH				post Piney Creek	

## Units, Ages, Dates, and Terms from published maps and reports

arranged by Senior Author - click Code, Title, Year or Terms column heading for re-sort, others for explanation

Code	Title	Sr Author	Year	Unit	Age	reported dates			Terms Glacial & Alluvial	Comments & Other Terms
						Date	Method	Ash		
m065	Englewood	Shroba	1980	Qp	UH				Piney Creek	
m065	Englewood	Shroba	1980	Qb	P				Broadway	
m065	Englewood	Shroba	1980	Qlo	P				Louviers	
m065	Englewood	Shroba	1980	Qs	P				Slocum	
m065	Englewood	Shroba	1980	Qv	P				Verdos	
m085	Capulin	Shroba	1996	Qal	H					
m085	Capulin	Shroba	1996	Qi	LP					
m085	Capulin	Shroba	1996	Qfp	LP					
m085	Capulin	Shroba	1996	Qf2	LMP					
m038	Fraser	Shroba	2001	Qva	H					
m038	Fraser	Shroba	2001	Qg1, Qtp	LP	120-170	COR		Pinedale	
m038	Fraser	Shroba	2001	Qg2, Qtb	L-MP				Bull Lake	
m038	Fraser	Shroba	2001	Qg3	MP				pre Bull Lake	
m038	Fraser	Shroba	2001	Qg4	MP				pre Bull Lake	
m038	Fraser	Shroba	2001	Qg5	MP				pre Bull Lake	
m038	Fraser	Shroba	2001	Qg6	MP				pre Bull Lake	
m038	Fraser	Shroba	2001	Qg7	M-EP				pre Bull Lake	
m038	Fraser	Shroba	2001	Qg8	M-EP				pre Bull Lake	
m038	Fraser	Shroba	2001	QNg	EP-PI					Tbc of ref 39
m010	Silt	Shroba	2001	Qfp	H-LP					
m010	Silt	Shroba	2001	Qty	LP	12-35	COR <sub>r</sub>		Pinedale	
m010	Silt	Shroba	2001	Qtm	LP	35-80	COR <sub>r</sub>			
m010	Silt	Shroba	2001	Qto	LMP	140-150	COR <sub>d</sub>		Bull Lake	
m010	Silt	Shroba	2001	Qtt	MP	620	COR	?		LCB Ash over - 50km away my PhD thesis at Purdue it's no wonder levels line up
r01	Grand Valley-Unc Plat	Sinnock	1978	fp	H					
r01	Grand Valley-Unc Plat	Sinnock	1978	p1	H-LP				Pinedale	
r01	Grand Valley-Unc Plat	Sinnock	1978	t1	LP				Pinedale	
r01	Grand Valley-Unc Plat	Sinnock	1978	t2,p2	LP				Pinedale	
r01	Grand Valley-Unc Plat	Sinnock	1978	t3	LP				Bull Lake	
r01	Grand Valley-Unc Plat	Sinnock	1978	t4	EMP				Bull Lake	
r01	Grand Valley-Unc Plat	Sinnock	1978	t5	MP	<500	IR <sub>mv</sub>		Cerro Till	"Mud Hill Till"
r15	Grand Valley	Sinnock	1981	fp	H					
r15	Grand Valley	Sinnock	1981	t1	LP					
r15	Grand Valley	Sinnock	1981	t2	LP					
r15	Grand Valley	Sinnock	1981	t3	LP					
r15	Grand Valley	Sinnock	1981	t4	LMP					
r15	Grand Valley	Sinnock	1981	p5	MP					
r09	Pre-Bull Lake History	Sinnock	1981	og1	MP					
r09	Pre-Bull Lake History	Sinnock	1981	og2	MP					
r09	Pre-Bull Lake History	Sinnock	1981	COLg	MP	500+	IR <sub>mv</sub>			
m098	Unc Plat-Gr Valley	Sinnock	2014	fp,p1	H					
m098	Unc Plat-Gr Valley	Sinnock	2014	t1,p1	LP				Pinedale Early	
m098	Unc Plat-Gr Valley	Sinnock	2014	t2,p2	LP				Pinedale Late	

## Units, Ages, Dates, and Terms from published maps and reports

arranged by Senior Author - click Code, Title, Year or Terms column heading for re-sort, others for explanation

