COMPILATION OF UNPUBLISHED USGS AND UNIVERSITY OF ARIZONA K-Ar DATES OF VOLCANIC ROCKS OF THE SAN FRANCISCO VOLCANIC FIELD, NORTHERN ARIZONA

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Introduction

This compilation reports 174 K-Ar dates from the San Francisco Volcanic Field in northern Arizona. Of these dates, 112 are from the US Geological Survey in Menlo Park, California, and 62 are from the Laboratory of Isotope Geochemistry at the Department of Geosciences, University of Arizona. Most of these dates have not been previously published and none are in the compilation by Reynolds and others (1986). Those that have been published have not included analytical data. Some of these dates have not been released because, for various reasons, it seemed likely that they did not accurately represent rock age.

Dates reported here have all been recalculated using IUGS decay and abundance constants (Table 1; Steiger and Jager, 1977; see also Dalrymple, 1979). Potassium was measured by flame photometry using a lithium internal standard. Uncertainy in potassium analyses is either sample standard deviation or 0.5%, whichever is greater. Uncertainty of date, representing one standard deviation, was calculated by the method of Cox and Dalrymple (1967) assuming a standard deviation of 0.3% for tracer calibration.

Analyses from the US Geological Survey were provided by McKee. Analyses from the University of Arizona were done by Damon and Shafiqullah or those working under their supervision. Files were searched and examined and data and associated notes were entered on an Excel spreadsheet by Harris. Ages were recalculated and data were formatted for printing by Spencer.

The two data sets, one from each lab, differ slightly from each other. The USGS data set reports potassium as $\%K_2O$ and reports the percentage of radiogenic argon measured in the mass spectrometer, whereas the University of Arizona data set reports potassium as %K and reports the percentage of atmospheric argon measured in the mass spectrometer.

A map included with this publication as Plate 1 shows almost all of the sample locations. This map covers the same area as Plate 2 of Pearthree and others (1996). A bibliography of articles on the San Francisco Volcanic Field that include geochronologic data, or that are cited in the two K-Ar data tables, is also included at the end of the report. All of these citations were derived from Trapp and others (1996).

References Cited in Introduction

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TABLE 1: Decay, Abundance, and Atomic Weight Constants

$\lambda_\varepsilon + \lambda_\varepsilon' = 0.581 \times 10^{-10}\ y^{-1}$
$\lambda_\beta = 4.962 \times 10^{-10}\ y^{-1}$
$^{40}K/^{Total}K = 1.167 \times 10^{-4}$ mol/mol
Atomic weight K = 39.10

TABLE 2. Abbreviations Used In Compilation

Adul	Adularia
Bio	Biotite
Crypt	Cryptomelane
Gar	Garnet
GM	Groundmass feldspar concentrate (older analyses used term WR)
Horn	Hornblende
Jaro	Jarosite
Kspar	Potassium feldspar
Musc	Muscovite
Phlog	Phlogopite
Plag	Plagioclase feldspar
Rosco	Roscoelite
Sani	Sanidine
Seri	Sericite
WR	Whole rock (usually refers to groundmass feldspar concentrate; term superseded by GM)

San Francisco Volcanic Field, USGS K-Ar dates

0.14 +/- 0.03 K-feldspar, rhyolite, Sugarloaf rhyolite dome
Lab sample no. 3I495 Field sample no. SFP-3 Quad.: Sunset Crater West Rhyolite dome of Sugarloaf (Qsgr)
Lat. 35 21.62' Lon. 111 36.98' T.23N R.7E E sec.23
40Ar* (picomoles/gram): 1.59 %Ar(rad): 6 %K2O: 7.99
USGS (see Wolfe and others, 1987)

0.14 +/- 0.03 K-feldspar, dacite, O'Leary Peak dacite dome
Lab sample no. 3I509 Field sample no. SFP-5 Quad.: O'Leary Peak Dacite dome of O'Leary Peak (Qodd)
Lat. 35 24.08' Lon. 111 31.55' T.23N R.8E SE sec.3
40Ar* (picomoles/gram): 2.07 %Ar(rad): 85.4 %K2O: 10.11
USGS (see Moore and Wolfe, 1987)

0.22 +/- 0.75 alkali feldspar, dacite, O'Neill Crater dacite dome
Lab sample no. 3I496 Field sample no. ONEIL Quad.: Sunset Crater East Dacite dome of O'Neill Crater (V2929, Qbyab)
Lat. 35 15.25' Lon. 111 27.7' T.22N R.9E S sec.29
40Ar* (picomoles/gram): 0.8 %Ar(rad): 0.43 %K2O: 2.58
USGS Additional dates with lower analytical reproducibility (see Moore and Wolfe, 1987)

0.25 +/- 0.13 bio, rhyolite, Sugarloaf rhyolite dome
Lab sample no. 3I619 Field sample no. SFP-3b Quad.: Sunset Crater West Rhyolite dome of Sugarloaf (Qsgr)
Lat. 35 21.62' Lon. 111 36.98' T.23N R.7E E sec.23
40Ar* (picomoles/gram): 2.86 %Ar(rad): 2.37 %K2O: 7.99
USGS (see Wolfe and others, 1987)

0.28 +/- 0.25 glass, obsidian, Robinson Crater rhyolite
Lab sample no. 3I587 Field sample no. SFP-4 Quad.: O'Leary Peak Rhyolite of Robinson Crater (Qorr)
Lat. 35 23.63' Lon. 111 33.25' T.23N R.8E NW sec.9
40Ar* (picomoles/gram): 1.71 %Ar(rad): 0.24 %K2O: 4.27
USGS Precision (analytical reproducibility) too low for resolution of age (see Moore and Wolfe, 1987)

0.34 +/- 0.21 WR, basalt, Government Prairie basalt flow
Lab sample no. 6I761 Field sample no. W76WM44 Quad.: Wing Mountain Basalt flow of Government Prairie (V3521, Qyb)
Lat. 35 20.97' Lon. 111 50.85' T.23N R.6E NE sec.27
40Ar* (picomoles/gram): 0.55 %Ar(rad): 2.4 %K2O: 1.125
USGS Wolfe and others, 1987

0.35 +/- 0.13 WR, basalt, Hochderffer Hills basalt
Lab sample no. 6I019 Field sample no. UKP-4 Quad.: Kendrick Peak Basalt of Hochderffer Hills (V3616, Qyb)
Lat. 35 23.13' Lon. 111 46.1' T.23N R.6E SW,SW sec.9
40Ar* (picomoles/gram): 0.546 %Ar(rad): 4.02 %K2O: 1.075
USGS Wolfe and others, 1987

0.39 +/- 0.11 WR, basalt, Antelope Hill basalt
Lab sample no. 6I695 Field sample no. W-76-WM-35 Quad.: Wing Mountain Basalt of Antelope Hill (V3608, Qyb)
Lat. 35 22.15' Lon. 111 50.31' T.23N R.5E W sec.14/23
40Ar* (picomoles/gram): 0.94 %Ar(rad): 5.21 %K2O: 1.685
USGS Wolfe and others, 1987

0.45 +/- 0.14 WR, basalt, Wing Mountain basalt
Lab sample no. 6I668 Field sample no. W-76-WM-131 Quad.: Wing Mountain Basalt of Wing Mountain (V2620, Qyb)
Lat. 35 15.83' Lon. 111 49.52' T.22N R.5E N sec.25/26
40Ar* (picomoles/gram): 0.7086 %Ar(rad): 4.6 %K2O: 1.106
USGS Wolfe and others, 1987

0.46 +/- 0.35 WR, basalt, Government Prairie basalt flow
Lab sample no. 6I661 Field sample no. W-75-P-1 Quad.: Parks Basalt flow of Government Prairie (V3521, Qyb)
Lat. 35 18.85' Lon. 111 54.68' T.22N R.4E/5E sec.1/6 line
40Ar* (picomoles/gram): 0.502 %Ar(rad): 2 %K2O: 0.755
USGS Additional dates with lower analytical reproducibility (see Wolfe and others, 1987)

San Francisco Volcanic Field, USGS K-Ar dates

0.54 +/- 0.67 plag, dacite, San Francisco Mountain dacite
Lab sample no. 6I490 Field sample no. SMILEY Quad.: Humphreys Peak Dacite flow of San Francisco Mountain (Qsfd)
Lat. 35 21' Lon. 111 40' T.23N R.7E sec.29/28
40Ar* (picomoles/gram): 0.49 %Ar(rad): 1.2 %K2O: 0.634
USGS Location approximate Precision (analytical reproducibility) too low for resolution of age (see Wolfe and others, 1987)

0.56 +/- 0.08 WR, benmoreite, Government Knolls benmoreite
Lab sample no. 6I722 Field sample no. W-76-WM-54 Quad.: Wing Mountain Benmoreite flow of Government Knolls (V3522, Qbbn1)
Lat. 35 22.42' Lon. 111 51.93' T.23N R.5E SE sec.16
40Ar* (picomoles/gram): 1.96 %Ar(rad): 9.6 %K2O: 2.419
USGS (see Wolfe and others, 1987)

0.58 +/- 0.67 plag, dacite, Elden Mountain dacite dome
Lab sample no. 3I573 Field sample no. ELDEN Quad.: Flagstaff East Dacite dome of Eldon Mountain (Qedz)
Lat. 35 14.87' Lon. 111 36.13' T.22N R.7E sec.36
40Ar* (picomoles/gram): 0.6399 %Ar(rad): 1.27 %K2O: 0.77
USGS (see Wolfe and others, 1987)

0.67 +/- 0.35 bio, dacite, Government Prairie dacite
Lab sample no. 6I056 Field sample no. W-75P-38B Quad.: Parks Dacite flow south of Government Mtn (Vent 2506, Qmdk)
Lat. 35 19.45' Lon. 111 54.13' T.23N R.5E SE sec.31
40Ar* (picomoles/gram): 6.69 %Ar(rad): 2.8 %K2O: 6.91
USGS Age judged to be too young (see Wolfe and others, 1987)

0.69 +/- 0.13 WR, basalt, Government Prairie basalt
Lab sample no. 6I732 Field sample no. W-75-P-89 Quad.: Parks Basalt flow (V2519, Qmb)
Lat. 35 15.72' Lon. 111 55.17' T.22N R.4E NE sec.25
40Ar* (picomoles/gram): 1.28 %Ar(rad): 7.4 %K2O: 1.283
USGS Wolfe and Others, 1987

0.70 +/- 0.1 glass, obsidian, Doyle Saddle rhyolite
Lab sample no. 3I396 Field sample no. 7-1-72-8C Quad.: Humphreys Peak Rhyolite of Doyle Saddle (Qdr)
Lat. 35 19.4' Lon. 111 40.33' T.22N R.7E NE sec.5
40Ar* (picomoles/gram): 4.37 %Ar(rad): 26.2 %K2O: 4.34
USGS Wolfe and Others, 1987

0.83 +/- 0.33 plag, rhyolite, Robinson Crater rhyolite
Lab sample no. 3I508 Field sample no. SFP-4 Quad.: O'Leary Peak Rhyolite of Robinson Crater (Qorr)
Lat. 35 23.63' Lon. 111 33.25' T.23N R.8E NW sec.9A
40Ar* (picomoles/gram): 0.09953 %Ar(rad): 0.37 %K2O: 0.083
USGS Precision (analytical reproducibility) too low for resolution of age (see Moore and Wolfe, 1987)

0.86 +/- 0.27 plag, dacite, Dry Lake Hills dacite
Lab sample no. 3I620 Field sample no. Quad.: Humphreys Peak Dacite of Dry Lake Hills (Qdld)
Lat. 35 15.3' Lon. 111 37.92' T.22N R.7E SE sec.27
40Ar* (picomoles/gram): 0.8149 %Ar(rad): 1 %K2O: 0.66
USGS Precision (analytical reproducibility) too low for resolution of age (see Wolfe and others, 1987)

