Compilation of Potassium-Argon Ages of Cenozoic Volcanic Rocks, Oregon

Map no.[f]	Sample no.	Latitude (north)	Longitude (west)	Geologic unit	Rock type	Material dated	K_2O (wgt. %)	$^{40}Ar_{rad}$[c] (10^{-11} mol/gm)	% $^{40}Ar_{rad}$	Calculated age[c,d] (10^6 years)	Reference	Remarks
Baker County												
1	BR-1-70	44°34.5'	118°12.8'	Dinner Creek (?) Welded Tuff	Ash-flow tuff	Plagioclase	0.925 (2)	1.995 (1)	81	14.5 ± 0.4	1	Same unit as DC-2-70 ?
2	GWW-68-69	44°34.7'	117°48.3'	Dooley Rhyolite Breccia	Rhyolite (intrusive)	Plagioclase	1.296 (2)	2.747 (1)	74	14.3 ± 0.4	1	
3	GWW-22-69	44°19.7'	118°08.5'	Dinner Creek (?) Welded Tuff	Ash-flow tuff	Plagioclase	1.837 (2)	3.485 (1)	73	14.1 ± 0.4	1	Same unit as DC-2-70?
Clackamas County												
1	KA1205	45°08.4'	122°32.5'	Molalla Formation of Baldwin (1950)	Tuff	Plagioclase	0.189 (1)	e	27	10.8	4	Same unit as DKA-1174, DKA-1175
	DKA-1174	45°08.4'	122°32.5'	- - do - -	Tuff	Plagioclase	0.152	0.349	35	12.9 ± 1.0	1	Same unit as KA1205, DKA-1175
	DKA-1175	45°08.4'	122°32.5'	- - do - -	Tuff	Plagioclase	0.184	0.400	65	12.2 ± 0.6	1	Same unit as KA1205, DKA-1174
2	33	45°25.7'	121°48.1'	Zigzag Mountain Andesites of Wise (1969)	Hypersthene andesite	Andesite	1.21	1.02	e	5.8 ± 0.8	16	
3	A0726	45°22.5'	121°50.8'	Rhododendron Formation	Andesite clast in breccia	Hornblende	0.35	0.35	e	7. ± 2.	16	
4	72	45°21.2'	121°51.1'		Olivine-augite andesite	Andesite	1.47	1.18	e	5.5 ± 0.7	16	
5	97	45°23.1'	121°43.9'		Pyroxene andesite	Andesite	1.64	0.78	e	3.2 ± 0.3	16	
Clatsop County												
1	KA2134	45°55'	123°58'	Depoe Bay Basalt	Basalt	Plagioclase	0.385 (2)	e	5	14. ± 2.7	14	
Crook County												
1	DAS-66-195	44°41.9'	120°36.1'	John Day Formation	Ash-flow tuff	Sanidine	7.06 (2)	38.07 (1)	74	36.1 ± 1.0	1, 8	
2	RCG-102-66	43°58.8'	119°54.1'		Basalt	Basalt	0.306 (2)	0.268 (1)	16	5.92 ± 0.41	1, 7	
3	RCG-106-1-65	43°48'	120°00.6'		Ash-flow tuff	Alkali feldspar	6.90 (2)	9.252 (1)	88	9.05 ± 0.28	1	
4	RCG-61-1-65	43°48.1'	120°01.2'		Ash-flow tuff	Alkali feldspar	6.76 (2)	9.298 (1)	92	9.29 ± 0.23	1, 7	
5	GWW-121-64	43°47.8'	120°22.8'		Ash-flow tuff	Plagioclase	0.62 (2)	0.335 (1)	59	3.6 ± 0.6	1, 10	
