TABLE PR1 Hallett B20786

~~TABLE A.~~ $^{40}Ar/^{39}Ar$ DATA FOR RIO PUERCO VALLEY BASALTS

	temp	$^{40}Ar/^{39}Ar$	$^{37}Ar/^{39}Ar$	$^{36}Ar/^{39}Ar$	$\%^{39}Ar$	$\%^{40}Ar^*$	moles ^{39}Ar	K/Ca	age (Ma)		1 σ
Cerro Guadalupe	650	1.451	0.935	0.002	6.8	67.8	2.9e-14	1.07	3.23	±	0.19
90GUAD2	750	1.532	0.696	0.002	31.4	47.5	1.4e-13	1.44	2.37	±	0.11
wt = 0.3526	825	0.899	0.801	0.000	16.6	98.2	7.2e-14	1.25	2.88	±	0.06
RD84	1025	0.962	1.362	0.000	34.2	80.8	1.5e-13	0.74	2.54	±	0.05
J = 0.001810	1150	1.052	3.324	0.001	9.7	70.5	4.2e-14	0.30	2.42	±	0.15
$^{40}Ar/^{36}Ar$ = 266.9±123.5	1300	1.943	37.359	0.004	1.3	34.3	6.0e-15	0.03	2.17	±	1.64
MSWD = 9.1	total gas							0.60	2.57		
	isochron								2.7	±	0.4
Cerro de la Celosa	650	12.945	0.742	0.039	6.0	10.6	3.6e-14	1.35	4.49	±	0.52
90SEBOY1	750	2.246	0.553	0.004	13.4	36.4	7.9e-14	1.81	2.67	±	0.14
wt = 0.3548	825	1.729	0.471	0.003	30.1	45.5	1.8e-13	2.12	2.57	±	0.03
RD84	975	1.397	0.882	0.002	28.9	57.6	1.7e-13	1.13	2.63	±	0.06
J = 0.001811	1100	1.550	1.787	0.002	12.1	50.1	7.2e-14	0.56	2.54	±	0.03
$^{40}Ar/^{36}Ar$ = 297.4±61.6	1275	1.184	4.981	0.002	5.0	48.7	3.0e-14	0.20	1.88	±	0.23
MSWD = 1.2	1425	5.024	35.135	0.014	4.0	16.4	2.4e-14	0.03	2.69	±	0.22
	1650	4.996	26.323	0.000	0.5	113.2	3.0e-15	0.04	18.38	±	1.73
	total gas							0.40	2.70		
	isochron								2.55	±	0.59
	plateau	750-975°C			72.4				2.57	±	0.02
Gonzolas Ranch	850	1.887	0.382	0.003	15.1	48.8	8.1e-14	2.62	3.00	±	0.05
GONZDK1	900	1.483	0.453	0.002	13.8	58.9	7.4e-14	2.21	2.85	±	0.05
wt = 0.3560	950	1.405	0.544	0.002	11.5	59.2	6.2e-14	1.84	2.71	±	0.07
RD84	1000	1.194	0.647	0.001	10.6	66.2	5.7e-14	1.55	2.58	±	0.06
J = 0.001808	1075	1.265	1.188	0.002	8.0	62.5	4.3e-14	0.84	2.58	±	0.08
$^{40}Ar/^{36}Ar$ = 315.3±136.1	1175	1.462	2.550	0.002	41.0	54.8	2.2e-13	0.39	2.61	±	0.05
MSWD = 0.9	total gas							0.70	2.71		
	isochron								2.49	±	0.79
	plateau	950-1175°C			71.1				2.61	±	0.03
Cerro Chafo	650	3.706	0.916	0.008	9.3	32.5	4.2e-14	1.09	4.02	±	0.14
90CHAFO2	750	3.706	0.681	0.009	13.3	25.3	6.0e-14	1.47	3.13	±	0.06
wt = 0.3490	850	1.594	0.754	0.003	32.3	51.5	1.5e-13	1.33	2.74	±	0.04
RD84	1040	1.793	1.353	0.003	24.4	45.5	1.1e-13	0.74	2.73	±	0.05
J = 0.001853	1180	2.094	7.895	0.004	20.8	38.1	9.3e-14	0.13	2.67	±	0.07
$^{40}Ar/^{36}Ar$ = 273.4	total gas							0.40	2.89		
MSWD = 0.04	isochron								2.85	±	2.57
	plateau	850-1180°C			77.4				2.73	±	0.03
Cerro Cuate	725	2.067	0.512	0.004	37.1	41.1	2.8e-13	1.95	2.72	±	0.07
CUATE1	825	2.053	0.520	0.004	23.7	41.2	1.8e-13	1.92	2.72	±	0.03
wt = 0.3662	1000	1.224	0.982	0.001	28.0	67.2	2.1e-13	1.02	2.64	±	0.04
RD84	1125	1.169	1.748	0.001	8.7	67.7	6.5e-14	0.57	2.54	±	0.08
J = 0.001779	1250	1.487	5.419	0.003	2.6	49.8	1.9e-14	0.19	2.38	±	0.23
$^{40}Ar/^{36}Ar$ = 304.4±79.9	total gas							1.10	2.67		
MSWD = 0.01	isochron								2.60	±	0.93
	plateau	725-1000°C			88.7				2.69	±	0.02
Cerro Chato	800	1.462	0.451	0.002	56.3	60.6	3.2e-13	2.22	2.94	±	0.01
90CHATO2	850	1.070	0.705	0.001	14.6	82.3	8.4e-14	1.42	2.93	±	0.05
wt = 0.3529	900	1.065	1.027	0.001	8.3	83.2	4.8e-14	0.97	2.94	±	0.07
RD84	950	1.065	1.369	0.001	6.5	84.3	3.7e-14	0.73	2.98	±	0.08
J = 0.001843	1000	1.069	1.952	0.001	5.6	86.6	3.2e-14	0.51	3.08	±	0.10
$^{40}Ar/^{36}Ar$ = 293.0±21.4	1075	1.013	2.322	0.001	8.6	87.2	4.90E-14	0.43	2.93	±	0.10
MSWD = 0.5	total gas							1.20	2.95		
	isochron								2.96	±	0.13
	plateau	800-1075°C			100				2.94	±	0.01

