

PROJECT: LEZ HIGGINS
 DATE STARTED: APRIL 1981

015991

SAMPLE	RUN NO.	Sr PPM	Rb PPM	Rb/Sr	Sr ⁸⁷ /Sr ⁸⁶	MASS ABS COEFF	COMMENT
AR1	86	214.55	241.62	1.126		9.11	
AR 2	86	346.66	183.57	0.463		10.39	
AR 4	86	207.60	179.01	0.862		9.56	
AR 6	86	162.80	237.02	1.456		9.21	
AR 7	86	194.73	191.67	0.984		9.52	
AR 8	86	231.76	197.86	0.854		9.53	
AR 9	etc	225.44	219.52	0.974		9.27	
AR 10A		192.02	95.50	0.497		9.47	
AR 10B		365.69	95.53	0.261		11.11	
AR 11		193.30	222.24	1.150		9.07	
AR 12		219.03	247.35	1.129		9.10	
AR 13		164.28	247.76	1.508		8.98	
AR 14		228.19	132.46	0.580		9.33	
AR 15		245.70	142.87	0.5815		10.13	
AR 16		235.90	144.06	0.611		9.78	
AR 17		63.82	362.18	5.675		10.08	
SSBA Dyle		374.04	74.50	0.1992		11.03	
SSSB Intr.		166.08	254.42	1.520		9.194	
9087 A		343.34	194.00	0.5650		10.06	
9087 B		66.23	285.47	4.3102		8.405	
9088		219.59	214.61	0.977		9.10	
9089 A		163.22	294.27	1.803		8.81	
9089 B		247.26	242.14	0.9773		2.516	
9090		110.97	256.65	2.313		8.212	
9094		93.70	154.60	1.650		8.143	
9501 A		115.84	254.14	2.194		8.608	
9502 B		129.92	243.21	1.872		8.686	

PROJECT: LEZIGAGE
 DATE STARTED: APRIL 1981

SAMPLE	RUN NO.	Sr PPM	Rb PPM	Rb/Sr	Sr ⁸⁷ /Sr ⁸⁶	MASS ABS COEFF	COMMENT
AR1	86	214.55	241.62	1.126		9.11	
AR 2	86	396.66	183.57	0.463	✓ mineral separates	10.39	
AR 4 biot	86	207.60	179.01	0.862		9.56	
AR 6	86	162.80	237.02	1.456		9.21	
AR 7 biot	86	194.73	191.67	0.984		9.52	
ARS	86	231.76	197.86	0.854		9.53	
AR 9 biot-misc	86	225.44	219.52	0.974		9.27	
AR 10A		192.02	95.50	0.497	✓	9.47	
AR 10B		365.69	95.53	0.261	discarded	11.11	
AR 11 biot-misc		163.30	222.24	1.350		9.07	
AR 12 biot-misc		219.03	247.35	1.129		9.10	
AR 13 biot-misc		164.25	247.76	1.508		8.98	
AR 14		228.19	132.46	0.580		9.83	
AR 15		245.70	192.87	0.5815		10.13	
AR 16		235.90	144.06	0.611	discarded	9.78	
AR 17		63.82	362.18	5.675		10.08	
SSSi Pyrite		374.04	74.50	0.1992	discarded	11.02	
SSSc S Intr		166.05	254.42	1.520	✓	9.194	
9087 A		323.34	194.00	0.5650		10.06	
9087 B		66.23	285.47	4.3102	✓	8.405	
9088 biot-misc		219.59	214.61	0.977	✓ mineral separates	9.10	
9089 A		163.22	294.27	1.803		8.81	
9089 B		247.26	242.14	0.9793		9.516	
9090		110.97	256.65	2.313		8.912	
9094		93.70	154.60	1.650		8.143	
9501 A		115.84	254.14	2.194	✓	8.608	
9502 B		129.92	243.21	1.872		8.686	
			9435				