0.87 +/- 0.15 alkali feldspar, rhyolite, Doyle Saddle rhyolite
Lab sample no. 3I457 Field sample no. 7-11-72-2 Quad.: Humphreys Peak Rhyolite of Doyle Saddle (Qdr)
Lat. 35 19.18' Lon. 111 38.53' T.22N R.7E NW sec.3
40Ar* (picomoles/gram): 6.37 %Ar(rad): 8.3 %K2O: 5.06
USGS Wolfe and Others, 1987

0.88 +/- 0.14 bio, rhyolite, White Horse Hills rhyolite flow
Lab sample no. 3I454 Field sample no. Quad.: White Horse Hills Rhyolite of White Horse Hills (Qwhr)
Lat. 35 23.53' Lon. 111 42.25' T.23N R.6E NE sec.12
40Ar* (picomoles/gram): 9.93 %Ar(rad): 8.8 %K2O: 7.88
USGS Age judged to be too old (see Wolfe and others, 1987)

San Francisco Volcanic Field, USGS K-Ar dates

0.96 +/- 0.08 WR, benmoreite, Fortynine Hill benmoreite flow
Lab sample no. 6I725 Field sample no. W-76-GP-102 Quad.: Garland Prairie Benmoreite flow of Fortynine Hill (Qmbn)
Lat. 35 14.93' Lon. 111 53.6' T.22N R.5E NW sec.32
40Ar* (picomoles/gram): 4.13 %Ar(rad): 16.16 %K2O: 2.996
USGS Wolfe and Others, 1987

0.96 +/- 0.94 WR, benmoreite, Spring Valley Knolls Dome
Lab sample no. 5I590 Field sample no. W-75-P-12 Quad.: Parks Benmoreite flow of Spring Valley Knolls (Qmbn)
Lat. 35 21.12' Lon. 111 56.32' T.23N R.4E NE,NW sec.26
40Ar* (picomoles/gram): 4.01 %Ar(rad): 1.5 %K2O: 2.889
USGS Wolfe and Others, 1987

0.99 +/- 0.1 alkali feldspar, andesite, San Francisco Mtn basalt flow
Lab sample no. 5I595 Field sample no. W-74-2C Quad.: Humphreys Peak Basalt flow of San Francisco Peak (Qa1)
Lat. 35 20.43' Lon. 111 40.03' T.23N R.7E NE,NE sec.32
40Ar* (picomoles/gram): 7.12 %Ar(rad): 13.6 %K2O: 4.97
USGS (see Wolfe and others, 1987)

1.04 +/- 0.14 WR, basalt, Lava Point basalt flow
Lab sample no. 5I103 Field sample no. 16-507 Quad.: Campbell Francis Wash Basalt flow of Lava Point (6736, Qmb)
Lat. 35 39.5' Lon. 111 32.38' T.26N R.7E SE,SE sec.4
40Ar* (picomoles/gram): 1.78 %Ar(rad): 10.1 %K2O: 1.19
USGS Ulrich and Bailey, 1987

1.04 +/- 0.28 plag, dacite, O'Neill Crater dacite dome
Lab sample no. 5I190 Field sample no. M-75-5 Quad.: Sunset Crater East Dacite dome of O'Neill Crater (V2929, Qbyab)
Lat. 35 15.25' Lon. 111 27.7' T.22N R.9E S sec.29
40Ar* (picomoles/gram): 2.62 %Ar(rad): 5.3 %K2O: 1.75
USGS Age judged to be too old (see Moore and Wolfe, 1987)

1.07 +/- 0.06 WR, basalt, Frenchy Hill basalt
Lab sample no. 6I061 Field sample no. W-75-185A Quad.: Sitgreaves Mountain Basalt flow south of Frenchy Hill (3335, Qmb)
Lat. 35 18.87' Lon. 112 3.13' T.22N R.3E sec.3/ 2 line
40Ar* (picomoles/gram): 3.43 %Ar(rad): 20.7 %K2O: 2.228
USGS Newhall and others, 1987

1.08 +/- 0.28 WR, benmoreite, Government Prairie benmoreite
Lab sample no. 6I187 Field sample no. W-75-P-4 Quad.: Parks Benmoreite dome east of Government Hill (Qmba)
Lat. 35 19.78' Lon. 111 55.92' T.23N R.4E E center sec.35
40Ar* (picomoles/gram): 3.91 %Ar(rad): 5.5 %K2O: 2.52
USGS Wolfe and Others, 1987

1.09 +/- 0.04 sani, rhyolite, Kendrick Peak rhyolite
Lab sample no. 6I038 Field sample no. M-73-31A Quad.: Kendrick Peak Rhyolite dome of Kendrick Peak (Tkrd)
Lat. 35 23.98' Lon. 111 50.95' T.23N R.5E E sec.3/10 line
40Ar* (picomoles/gram): 13.8 %Ar(rad): 32.2 %K2O: 8.78
USGS Age judged to be too young (see Wolfe and others, 1987)

1.09 +/- 0.04 K-feldspar, dacite, South Kendrick Peak dacite dome
Lab sample no. 6I038 Field sample no. M-73-31A Quad.:
Lat. 35 23.9' Lon. 111 50.9' T. R. sec.
40Ar* (picomoles/gram): 13.811 %Ar(rad): 32.2 %K2O: 8.78
USGS

1.10 +/- 0.2 alkali feldspar, rhyolite, San Francisco Mtn rhyolite
Lab sample no. 3I451 Field sample no. 6-23-71-1 Quad.: Humphreys Peak Rhyolite flow of Core Ridge (Qcr)
Lat. 35 20.02' Lon. 111 40.5' T.23N R.7E center sec.32
40Ar* (picomoles/gram): 8.2 %Ar(rad): 7.7 %K2O: 5.2
USGS (see Wolfe and others, 1987)

San Francisco Volcanic Field, USGS K-Ar dates

1.14 +/- 0.17 WR, trachyte, Bull Basin Mesa trachyte flow
Lab sample no. 5I037 Field sample no. M-74-67 Quad.: Moritz Ridge Trachyte flow of Bull Basin Mesa (Qmt)
Lat. 35 26.58' Lon. 111 55.05' T.24N R.4E SE sec.24
40Ar* (picomoles/gram): 6.46 %Ar(rad): 9.08 %K2O: 3.94
USGS Wolfe and others, 1987

1.15 +/- 0.65 WR, basalt, Sitgreaves Mtn basalt flow
Lab sample no. 6I059 Field sample no. W-75-P-48 Quad.: Parks Basalt flow 3433, west of Wright Hill (Qmb)
Lat. 35 17.88' Lon. 111 58.72' T.22N R.4E SW sec.9
40Ar* (picomoles/gram): 2.8 %Ar(rad): 2.61 %K2O: 1.695
USGS Wolfe and others, 1987

1.27 +/- 0.85 WR, basalt, Pumpkin Knoll basalt flow
Lab sample no. 6I724 Field sample no. M-76-6-MR Quad.: Moritz Ridge Basalt flow at Pumpkin Knoll (V4425, Qbmb)
Lat. 35 25.416' Lon. 111 55.216' T.24N R.4E sec.25/36
40Ar* (picomoles/gram): 2.32 %Ar(rad): 1.02 %K2O: 1.268
USGS Precision (analytical reproducibility) too low for resolution of age (see Wolfe and others, 1987)

1.29 +/- 0.15 WR, benmoreite, Wing Mountain benmoreite flow
Lab sample no. 6I779 Field sample no. W-76-B-156 Quad.: Bellemont/Wing Mountain Benmoreite flow south of Little Wing Mtn (Qmb)
Lat. 35 15' Lon. 111 45.85' T.22N R.6E NW sec.33
40Ar* (picomoles/gram): 5.42 %Ar(rad): 11.8 %K2O: 2.918
USGS Wolfe and others, 1987

1.33 +/- 0.14 WR, basalt, Wild Bill Hill basalt flow
Lab sample no. 6I769 Field sample no. W-76-GP-104 Quad.: Wing Mountain Basalt flow of Wild Bill Hill (3534, Qbb)
Lat. 35 19.75' Lon. 111 51' T.23N R.5E SE sec.34
40Ar* (picomoles/gram): 2.81 %Ar(rad): 5 %K2O: 1.467
USGS Age judged to be too old (see Wolfe and others, 1987)

1.35 +/- 0.05 WR, andesite, Kendrick Peak andesite flow
Lab sample no. 6I313 Field sample no. KP-75-46 Quad.: Kendrick Peak Andesite flow of Kendrick Peak (Qka)
Lat. 35 24.233' Lon. 111 50.417' T.23N R.5E NE,SW sec.2
40Ar* (picomoles/gram): 5.04 %Ar(rad): 28.1 %K2O: 2.597
USGS Wolfe and others, 1987

1.35 +/- 0.98 horn, andesite, Bill Williams Mtn andesite
Lab sample no. 6I641 Field sample no. UBW101 Quad.: Williams North Andesite of railroad domes (Twa)
Lat. 35 16.25' Lon. 112 10.666' T.22N R.2E sec.21/22
40Ar* (picomoles/gram): 0.9803 %Ar(rad): 2 %K2O: 0.504
USGS Precision (analytical reproducibility) too low for resolution of age; Age judged to be too young Newhall and others, 1987

1.38 +/- 0.16 WR, basalt, Tappan basalt flow
Lab sample no. 5I100 Field sample no. 16-498 Quad.: Additional Hill Tappan basalt (6609, Qmb)
Lat. 35 40.617' Lon. 111 43.167' T.27N R.6E NW,SE sec.35
40Ar* (picomoles/gram): 2.54 %Ar(rad): 11.9 %K2O: 1.274
USGS Ulrich and Bailey, 1987

1.41 +/- 0.13 WR, basalt, Spitz Hill basalt
Lab sample no. 6I768 Field sample no. W-76-P-75 Quad.: Parks Spitz Hill basalt flow (2420, Qmb)
Lat. 35 15.55' Lon. 111 59.45' T.22N R.4E center sec.29
40Ar* (picomoles/gram): 1.8 %Ar(rad): 5.7 %K2O: 0.889
USGS Wolfe and others, 1987

1.43 +/- 0.2 WR, benmoreite, Government Prairie benmoreite
Lab sample no. 6I032 Field sample no. W-75-P-37B Quad.: Parks Benmoreite vent south of Government Mtn (V2506, Qmbn)
Lat. 35 19.433' Lon. 111 53.933' T.22/23N R.5E E sec.31/6
40Ar* (picomoles/gram): 5.21 %Ar(rad): 9.9 %K2O: 2.536
USGS Additional dates with lower analytical reproducibility (see Wolfe and others, 1987)

San Francisco Volcanic Field, USGS K-Ar dates

1.48 +/- 0.04 sani, rhyolite, Kendrick Peak rhyolite
Lab sample no. 5I626 Field sample no. M-75-31A-KP Quad.: Kendrick Peak Rhyolite dome of Kendrick Peak (Tkrd)
Lat. 35 23.98' Lon. 111 50.95' T.23N R.5E E sec.3/10 line
40Ar* (picomoles/gram): 20.84 %Ar(rad): 35.6 %K2O: 9.77
USGS Age judged to be too young (see Wolfe and others, 1987)

1.51 +/- 0.65 plag, rhyolite, Robinson Crater rhyolite
Lab sample no. 3I613 Field sample no. SFP-4 Quad.: O'Leary Peak Rhyolite of Robinson Crater (Qorr)
Lat. 35 23.63' Lon. 111 33.25' T.23N R.8E NW sec.9
40Ar* (picomoles/gram): 0.18 %Ar(rad): 0.35 %K2O: 0.083
USGS Precision (analytical reproducibility) too low for resolution of age (see Moore and Wolfe, 1987)