Note: The data is preceded by location name, sample number, sample weight (grams), irradiation batch number, irradiation parameter (J), $^{40}Ar/^{39}Ar$ intercept and MSWD of the isochron. All samples measured on electron multiplier. Columns of data give temperature of incremental heating steps, ratios of Ar isotopes (^{40}Ar = initial and radiogenic, ^{39}Ar = potassium-derived, ^{37}Ar = calcium-derived, ^{36}Ar = initial), % of total ^{39}Ar in heating step, % $^{40}Ar^*$ (radiogenic), moles of potassium derived ^{39}Ar, K/Ca ratio calculated from $^{37}Ar/^{39}Ar$ ratio, age and 1 σ error. Lines following temperature data show total gas, K/Ca total gas age, plateau temperature range, percent ^{39}Ar on the plateau, plateau age, and its error.

TABLE A CONTINUED. $^{40}Ar/^{39}Ar$ DATA FOR RIO PUERCO VALLEY BASALTS

	temp	$^{40}Ar/^{39}Ar$	$^{37}Ar/^{39}Ar$	$^{36}Ar/^{39}Ar$	$\%^{39}Ar$	$\%^{40}Ar^*$	moles ^{39}Ar	K/Ca	age (Ma)		1 σ
Cerro Parido	725	4.549	0.792	0.012	3.2	22.8	1.7e-14	1.26	3.48	±	0.52
PARIDO3	800	4.579	0.53	0.012	11.7	21.2	6.2e-14	1.88	3.25	±	0.15
wt = 0.3134	1000	2.088	0.638	0.004	26.4	45.7	1.4e-13	1.57	3.19	±	0.05
RD84	1250	1.318	1.218	0.001	28.4	68.6	1.5e-13	0.82	3.02	±	0.05
J = 0.001856	1450	1.535	5.036	0.002	30.2	57.8	1.6e-13	0.20	2.97	±	0.13
$^{40}Ar/^{36}Ar$ = 304.5±14.9	total gas							0.50	3.09		
MSWD = 1.1	isochron								3.02	±	0.20
	plateau	1250-1450°C			58.6				3.02	±	0.05
Hill 6792	500	102.194	0.886	0.355	0.3	-2.8	2.0e-15	1.13	-9.59	±	6.16
HILL6792-3	675	5.933	0.671	0.016	3.6	17.3	2.2e-14	1.49	3.41	±	0.33
wt = 0.3529	750	2.709	0.462	0.006	8.3	38.4	5.1e-14	2.16	3.45	±	0.18
RD84	800	2.714	0.412	0.006	10.1	35.9	6.2e-14	2.43	3.24	±	0.21
J = 0.001843	950	1.367	0.682	0.001	18.5	73.5	1.1e-13	1.46	3.34	±	0.18
$^{40}Ar/^{36}Ar$ = 303.7±15.2	1250	1.158	1.376	0.001	32.0	80.7	2.0e-13	0.73	3.10	±	0.08
MSWD = 0.6	1650	1.292	6.141	0.001	27.2	73.3	1.7e-13	0.16	3.15	±	0.06
	total gas							0.40	3.17		
	isochron								3.12	±	0.15
	plateau	675-1650°C			99.7				3.17	±	0.04
Cerro Negro	600	2.339	0.362	0.004	24.1	45.7	1.1e-13	2.77	3.42	±	0.03