Sample Numbers	Description	Locality	Latitude	Longitude	% SiO ₂	% K	ppm Sr	ppm Rb	Rb/Sr ⁸⁷ Rb/ ⁸⁶ Sr	⁸⁷ Sr/ ⁸⁶ Sr	Age	Initial ⁸⁷ Sr/ ⁸⁶ Sr	Reference	copy for Lee Pgage Covins	
AR 2	Biotite-hornblende granodiorite	105K/5	62° 28.1'	133° 51.2'			396	184	0.464 1.342	0.7102					
AR 4	Biotite quartz monzonite	105K/12	62° 33.5'	133° 45.8'			205	177	0.861 2.495	0.7195					
AR 7	Biotite quartz monzonite	105K/12	62° 35.0'	133° 34.4'			192	189	0.984 2.850	0.7181					
AR 14	Biotite-hornblende quartz monzonite	105K/2	62° 07.3'	132° 42.2'			229	133	0.582 1.687	0.7184					
AR 15	Hornblende-biotite quartz monzonite	105K/7	62° 17.7'	132° 38.6'			224 244	142	0.582 1.687	0.7185			99 ± 2.4 @ 0.7161 ± 0.0001	n=3 MSWD = 0.2 York II	
AR 16	Biotite-hornblende quartz monzonite	105K/1	62° 07.1'	132° 15.6'			235	144	0.613 1.775	0.7196					
AR 17	Aplite	105K/1	62° 05.0'	132° 15.6'			64.7	365	5.64 16.38	0.7391					
								Standard Sr: E & A = NBS =							
										λ = 1.42 × 10 ⁻¹¹ for Rb					

Sample Numbers	Description	Locality	Latitude	Longitude	% SiO ₂	% K	ppm Sr	ppm Rb	Rb/Sr ⁸⁷ Rb/ ⁸⁶ Sr	⁸⁷ Sr/ ⁸⁶ Sr	Age	Initial ⁸⁷ Sr/ ⁸⁶ Sr	Reference	Comments	
9088							219	215	0.980 2.85	0.74463		100 ± 2 @ 0.7405 ± 0.0001		MSWD 1.5 York I	
9088-1	Plag						129	17.1	0.132 0.383	0.74127					
-2	Plag						285	48.9	0.172 0.498	0.74119					
-3	Plag + Kspar						348	303	0.873 2.53	0.74368					
-	Kspar						367	446	1.214 3.53	0.74580					
-	Musc						28.2	511	18.14 53.1	0.8162					
-	Biotite						20.8	989	47.5 140.5	0.9416					

Standard Sr:
EPA =
NBS =

$\lambda = 1.42 \times 10^{-11}$
for Rb

FARO AR

AR 2 Mineral + Rock

MCINTYRE LEAST SQUARES CUBIC REGRESSION TREATMENT

NUMBER OF SAMPLES= 6. EST. B= 0.0009

CONX= 399.9998. TSPK= 0.026. TUS= 0.026

NUMBER OF SAMPLES = 6 EST B = 0.00088953
ONE SIGMA EXPERIMENTAL ERROR IN X = 0.020000 ONE SIGMA EXPERIMENTAL ERROR IN Y = 0.000200

EXPERIMENTAL ERROR MODEL I

A= 0.708959772 B= 0.000865112

MEAN SQUARE OF WEIGHTED DEVIATES= 1.94

SE OF A= 0.000083

SE OF B= 0.00001418

INITIAL RATIO= 0.70896 +/- 0.00008 AGE= 60.9 +/- 1.0 M.Y. (RB87 DECAY CONSTANT USED = 1.4200)
(AGE AND INITIAL RATIO ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)

X	Y	EST Y	DIFF	SE	DIFF/SE	SAMPLE
0.4640	0.709500	0.709361	0.000139	0.000161	0.86	AR 1 PLAG
0.9050	0.709650	0.709743	-0.000093	0.000161	-0.58	AR 2 PLAG
1.3420	0.710160	0.710121	0.000039	0.000162	0.24	AR 2
1.4280	0.710300	0.710195	0.000105	0.000162	0.65	AR 3
12.1700	0.718950	0.719488	-0.000538	0.000265	-2.03	AR 3 HBL
209.0000	0.895000	0.889768	0.005232	0.003618	1.45	AR 3 BI

GEOLOGICAL ERROR MODEL II-ERROR ATTRIBUTED PRIMARILY IN X

A= 0.708993301 B= 0.000858673

MEAN SQUARE OF WEIGHTED DEVIATES= 1.00

SE OF A= 0.000087

SE OF B= 0.002253

INITIAL RATIO= 0.70899 +/- 0.00009 AGE= 60.4 +/- 1.6 M.Y. (RB87 DECAY CONSTANT USED = 1.4200)
 (AGE AND INITIAL RATIO ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)