1.57 +/- 0.04 WR, rhyolite, Slate Mountain rhyolite
Lab sample no. 3I453 Field sample no. Quad.: Kendrick Peak Rhyolite dome of Slate Mountain (Qslr2)
Lat. 35 29.767' Lon. 111 50.433' T.24N R.5E NW,NW sec.2
40Ar* (picomoles/gram): 10.75 %Ar(rad): 40.7 %K2O: 4.76
USGS (see Wolfe and others, 1987)

1.64 +/- 0.11 alkali feldspar, rhyolite, Hochderffer Hills rhyolite
Lab sample no. 3I445 Field sample no. SFP-7 Quad.: Kendrick Peak Rhyolite of Hochderffer Hills (Qhr)
Lat. 35 23.12' Lon. 111 46.12' T.23N R.6E NE,NE,NE sec.16
40Ar* (picomoles/gram): 15.1 %Ar(rad): 19.1 %K2O: 6.4
USGS Wolfe and others, 1987

1.65 +/- 0.11 WR, andesite, Kendrick Peak andesite
Lab sample no. 5I559 Field sample no. M-75-45 Quad.: Kendrick Peak Andesite flow at Kendrick Peak summit (Qka)
Lat. 35 24.483' Lon. 111 51.017' T.23N R.5E NE sec.3
40Ar* (picomoles/gram): 5.02 %Ar(rad): 19.3 %K2O: 2.118
USGS Wolfe and others, 1987

1.79 +/- 0.03 WR, dacite, Kendrick Peak dacite
Lab sample no. 6I750 Field sample no. M-76-67 Quad.: Kendrick Peak Dacite flow of Kendrick Peak (Qbyg)
Lat. 35 25.5' Lon. 111 51.9' T.24N R.5E SE sec.33
40Ar* (picomoles/gram): 9.33 %Ar(rad): 46.8 %K2O: 3.62
USGS Wolfe and others, 1987

1.80 +/- 0.22 plag, dacite, Strawberry Crater dacite dome
Lab sample no. 6I513 Field sample no. ONEIL Quad.: Strawberry Crater Dacite dome of Strawberry Crater (V2929, Qbyd)
Lat. 35 26.35' Lon. 111 27.9' T.24N R.9E SW,SW sec.20
40Ar* (picomoles/gram): 1.77 %Ar(rad): 1.21 %K2O: 0.682
USGS Additional dates with lower analytical reproducibility; Date judged to be too old (see Moore and Wolfe, 1987)

1.82 +/- 0.16 alkali feldspar, rhyolite, Raspberry Spring rhyolite
Lab sample no. 3I456 Field sample no. 7-8-72-8 Quad.: Humphreys Peak Rhyolite dome of Raspberry Spring, Inner Basin of San Francisco Mountain (Qrr)
Lat. 35 20.333' Lon. 111 38.883' T.23N R.7E N sec.33/34
40Ar* (picomoles/gram): 10.07 %Ar(rad): 14.9 %K2O: 3.84
USGS Wolfe and others, 1987

1.90 +/- 0.12 WR, rhyolite, Sitgreaves Mountain rhyolite
Lab sample no. 5I643 Field sample no. W-75-P-178 Quad.: Sitgreaves Mountain Rhyolite dome near summit of Sitgreaves Mountain (Qsr)
Lat. 35 20.433' Lon. 112 0.35' T.23N R.4E SE sec.30
40Ar* (picomoles/gram): 10.73 %Ar(rad): 20 %K2O: 3.93
USGS Newhall and others, 1987

San Francisco Volcanic Field, USGS K-Ar dates

1.90 +/- 0.25 glass, obsidian, Kendrick Peak rhyolite
Lab sample no. 6I757 Field sample no. M-76-90-KP Quad.: Kendrick Peak Rhyolite dome of Kendrick Peak (Qkrc)
Lat. 35 24.05' Lon. 111 50.383' T.23N R.5E NW sec.2
40Ar* (picomoles/gram): 11.98 %Ar(rad): 10.3 %K2O: 4.38
USGS Wolfe and others, 1987

1.90 +/- 0.35 WR, rhyolite, Slate Mountain rhyolite
Lab sample no. 8I034 Field sample no. UKP-367 Quad.: Kendrick Peak Rhyolite dome of Slate Mountain (Qslr1)
Lat. 35 29.033' Lon. 111 50.833' T.24N R.5E NE,NE sec.10
40Ar* (picomoles/gram): 12.48 %Ar(rad): 3.2 %K2O: 4.56
USGS Wolfe and others, 1987

1.96 +/- 0.06 glass, obsidian, Kendrick Peak obsidian
Lab sample no. 3I421 Field sample no. KEN-3 Quad.: Kendrick Peak Obsidian float from Kendrick Peak
Lat. 35 24.467' Lon. 111 50.733' T.23N R.5E NE sec.3
40Ar* (picomoles/gram): 12.04 %Ar(rad): 39.6 %K2O: 4.27
USGS (see Wolfe and others, 1987)

2.01 +/- 0.22 WR, basalt, Walker Lake basalt
Lab sample no. 6I622 Field sample no. UBH-145 Quad.: White Horse Hills Basalt vent deposit at Walker Lake crater (V3611, QTmb)
Lat. 35 23.417' Lon. 111 43.783' T.23N R.6E center sec.11
40Ar* (picomoles/gram): 3.78 %Ar(rad): 12.2 %K2O: 1.308
USGS Wolfe and others, 1987

2.06 +/- 0.18 WR, andesite, Howard Mesa andesite
Lab sample no. 5I178 Field sample no. 75-4-W Quad.: Howard Mesa Andesite flow south side of Howard Mesa (Tmha)
Lat. 35 27.617' Lon. 112 8.267' T.24N R.2E W center sec.13
40Ar* (picomoles/gram): 6.81 %Ar(rad): 15.2 %K2O: 2.295
USGS Newhall and others, 1987

2.07 +/- 0.07 WR, dacite, Kendrick Peak dacite
Lab sample no. 6I743 Field sample no. M76-1KP Quad.: Kendrick Peak Dacite dome west side of Kendrick Peak (Tkde)
Lat. 35 24.483' Lon. 111 51.2' T.23N R.5E NW sec.3
40Ar* (picomoles/gram): 10.3 %Ar(rad): 31.4 %K2O: 3.46
USGS Wolfe and others, 1987

2.07 +/- 0.07 WR, dacite,
Lab sample no. 6I743 Field sample no. M76-1KP Quad.: Blue-gray dacite at Main KP dome
Lat. 35 24.48' Lon. 111 51.2' T. R. sec.
40Ar* (picomoles/gram): 10.3029 %Ar(rad): 31.4 %K2O: 3.46
USGS

2.07 +/- 0.75 plag, dacite, Dry Lake Hills dacite
Lab sample no. 3I574 Field sample no. DRY LAKE 1 Quad.: Humphreys Peak Dacite of Dry Lake Hills (Qdld)
Lat. 35 15.27' Lon. 111 37.9' T.22N R.7E sec.27/34
40Ar* (picomoles/gram): 1.97 %Ar(rad): 4 %K2O: 0.66
USGS Age judged to be too old (see Wolfe and others, 1987)

2.08 +/- 0.48 WR, basalt, Bill Williams Mtn basalt
Lab sample no. 6I753 Field sample no. UBW-251 Quad.: Williams South Basalt flow south of Bill Williams Mountain (Twin Springs flow) (1219, QTmb)
Lat. 35 10.35' Lon. 112 12.017' T.21N R.2E NE sec.29
40Ar* (picomoles/gram): 3.8 %Ar(rad): 6.7 %K2O: 1.27
USGS Newhall and others, 1987

San Francisco Volcanic Field, USGS K-Ar dates

2.09 +/- 0.12 bio, dacite, Kendrick Peak dacite
Lab sample no. 6I139 Field sample no. M-75-55 Quad.: Kendrick Peak Dacite dome north side of Kendrick Peak (Tkdh)
Lat. 35 25.416' Lon. 111 51.433' T.24N R.5E NW sec.34
40Ar* (picomoles/gram): 25.54 %Ar(rad): 20.9 %K2O: 8.48
USGS Wolfe and others, 1987

2.14 +/- 0.073 WR, andesite, Government Prairie andesite
Lab sample no. 6I141 Field sample no. W-75-P-25A Quad.: Parks Basaltic andesite flow west of Wright Hill (2416, QTab)
Lat. 35 17.816' Lon. 111 58.167' T.22N R.4E SE sec.9
40Ar* (picomoles/gram): 8.17 %Ar(rad): 31.1 %K2O: 2.649
USGS Wolfe and others, 1987

2.16 +/- 0.13 WR, rhyolite, Kendrick Park rhyolite
Lab sample no. 6I740 Field sample no. M76-83KP Quad.: Kendrick Peak Rhyolite dome SW Kendrick Park (Qkbr)
Lat. 35 24.133' Lon. 111 46' T.23N R.6E W center sec.4
40Ar* (picomoles/gram): 12.48 %Ar(rad): 18.5 %K2O: 4.02
USGS Wolfe and others, 1987

2.20 +/- 0.29 alkali feldspar, rhyolite, Kendrick Park rhyolite
Lab sample no. 5I589 Field sample no. KENCABIN Quad.: Kendrick Peak Clast from rhyolite breccia of Kendrick Peak (Qkbr)
Lat. 35 24.433' Lon. 111 50.733' T.23N R.5E E center sec.3
40Ar* (picomoles/gram): 5.95 %Ar(rad): 14.5 %K2O: 1.88
USGS (see Wolfe and others, 1987)

2.25 +/- 0.9 bio, dacite, Sugarloaf dacite
Lab sample no. 4I056 Field sample no. SFP-2 Quad.: O'Leary Peak Dacite dome of North Sugarloaf (Tnsd)
Lat. 35 22.7' Lon. 111 36.65' T.23N R.7E NW sec.13
40Ar* (picomoles/gram): 24.91 %Ar(rad): 3.7 %K2O: 7.68
USGS Additional dates with lower analytical reproducibility (cf. PED 15-70) (see Wolfe and others, 1987)

2.26 +/- 0.1 K-feldspar, quartz porphyry,
Lab sample no. 6I136 Field sample no. W-75-P-164C Quad.: Sitgreaves, quartz porphyry
Lat. 35 18.83' Lon. 111 59.4' T. R. sec.
40Ar* (picomoles/gram): 28.636 %Ar(rad): 25.32 %K2O: 8.8
USGS

2.26 +/- 0.1 sani, rhyolite, Sitgreaves Mtn rhyolite
Lab sample no. 6I136 Field sample no. Quad.: Parks Rhyolite dome SE side of Sitgreaves Mountain (Tsrc)
Lat. 35 18.833' Lon. 111 59.4' T.22N R.4E center sec.5
40Ar* (picomoles/gram): 28.64 %Ar(rad): 25.3 %K2O: 8.8
USGS Wolfe and others, 1987

2.30 +/- 0.87 bio, rhyolite, Sitgreaves Mtn rhyolite
Lab sample no. 6I018 Field sample no. W-75-184 Quad.: Sitgreaves Mountain Rhyolite ash and pumice of Sitgreaves Mtn, NE side of Frenchy Hill (Tsp)
Lat. 35 19.1' Lon. 111 2.7' T.23N R.3E S center sec.35
40Ar* (picomoles/gram): 23.73 %Ar(rad): 3.9 %K2O: 7.15
USGS Newhall and others, 1987

2.32 +/- 0.77 WR, dacite,
Lab sample no. 5I180 Field sample no. 20LP Quad.: Dacite flow north of Sugarloaf
Lat. 35 22.25' Lon. 111 37' T. R. sec.
40Ar* (picomoles/gram): 7.0184 %Ar(rad): 4.4 %K2O: 2.096
USGS

2.38 +/- 0.21 alkali feldspar, dacite, Kendrick Peak dacite
Lab sample no. 4I117 Field sample no. KEN 4B Quad.: Kendrick Peak Dacite dome south side of Kendrick Peak (Tkdd)
Lat. 35 24.133' Lon. 111 51.067' T.23N R.5E S center sec.3
40Ar* (picomoles/gram): 6.74 %Ar(rad): 14.6 %K2O: 1.97
USGS Wolfe and others, 1987