						Glass	3.65 (2)	1.93 (1)	71	3.6 ± 0.2	1, 10	
Curry County												
1	RD-62-62	42°14'	124°23'		Mafic rock (dike)	Whole rock	1.12	5.0	25	28. ± 1.	15	
2	Rhg	42°04'	124°19'		Rhyolite (sill)	Rhyolite	3.89	16.3	35	30. ± 1.	15	
Deschutes County												
1	GWW-123-64	43°53'	120°47.4'		Basalt	Plagioclase	0.34	0.331 (1)	26	6.6 ± 2.0	1, 18	Second flow from top
2	FB-1-70	43°37.5'	120°27.6'		Rhyodacite	Plagioclase	0.377 (2)	0.219 (1)	13	3.9 ± 0.4	1	Dome, Frederick Butte
3	GWW-16-65	43°41.7'	119°54.1'	Welded tuff of Devine Canyon	Ash-flow tuff	Alkali feldspar	6.65 (2)	9.306 (1)	75	9.45 ± 0.21	1, 7	Same unit as W-16
Grant County												
1	YU-E-6-70	44°46.9'	119°27.9'	Rattlesnake Formation	Welded tuff	Anorthoclase	4.63 (2)	4.395 (1)	28	6.4 ± 0.2	11	
2	Strat. 15	44°31.6'	119°38.7'	Picture Gorge Basalt	Basalt	Basalt	0.525	1.22 (3)	35 - 41	15.7 ± 0.3	13	Lava no. 1
3	Strat. 11	44°31.0'	119°38.3'	- - do - -	Basalt	Basalt	b	b	b	14.7 ± 0.3	13	Lava no. 5
	Strat. 12	44°31.0'	119°38.3'	- - do - -	Basalt	Basalt	b	b	b	14.7 ± 0.2	13	Lava no. 4
	Strat. 13	44°31.0'	119°38.3'	- - do - -	Basalt	Basalt	0.465	1.08	35	15.6 ± 0.4	13	Lava no. 3
4	Strat. 8	44°30.9'	119°38.2'	- - do - -	Basalt	Basalt	0.596	1.41 (4)	47 - 68	15.9 ± 0.2	13	Lava no. 8
5	Strat. 2	44°30.3'	119°37.9'	- - do - -	Basalt	Basalt	0.761	1.68 (2)	61 - 62	14.9 ± 0.3	13	Lava no. 14
	Strat. 3	44°30.3'	119°37.9'	- - do - -	Basalt	Basalt	0.572	1.35 (2)	41 - 42	15.9 ± 0.3	13	Lava no. 13
6	YU-Cotton-wood	44°26.6'	119°38.7'	Rattlesnake Formation	Welded tuff	Anorthoclase	4.53 (2)	4.306 (1)	56	6.4 ± 0.1	11	
7	KA1206	44°26'	119°21'	Rattlesnake Formation	Ash-flow tuff	Sanidine	4.64 (1)	e	84	6.4	3	
8	KA1203	44°26'	119°18'	Columbia River Basalt	Basalt	Basalt	0.778 (1)	e	8	15.4	3	
9	YU-E-84-67	44°19'	119°30'	Rattlesnake Formation	Welded tuff	Anorthoclase	5.33 (2)	5.181 (1)	29	6.6 ± 0.2	11	
10	GWW-16-69	44°00.9'	118°50.5'	Strawberry Volcanics	Rhyolite	Plagioclase	0.525 (2)	0.948 (1)	49	12.2 ± 0.4	1	
Harney County												
1	RCG-162-66	43°54.0'	119°30.2'		Basalt	Plagioclase	0.152 (2)	0.264 (1)	4	11.8 ± 5.1	1, 7	
2	RCG-166-68	43°52.2'	118°55.8'		Andesite	Plagioclase	0.406 (2)	1.167 (1)	59	19.4 ± 0.8	1, 7	