Code	Title	Sr Author	Year	Unit	Age	reported dates			Terms Glacial & Alluvial	Comments & Other Terms
						Date	Method	Ash		
m098	Unc Plat-Gr Valley	Sinnock	2014	t3,p3	LP				Bull Lake Early	
m098	Unc Plat-Gr Valley	Sinnock	2014	t4,p4	LMP				Bull Lake Late	
m098	Unc Plat-Gr Valley	Sinnock	2014	og	MP	>500	CRR-bc			Horsefly Peak outwash
m098	Unc Plat-Gr Valley	Sinnock	2014	tillpd	LP				Pinedale	till
m098	Unc Plat-Gr Valley	Sinnock	2014	tillbl	LP-EMP				Bull Lake	till
m098	Unc Plat-Gr Valley	Sinnock	2014	tillog	MP					Horsefly Peak till
m129	Park Range - central	Snyder	1980	Qal	H					
m129	Park Range - central	Snyder	1980	Qge,Qte	H-P					Cirque Moraines
m129	Park Range - central	Snyder	1980	Qgd,Qtb	P					till
m129	Park Range - central	Snyder	1980	Qgc	P					
m129	Park Range - central	Snyder	1980	Qgb	P					
m129	Park Range - central	Snyder	1980	Qga	P					
m128	Park Range - north	Snyder	1980	Qal	H					
m128	Park Range - north	Snyder	1980	Qge,Qte	H-P					Cirque Moraines
m128	Park Range - north	Snyder	1980	Qgd,Qtb	P					till
m128	Park Range - north	Snyder	1980	Qgc	P					
m128	Park Range - north	Snyder	1980	Qgb	P					
m130	Park Range - south	Snyder	1980	Qal	H					
m130	Park Range - south	Snyder	1980	Qge,Qte	H-P					Cirque Moraines
m130	Park Range - south	Snyder	1980	Qgd,Qtb	P					till
m130	Park Range - south	Snyder	1980	Qgc	P					
m130	Park Range - south	Snyder	1980	Qgb	P					
m130	Park Range - south	Snyder	1980	Qga	P					
m127	Mt Zirkel Wilderness	Snyder	1987	Qal	H					
m127	Mt Zirkel Wilderness	Snyder	1987	Qo	P					
m127	Mt Zirkel Wilderness	Snyder	1987	Qt	P					
r08	Unaweep Canyon	Soreghan	2015	og	EP	1500				confuse tg with Unaweep
m104	Vernal 1 deg UGS	Sprinkel	2007	Qal	H					
m104	Vernal 1 deg UGS	Sprinkel	2007	Qat	H					
m104	Vernal 1 deg UGS	Sprinkel	2007	Qga	P					
m104	Vernal 1 deg UGS	Sprinkel	2007	Qas1	H-UP					
m104	Vernal 1 deg UGS	Sprinkel	2007	Qas2	UP					
m104	Vernal 1 deg UGS	Sprinkel	2007	Qas3	MP					
m090	Bristol Head	Steven	1967	Qal	Q					"scant attention" to surficial deposits
m090	Bristol Head	Steven	1967	Qd	Q					
m087	Creede	Steven	1973	Qal	Q					surficial deposits "obscure important
m087	Creede	Steven	1973	Qd	Q					
m088	Spar City	Steven	1973	Qal	Q					
m088	Spar City	Steven	1973	Qd	Q					
m044	Gunnison	Stork	2006	Qa	H					
m044	Gunnison	Stork	2006	Qt0	H-UP					
m044	Gunnison	Stork	2006	Qt1	H-UP	49	<sup>14</sup> C			
m044	Gunnison	Stork	2006	Qt2	UP					

## Units, Ages, Dates, and Terms from published maps and reports

arranged by Senior Author - click Code, Title, Year or Terms column heading for re-sort, others for explanation