X	Y	EST Y	DIFF	SE	DIFF/SE	SAMPLE
0.4640	0.709500	0.709392	0.000108	0.000161	0.67	AR 1 PLAG
0.9050	0.709650	0.709770	-0.000120	0.000163	-0.74	AR 2 PLAG
1.3420	0.710160	0.710146	0.000014	0.000165	0.09	AR 2
1.4280	0.710300	0.710219	0.000081	0.000166	0.49	AR 3
12.1700	0.718950	0.719443	-0.000493	0.000389	-1.27	AR 3 HBL
209.0000	0.895000	0.888456	0.006544	0.006096	1.07	AR 3 BI

SLOPE OF ABSF(DIFF/SE) ON X 0.00223787

GEOLOGICAL ERROR MODEL III. ERROR ATTRIBUTED PRIMARILY IN Y

A= 0.708897665 B= 0.000875968

MEAN SQUARE OF WEIGHTED DEVIATES= 1.00

SE OF A= 0.000151

SE OF B= 0.00001588

INITIAL RATIO= 0.70890 +/- 0.00015 AGE= 61.7 +/- 1.1 M.Y. (RB87 DECAY CONSTANT USED = 1.4200)
 (AGE AND INITIAL RATIO ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)

X	Y	EST Y	DIFF	SE	DIFF/SE	SAMPLE
0.4640	0.709500	0.709304	0.000196	0.000311	0.63	AR 1 PLAG
0.9050	0.709650	0.709690	-0.000040	0.000312	-0.13	AR 2 PLAG
1.3420	0.710160	0.710073	0.000087	0.000312	0.28	AR 2
1.4280	0.710300	0.710149	0.000151	0.000312	0.48	AR 3
12.1700	0.718950	0.719558	-0.000608	0.000377	-1.61	AR 3 HBL
209.0000	0.895000	0.891975	0.003025	0.003676	0.82	AR 3 BI

SLOPE OF ABSF(DIFF/SE) ON X 0.00125866

POSITIVE SLOPES OF ABSF (DIFF/SE) ON X FOR ANALYSES(2) AND (3)
 SUGGEST ANALYSIS(2) AS THE MOST APPROPRIATE

FARO AR

YORK LEAST SQUARES REGRESSION TREATMENT MODEL I

NUMBER OF SAMPLES = 6 EST B = 0.00087597
ONE SIGMA EXPERIMENTAL ERROR IN X = 0.020000 ONE SIGMA EXPERIMENTAL ERROR IN Y = 0.000200

SLOPE B= 0.00086393 INTERCEPT A= 0.70896902
MEAN X = 1.90582943 MEAN Y = 0.71061552
SE OF B= 0.00002052 SE OF A= 0.00010716

X	WEIGHT X	PERCENTAGE RESIDUAL X	Y	WEIGHT Y	PERCENTAGE RESIDUAL Y	CORRL COEFF	SAMPLE NUMBER
0.4640000	0.11612E+05	-0.1033	0.7095000	0.49663E+08	-0.018279	.0	AR 1 PLAG
0.9050000	0.30524E+04	0.1547	0.7096500	0.49642E+08	0.014039	.0	AR 2 PLAG
1.3420000	0.13881E+04	-0.0707	0.7101600	0.49571E+08	-0.004330	.0	AR 2
1.4280000	0.12260E+04	-0.2307	0.7103000	0.49551E+08	-0.013286	.0	AR 3
12.1700000	0.16879E+02	3.3894	0.7189500	0.48366E+08	0.023177	.0	AR 3 HBL
209.0000000	0.57233E-01	-2.9399	0.8950000	0.31210E+08	-0.001457	.0	AR 3 BI

INITIAL RATIO= 0.70897 +/- 0.00011 AGE= 60.8 +/- 1.4 M.Y. (RB87 DECAY CONSTANT USED = 1.4200)
(AGE AND INITIAL RATIO ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)

FARO AR

YORK LEAST SQUARES REGRESSION TREATMENT MODEL II

NUMBER OF SAMPLES = 6 EST B = 0.00086393
ONE SIGMA EXPERIMENTAL ERROR IN X = 0.020000 ONE SIGMA EXPERIMENTAL ERROR IN Y = 0.000200