3	RCG-248-66	43°45.5'	118°59.9'	Welded tuff of Devine Canyon	Ash-flow tuff	Sanidine	7.12 (2)	9.710 (1)	15	9.21 ± 0.50	1, 7	Same unit as W-16
4	KA1240	43°45.2'	118°27.5'	Juntura Formation of Bowen and others (1963)	Basalt	Basalt	1.29 (1)	e	40	12.1	4	
5	W-16	43°47.1'	118°16.8'	Drewsey Formation of Bowen and others (1963)	Rhyolite tuff	Sanidine	7.25 (2)	9.82 (2)	81	9.15 ± 0.19	2	Same unit as KA1225; probably same unit as RCG-248-66, GWW-16-65, and GWW-140-61
	KA1225	43°47.1'	118°16.8'	- - do - -	Rhyolite tuff	Sanidine	6.99 (1)	e	98	8.9	3	Same unit as W-16
6	RCG-257-3-66	43°37.7'	119°04.2'	Welded tuff of Double O Ranch	Ash-flow tuff	Anorthoclase	4.93 (2)	4.978 (1)	31	6.82 ± 0.33	1, 7	See remark for RCG-121-66
7	YU-DP-214	43°30.3'	119°18.0'		Rhyolite	Rhyolite	4.89 (2)	4.047 (1)	16	5.6 ± 0.4	11	Probably same as PB-2-70
						Biotite	8.31 (2)	7.831 (1)	35	6.4 ± 0.2	11	
8	RCG-54-5-66	43°30.8'	119°08.3'		Rhyodacite	Plagioclase	1.155 (2)	1.338 (1)	59	7.82 ± 0.26	1, 7	
9	RCG-121-66	43°47.2'	119°18.9'	Welded tuff of Double O Ranch	Ash-flow tuff	Anorthoclase	4.65 (2)	3.713 (1)	60	5.40 ± 0.20	1, 7	May be same unit as W-14, W-15, and KA1206
10	PB-2-70	43°28.8'	119°18.0'		Rhyodacite	Biotite	8.27 (2)	7.434 (1)	53	6.1 ± 0.2	1	Dome, Palamino Buttes
						Plagioclase	1.27 (2)	1.227 (1)	31	6.5 ± 0.3	1	
11	RCG-32-67	43°27.0'	119°00.5'	Harney (?) Formation	Basalt	Basalt	0.356 (2)	0.125 (1)	39	2.38 ± 0.07	1, 7	Caps Wrights Point
12	YU-DP-14	43°26.4'	119°00.4'		Basalt	Basalt	0.292 (2)	0.114 (2)	5 - 7	2.6 ± 0.3	11	
13	YU-DP-41	43°20.4'	119°06.6'		Basalt	Basalt	0.798 (2)	0.329 (2)	6 - 9	2.8 ± 0.2	11	
14	RCG-165-68	43°24.8'	118°34.8'	Drinkwater Basalt	Basalt	Plagioclase	0.216 (2)	0.221 (1)	18	6.91 ± 1.09	1, 7	
15	YU-DP-316D	43°17.0'	119°18.8'		Rhyolite	Rhyolite	4.92 (2)	5.713 (1)	16	7.8 ± 0.5	11	
16	YU-DP-160	43°16.5'	119°28.0'		Andesite	Andesite	2.12 (2)	1.891 (2)	6 - 8	5.8 ± 0.8	11	
17	YU-DP-146	43°13.5'	119°21.2'		Rhyolite	Rhyolite	5.13 (2)	6.38 (2)	4 - 5	8.4 ± 1.3	11	
18	YU-DP-119	43°14.3'	119°13.5'		Rhyolite	Rhyolite	4.55 (2)	5.555 (2)	47 - 59	8.2 ± 0.12	11	