Code	Title	Sr Author	Year	Unit	Age	reported dates			Terms Glacial & Alluvial	Comments & Other Terms
						Date	Method	Ash		
m044	Gunnison	Stork	2006	Qt3	MP					
m044	Gunnison	Stork	2006	QTg	Q-T					
m045	Signal Peak	Stork	2007	Qa	H					
m045	Signal Peak	Stork	2007	Qt	H-UP					
m045	Signal Peak	Stork	2007	Qt1	UP					
m045	Signal Peak	Stork	2007	Tg	PI-O					
m013	Basalt	Streufert	1998	Qa	H-LP					
m013	Basalt	Streufert	1998	Qty	LP	12-35	COR <sub>r</sub>		Pinedale	
m013	Basalt	Streufert	1998	Qtm	LP					
m013	Basalt	Streufert	1998	Qto	M-EP	140-150	COR <sub>d</sub>		Bull Lake	
m035	Mount Sopris	Streufert	2008	Qa	H-LP					
m035	Mount Sopris	Streufert	2008	Qty	LP				Pinedale Late	
m035	Mount Sopris	Streufert	2008	Qtm	LP				Pinedale Early	
m035	Mount Sopris	Streufert	2008	Qto	LMP				Bull Lake	
m035	Mount Sopris	Streufert	2008	Qtt	M-EP					
m012	Dotsero	Streufert	2009	Qa	H-LP	3-9	COR <sup>14</sup> C			
m012	Dotsero	Streufert	2009	Qty	LP		COR <sup>14</sup> C		Pinedale	
m012	Dotsero	Streufert	2009	Qtm	LP	12-35	COR <sub>r</sub>			
m012	Dotsero	Streufert	2009	Qto	MP					
m012	Dotsero	Streufert	2009	Qtt	MP		COR <sub>iw</sub>	8, 9		LCB Ash above
m012	Dotsero	Streufert	2009	QTg	EP-LT					
m079	Alamosa 1 deg	Thompson	2015	Qa	H					
m079	Alamosa 1 deg	Thompson	2015	Qau	H-LP					
m079	Alamosa 1 deg	Thompson	2015	Qay	LP				Pinedale	
m079	Alamosa 1 deg	Thompson	2015	Qai	L-MP				Bull Lake	
m079	Alamosa 1 deg	Thompson	2015	Qao	MP					
m079	Alamosa 1 deg	Thompson	2015	Qla	MP					Lake Alamosa
m079	Alamosa 1 deg	Thompson	2015	QTla	MP-PI	759	COR	?		Bishop ash in Alamosa Fm
m132	Niwot	Trimble	1975	Qp	H				Piney Creek	
m132	Niwot	Trimble	1975	Qb	P				Pinedale, Broadway	Wisconsinan
m132	Niwot	Trimble	1975	Qlo	P				Louviers	Wisconsinan Bull Lake
m132	Niwot	Trimble	1975	Qs1	P				Slocum	Illinoian, Sangamon
m132	Niwot	Trimble	1975	Qs2	P				Slocum	Illinoian, Sangamon
m132	Niwot	Trimble	1975	Qv1	P				Verdos	Kansan, Yarmouth
m132	Niwot	Trimble	1975	Qv2	P				Verdos	Kansan, Yarmouth
m132	Niwot	Trimble	1975	Qrf	P				Rocky Flats	Nebraskan, Aftonian
m117	Craig 1 deg	Tweto	1976	Qa	H					
m117	Craig 1 deg	Tweto	1976	Qg	P				Bull Lake	and younger
m117	Craig 1 deg	Tweto	1976	Qd	P				Bull Lake	and younger
m117	Craig 1 deg	Tweto	1976	Qgo	P				pre-Bull Lake	
m117	Craig 1 deg	Tweto	1976	Qdo	P				pre-Bull Lake	
m117	Craig 1 deg	Tweto	1976	Tg	PI					pre-glacial
m033	Leadville-1 deg	Tweto	1978	Qa	H					

## Units, Ages, Dates, and Terms from published maps and reports

arranged by Senior Author - click Code, Title, Year or Terms column heading for re-sort, others for explanation