90NEGRO1	750	1.891	1.043	0.003	48.7	55.3	2.1e-13	0.96	3.35	±	0.04
wt = 0.3598	800	1.386	1.610	0.001	16.2	76.0	7.0e-14	0.62	3.37	±	0.05
RD84	850	1.569	2.124	0.002	7.4	71.3	3.2e-14	0.47	3.58	±	0.07
J = 0.001776	900	1.868	2.233	0.002	3.6	61.4	1.6e-14	0.45	3.67	±	0.22
$^{40}Ar/^{36}Ar$ = 302.6±81.8	950	1.895	2.142	0.003	1.8	47.8	9.0e-15	0.47	2.90	±	0.46
MSWD = 1.1	1000	1.724	2.569	0.003	1.4	55.9	7.0e-15	0.34	3.08	±	9.27
	1150	3.210	14.372	0.008	10.0	29.0	5.0e-14	0.07	2.98	±	0.12
	total gas							0.40	3.40		
	isochron								3.32	±	0.94
	plateau	600-800°C			77.2				3.39	±	0.02
Cerro de Jacobo	650	2.003	0.469	0.003	4.2	63.0	1.5e-14	2.13	4.22	±	0.38
90JACOBO2	750	1.796	0.425	0.003	2.2	54.4	8.0e-15	2.35	3.26	±	0.67
wt = 0.3679	825	3.307	0.479	0.007	34.2	33.1	1.3e-13	2.08	3.65	±	0.09
RD84	900	1.844	0.704	0.002	22.6	60.4	8.5e-14	1.42	3.72	±	0.10
J = 0.001854	975	1.589	0.807	0.002	13.6	68.8	5.1e-14	1.24	3.65	±	0.18
$^{40}Ar/^{36}Ar$ = 292.3±23.1	1050	1.358	1.141	0.002	23.1	59.0	8.7e-14	0.88	2.68	±	0.25
MSWD = 0.8	total gas							1.40	3.46		
	isochron								3.74	±	0.43
	plateau	825-975°C			70.5				3.69	±	0.06
Cerro de Nuestra Señora	650	12.551	0.776	0.033	5.8	22.7	2.4e-14	1.29	9.15	±	0.31
NSENORA3	725	2.569	0.485	0.003	6.7	62.4	2.7e-14	2.06	5.14	±	1.11
wt = 0.3430	825	2.364	0.639	0.004	33.4	48.9	1.3e-13	1.56	3.71	±	0.04
RD84	1000	1.480	1.056	0.002	32.8	65.0	1.3e-13	0.95	3.09	±	0.04
J = 0.001781	1125	1.351	1.710	0.002	16.6	64.8	6.8e-14	0.59	2.81	±	0.06
$^{40}Ar/^{36}Ar$ = 363.0±31.2	1250	1.620	3.252	0.001	4.7	81.7	1.9e-14	0.31	4.25	±	0.27
MSWD = 9.9	total gas							0.90	3.80		
	isochron								2.72	±	0.38
Cerro de Nuestra Señora	700	3.419	0.637	0.027	33.0	15.1	1.3e-13	0.85	4.00	±	0.12
N. Señora 3	800	0.760	0.871	0.001	28.0	57.3	2.4e-14	0.78	3.37	±	0.03
wt = 0.0313	900	0.735	1.120	0.001	12.0	54.0	1.1e-14	0.38	3.07	±	0.04
NM-1	1000	0.737	1.682	0.002	10.0	51.1	7.9e-15	0.28	2.91	±	0.06
J = 0.004293	1200	0.902	6.997	0.004	16.0	40.1	1.6e-14	0.08	2.81	±	0.07
$^{40}Ar/^{36}Ar$ = 300.4±1.8	1400	13.761	152.198	0.081	1.0	12.0	2.1e-14	0.00	14.14	±	1.71
MSWD = 146.7	total gas								3.55		
	isochron								2.56	±	0.02