19	YU-DP-158	43°13.8'	119°12.0'		Rhyolite	Rhyolite	4.46 (2)	1.370 (1)	9	2.1 ± 0.2	11	
						Biotite	6.46 (2)	2.539 (1)	7	2.7 ± 0.4	11	
20	Yu-DP-311B	43°09.0'	119°22.4'	Prater Creek member Danforth Formation	Welded tuff	Tuff	4.51 (2)	5.912 (2)	8 - 42	8.6 ± 0.2	11	
21	YU-DP-311G	43°09.0'	119°22.4'	Rattlesnake Formation	Welded tuff	Tuff	4.93 (2)	4.852 (2)	21 - 26	6.6 ± 0.2	11	
22	YU-DP-330	43°09.0'	119°22.4'	Rattlesnake Formation	Welded tuff	Tuff	4.87 (2)	4.797 (2)	10 - 11	6.7 ± 0.4	11	
23	YU-DP-243	43°04.9'	119°03.8'		Welded tuff	Sanidine	7.86 (2)	8.214 (2)	55 - 59	7.1 ± 1.0	11	
24	YU-DP-300	43°03.1'	119°04.3'		Basalt	Basalt	0.415 (2)	0.542 (2)	4 - 5	8.8 ± 1.4	11	
25	YU-DP-250	43°03.5'	119°03.8'		Basalt	Basalt	0.352 (3)	0.411 (1)	8	7.9 ± 0.9	11	
26	RCG-185-67	43°04.7'	118°23.4'	Steens Basalt	Basalt	Plagioclase	0.262 (2)	0.593 (1)	39	15.3 ± 1.0	1, 7	
27	GWW-176-62	43°00.6'	118°38.1'	Welded tuff of Divine Canyon	Ash-flow tuff	Alkali feldspar	7.15	8.976 (1)	61	8.5 ± 0.3	1	Same unit as W-16
28	KA1165	42°44'	118°37.8'	Steens Basalt	Basalt	Basalt	1.64 (1)	e	40	14.5	3	Same unit as KA1251
29	11	42°40'	118°33'	- - do - -	Basalt	Basalt	b	b	b	15.1 ± 0.1[b]	5	Overlies flow 17
	17	42°40'	118°33'	- - do - -	Basalt	Basalt	b	b	b	15.0 ± 0.2[b]	5	Underlies flow 11, overlies flow 51
	51	42°40'	118°33'	- - do - -	Basalt	Basalt	b	b	b	15.1 ± 0.4[b]	5	Underlies flow 17, overlies flow 61
	61	42°40'	118°33'	- - do - -	Basalt	Basalt	b	b	b	15.0 ± 0.4[b]	5	Underlies flow 51, overlies flow 68
	68	42°40'	118°33'	- - do - -	Basalt	Basalt	b	b	b	15.2 ± 0.4[b]	5	Underlies flow 61, overlies flow 70
	70	42°40'	118°33'	- - do - -	Basalt	Basalt	b	b	b	14.8 ± 0.3[b]	5	Underlies flow 68
30	GWW-140-61	42°35.6'	119°16.5'	Welded tuff of Divine Canyon	Ash-flow tuff	Alkali feldspar	6.67	9.872 (1)	56	10.0 0.3	1, 7	Same unit as W-16
						Glass	5.32	7.160 (1)	36	9.1 0.3	1, 19	
NP	KA1251	(Steens Mountain)		Steens Basalt	Basalt	Basalt	0.368 (1)	e	58	14.7	3	Same unit as KA1165
NP	KA1230	(E. flank Steens Mountain)		Alvord Creek Formation	Basalt	Basalt[a]	2.15 (1)	e	69	21.3	4	
NP	KA1256	(Trout Creek Valley)		Trout Creek Formation of Smith (1926)	Basalt tuff	Basalt[a]	0.664 (1)	e	50	13.1	4	