San Francisco Volcanic Field, USGS K-Ar dates

2.46 +/- 0.25 WR, andesite, Kendrick Peak andesite
Lab sample no. 8I112 Field sample no. M-77-16KP Quad.: Kendrick Peak Andesite dike on south side of Kendrick Peak (Qkai)
Lat. 35 24.033' Lon. 111 50.967' T.23N R.5E SE sec.3
40Ar* (picomoles/gram): 7.64 %Ar(rad): 4.9 %K2O: 2.158
USGS Date judged to be too old (see Wolfe and others, 1987)

2.46 +/- 0.11 WR, basalt, Sitgreaves Mtn basalt
Lab sample no. 6I060 Field sample no. W-75-P-169A Quad.: Parks Basalt flow SE side of Sitgreaves Mountain (2405, QTbm)
Lat. 35 18.833' Lon. 111 59.4' T.22N R.4E NW sec.5
40Ar* (picomoles/gram): 2.69 %Ar(rad): 17.4 %K2O: 0.759
USGS Wolfe and others, 1987

2.63 +/- 0.93 alkali feldspar, dacite, Kendrick Peak dacite
Lab sample no. 5I561 Field sample no. M-75-47 Quad.: Kendrick Peak Dacite dome south side of Kendrick Peak (Tkdd)
Lat. 35 24.15' Lon. 111 51.05' T.23N R.5E S center sec.3
40Ar* (picomoles/gram): 6.71 %Ar(rad): 4.12 %K2O: 1.77
USGS Additional dates with lower analytical reproducibility (see Wolfe and others, 1987)

2.70 +/- 0.08 glass, obsidian, Government Mtn rhyolite
Lab sample no. 3I425 Field sample no. SIT-5 Quad.: Parks Dacite dome west side of Government Mountain (Tgmr)
Lat. 35 21.1' Lon. 111 54.783' T.23N R.4E NE,NE sec.25
40Ar* (picomoles/gram): 16.77 %Ar(rad): 62.1 %K2O: 4.31
USGS Wolfe and others, 1987

2.74 +/- 0.16 bio, rhyolite, Government Hill rhyolite
Lab sample no. 3I489 Field sample no. SIT-2b Quad.: Parks Rhyolite dome S side of Government Hill (Tghr)
Lat. 35 19.45' Lon. 111 57.3' T.23N R.4E S center sec.34
40Ar* (picomoles/gram): 29.04 %Ar(rad): 21.2 %K2O: 7.35
USGS Wolfe and others, 1987

2.79 +/- 0.07 bio, rhyolite, Wright Hill rhyolite
Lab sample no. 3I523 Field sample no. SIT-1 Quad.: Parks Rhyolite dome of Wright Hill (Twhr)
Lat. 35 17.933' Lon. 111 57.317' T.22N R.4E center sec.10
40Ar* (picomoles/gram): 31.39 %Ar(rad): 40.2 %K2O: 7.82
USGS Wolfe and others, 1987

2.83 +/- 0.91 plag, andesite, Bill Williams Mtn andesite
Lab sample no. 6I662 Field sample no. UBW-91 Quad.: Williams South Andesite flow of Bill Williams Mtn, north of Bennet Spring (Twa)
Lat. 35 14.117' Lon. 112 12.733' T.21N R.2E NE,NE,NE sec.6
40Ar* (picomoles/gram): 5.02 %Ar(rad): 4.5 %K2O: 1.233
USGS Newhall and others, 1987

2.84 +/- 0.02 glass, obsidian, Sitgreaves Mtn rhyolite
Lab sample no. 3I405 Field sample no. SIT-3 Quad.: Parks Rhyolite vitrophyre flow SE side of Sitgreaves Mtn, NW of Government Hill (Tsrv)
Lat. 35 20.167' Lon. 111 58.183' T.23N R.4E NE sec.33
40Ar* (picomoles/gram): 18.1 %Ar(rad): 75.9 %K2O: 4.42
USGS Wolfe and others, 1987

2.84 +/- 0.25 WR, basalt, Bill Williams Mtn basalt
Lab sample no. 6I731 Field sample no. UBW-249 Quad.: Williams South Basalt flow of Bill Williams Mtn, NW of Barney Knoll (1211, Tyb)
Lat. 35 10.45' Lon. 112 9.033' T.21N R.2E N center sec.26
40Ar* (picomoles/gram): 3.93 %Ar(rad): 14.7 %K2O: 0.959
USGS Newhall and others, 1987

San Francisco Volcanic Field, USGS K-Ar dates

2.84 +/- 0.06 WR, rhyolite, Sitgreaves Mtn rhyolite
Lab sample no. 6I727 Field sample no. W-76-P-11 Quad.: Parks Rhyolite dome SE side of Sitgreaves Mtn, NW of Government Hill (Tsra)
Lat. 35 20.433' Lon. 111 58.9' T.23N R.4E W center sec.28
40Ar* (picomoles/gram): 17.05 %Ar(rad): 43.4 %K2O: 4.16
USGS Wolfe and others, 1987

2.88 +/- 0.09 glass, obsidian, Sitgreaves Mtn rhyolite
Lab sample no. 3I426 Field sample no. SIT-4 Quad.: Parks Rhyolite dome SE side of R S Hill (Trsr)
Lat. 35 21.233' Lon. 111 57.633' T.23N R.4E SW,SW sec.22
40Ar* (picomoles/gram): 17.74 %Ar(rad): 33.3 %K2O: 4.27
USGS Wolfe and others, 1987

2.94 +/- 0.57 WR, benmoreite, Bill Williams Mtn benmoreite
Lab sample no. 8I407 Field sample no. UAF149 Quad.: McLellan Reservoir Benmoreite flow of Bill Williams Mountain, SW of Bixler Mtn (Twbn)
Lat. 35 11.183' Lon. 112 15.467' T.21N R.1E NW sec.23
40Ar* (picomoles/gram): 10.29 %Ar(rad): 9.5 %K2O: 2.428
USGS Newhall and others, 1987

3.14 +/- 0.03 WR, basalt, Mormon Mountain basalt
Lab sample no. 5I676 Field sample no. M-75-82-MM Quad.: Mormon Lake/Mormon Mtn Basalt flow of Mormon Mountain
Lat. 34 59' Lon. 111 30' T.19N R.8E center sec.36
40Ar* (picomoles/gram): 9.85 %Ar(rad): 71.4 %K2O: 2.18
USGS (see Weir and others, 1989)

3.23 +/- 0.6 WR, andesite, Bill Williams Mtn andesite
Lab sample no. 7I713 Field sample no. UBW-322 Quad.: Williams South Andesite flow of Bill Williams Mtn, north of Bennet Spring (Twa)
Lat. 35 14.117' Lon. 111 11.233' T.21N R.2E N center sec.4
40Ar* (picomoles/gram): 9.77 %Ar(rad): 14 %K2O: 2.1
USGS Newhall and others, 1987

3.34 +/- 0.51 WR, andesite, Kana-a andesite flow
Lab sample no. 5I205 Field sample no. M-75-64 Quad.: Strawberry Crater Andesite dome and flow of Sunset Crater eruption (Kana a flow, vent 3922, Qba)
Lat. 35 23' Lon. 111 25.75' T.23N R.9E center sec.10
40Ar* (picomoles/gram): 2.45 %Ar(rad): 4.7 %K2O: 0.509
USGS Date judged to be too old (see Moore and Wolfe, 1987)

3.36 +/- 0.92 plag, dacite, O'Neill Crater dacite dome
Lab sample no. 6I525 Field sample no. Strawberry Quad.: Sunset Crater East Dacite dome of O'Neill Crater (V2929, Qbyab)
Lat. 35 15.25' Lon. 111 27.7' T.22N R.9E S sec.29
40Ar* (picomoles/gram): 6.74 %Ar(rad): 5.2 %K2O: 1.391
USGS Age judged to be too old (see Moore and Wolfe, 1987)

3.43 +/- 3 plag, dacite, San Francisco Mtn dacite
Lab sample no. 6I514 Field sample no. Smiley Quad.: Humphreys Peak Dacite dome of San Francisco Peak (Qsfd)
Lat. 35 21' Lon. 111 40' T.23N R.7E sec.29/28
40Ar* (picomoles/gram): 3.13 %Ar(rad): 1.7 %K2O: 0.634
USGS Precision (analytical reproducibility) too low for resolution of age; Age judged to be too old (see Wolfe and others, 1987)

3.48 +/- 0.4 WR, andesite, Bill Williams andesite
Lab sample no. 8I177 Field sample no. UW101A Quad.: Williams North Andesite flow of Bill Williams Mtn, at railroad domes (Twa)
Lat. 35 16.25' Lon. 112 10.617' T.22N R.2E sec.21/22
40Ar* (picomoles/gram): 10.58 %Ar(rad): 15.7 %K2O: 2.108
USGS Precision (analytical reproducibility) too low for resolution of age; same location as 6I641 (see Newhall and others, 1987)

San Francisco Volcanic Field, USGS K-Ar dates

3.48 +/- 0.15 WR, andesite,
Lab sample no. 8I177 Field sample no. UW101A Quad.: Andesite at Railroad Hill
Lat. 35 16.25' Lon. 112 10.62' T. R. sec.
40Ar* (picomoles/gram): 10.5806 %Ar(rad): 15.7 %K2O: 2.108
USGS Same as 6I641

3.49 +/- 0.06 WR, dacite, Bill Williams Mtn dacite
Lab sample no. 7I148 Field sample no. UBW16-452 Quad.: Williams South Dacite dome near top of Bill Williams Mountain (1217B, Twdd)
Lat. 35 12' Lon. 112 11.33' T.21N R.2E W center sec.17
40Ar* (picomoles/gram): 15.23 %Ar(rad): 48.3 %K2O: 3.03
USGS Newhall and others, 1987

3.50 +/- 0.14 glass, obsidian, Sitgreaves Mtn rhyolite
Lab sample no. 6I760 Field sample no. W-76-P-15 Quad.: Parks Rhyolite flow of Sitgreaves Mountain (Tsrb)
Lat. 35 20.65' Lon. 111 58.3' T.23N R.4E center sec.28
40Ar* (picomoles/gram): 22.26 %Ar(rad): 28.5 %K2O: 4.41
USGS Date judged to be too old (see Moore and Wolfe, 1987)

3.56 +/- 0.38 bio, dacite, Bill Williams Mtn dacite
Lab sample no. 6I054 Field sample no. UBW-97 Quad.: Williams South Dacite flow of Bill Williams Mountain (Twd)
Lat. 35 11.317' Lon. 112 12.233' T.21N R.2E N center sec.20
40Ar* (picomoles/gram): 36.56 %Ar(rad): 12.4 %K2O: 7.13
USGS Newhall and others, 1987

3.59 +/- 0.13 bio, dacite, Bill Williams Mtn dacite
Lab sample no. 3I492 Field sample no. BW-2 Quad.: Williams South Dacite pyroclastics deposit of Bill Williams Mountain (Twdp)
Lat. 35 12.017' Lon. 112 12.417' T.21N R.2E SE, NW sec.17
40Ar* (picomoles/gram): 36.3 %Ar(rad): 30.9 %K2O: 7.01
USGS Newhall and others, 1987

3.62 +/- 0.33 bio, dacite, Bill Williams Mtn dacite
Lab sample no. 6I020 Field sample no. UBW-90 Quad.: Williams South Dacite dome NW side of Bill Williams Mountain (Twdd)
Lat. 35 12.967' Lon. 112 13.633' T.21N R.2E NW sec.7
40Ar* (picomoles/gram): 39.21 %Ar(rad): 14.4 %K2O: 7.51
USGS Newhall and others, 1987