Note: The data is preceded by location name, sample number, sample weight (grams), irradiation batch number, irradiation parameter (J), $^{40}Ar/^{39}Ar$ intercept and MSWD of the isochron. All samples measured on electron multiplier. Columns of data give temperature of incremental heating steps, ratios of Ar isotopes (^{40}Ar = initial and radiogenic, ^{39}Ar = potassium-derived, ^{37}Ar = calcium-derived, ^{36}Ar = initial), % of total ^{39}Ar in heating step, % $^{40}Ar^*$ (radiogenic), moles of potassium derived ^{39}Ar, K/Ca ratio calculated from $^{37}Ar/^{39}Ar$ ratio, age and 1 σ error. Lines following temperature data show total gas, K/Ca total gas age, plateau temperature range, percent ^{39}Ar on the plateau, plateau age, and its error.

TABLE A CONTINUED. $^{40}Ar/^{39}Ar$ DATA FOR RIO PUERCO VALLEY BASALTS

	temp	$^{40}Ar/^{39}Ar$	$^{37}Ar/^{39}Ar$	$^{36}Ar/^{39}Ar$	$\%^{39}Ar$	$\%^{40}Ar^*$	moles ^{39}Ar	K/Ca	age (Ma)		1 σ
Cerro del Ojo Yeguas	700	1.502	0.821	0.004	32.0	25.9	5.9e-14	0.65	3.01	±	0.07
Yeguas-2	800	0.887	1.233	0.002	30.0	41.5	3.4e-14	0.45	2.85	±	0.04
wt = 0.0380	900	1.762	1.660	0.008	10.0	21.0	2.2e-14	0.32	2.86	±	0.12
NM-1	1000	1.923	1.793	0.006	5.0	20.0	1.0e-14	0.31	2.97	±	0.19
J = .00429	1200	2.060	8.653	0.008	21.0	19.3	5.5e-14	0.05	3.09	±	0.11
$^{40}Ar/^{36}Ar$ = 302.7±2.0	1400	8.112	15.788	0.027	2.0	16.4	1.9e-14	0.03	10.37	±	0.54
MSWD = 2.1	total gas								3.09		
	isochron								2.81	±	0.05
	plateau	700-1200°C			98.0				2.91	±	0.05
Cerro Cochino	650	24.655	0.736	0.082	5.0	1.6	5.9e-14	0.85	3.09	±	1.22
90COCH1	700	1.684	0.480	0.005	6.0	21.8	4.8e-15	1.00	2.84	±	0.23
wt = 0.0339	800	1.275	0.598	0.003	13.0	28.6	7.5e-15	0.95	2.81	±	0.12
NM-1	900	1.171	1.067	0.003	15.0	28.7	8.1e-15	0.62	2.59	±	0.09
J = 0.004278	1000	1.176	1.264	0.003	15.0	33.7	7.8e-15	0.58	3.06	±	0.10
$^{40}Ar/^{36}Ar$ = 297.7±1.6	1200	0.984	3.163	0.003	33.0	38.4	1.6e-14	0.18	2.92	±	0.07
MSWD = 3.6	1400	3.466	11.515	0.013	9.0	12.3	1.5e-14	0.05	3.31	±	0.27
	total gas								2.92		
	isochron								2.71	±	0.04
	plateau	1000-1400°C			57.0				2.98	±	0.09
Mesa Prieta	891	4.276	0.729	0.014	7.0	6.3	1.7e-14	0.85	2.06	±	0.315
91MP1	992	2.955	1.211	0.009	11.0	10.9	2.0e-14	0.45	2.48	±	0.20
wt = 0.0351	1092	1.636	2.227	0.005	22.0	17.3	2.0e-14	0.19	2.19	±	0.12
NM-1	1195	1.359	2.351	0.005	8.0	13.7	6.2e-15	0.18	1.44	±	0.20
J = 0.004281	1294	1.334	4.654	0.005	16.0	20.2	1.2e-14	0.10	2.09	±	0.13
$^{40}Ar/^{36}Ar$ = 302.4±3.3	1493	1.4799	10.195	0.007	19.0	16.4	1.6e-14	0.05	1.89	±	0.14