Compilation of Potassium-Argon Ages of Cenozoic Volcanic Rocks, Oregon--continued

Map no.[f]	Sample no.	Latitude (north)	Longitude (west)	Geologic unit	Rock type	Material dated	K_2O (wgt. %)	$^{40}Ar_{rad}$[c] (10^{-11} mol/gm)	% $^{40}Ar_{rad}$	Calculated age[c,d] (10^6 years)	Reference	Remarks
Hood River County												
1	40	45°25.4'	121°34.0'		Andesite	Andesite	1.35	1.35	e	7.0 ± 0.8	16	
2	70	45°20.6'	121°31.4'		Andesite	Andesite	2.16	0.95	e	3.0 ± 0.2	16	
3	49	45°18.7'	121°34.1'	Gunsight Butte sequence	Pyroxene andesite	Andesite	1.55	0.92	e	4.1 ± 0.6	16	
Jefferson County												
1	KA1280	44°43.4'	121°12.6'	Madras Formation	Tuff	Plagioclase	0.245 (1)	e	21	5.3	4	
2	DAS-66-208	44°43.3'	120°47.1'	John Day Formation	Ash-flow tuff	Sanidine	5.78 (2)	31.41 (1)	85	36.4 ± 1.1	1, 8	
3	DAS-L-80	44°43.9'	120°30.0'	Clarno Formation	Rhyolite tuff	Sanidine	10.90 (2)	66.78 (1)	96	41.0 ± 1.2 43.1 ± 0.6	1, 8 9	$^{40}Ar/^{39}Ar$ incremental heating technique
	KA1223	(Vanora Grade)		Madras Formation	Tuff	Plagioclase	0.222	e	58	4.3	4	
Lake County												
1	GWW-3-60	42°28.2'	119°47.4'		Soda rhyolite (pantellerite)	Anorthoclase	4.89 (1)	19.99 (1)	73	27.5 ± 0.8	20	Older core rocks of Hart Mountain
						Anorthoclase	4.95 (1)	19.96 (1)	63	27.1 ± 0.8		
2	GWW-4-60	42°28.8'	119°43.7'		Soda rhyolite (pantellerite)	Anorthoclase	4.87	18.10	74.52	25.0 ± 0.8	20	See remark above
Lane County												
1	SR-64-178	44°05'	124°06'		Basalt	Plagioclase	0.23	1.24	41	36.6 ± 3.6	1, 17	An age of 36.6 ± 3.6 x 10^6 yr was quoted for this sample (63-45) in ref. 17
2	KA1282	43°59.9'	123°00.4'		Tuff	Plagioclase	0.245 (1)	e	57	31.0	4	
Malheur County												
1	GWW-36-69	44°04.5'	118°10.6'	Dinner Creek (?) Welded Tuff	Ash-flow tuff	Plagioclase	1.770 (2)	3.763 (1)	72	14.3 ± 0.4	1	Same unit as DC-2-70 ?
2	DC-2-70	43°47.7'	117°54.1'	Dinner Creek (?) Welded Tuff	Ash-flow tuff	Plagioclase	1.482 (2)	3.283 (1)	73	14.9 ± 0.4	1	Probably same unit as GWW-22-69 and GWW-36-69
3	RCG-281-1-67	43°12.2'	118°07.5'		Rhyodacite	Biotite	7.75 (2)	11.52 (1)	51	10.0 ± 0.4	1	
						Plagioclase	0.754 (2)	1.066 (1)	32	9.6 ± 0.6	1	
4	KA392	42°58'	117°35'	Rome beds (?)	Tuff (rhyolitic ?)	Glass	4.89	7.60	79	10.5 ± 0.4	1	
5	W-13	42°41.9'	117°49.4'		Basalt	Basalt	0.374 (2)	0.436 (1)	16	7.87 ± 0.55	2	
						Basalt	0.372 (2)	0.431 (1)	16	7.81 ± 0.55	2	
6	W-17	42°22.8'	118°03.4'		Rhyolite tuff	Sanidine	7.28 (2)	17.07 (2)	~ 82	15.8 ± 0.4	2	
7	W-18	42°23.0'	117°39.6'		Rhyolite tuff	Sanidine	8.56 (2)	17.22 (2)	~ 78	13.6 ± 0.3	2	Same unit as BC-1-64
8	BC-1-64	42°22.8'	117°39.4'		Vitrophyre	Sanidine	9.16	21.80 (1)	51	16.0 ± 0.8	1	Same unit as W-18
						Glass	5.70	11.40 (1)	84	13.5 ± 0.6	1	
9	GWW-68-62	42°08.8'	118°10.5'		Welded tuff	Alkali feldspar	7.01	13.67 (1)	85	13.1	1	Beneath ? Trout Creek beds
10		43°36.9'	117°14.6'		Basalt	Basalt	b	b	b	13.6 ± 0.3	13	Lava no. 16
11		43°35.1'	117°14.3'		Basalt	Basalt	1.25	2.49 (2)	65 - 70	13.4 ± 0.3	13	Lava no. 5
NP	KA1029	(T. 23 S., R. 40 E.)			Rhyolitic tuff	Sanidine	4.76 (1)	e	91	15.1	3	
NP	KA1285	(9 mi. N. of Sheaville)		Payette Formation	Basalt	Plagioclase	0.258 (1)	e	27	16.7	4	