Code	Title	Sr Author	Year	Unit	Age	reported dates			Terms Glacial & Alluvial	Comments & Other Terms
						Date	Method	Ash		
m033	Leadville-1 deg	Tweto	1978	Qg,Qd	P				Bull Lake	and younger
m033	Leadville-1 deg	Tweto	1978	Qgo,Qdo	P				pre Bull Lake	
m033	Leadville-1 deg	Tweto	1978	QTa	P-PI					
m102	Utah Geology-Web	Utah Geo So	2018	Qal	H					
m102	Utah Geology-Web	Utah Geo So	2018	Qat	H					
m102	Utah Geology-Web	Utah Geo So	2018	Qa	H-P					
m147	Poncha Springs NE	Van Alstine	1969	Qg9	H				Pinedale III	Wisconsin
m147	Poncha Springs NE	Van Alstine	1969	Qg8	H				Pinedale II	Wisconsin
m147	Poncha Springs NE	Van Alstine	1969	Qg7	P				Pinedale I	Wisconsin
m147	Poncha Springs NE	Van Alstine	1969	Qg6	P				Bull Lake II	Wisconsin
m147	Poncha Springs NE	Van Alstine	1969	Qg5	P				Bull Lake I	Wisconsin
m147	Poncha Springs NE	Van Alstine	1969	Qg4	P					Illinoian
m147	Poncha Springs NE	Van Alstine	1969	Qg3	P	>600	map	3	Ash mapped	Kansan, LCB Ash in
m147	Poncha Springs NE	Van Alstine	1969	Qg2	P					Nebraskan
m147	Poncha Springs NE	Van Alstine	1969	Qg1	P					Nebraskan
m146	Poncha Springs SE	Van Alstine	1974	Qg9	H				Pinedale III	Wisconsin
m146	Poncha Springs SE	Van Alstine	1974	Qg8	H				Pinedale II	Wisconsin
m146	Poncha Springs SE	Van Alstine	1974	Qg7	P				Pinedale I	Wisconsin
m146	Poncha Springs SE	Van Alstine	1974	Qg6	P				Bull Lake II	Wisconsin
m146	Poncha Springs SE	Van Alstine	1974	Qg5	P				Bull Lake I	Wisconsin
m146	Poncha Springs SE	Van Alstine	1974	Qg4	P					Illinoian, Sangamon
m146	Poncha Springs SE	Van Alstine	1974	Qg3	P	>600	map	2	Ash mapped	Kansan, LCB Ash in
m146	Poncha Springs SE	Van Alstine	1974	Qg2	P					Nerbraskan
m146	Poncha Springs SE	Van Alstine	1974	Qg1	P					Nerbraskan
m076	La Veta et al	Vine	1974	Qal	Q					
m076	La Veta et al	Vine	1974	Qp1	Q					
m076	La Veta et al	Vine	1974	Qp2	Q					
m076	La Veta et al	Vine	1974	Qp3	Q					
m083	Fort Garland	Wallace	2008	Qa	H					
m083	Fort Garland	Wallace	2008	Qay1	UP				Pinedale	MIS-2
m083	Fort Garland	Wallace	2008	Qay2	UP				Pinedale	MIS-2,3
m083	Fort Garland	Wallace	2008	Qao1	MP				Bull Lake	MIS-6
m083	Fort Garland	Wallace	2008	Qao2	MP				Bull Lake	MIS-8
m083	Fort Garland	Wallace	2008	QTsf	MP-PI					Sante Fe Group
m139	Farmington NM 1 deg	Ward	1990	Qcf	H					
m139	Farmington NM 1 deg	Ward	1990	Qn	H	1.3-1.8				Naha alluvium
m139	Farmington NM 1 deg	Ward	1990	Qt	H	1.3-4.0				Tsegi alluvium
m139	Farmington NM 1 deg	Ward	1990	Q6	LP				Pinedale	Stage II soils
m139	Farmington NM 1 deg	Ward	1990	Q5	MP					Stage II soils
m139	Farmington NM 1 deg	Ward	1990	Q4	MP	300	AA			Stage III soils
m139	Farmington NM 1 deg	Ward	1990	Q3	MP	620	COR <sub>iw</sub>	?		Stage III-IV soils
m139	Farmington NM 1 deg	Ward	1990	Q2	EP					Stage III-IV soils
m139	Farmington NM 1 deg	Ward	1990	Q1	EP					Stage IV soils

## Units, Ages, Dates, and Terms from published maps and reports

arranged by Senior Author - click Code, Title, Year or Terms column heading for re-sort, others for explanation