3.63 +/- 0.11 bio, rhyolite, Government Prairie rhyolite
Lab sample no. 6I017 Field sample no. W-75-P-41A Quad.: Parks Rhyolite dome S of Government Mtn (vent 2506, Qmrk)
Lat. 35 19.567' Lon. 111 54.067' T.23N R.5E SE,SE sec.31
40Ar* (picomoles/gram): 41.36 %Ar(rad): 34.7 %K2O: 7.91
USGS Date judged to be too old (see Wolfe and others, 1987)

3.72 +/- 0.21 bio, dacite, Bill Williams Mtn dacite
Lab sample no. 6I052 Field sample no. UBW-92 Quad.: Williams South Dacite dome west side of Bill Williams Mountain (Twdd)
Lat. 35 12.02' Lon. 112 13.3' T.21N R.2E center sec.18
40Ar* (picomoles/gram): 40.96 %Ar(rad): 21.5 %K2O: 7.64
USGS Newhall and others, 1987

3.88 +/- 0.44 bio, dacite, Bill Williams Mtn dacite
Lab sample no. 6I053 Field sample no. UBW-94 Quad.: Williams South Dacite dome west side of Bill Williams Mountain (Twdd)
Lat. 35 11.9' Lon. 112 13.7' T.21N R.2E NW,SW sec.18
40Ar* (picomoles/gram): 42.84 %Ar(rad): 11.8 %K2O: 7.66
USGS Newhall and others, 1987

San Francisco Volcanic Field, USGS K-Ar dates

4.06 +/- 0.51 WR, basalt, Bill Williams Mtn basalt
Lab sample no. 6I621 Field sample no. UBW-180 Quad.: Williams South Basalt flow north end of Saginaw reservoirs (Tyb)
Lat. 35 14.467' Lon. 112 11.3' T.22N R.2E S center sec.33
40Ar* (picomoles/gram): 2.87 %Ar(rad): 10.6 %K2O: 0.49
USGS Newhall and others, 1987

4.10 +/- 0.43 WR, basalt, Bill Williams Mtn basalt
Lab sample no. 6I713 Field sample no. UBW-252 Quad.: Williams South Basalt flow south side of Bill Williams Mountain, at Mesa Tank (1233, Tyb)
Lat. 35 10.183' Lon. 112 11.15' T.21N R.2E center sec.28
40Ar* (picomoles/gram): 6.92 %Ar(rad): 12.6 %K2O: 1.17
USGS Newhall and others, 1987

4.12 +/- 0.2 WR, basalt, Fortynine Hill basalt
Lab sample no. 6I758 Field sample no. W-76-P-106 Quad.: Parks Basalt flow west of Brannigan Park (2519B,Tyb)
Lat. 35 16.45' Lon. 111 53.92' T.22N R.5E E center sec.19
40Ar* (picomoles/gram): 6.1 %Ar(rad): 23.6 %K2O: 1.028
USGS Wolfe and others, 1987

4.18 +/- 1.06 horn, dacite, Bill Williams Mtn dacite
Lab sample no. 6I640 Field sample no. UBW-187 Quad.: Williams South Dacite dome at Wounded Ranger Knoll (Twdd)
Lat. 35 14.067' Lon. 112 9.783' T.21N R.2E NE,NE,NE sec.3
40Ar* (picomoles/gram): 3.92 %Ar(rad): 5.7 %K2O: 0.65
USGS Newhall and others, 1987

4.19 +/- 0.39 WR, basalt, Bill Williams Mtn basalt
Lab sample no. 6I739 Field sample no. UBW-241 Quad.: Williams South Basalt dike south side of Coleman Knoll (1233, Tyb)
Lat. 35 9.083' Lon. 112 10.983' T.21N R.2E SE sec.33
40Ar* (picomoles/gram): 4.05 %Ar(rad): 14 %K2O: 0.67
USGS Newhall and others, 1987

4.22 +/- 0.26 bio, dacite, Bill Williams Mtn dacite
Lab sample no. 3I452 Field sample no. BW-1 Quad.: Williams South Dacite dome NE side of Bill Williams Mountain near ski area (Twdd)
Lat. 35 12.75' Lon. 112 11.6' T.21N R.2E W center sec.9
40Ar* (picomoles/gram): 45.36 %Ar(rad): 19.6 %K2O: 7.46
USGS Newhall and others, 1987

4.83 +/- 0.9 WR, andesite, Bill Williams Mtn andesite
Lab sample no. 7I107 Field sample no. UBW-96 Quad.: Williams South Andesite flow north of Bill Williams Mountain, north end of Saginaw Reservoirs (Twa)
Lat. 35 14.5' Lon. 112 11.33' T.22N R.2E center sec.33
40Ar* (picomoles/gram): 10.36 %Ar(rad): 6.7 %K2O: 1.489
USGS Date judged to be too old (see Newhall and others, 1987)

4.84 +/- 0.61 WR, basalt, Hell Canyon basalt
Lab sample no. 6I669 Field sample no. UBW-232 Quad.: Williams South Basalt flow of Hell Canyon at T20N/T21N line (Tyb)
Lat. 35 8.87' Lon. 112 16.517' T.20N R.1E N center sec.1
40Ar* (picomoles/gram): 9.76 %Ar(rad): 10.7 %K2O: 1.4
USGS Newhall and others, 1987

4.93 +/- 0.24 bio, rhyolite, Sitgreaves Mtn rhyolite
Lab sample no. 6I730 Field sample no. W-76-P-165 Quad.: Parks Rhyolite dome of Eagle Rock (Tsre)
Lat. 35 20.5' Lon. 111 59.116' T.23N R.4E SE sec.29
40Ar* (picomoles/gram): 55.53 %Ar(rad): 23.8 %K2O: 7.81
USGS Date judged to be too old (see Wolfe and others, 1987)

San Francisco Volcanic Field, USGS K-Ar dates

5.03 +/- 0.5 bio, dacite, Bill Williams Mtn dacite
Lab sample no. 7I711 Field sample no. UBW-321 Quad.: Williams South Dacite flow at High School Hill (Twdf)
Lat. 35 14.583' Lon. 112 10.98' T.22N R.2E center sec.33
40Ar* (picomoles/gram): 48.77 %Ar(rad): 15.6 %K2O: 6.73
USGS Newhall and others, 1987

5.15 +/- 0.17 WR, dacite, Hell Canyon dacite
Lab sample no. 6I726 Field sample no. UBW-247 Quad.: Williams South Dacite dome of Hell Canyon (Thcd)
Lat. 35 9.183' Lon. 112 12.717' T.21N R.2E NE,SE sec.31
40Ar* (picomoles/gram): 21.53 %Ar(rad): 32.5 %K2O: 2.9
USGS Newhall and others, 1987

5.88 +/- 0.06 plag, dacite, Bill Williams Mtn dacite
Lab sample no. 4I090 Field sample no. BW-3 Quad.: Williams South Dacite dome, east side of Bill Williams Mountain (Twdd)
Lat. 35 12' Lon. 112 11.33' T.21N R.2E W center sec.16
40Ar* (picomoles/gram): 9.99 %Ar(rad): 7.8 %K2O: 1.179
USGS Date judged to be too old (see Newhall and others, 1987)

6.13 +/- 0.15 WR, andesite, Bill Williams Mtn andesite
Lab sample no. 6I770 Field sample no. UA270 Quad.: McLellan Reservoir Basaltic andesite SW side of Signal Hill (vent 2135, Toab)
Lat. 35 14.183' Lon. 112 15.233' T.21N/22N R.1E E sec.2/35 line
40Ar* (picomoles/gram): 18.05 %Ar(rad): 39.4 %K2O: 2.041
USGS Newhall and others, 1987

6.28 +/- 0.28 WR, basalt, San Francisco Mtn basalt
Lab sample no. 1I327 Field sample no. Rio de Flag Quad.: Flagstaff West Undifferentiated basalt flow, Rio de Flag at The Narrows (Tob)
Lat. 35 14.05' Lon. 111 39.9' T.21N R.7E SW,NW sec.4
40Ar* (picomoles/gram): 4.72 %Ar(rad): 25.7 %K2O: 0.521
USGS Wolfe and others, 1987

6.39 +/- 0.32 WR, basalt, Bill Williams Mtn basalt
Lab sample no. 6I744 Field sample no. UBW-250 Quad.: Williams South Basalt flow of Bill Williams Mountain (flow 1222, Tob)
Lat. 35 10.283' Lon. 112 9.567' T.21N R.2E E center sec.27
40Ar* (picomoles/gram): 6.82 %Ar(rad): 23.5 %K2O: 0.74
USGS Newhall and others, 1987

8.76 +/- 1.39 WR, dacite, Bill Williams Mtn dacite
Lab sample no. 7I056 Field sample no. UBW-95 Quad.: Williams South Dacite flow at High School Hill (Twdf)
Lat. 35 14.5' Lon. 112 11' T.22N R.2E E center sec.33
40Ar* (picomoles/gram): 32.089 %Ar(rad): 8.8 %K2O: 2.538
USGS Date judged to be too old (see Newhall and others, 1987)

11.11 +/- 1.15 WR, gabbro, Beacon Hill xenolith
Lab sample no. 6I686 Field sample no. UW-273 Quad.: Sitgreaves Mountain Gabbro xenolith in basalt flow at Beacon Hill (flow 2327, QTb)
Lat. 35 15.6' Lon. 112 3.533' T.22N R.3E NE sec.27
40Ar* (picomoles/gram): 3.53 %Ar(rad): 13 %K2O: 0.22
USGS (see Newhall and others, 1987)

San Francisco Volcanic Field, University of Arizona K-Ar dates

0.15 +/- 0.03 Ma WR, basalt, Merriam M-2 basalt flow
Lab sample no. UAKA 75-20 Field sample no. KAR 74-15 Quadrangle: Grand Falls
Lat. 35 25.73' Lon.111 11.8' T. 24 N. R. 11 E. Sec. unsurveyed
40Ar* (picomoles/gram): 0.204 Ar (atmospheric): 95.56% K: 0.76%
Merriam M-2 basalt flow Sample at Grand Falls along bank of Little Colorado River
Project affiliation: R.B. Moore/USGS & P.E. Damon/UofA Refs.: Moore and Wolfe, 1987

0.17 +/- 0.06 Ma WR, basalt, Jumpoff flow, vent 2019
Lab sample no. UAKA 75-15 Field sample no. KAR 74-11 Quadrangle: Merriam Crater
Lat. 35 15.45' Lon.111 22.23' T. 22 N. R. 10 E. SE,SE,SE,SW Sec. 30
40Ar* (picomoles/gram): 0.37 Ar (atmospheric): 97.8% K: 1.224%
Jumpoff Crater basalt flow [vent 2019]
Project affiliation: R.B. Moore/USGS & P.E. Damon/UofA Refs.: Moore and Wolfe, 1987

0.17 +/- 0.04 Ma WR, rhyodacite, Deadman Mesa rhyodacite
Lab sample no. UAKA 75-16 Field sample no. KAR 74-12A Quadrangle: Strawberry Crater
Lat. 35 27.83' Lon.111 29.83' T. 24 N. R. 8 E. center Sec. 13
40Ar* (picomoles/gram): 0.73 Ar (atmospheric): 94.25% K: 2.41%
Rhyodacite flow, vitric phase Deadman Mesa [Qdmd]
Project affiliation: R.B. Moore/USGS & P.E. Damon/UofA Refs.: Moore and Wolfe, 1987

0.22 +/- 0.05 Ma WR , basalt, Vent 54 basalt
Lab sample no. UAKA 75-8 Field sample no. SP 16-489 Quadrangle: East of S P Mountain
Lat. 35 30.12' Lon.111 33.27' T. 25 N. R. 8 E. SE,NE,SE Sec. 32
40Ar* (picomoles/gram): 0.192 Ar (atmospheric): 94.45% K: 0.497%
Basalt of vent 54 flow, highly vesicular; cpx+ol+amph+plag+mag phenos 10-15 % [vent 5831, Qbb]
Project affiliation: R.B. Moore & G. Ulrich/USGS Refs.: Ulrich and Bailey, 1987