MSWD = 8.4	1638	3.8745	35.748	0.021	16.0	10.2	3.5e-14	0.02	3.11	±	0.31
	total gas								2.23		
	isochron								4.38	±	0.27
	plateau	891-1493°C			84.0				2.05	±	0.13
Mesa Prieta	900	18.259	0.735	0.062	5.0	0.7	5.5e-14	0.68	0.93	±	1.23
91MP2	1000	12.859	1.296	0.043	9.0	2.1	6.8e-14	0.40	2.06	±	0.66
wt = 0.0350	1100	9.441	2.121	0.031	15.0	3.7	9.1e-14	0.22	2.69	±	0.44
NM-1	1200	9.856	2.121	0.033	7.0	3.1	4.1e-14	0.22	2.37	±	0.61
J = 0.004284	1300	8.013	3.634	0.027	17.0	3.8	7.8e-14	0.15	2.34	±	0.41
$^{40}Ar/^{36}Ar$ = 290.9±3.0	1500	9.152	6.639	0.031	24.0	5.2	1.2e-13	0.09	3.71	±	0.43
MSWD = 6.5	1600	13.321	32.148	0.052	13.0	3.4	8.9e-14	0.01	3.60	±	0.73
	1700	8.460	23.385	0.033	10.0	7.0	4.7e-14	0.02	4.62	±	0.55
	total gas								2.99		
	isochron								1.78	±	0.22
	plateau	900-1300°C			53.0				2.36	±	0.30
Picacho Peak	750	4.263	0.680	0.009	19.7	32.1	4.9e-14	1.47	4.57	±	0.13
90PP2	850	4.630	0.565	0.011	33.5	28.7	8.3e-14	1.77	4.44	±	0.11
wt = 0.3516	950	5.044	0.361	0.013	27.1	23.8	6.7e-14	2.77	4.01	±	0.12
RD84	1050	5.727	1.067	0.015	19.7	24.0	4.9e-14	0.94	4.60	±	0.32
J = 0.001854	total gas							1.60	4.38		
$^{40}Ar/^{36}Ar$ = 264.3±128.8	isochron								5.55	±	9.56
MSWD = 3.8	plateau	750-850°C			53.2				4.49	±	0.08
Cabezon Peak	1050	2.292	0.759	0.006	23.6	18.8	3.9e-13	1.32	2.67	±	0.07
CAB3	1150	2.932	1.227	0.008	25.8	15.0	4.3e-13	0.81	2.74	±	0.07
wt = 0.350	1250	1.553	1.289	0.004	15.7	27.7	2.6e-13	0.78	2.67	±	0.08
RD79	1350	2.110	5.682	0.006	14.0	19.9	2.3e-13	0.18	2.61	±	0.05
J = 0.003442	1450	3.023	8.314	0.009	21.0	15.3	3.5e-13	0.12	2.87	±	0.11
$^{40}Ar/^{36}Ar$ = 299.1±15.5	total gas							0.30	2.72		
MSWD = 0.8	isochron								2.52	±	0.64
	plateau	1050-1450°C			79.0				2.66	±	0.03

Note: The data is preceded by location name, sample number, sample weight (grams), irradiation batch number, irradiation parameter (J), $^{40}Ar/^{39}Ar$ intercept and MSWD of the isochron. All samples measured on electron multiplier. Columns of data give temperature of incremental heating steps, ratios of Ar isotopes (^{40}Ar = initial and radiogenic, ^{39}Ar = potassium-derived, ^{37}Ar = calcium-derived, ^{36}Ar = initial), % of total ^{39}Ar in heating step, % $^{40}Ar^*$ (radiogenic), moles of potassium derived ^{39}Ar, K/Ca ratio calculated from $^{37}Ar/^{39}Ar$ ratio, age and 1 σ error. Lines following temperature data show total gas, K/Ca total gas age, plateau temperature range, percent ^{39}Ar on the plateau, plateau age, and its error.