Code	Title	Sr Author	Year	Unit	Age	reported dates			Terms Glacial & Alluvial	Comments & Other Terms
						Date	Method	Ash		
m139	Farmington NM 1 deg	Ward	1990	QTpg	P-PI					
m107	Meeker	White	2013	Qaw1	H-LP					"inversion of topography"
m107	Meeker	White	2013	Qaw2	LP	76.4	OSL			
m107	Meeker	White	2013	Qaw3	L-MP					
m107	Meeker	White	2013	Qaw4	EMP	640	COR	31		LCB Ash under
m107	Meeker	White	2013	Qaw5	EP-PI					
m109	Rattlesnake Mesa	White	2013	Qaw1	H-LP					"inversion of topography"
m109	Rattlesnake Mesa	White	2013	Qaw2	LP	76.4	OSL			
m109	Rattlesnake Mesa	White	2013	Qaw3	L-MP					
m109	Rattlesnake Mesa	White	2013	Qaw4	EMP	>620	COR	31		LCB Ash under
m017	Whitewater	White	2014	Qag1	H-LP	11.8	OSL			
m017	Whitewater	White	2014	Qag2	LP	30-35	OSL			
m017	Whitewater	White	2014	Qag3	LP					
m017	Whitewater	White	2014	Qag4	LMP					
m017	Whitewater	White	2014	Qag5	LMP					
m017	Whitewater	White	2014	Qag6	MP					
m017	Whitewater	White	2014	Qag7	EMP					
m017	Whitewater	White	2014	Qag8	EP					
m017	Whitewater	White	2014	Qag9	EP					
m058	Fairplay West	Widmann	2007	Qa1	H					
m058	Fairplay West	Widmann	2007	Qa2	UP	13-35	MIS-2		Pinedale	
m058	Fairplay West	Widmann	2007	Qa3	UMP				Bull Lake	
m058	Fairplay West	Widmann	2007	Qti1	UP	13-35	MIS-2		Pinedale	MIS 4 or 6 till
m058	Fairplay West	Widmann	2007	Qti2	MP					till
m100	Moab 1 deg USGS	Williams	1964	Qa	H					
m100	Moab 1 deg USGS	Williams	1964	Qat	P					
m100	Moab 1 deg USGS	Williams	1964	Qap	H-LP					
m100	Moab 1 deg USGS	Williams	1964	Qg3,Qm03	LP				Pinedale	
m100	Moab 1 deg USGS	Williams	1964	Qg2,Qm2	LP-EMP				Bull Lake	
m100	Moab 1 deg USGS	Williams	1964	Qg1,Qm1	MP				pre-Bull Lake	
m131	Boulder	Wrucke	1967	Qal	H					hand-colored
m131	Boulder	Wrucke	1967	Qp	H				Piney Creek	
m131	Boulder	Wrucke	1967	Qw	P					Wisconsin
m131	Boulder	Wrucke	1967	Qs	P				Slocum	
m131	Boulder	Wrucke	1967	Qv	P				Verdos	
m005	Rulison	Yeend	1964	Qal	H					
m005	Rulison	Yeend	1964	Qgo, Qgp	LP				Pinedale	Grand Mesa till
m005	Rulison	Yeend	1964	Qla	LMP				Bull Lake	Lands End till
m005	Rulison	Yeend	1964	Qp	MP				pre Bull Lake	
r04	Grand Mesa	Yeend	1969		H					
r04	Grand Mesa	Yeend	1969	Pd 1	LP	<15	IR		Pinedale	Grand Mesa Formation
r04	Grand Mesa	Yeend	1969	Pd 2	LP	15-30			Pinedale	Grand Mesa Formation
r04	Grand Mesa	Yeend	1969	BL		60-135			Bull Lake	Lands End Formation

## Units, Ages, Dates, and Terms from published maps and reports

arranged by Senior Author - click Code, Title, Year or Terms column heading for re-sort, others for explanation

Code	Title	Sr Author	Year	Unit	Age	reported dates			Terms Glacial & Alluvial	Comments & Other Terms
						Date	Method	Ash		
r04	Grand Mesa	Yeend	1969	pBL 1		90			pre-Bull Lake	
r04	Grand Mesa	Yeend	1969	pBL 2		?			pre-Bull Lake	
r04	Grand Mesa	Yeend	1969	pBL 3		225			pre-Bull Lake	
m040	Strawberry Lake	Young	1990	Qa	H-P					