Tillamook County												
1	KA2140R	45°29.5'	123°58'	Depoe Bay Basalt	Basalt	Basalt	0.770 (2)	e	15	14.5 ± 1.0	14	
2	KA2161	45°28.5'	123°58'	- - do - -	Basalt	Plagioclase	1.59 (2)	e	38	15.2 ± 0.6	14	
Umatilia County												
1	CC-1	45°03.8'	118°41.5'	John Day (?) Formation	Rhyolite	Anorthoclase	5.15 (2)	21.02 (1)	29	27.4 ± 5.	1, 6	
Union County												
1	GWW-56-69	45°09.2'	118°18.5'	John Day (?) Formation	Vitrophyre	Biotite	7.89 (2)	31.73 (1)	89	27.0 ± 0.8	1, 6	
2	SC-1-70	45°01.5'	118°28.4'		Hornblende andesite	Plagioclase	0.523 (2)	2.186 (1)	67	28.1 ± 0.8	1, 6	Originally mapped as Clarno Formation
Wasco County												
1	45°16.8'	121°10.8'			Basalt	Basalt	1.84	3.99 (2)	66 - 70	14.6 ± 0.3	13	Lava no. 14
2	45°16.0'	121°11.0'			Basalt	Basalt	1.89	4.60 (2)	80 - 85	16.4 ± 0.3	13	Lava no. 18
3	Strat. 2	44°52.6'	120°55.2'		Basalt	Basalt	3.31	7.56 (2)	85 - 86	15.4 ± 0.3	13	Lava no. 2
4	Strat. 9	44°50.7'	120°55.4'		Basalt	Basalt	1.77	4.04 (2)	69 - 84	15.3 ± 0.3	13	Lava no. 8
Wheeler County												
1	KA1204	44°55.5'	120°25.8'	Clarno Formation	Tuff	Plagioclase	0.631 (1)	e	65	34.0	4	
2	KA1384	44°54.8'	120°27.0'	John Day Formation	Bentonite	Sanidine	7.64 (1)	e	82	32.0	4	
3	KA845	44°43.2'	120°13.4'	- - do - -	Basalt	Basalt	1.45 (1)	e	45	31.5	3	
4	KA647A	44°41.9'	120°16.1'	- - do - -	Rhyolite tuff	Sanidine	6.86 (1)	e	56	23.3	3	
5	KA649A	44°40.0'	120°14.5'	- - do - -		K-albite	1.72 (1)	e	30	24.9	3	
6	KA648	44°39.4'	120°15.5'	- - do - -	Obsidian	Obsidian	5.43 (1)	e	42	25.3	3	
7	KA489	44°39.0'	120°16.4'	- - do - -	Rhyolite tuff	Sanidine	6.88 (1)	e	46	31.1	3	
8	KA824A	44°38.3'	120°09.8'	Clarno Formation	Bentonitic claystone	Sanidine	5.53 (1)	e	86	36.5 ± 0.9	3	Underlies KA818
9	KA818	44°37.6'	120°14.2'	- - do - -	Pyroxene andesite	Andesite	1.17 (1)	e	46	37.5	3	
10	KFO-1112	44°35.8'	120°13.0'	- - do - -	Andesite	Andesite	1.13 (2)	7.237 (2)	~ 62	42.8 ± 0.6 (2)	12	
11	M-859	44°35.2'	120°10.4'	- - do - -	Diabase (dike)	Diabase	1.00 (3)	4.980 (2)	e	33.4 ± 0.9 (2)	12	
12	KFO-1702B	44°35.4'	120°07.0'	- - do - -	Metabasalt	Metabasalt	1.44 (3)	9.691 (2)	~ 73	44.9 ± 0.7 (2)	12	
13	KFO-901	44°34.0'	120°07.0'	- - do - -	Andesite	Andesite	0.157 (2)	0.767 (2)	~ 8	32.8 ± 2.9 (2)	12	
14	EMT-11	44°33.4'	120°10.8'	Clarno Formation	Diabase (dike)	Diabase	1.05 (3)	4.614 (2)	e	29.4 ± 0.4 (2)	12	
15	W-3-58	44°31.0'	120°13.6'	Clarno Formation	Andesite	Andesite	1.81 (2)	10.95	45	40.6 ± 0.9 (1)	12	
						Hornblende	0.578 (2)	3.989	12	46.1 ± 4.0 (1)	12	
16	W-14	44°29.8'	119°42.3'	Rattlesnake Formation	Ash-flow tuff	Anorthoclase	4.90 (2)	4.92 (1)	40	6.69 ± 0.20	2	Same unit as W-15. Probably same unit as RCG-121-66 and RCG-257-3-66.
	W-15	44°29.8'	119°42.3'	Rattlesnake Formation	Ash-flow tuff	Anorthoclase	5.68 (2)	5.00 (1)	48	5.95 ± 0.18	2	Same unit as W-14. Probably same unit as RCG-121-66 and RCG-257-3-66.
Wallowa County												
1		45°31.2'	116°45.2'	Lower basalt	Basalt	Basalt	1.71	3.877 (3)	46 - 47	15.3 ± 0.3	13	Lava no. 19
2		45°27.0'	116°44.0'	Lower basalt	Basalt	Basalt	1.49	3.369 (2)	51	15.2 ± 0.3	13	Lava no. 8