0.29 +/- 0.08 Ma WR, basalt, Vent 419 basalt
Lab sample no. UAKA 75-9 Field sample no. KAR 74-6 Quadrangle: Strawberry Crater
Lat. 35 26.72' Lon.111 25.25' T. 24 N. R. 9 E. SE,SE Sec. 22
40Ar* (picomoles/gram): 0.41 Ar (atmospheric): 95.7% K: 0.822%
Basalt of vent 419; fine-grained; ol+plag+cpx+opaques [vent 3904, Qbb]
Project affiliation: R.B. Moore/USGS & P.E. Damon/UofA Refs.: Moore and Wolfe, 1987

0.31 +/- 0.17 Ma WR, rhyodacite, Deadman Mesa rhyodacite
Lab sample no. UAKA 75-17 Field sample no. KAR 74-12B Quadrangle: Strawberry Crater
Lat. 35 27.82' Lon.111 29.83' T. 24 N. R. 8 E. center Sec. 13
40Ar* (picomoles/gram): 1.28 Ar (atmospheric): 97.65% K: 2.404%
Rhyodacite flow, devitrified facies Deadman Mesa
Project affiliation: R.B. Moore/USGS & P.E. Damon/UofA Refs.: (See Moore and Wolfe, 1987)

0.33 +/- 0.09 Ma WR, andesite, A 1 Mountain andesite
Lab sample no. UAKA 77-13 Field sample no. W76FW158 Quadrangle: Flagstaff West
Lat. 35 14.59' Lon.111 44.08' T. 22 N. R. 6 E. NW,SW Sec. 35
40Ar* (picomoles/gram): 1.373 Ar (atmospheric): 96.13% K: 2.402%
Andesite flow of A 1 Mountain (See UAKA 77-9) [vent 1602, Qbbn2]
Project affiliation: P.E. Damon/UofA & E.W. Wolfe/USGS Refs.: Wolfe and others, 1987

0.34 +/- 0.07 Ma WR, basalt, Vent 176 basalt
Lab sample no. UAKA 75-11 Field sample no. KAR 74-8 Quadrangle: Merriam Crater
Lat. 35 21.47' Lon.111 18.82' T. 23 N. R. 10 E. NW,NE Sec. 27
40Ar* (picomoles/gram): 0.29 Ar (atmospheric): 92.85% K: 0.492%
Basalt flow, west vent 176 [vent 3022, Qyb]
Project affiliation: R.B. Moore/USGS & P.E. Damon/UofA Refs.: Moore and Wolfe, 1987

0.36 +/- 0.04 Ma GM, basalt, Roden Crater basalt
Lab sample no. UAKA 88-147 Field sample no. 2-74-1 Quadrangle: Roden Crater
Lat. 35 25.08' Lon.111 14.5' T. 24 N. R. 11 E. SE,SW Sec. 32
40Ar* (picomoles/gram): 0.652 Ar (atmospheric): 93.88% K: 1.05%
Basalt flow that issued from the base of Roden Crater
Project affiliation: R. Harwood/NAU Refs.: Harwood, 1989

San Francisco Volcanic Field, University of Arizona K-Ar dates

0.40 +/- 0.03 Ma WR, dacite, Humphreys Peak dacite
Lab sample no. UAKA 74-143 Field sample no. KAR #3 Quadrangle: Sunset Crater West
Lat. 35 20.42' Lon.111 34.75' T. 23 N. R. 8 E. NE,NE Sec. 31
40Ar* (picomoles/gram): 1.48 Ar (atmospheric): 884.75% K: 2.122%
Dacite Sample from flow along Schultz Pass Road, NW of Lennox Park Road [Qdd3]
Project affiliation: R.B. Moore/USGS Refs.: Wolfe and others, 1987

0.41 +/- 0.16 Ma WR, dacite, Locket Meadow dacite
Lab sample no. UAKA 75-121 Field sample no. 10-17-75-2 Quadrangle: Humphreys Peak
Lat. 35 21.48' Lon.111 38.08' T. 23 N. R. 7 E. SE Sec. 22
40Ar* (picomoles/gram): 1.36 Ar (atmospheric): 96.6% K: 1.93%
Locket meadow dacite flow [Qlmd]
Project affiliation: R.B. Moore/USGS Refs.: Wolfe and others, 1987

0.42 +/- 0.06 Ma WR, basalt, Government Prairie basalt
Lab sample no. UAKA 77-7 Field sample no. W76WM155 Quadrangle: Wing Mountain
Lat. 35 21.35' Lon.111 47.5' T. 23 N. R. 6 E. SE,SE Sec. 19
40Ar* (picomoles/gram): 1.17 Ar (atmospheric): 88.29% K: 1.605%
Basalt. Overlies Hart Prarrie basalt [3621A Qyb]
Project affiliation: P.E. Damon/UofA & E.W. Wolfe/USGS Refs.: Wolfe and others, 1987

0.43 +/- 0.03 Ma WR, andesite, Humphreys Peak andesite
Lab sample no. UAKA 74-141 Field sample no. KAR#2 Quadrangle: Humphreys Peak
Lat. 35 20.77' Lon.111 40.63' T. 23 N. R. 7 E. NE,SW Sec. 29
40Ar* (picomoles/gram): 1.12 Ar (atmospheric): 83.8% K: 1.488%
Basaltic andesite from summit of Humphreys Peak [3729N, Qa2]
Project affiliation: R.B. Moore/USGS Refs.: Wolfe and others, 1987; Holm, 1988

0.46 +/- 0.05 Ma WR, basalt, San Francisco basalt
Lab sample no. UAKA 75-14 Field sample no. SP 16-495 Quadrangle: Campbell Francis Wash
Lat. 35 41.93' Lon.111 37.25' T. 27 N. R. 7 E. SE,NW,NW Sec. 26
40Ar* (picomoles/gram): 0.82 Ar (atmospheric): 89.6% K: 1.017%
Basalt; fine-grained, vesicular [Qyb]
Project affiliation: R.B. Moore & G. Ulrich/USGS Refs.: Ulrich and Bailey, 1987

0.47 +/- 0.05 Ma WR, andesite, Humphreys Peak andesite
Lab sample no. UAKA 74-140 Field sample no. KAR74-1I Quadrangle: Humphreys Peak
Lat. 35 21' Lon.111 41' T. 23 N. R. 7 E. Sec. 28
40Ar* (picomoles/gram): 1.91 Ar (atmospheric): 88.57% K: 2.328%
Andesite Sample from lowest exposed unit in north wall of inner basin of San Francisco Mtn Recollected as UAKA 75-125 [Qal]
Project affiliation: R.B. Moore/USGS Refs.: (See Wolfe and others, 1987; Holm, 1988)

0.48 +/- 0.45 Ma WR, basalt, Vent 416 basalt flow
Lab sample no. UAKA 73-117 Field sample no. JSL 8-70 Quadrangle: Strawberry Crater
Lat. 35 25' Lon.111 29' T. 24 N. R. 8 E. SE Sec. 36
40Ar* (picomoles/gram): 1.04 Ar (atmospheric): 98.8% K: 1.245%
Basalt from crater 416 flow, stage III Location information general [lat-lon does not match Township, Range, Section information.
Project affiliation: USGS Refs.: (see Moore and Wolfe, 1987)

0.49 +/- 0.06 Ma WR, dacite, Mt. Eldon dacite
Lab sample no. UAKA 73-113 Field sample no. 16-447 Quadrangle: Flagstaff East
Lat. 35 13.85' Lon.111 35.23' T. 21 N. R. 8 E. SW Sec. 6
40Ar* (picomoles/gram): 2.31 Ar (atmospheric): 80.1% K: 2.7%
Dacite from "youngest" flow associated with Mt. Eldon laccolith Flow is on SE flank of Mt. Eldon, just west of Eldon Ranger Station, at 7100' [Qed2]
Project affiliation: G. Ulrich/USGS & C.F. Kluth/NAU Refs.: Kluth, 1974; Wolfe and others, 1987; Holm, 1988

San Francisco Volcanic Field, University of Arizona K-Ar dates

0.55 +/- 0.12 Ma WR, andesite, Vent 46 andesite
Lab sample no. UAKA 75-18 Field sample no. KAR 74-13 Quadrangle: Sunset Crater East
Lat. 35 16.8' Lon.111 27.6' T. 22 N. R. 9 E. NW,NE Sec. 20
40Ar* (picomoles/gram): 1.24 Ar (atmospheric): 96.4% K: 1.311%
Basaltic andesite of Vent 46; 5-10% olivine phenos, rare large plag phenos [vent 3835, Qbab]
Project affiliation: R.B. Moore/USGS & P.E. Damon/UofA Refs.: Moore and Wolfe, 1987

0.57 +/- 0.03 Ma WR, basalt, Mt. Elden dacite
Lab sample no. UAKA 73-146 Field sample no. 16-448 Quadrangle: Flagstaff East
Lat. 35 13.78' Lon.111 35.25' T. 21 N. R. 8 E. SW Sec. 6
40Ar* (picomoles/gram): 2.95 Ar (atmospheric): 74.7% K: 2.97%
Dacite, one of oldest flows exposed on Mt. Eldon. Elevation 7050' [Qed2]
Project affiliation: G.E. Ulrich/USGS Refs.: Wolfe and others, 1987; Holm, 1988; Kluth, 1974

0.58 +/- 0.05 Ma WR, dacite, Schultz Peak dacite
Lab sample no. UAKA 75-122W Field sample no. 10-17-75-3 Quadrangle: Sunset Crater West
Lat. 35 17.98' Lon.111 36.63' T. 22 N. R. 7 E. SW,SW Sec. 12
40Ar* (picomoles/gram): 3.07 Ar (atmospheric): 3.065% K: 3.05%
Dacite of Schultz Peak [Qsd1]
Project affiliation: R.B.Moore/USGS Refs.: (see Wolfe and others, 1987)

0.60 +/- 0.09 Ma WR, basalt, Vent 38 basalt
Lab sample no. UAKA 75-19 Field sample no. KAR 74-14 Quadrangle: O'Leary Peak
Lat. 35 25.5' Lon.111 34.5' T. 24 N. R. 9 E. Sec. 32
40Ar* (picomoles/gram): 0.578 Ar (atmospheric): 91.75% K: 0.56%
Basalt, highly vesicular, 20% small ol+plag phenos [vent 3809A, Qbb]
Project affiliation: R.B. Moore/USGS & P.E. Damon/UofA Refs.: Moore and Wolfe, 1987

0.60 +/- 0.11 Ma WR, basalt, Vent 171 flow
Lab sample no. UAKA 77-6 Field sample no. W76RC180 Quadrangle: Roden Crater
Lat. 35 28.13' Lon.111 21.38' T. 24 N. R. 10 E. center Sec. 17
40Ar* (picomoles/gram): 1.09 Ar (atmospheric): 94.95% K: 1.052%
Basalt of vent 171 Recollection of UAKA 73-123 [vent 3018, Qbb]
Project affiliation: P.E. Damon/UofA & E.W. Wolfe/USGS Refs.: Moore and Wolfe, 1897

0.61 +/- 0.09 Ma plag, basalt, Wupatki area basalt flow
Lab sample no. UAKA 75-129 Field sample no. Quadrangle: Roden Crater
Lat. 35 29.95' Lon.111 19.817' T. 25N. R. 10E. SE Sec. 33
40Ar* (picomoles/gram): 0.81 Ar (atmospheric): 92.4% K: 0.76%
Unnamed basalt flow near SE corner of Wupatki National Monument (Qbb)
Project affiliation: Refs.: Moore and Wolfe, 1987