MINIMIZED WEIGHTED SUM OF RESIDUALS SQUARED (SUMS) = 8.50736344
SQUARE ROOT OF (SUMS/(N-2)) = 1.45836830

SLOPE B = 0.00086412 INTERCEPT A = 0.70896804
MEAN X = 1.92142105 MEAN Y = 0.71062839
SE OF B = 0.00001374 SE OF A = 0.00007341

X	WEIGHT X	PERCENTAGE RESIDUAL X	Y	WEIGHT Y	PERCENTAGE RESIDUAL Y	CORRL COEFF	SAMPLE NUMBER
0.4640000	0.11612E+05	0.1040	0.7095000	0.49663E+08	-0.018405	.0	AR 1 PLAG
0.9050000	0.30524E+04	-0.1535	0.7096500	0.49642E+08	0.013933	.0	AR 2 PLAG
1.3420000	0.13881E+04	0.0723	0.7101600	0.49571E+08	-0.004430	.0	AR 2
1.4280000	0.12260E+04	0.2326	0.7103000	0.49551E+08	-0.013391	.0	AR 3
12.1700000	0.16879E+02	-3.4633	0.7189500	0.48366E+08	0.023677	.0	AR 3 HBL
209.0000000	0.57233E-01	2.9991	0.8950000	0.31210E+08	-0.001486	.0	AR 3 BI

INITIAL RATIO = 0.70897 +/- 0.00007 AGE = 60.8 +/- 1.0 M.Y. (RB87 DECAY CONSTANT USED = 1.4200)
(AGE AND INITIAL RATIO ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)

FARO 1 AR

WENDT LEAST SQUARES REGRESSION TREATMENT MODEL I

NUMBER OF SAMPLES = 6 EST B = 0.00086412
ONE SIGMA EXPERIMENTAL ERROR IN X = 0.020000 ONE SIGMA EXPERIMENTAL ERROR IN Y = 0.000200

SLOPE B= 0.00087208 INTERCEPT A= 0.70897121
SE OF B 0.00001431 SE OF A= 0.00007402
SUM OF CHISQUARE = 1.1812

X	ERROR IN X	Y	ERROR IN Y	SAMPLE
0.46400000	0.00928000	0.70950000	0.00014190	AR 1 PLAG
0.90500000	0.01810000	0.70965000	0.00014193	AR 2 PLAG
1.34200000	0.02684000	0.71016000	0.00014203	AR 2
1.42800000	0.02856000	0.71030000	0.00014206	AR 3
12.17000000	0.24339999	0.71895000	0.00014379	AR 3 HBL
209.00000000	4.17999991	0.89500000	0.00017900	AR 3 BI

INITIAL RATIO= 0.70897 +/- 0.00007 AGE= 61.4 +/- 1.0 M.Y. (RB87 DECAY CONSTANT USED = 1.4200)
(AGE AND INITIAL RATIO ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)

FARO AR

WENDT LEAST SQUARES REGRESSION TREATMENT MODEL II

NUMBER OF SAMPLES = 6 EST B = 0.00087208
ONE SIGMA EXPERIMENTAL ERROR IN X = 0.020000 ONE SIGMA EXPERIMENTAL ERROR IN Y = 0.000200

SLOPE B = 0.00086413 INTERCEPT A = 0.70896819
SE OF B 0.00001373 SE OF A = 0.00007367
SUM OF CHISQUARE = 1.4584

X	ERROR IN X	Y	ERROR IN Y	SAMPLE
0.46400000	0.00928000	0.70950000	0.00014190	AR 1 PLAG
0.90500000	0.01810000	0.70965000	0.00014193	AR 2 PLAG
1.34200000	0.02684000	0.71016000	0.00014203	AR 2
1.42800000	0.02856000	0.71030000	0.00014206	AR 3
12.17000000	0.24339999	0.71895000	0.00014379	AR 3 HBL
209.00000000	4.17999991	0.89500000	0.00017900	AR 3 BI

INITIAL RATIO = 0.70897 +/- 0.00007 AGE = 60.8 +/- 1.0 M.Y. (RB87 DECAY CONSTANT USED = 1.4200)
(AGE AND INITIAL RATIO ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)