Footnotes:

[a] - Acid treated.

[b] - Age quoted is the mean of multiple measurements on different samples from the same flow. See original reference for detailed analytical data.

[c] - Values given are means. Where multiple measurements were reported. The number in parentheses is the number of analyses (n). Where n is not indicated the value may be the result of one or more measurements.

[d] - Uncertainties are standard deviations.

[e] - Data not given by author(s).

[f] - NP - not plotted on index map.

References:

1 - Previously unpublished data, U.S. Geological Survey.

2 - Dalrymple, G. B., Cox, Allan, Doell, R. R., and Grommé, C. S., 1967, Pliocene geomagnetic polarity epochs: Earth and Planetary Sci. Letters, v. 2, p. 163-173.

3 - Evernden, J. F., Savage, D. E., Curtis, G. H., and James, G. T., 1964, Potassium-argon dates and the Cenozoic mammalian chronology of North America: Am. Jour. Sci., v. 262, p. 145-198.

4 - Evernden, J. F., and James, G. T., 1964, Potassium-argon dates and the Tertiary floras of North America: Am. Jour. Sci., v. 262, p. 945-974.

5 - Baksi, A. K., York, D., and Watkins, N. D., 1967, Age of the Steens Mountain geomagnetic polarity transition: Jour. Geophys. Research, v. 72, p. 6299-6308.

6 - Walker, G. W., 1973, Reconnaissance geologic map of the Pendleton quadrangle, Oregon and Washington: U.S. Geol. Survey Misc. Geol. Inv. Map I-727, scale 1:250,000.

7 - Greene, R. C., Walker, G. W., and Corcoran, R. E., 1972, Geologic map of the Burns quadrangle, Oregon: U.S. Geol. Survey Misc. Geol. Inv. Map I-680, scale 1:250,000.