0.63 +/- 0.04 Ma GM, dacite, Schultz Peak dacite
Lab sample no. UAKA 75-122G Field sample no. 10-17-75-3 Quadrangle: Sunset Crater West
Lat. 35 17.98' Lon.111 36.63' T. 22 N. R. 7 E. SW,SW Sec. 12
40Ar* (picomoles/gram): 3.14 Ar (atmospheric): 3.121% K: 2.868%
Dacite of Schultz Peak Groundmass feldspar may have excess argon - compare with UAKA 75-122W [Qsd1]
Project affiliation: R.B. Moore/USGS Refs.: (See Wolfe and others, 1987)

0.65 +/- 0.08 Ma WR, andesite, San Francisco Mtn andesite
Lab sample no. UAKA 75-123 Field sample no. Quadrangle: Humphreys Peak
Lat. 35 19.383' Lon.111 42.85' T. 22N. R. 6E. NW Sec. 1
40Ar* (picomoles/gram): 2.01 Ar (atmospheric): 89.9% K: 1.79%
Andesite flow of Agassiz Peak (Qaa2)
Project affiliation: Refs.: Moore and Wolfe, 1987

0.66 +/- 0.03 Ma WR, basalt, Humphreys Peak basalt
Lab sample no. UAKA 75-126 Field sample no. M-75-96-HP Quadrangle: Humphreys Peak
Lat. 35 19.98' Lon.111 40.63' T. 22 N. R. 7 E. center Sec. 32
40Ar* (picomoles/gram): 2.36 Ar (atmospheric): 76% K: 2.066%
Basalt from the western core ridge [Qca]
Project affiliation: R.B. Moore/USGS Refs.: Wolfe and others, 1987

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0.66 +/- 0.11 Ma WR, basalt, High Fall basalt flow
Lab sample no. UAKA 75-111 Field sample no. SP 16-554 Quadrangle: S P Mountain
Lat. 35 32.47' Lon.111 44.28' T. 25 N. R. 6 E. NW,NW,NE Sec. 22
40Ar* (picomoles/gram): 0.82 Ar (atmospheric): 88.45% K: 0.717%
Basalt of High Fall flow [flow 4624, Qbb]
Project affiliation: G. Ulrich/USGS Refs.: Ulrich and Bailey, 1987

0.71 +/- 0.12 Ma WR, basalt, Hart Prairie basalt
Lab sample no. UAKA 72-08 Field sample no. Quadrangle: Parks
Lat. 35 16.733' Lon.111 52.783' T. 22N. R. 5E. NE,NE Sec. 20
40Ar* (picomoles/gram): 0.78 Ar (atmospheric): 93.7% K: 0.631%
Basalt flow of Hart Prairie (2603, Qbhb)
Project affiliation: Refs.: Wolfe and others, 1987

0.72 +/- 0.12 Ma WR, basalt, Brannigan Park basalt
Lab sample no. UAKA 77-8 Field sample no. W76P110 Quadrangle: Parks
Lat. 35 16.73' Lon.111 52.78' T. 22 N. R. 5 E. NE,NE Sec. 20
40Ar* (picomoles/gram): 0.784 Ar (atmospheric): 93.7% K: 0.631%
Basalt. Overlies the Snowbowl flank eruption and is overlain by the Hochderffer Hills basalt (UAKA 77-7) [listed as "basalt flow, Hart Prarie, sample UAKA 72-08" in McKee compilation] [vent 2603, Qbhb]
Project affiliation: P.E. Damon/UofA & E.W. Wolfe/USGS Refs.: Wolfe and others, 1987

0.74 +/- 0.08 Ma WR, basalt, Campbell-Francis basalt flow
Lab sample no. UAKA 75-113 Field sample no. SP 16-558 Quadrangle: Campbell Francis Wash
Lat. 35 41.32' Lon.111 32.98' T. 27 N. R. 8 E. SW Sec. 28
40Ar* (picomoles/gram): 0.74 Ar (atmospheric): 93.48% K: 0.575%
Basalt of Campbell-Francis flow [vent 5702?, Qbb]
Project affiliation: G. Ulrich/USGS Refs.: Ulrich and Bailey, 1987

0.75 +/- 0.17 Ma WR, dacite, Dunnam Canyon dacite
Lab sample no. UAKA 77-20 Field sample no. W75HP128B Quadrangle: Humphreys Peak
Lat. 35 20.75' Lon.111 40.55' T. 23 N. R. 7 E. NW,SE Sec. 29
40Ar* (picomoles/gram): 3.49 Ar (atmospheric): 95.29% K: 2.696%
Uppermost flow of dacite in Dunnam Canyon. Stratigraphically above the Smiley dacite and below the Humphreys Peak basaltic andesite [Qsfd]
Project affiliation: P.E. Damon/UofA & E.W. Wolfe/USGS Refs.: Wolfe and others, 1987; Holm, 1988

0.76 +/- 0.02 Ma Feld, rhyodacite, Core Ridge rhyodacite
Lab sample no. UAKA 77-15F Field sample no. W76HP179 Quadrangle: Humphreys Peak
Lat. 35 20.05' Lon.111 40.43' T. 23 N. R. 7 E. center Sec. 32
40Ar* (picomoles/gram): 5.01 Ar (atmospheric): 69.24% K: 3.786%
Rhyodacite underlying Core Ridge breccia
Project affiliation: P.E. Damon/UofA & E.W. Wolfe/USGS Refs.: (See Wolfe and others, 1987; Holm, 1988)

0.76 +/- 0.07 Ma WR, andesite, Dunnam Canyon andesite
Lab sample no. UAKA 77-19 Field sample no. W75HP54B Quadrangle: Humphreys Peak
Lat. 35 20.52' Lon.111 40.15' T. 23 N. R. 7 E. SE Sec. 29
40Ar* (picomoles/gram): 2.86 Ar (atmospheric): 90.2% K: 2.161%
Hornblende-plagioclase andesite; lowest flow in Dunnam Canyon Collected east of large dike at mouth of Dunnam Canyon [Qa1]
Project affiliation: P.E. Damon/UofA & E.W. Wolfe/USGS Refs.: (See Wolfe and others, 1987; Holm, 1988)

0.77 +/- 0.04 Ma WR, basalt, Amphitheater basalt
Lab sample no. UAKA 77-24 Field sample no. 185A-A71; 6806 Quadrangle: Campbell Francis Wash
Lat. 35 39.78' Lon.111 35.39' T. 26 N. R. 7 E. SE,NE,SE Sec. 1
40Ar* (picomoles/gram): 1.32 Ar (atmospheric): 79.48% K: 0.988%
Basalt [6713, Qbb]
Project affiliation: P.E. Damon/UofA & E.W. Wolfe/USGS Refs.: Ulrich and Bailey, 1987

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0.83 +/- 0.04 Ma WR, basalt, Mesa Butte basalt
Lab sample no. UAKA 75-12 Field sample no. SP 16-496 Quadrangle: Additional Hill
Lat. 35 39.5' Lon.111 44.88' T. 26 N. R. 6 E. W center Sec. 3
40Ar* (picomoles/gram): 1.2 Ar (atmospheric): 75.05% K: 0.833%
Basalt of Mesa Butte; two generations of plag [Qmbf]
Project affiliation: R.B. Moore & G. Ulrich/USGS Refs.: Ulrich and Bailey, 1987

0.86 +/- 0.12 Ma WR, basalt, Roden Crater basalt
Lab sample no. UAKA 75-128 Field sample no. W75RC235 Quadrangle: Roden Crater
Lat. 35 30.02' Lon.111 19.13' T. 24 N. R. 10 E. N center Sec. 10
40Ar* (picomoles/gram): 1.04 Ar (atmospheric): 92.25% K: 0.701%
Basalt [Qmb]
Project affiliation: USGS Refs.: Moore and Wolfe, 1987

0.87 +/- 0.03 Ma WR, rhyodacite, Core Ridge rhyodacite
Lab sample no. UAKA 77-15G Field sample no. W76HP179 Quadrangle: Humphreys Peak
Lat. 35 20.05' Lon.111 40.43' T. 23 N. R. 7 E. center Sec. 32
40Ar* (picomoles/gram): 3.35 Ar (atmospheric): 67.7% K: 2.21%
Rhyodacite underlying Core Ridge breccia [same location as UAKA 77-15F]
Project affiliation: P.E. Damon/UofA & E.W. Wolfe/USGS Refs.: Wolfe and others, 1987; Holm, 1988

0.91 +/- 0.03 Ma WR, dacite, Humphreys Peak dacite
Lab sample no. UAKA 75-125 Field sample no. W-75-HP-229A Quadrangle: Humphreys Peak
Lat. 35 20.67' Lon.111 39.75' T. 23 N. R. 7 E. NW Sec. 33
40Ar* (picomoles/gram): 3.64 Ar (atmospheric): 58.5% K: 2.295%
Dacite flow Sample represents the lowest exposed unit on the spur between Dunnam and Beard canyons Recollection of UAKA 74-140
Project affiliation: R.B. Moore/USGS Refs.: Wolfe and others, 1987

0.95 +/- 0.1 Ma Bio, dacite, Observarory Mesa dacite
Lab sample no. UAKA 77-9 Field sample no. W76FW1BB Quadrangle: Flagstaff West
Lat. 35 12.97' Lon.111 43.8' T. 21 N. R. 6 E. NE,SW Sec. 11
40Ar* (picomoles/gram): 10.655 Ar (atmospheric): 90.4% K: 6.495%
Biotie-rich porphyritic dacite segregation within A-1 Mountain andesite. The dacite contains plutonic and metamorphic xenoliths Another part of flow (or at least from same vent) dated at 0.33 +- 0.08 my (UAKA 77-13)
Project affiliation: P.E. Damon/UofA & E.W. Wolfe/USGS Refs.: (See Wolfe and others, 1987)

0.95 +/- 0.2 Ma WR, dacite, Beard Ridge dacite
Lab sample no. UAKA 77-21 Field sample no. W75HP230A Quadrangle: Humphreys Peak
Lat. 35 20.68' Lon.111 39.7' T. 23 N. R. 7 E. SW Sec. 28
40Ar* (picomoles/gram): 2.91 Ar (atmospheric): 95.9% K: 1.76%
Hornblende dacite at east end of Beard Ridge [Qdi, approximately same location as UAKA 75-125 and UAKA 74-140]
Project affiliation: P.E. Damon/UofA & E.W. Wolfe/USGS Refs.: Wolfe and others, 1987; Holm, 1988

1.01 +/- 0.11 Ma WR, basalt, Vent 158 basalt
Lab sample no. UAKA 75-110 Field sample no. SP 16-546 Quadrangle: S P Mountain
Lat. 35 30.63' Lon.111 38' T. 25 N. R. 7 E. NW Sec. 34
40Ar* (picomoles/gram): 1.09 Ar (atmospheric): 92.89% K: 0.6223%
Basalt of vent 158, elevation 7040' [5734C, Qmb]
Project affiliation: G. Ulrich/USGS Refs.: (See Ulrich and Bailey, 1987)

1.01 +/- 0.13 Ma WR, basalt, Lava Point basalt flow
Lab sample no. UAKA 75-114 Field sample no. SP 16-559 Quadrangle: Campbell Francis Wash
Lat. 35 41.57' Lon.111 31.66' T. 27 N. R. 8 E. center Sec. 27
40Ar* (picomoles/gram): 0.866 Ar (atmospheric): 90.65% K: 0.492%
Lava Point basalt [Qmb]
Project affiliation: G. Ulrich/USGS Refs.: Ulrich and Bailey, 1987

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1.04 +/- 0.04 Ma WR, basalt, Mesa Butte basalt
Lab sample no. UAKA 75-13 Field sample no. SP 16-497 Quadrangle: Additional Hill
Lat. 35 38.05' Lon.111 44.5' T. 26 N. R. 6 E. NW,NE,SW Sec. 15
40Ar* (picomoles/gram): 1.65 Ar (atmospheric): 72.7% K: 0.917%
Basalt of Mesa Butte flow [6609, Qmb]
Project affiliation: R.B. Moore & G. Ulrich/USGS Refs.: Ulrich and Bailey, 1987