8 - Swanson, D. A., and Robinson, P. T., 1968, Base of the John Day Formation in and near the Horse Heaven Mining District, north-central Oregon: U.S. Geol. Survey Prof. Paper 600-D, p. 154-161.

9 - Dalrymple, G. B., and Lanphere, M. A., 1974, $^{40}Ar/^{39}Ar$ age spectra of some undisturbed terrestrial samples: Geochim. et Cosmochim. Acta [in press].

10 - Walker, G. W., 1970, Cenozoic ash-flow tuffs of Oregon: The Ore Bin, v. 32, p. 97-115.

11 - Parker, D. J., and Armstrong, R. L., 1972, K-Ar dates and Sr isotope initial ratios for volcanic rocks in the Harney Basin, Oregon: Isochron/West, no. 5, p. 7-12.

12 - Enlows, H. E., and Parker, D. J., 1972, Geochronology of the Clarno igneous activity in the Mitchell Quadrangle Wheeler County, Oregon: The Ore Bin, v. 34, p. 104-110.

13 - Watkins, N. D., and Baksi, A. K., 1974, Magnetostratigraphy and oroclinal folding of the Columbia River, Steens, and Owyhee basalts in Oregon, Washington, and Idaho: Am. Jour. Sci. [in press].

14 - Turner, D. L., 1970, Potassium-argon dating of Pacific Coast Miocene foraminiferal stages, in Bandy, O. L., ed., Radiometric dating and paleontologic zonation: Geol. Soc. America Spec. Paper 124, p. 91-129.

15 - Dott, R. H., Jr., 1965, Mesozoic-Cenozoic tectonic history of the southwestern Oregon Coast in relation to Cordilleran orogenesis: Jour. Geophys. Research, v. 70, p. 4687-4707.

16 - Wise, W. S., 1969, Geology and petrology of the Mount Hood area: A study of High Cascade volcanism: Geol. Soc. America Bull., v. 80, p. 969-1006.

17 - Tatsumoto, M., and Snavely, P. D., Jr., 1969, Isotopic composition of lead in rocks of the Coast Range, Oregon and Washington: Jour. Geophys. Research, v. 74, p. 1087-1100.

18 - Walker, G. W., and Swanson, D. A., 1969, Discussion of paper by H. E. Wheeler and H. A. Combs, "Late Cenozoic Mesa Basalt sheet in northwestern United States": Bull. Volcanol., v. 32, p. 581-585.

19 - Walker, G. W., and Repenning, C. A., 1965, Reconnaissance geologic map of the Adel quadrangle, Lake, Harney, and Malheur Counties, Oregon: U.S. Geol. Survey Misc. Geol. Inv. Map I-446, scale 1:250,000.

20 - Noble, D. C., McKee, E. H., and Walker, G. W., 1974, Interpretation of radiometric chemical, and isotopic data on pantellerite from the Hart Mountain area, southeastern Oregon: U.S. Geol. Survey Jour. Research, v. 2 [in press].

Reference to geologic units

Baldwin, E. M., 1950, A geological reconnaissance of the Scotts Mills-Molalla area: Geol. Soc. Oregon Country Geol. News Letter, v. 16, no. 11, p. 92.

Bowen, R. G., Gray, W. L., and Gregory, D. C., 1963, General geology of the northern Juntura Basin, in Shotwell, J. A., The Juntura Basin: Studies in earth history and paleoecology: Am. Philos. Soc. Trans., v. 53, pt. 1, p. 22-34.

Smith, W. D., 1926, Physical and economic geology of Oregon; the southeastern lake province: Oregon Univ. Commonwealth Rev., v. 8, nos. 2-3, p. 199-253.

Wise, W. S., 1969, Geology and petrology of the Mount Hood area: A study of High Cascade volcanism: Geol. Soc. America Bull., v. 80, p. 969-1006.

INDEX TO POTASSIUM-ARGON AGES OF CENOZOIC VOLCANIC ROCKS OF OREGON

By

George W. Walker, G. Brent Dalrymple and Marvin A. Lanphere, 1974