1.07 +/- 0.05 Ma WR, basalt, Keetso Tank flow
Lab sample no. UAKA 77-5 Field sample no. 16-573 Quadrangle: Coconino Point
Lat. 35 44.9' Lon.111 33.25' T. 27 N. R. 8 E. NE,SE Sec. 5
40Ar* (picomoles/gram): 1.68 Ar (atmospheric): 84.7% K: 0.906%
Basalt. Collected from an outcrop on Cedar Wash beside the Tappan flow Recollection of UAKA 75-112 [Qbb]
Project affiliation: G. Ulrich/USGS Refs.: (See Ulrich and Bailey, 1987)

1.09 +/- 0.05 Ma WR, basalt, San Francisco basalt
Lab sample no. UAKA 75-10 Field sample no. SP 16-493 Quadrangle: Campbell Francis Wash
Lat. 35 44.6' Lon.111 33.5' T. 27 N. R. 8 E. SE,SE Sec. 5
40Ar* (picomoles/gram): 1.7 Ar (atmospheric): 74.81% K: 0.901%
Basalt, fine-grained, vesicular Date reported as 1.09 +- 0.03 [7805A, Qmb]
Project affiliation: R.B. Moore & G. Ulrich/USGS Refs.: Ulrich and Bailey, 1987

1.10 +/- 0.13 Ma bio, dacite, San Francisco Mtn dacite
Lab sample no. UAKA 75-124 Field sample no. Quadrangle: Humphreys Peak
Lat. 35 20.883' Lon.111 40.167' T. 23N. R. 7E. SE,NE Sec. 29
40Ar* (picomoles/gram): 12.83 Ar (atmospheric): 89.8% K: 6.71%
Dacite pluton of Humphreys Peak (Qhdi) Date judged to be too old
Project affiliation: Refs.: (see Wolfe and others, 1987)

1.14 +/- 0.04 Ma WR, basalt, Woody Mountain basalt
Lab sample no. UAKA 74-142 Field sample no. Quadrangle: Mountainaire
Lat. 35 6.58' Lon.111 43' T. 20 N. R. 6 E. SW,SW Sec. 13
40Ar* (picomoles/gram): 2.25 Ar (atmospheric): 65.5% K: 1.14%
Basalt from flow which issued from cinder ring in sections 28,26,35,36, T21N, R6E
Project affiliation: R. Eastwood/NAU & R. Scarborough, M. Shafiqullah/UofA Refs.: Wolfe and others, 1987

1.20 +/- 0.05 Ma WR, basalt, Vent 531 basalt
Lab sample no. UAKA 75-7 Field sample no. SP 16-490 Quadrangle: Campbell Francis Wash
Lat. 35 38.53' Lon.111 30.59' T. 26 N. R. 8 E. SE,SE,SW Sec. 11
40Ar* (picomoles/gram): 2.16 Ar (atmospheric): 70.85% K: 1.037%
Basalt of vent 531 flow
Project affiliation: R.B. Moore & G. Ulrich/USGS Refs.: Ulrich and Bailey, 1987

1.29 +/- 0.23 Ma WR, rhyolite, Government Prairie rhyolite
Lab sample no. UAKA 77-18 Field sample no. W75P41A Quadrangle: Parks
Lat. 35 19.45' Lon.111 54.15' T. 23 N. R. 5 E. SW,SE Sec. 31
40Ar* (picomoles/gram): 8.07 Ar (atmospheric): 95.23% K: 3.601%
Rhyolite plug; youngest eruptive unit
Project affiliation: P.E. Damon/UofA & E.W. Wolfe/USGS Refs.: Wolfe and others, 1987

1.29 +/- 0.28 Ma WR, basalt, Keetso Tank basalt flow
Lab sample no. UAKA 75-112 Field sample no. SP 16-557 Quadrangle: Coconino Point SE
Lat. 35 45.28' Lon.111 33.32' T. 27 N. R. 8 E. NE,NE Sec. 5
40Ar* (picomoles/gram): 1.8 Ar (atmospheric): 94.12% K: 0.802%
Basalt of Keetso Tank flow Age questioned; resampled as UAKA 77-5
Project affiliation: G. Ulrich/USGS Refs.: (See Billingsley and others, 1985)

1.39 +/- 0.06 Ma WR, rhyodacite, Government Prairie rhyodacite
Lab sample no. UAKA 77-17W Field sample no. W75P38 Quadrangle: Parks
Lat. 35 19.47' Lon.111 54.17' T. 23 N. R. 5 E. SW,SE Sec. 31
40Ar* (picomoles/gram): 6.57 Ar (atmospheric): 76.34% K: 2.72%
Rhyodacite of Government Prairie vent, second eruptive unit, forms flank eruption on south perimeter of the andesitic cone Sample is from a slab that was erupted within the breached cone
Project affiliation: P.E. Damon/UofA & E.W. Wolfe/USGS Refs.: Wolfe and others, 1987

San Francisco Volcanic Field, University of Arizona K-Ar dates

1.44 +/- 0.03 Ma WR, andesite, Government Prairie andesite
Lab sample no. UAKA 77-16 Field sample no. W75P37A Quadrangle: Parks
Lat. 35 19.43' Lon.111 53.92' T. 23 N. R. 5 E. SE,SE Sec. 31
40Ar* (picomoles/gram): 4.1 Ar (atmospheric): 53.6% K: 1.641%
Andesite spatter from Government Prairie vent (described by McKee as "Benmoreite vent deposit, map unit Qmbn, vent 2506")
Project affiliation: P.E. Damon/UofA & E.W. Wolfe/USGS Refs.: Wolfe and others, 1987

1.61 +/- 0.06 Ma WR, andesite, Strawberry Crater andesite
Lab sample no. UAKA 77-22 Field sample no. Quadrangle: Strawberry Crater
Lat. 35 26.3' Lon.111 27.85' T. 24 N. R. 9 E. SW Sec. 20
40Ar* (picomoles/gram): 4.62 Ar (atmospheric): 72.13% K: 1.658%
Andesite vitrophyre. Plagioclase phenocrysts have excess argon; compare age to UAKA 73-117, which may be same flow
Project affiliation: P.E. Damon/UofA & E.W. Wolfe/USGS Refs.: (See Moore and Wolfe, 1987)

1.88 +/- 0.1 Ma Bio, rhyodacite, Government Prairie rhyodacite
Lab sample no. UAKA 77-17B Field sample no. W75P38 Quadrangle: Parks
Lat. 35 19.47' Lon.111 54.17' T. 23 N. R. 5 E. SW,SE Sec. 31
40Ar* (picomoles/gram): 17.06 Ar (atmospheric): 81.9% K: 5.219%
Rhyodacite of Government Prairie vent, second eruptive unit, forms flank eruption on south perimeter of the andesitic cone Sample is from a slab that was erupted within the breached cone
Project affiliation: P.E. Damon/UofA & E.W. Wolfe/USGS Refs.: (See Wolfe and others, 1987)

2.74 +/- 0.05 Ma WR, rhyolite, Kendrick Peak rhyolite
Lab sample no. UAKA 75-131 Field sample no. Quadrangle: Kendrick Peak
Lat. 35 24.98' Lon.111 51.9' T. 24N. R. 5E. SE Sec. 33
40Ar* (picomoles/gram): 17.52 Ar (atmospheric): 21% K: 3.68%
Rhyolite dome of Kendrick Peak (Tkre)
Project affiliation: Refs.: Wolfe and others, 1987

2.94 +/- 0.12 Ma Plag, andesite, Core Ridge andesite
Lab sample no. UAKA 77-14 Field sample no. W76HP178 Quadrangle: Humphreys Peak
Lat. 35 20.02' Lon.111 40.5' T. 23 N. R. 7 E. center Sec. 32
40Ar* (picomoles/gram): 1.53 Ar (atmospheric): 85.4% K: 0.3%
Andesite clast from andesite breccia in depositional contact with Snow Slide Spring rhyodacite below
Project affiliation: P.E. Damon/UofA & E.W. Wolfe/USGS Refs.: (See Wolfe and others, 1987; Holm, 1988)

3.91 +/- 0.1 Ma WR, basalt, Volunteer Canyon basalt
Lab sample no. UAKA 75-25 Field sample no. 16-504 Quadrangle: Sycamore Point
Lat. 35 6.98' Lon.111 56.35' T. 20 N. R. 4 E. NW,NE Sec. 14
40Ar* (picomoles/gram): 3.5 Ar (atmospheric): 45.4% K: 0.516%
Basalt of topmost flow on lava ridge, fed by dikes cutting underlying flows. Represents the youngest volcanic event at Volunteer Canyon, elevation 6760'
Project affiliation: USGS/UofA Refs.: Wolfe and others, 1987

4.04 +/- 0.1 Ma WR, basalt, Volunteer Canyon basalt
Lab sample no. UAKA 75-23 Field sample no. 16-502 Quadrangle: Sycamore Point
Lat. 35 6.98' Lon.111 56.35' T. 20 N. R. 4 E. NW,NE Sec. 14
40Ar* (picomoles/gram): 3.38 Ar (atmospheric): 58.8% K: 0.482%
Basalt flow, about 40 feet thick, overlying 50m bedded ash which separates upper and lower four flow sequence Sampled about 4 feet above base of fourth flow from top, Volunteer Canyon, elevation 6450'
Project affiliation: USGS/UofA Refs.: Wolfe and others, 1987

4.18 +/- 0.17 Ma WR, basalt, Volunteer Canyon basalt
Lab sample no. UAKA 75-24 Field sample no. 16-503 Quadrangle: Sycamore Point
Lat. 35 6.98' Lon.111 56.33' T. 20 N. R. 4 E. NW,NE Sec. 14
40Ar* (picomoles/gram): 3.8 Ar (atmospheric): 69.4% K: 0.524%
Basalt flow, similar to UAKA 75-23, but 30 feet above it Volunteer Canyon, elevation 6480'
Project affiliation: USGS/UofA Refs.: Wolfe and others, 1987

San Francisco Volcanic Field, University of Arizona K-Ar dates

10.54 +/- 0.26 Ma Horn, gabbro, Observatory Mesa gabbro
Lab sample no. UAKA 77-10 Field sample no. W76FW173C Quadrangle: Flagstaff West
Lat. 35 12.97' Lon.111 43.8' T. 21 N. R. 6 E. NE,SW Sec. 11
40Ar* (picomoles/gram): 8.89 Ar (atmospheric): 49.7% K: 0.485%
Poikilitic hornblende gabbro xenolith in dacite segregation (dacite UAKA 77-9)
Project affiliation: P.E. Damon/UofA & E.W. Wolfe/USGS Refs.: (See Wolfe and others, 1987)

11.66 +/- 0.31 Ma Horn, gabbro, Observatory Mesa gabbro
Lab sample no. UAKA 77-11 Field sample no. W76FW173D Quadrangle: Flagstaff West
Lat. 35 12.97' Lon.111 43.8' T. 21 N. R. 6 E. NE,SW Sec. 11
40Ar* (picomoles/gram): 11.3 Ar (atmospheric): 63.4% K: 0.557%
Pegmatitic hornblende gabbro xenolith on dacite segregation (dacite UAKA 77-9)
Project affiliation: P.E. Damon/UofA & E.W. Wolfe/USGS Refs.: (See Wolfe and others, 1987)

25.28 +/- 0.6 Ma Bio, lamprophyre, Surveyor Canyon lamprophyre
Lab sample no. UAKA 91-4 Field sample no. MP174-5 Quadrangle: Munds Park
Lat. 34 58.95' Lon.111 44.45' T. 19 N. R. 6 E. SW,SE,SW Sec. 33
40Ar* (picomoles/gram): 291.23 Ar (atmospheric): 22.16% K: 6.596%
Lamprophyre dike; is only known lamprophyre in the San Francisco-Mormon Volcanic Fields
Project affiliation: R.A. Cloud, R.F. Holm/NAU Refs.:

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