XRD trace of
hornblende separate

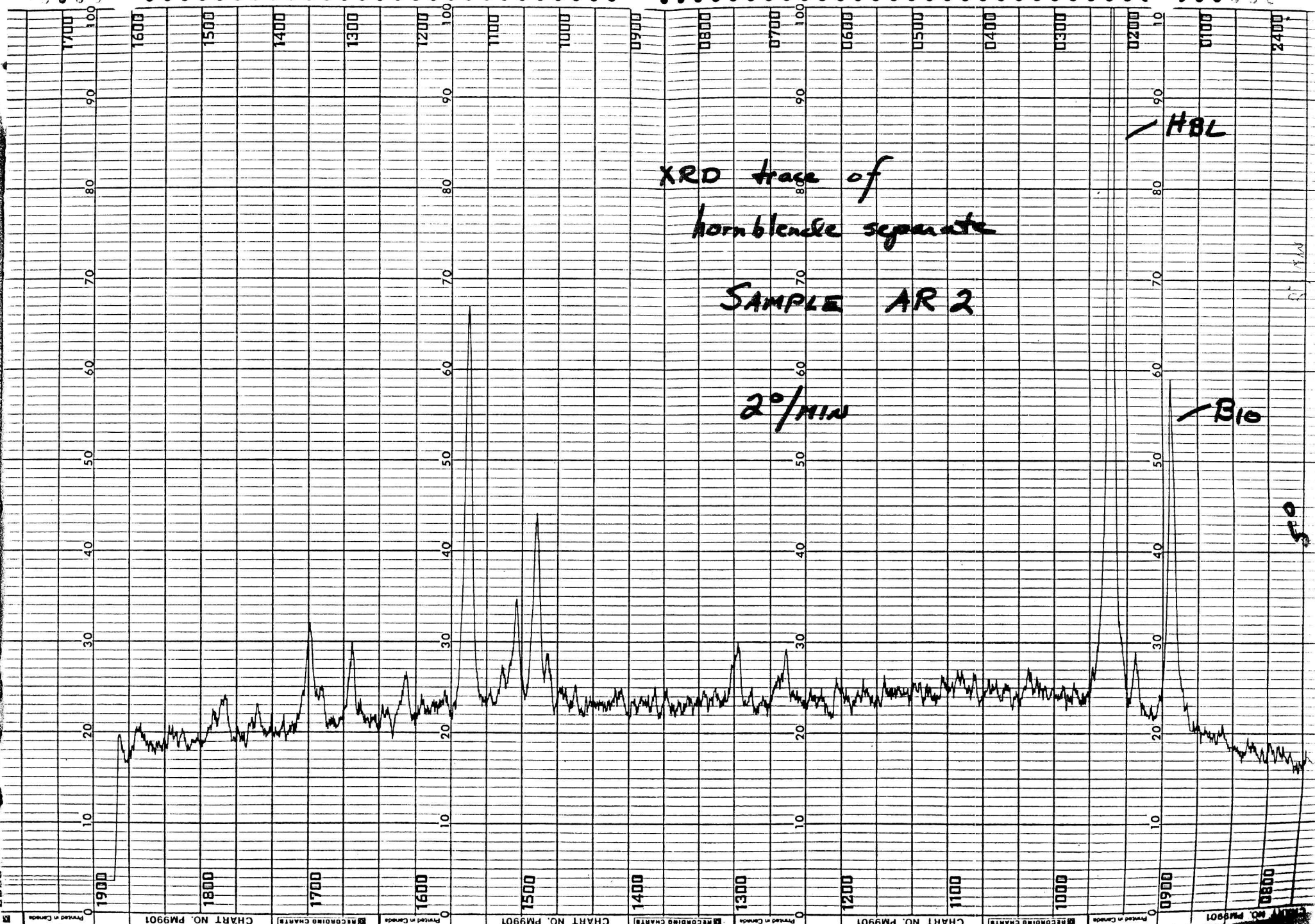
SAMPLE AR 2

2°/MIN

HL

B10

50



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5 WITHOUT BI
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9 MCINTYRE LEAST SQUARES CUBIC REGRESSION TREATMENT
10
11 0

12 NUMBER OF SAMPLES = 5 EST B = 0.0008
13 CONX = 399.9998, TSPK = 0.020, TUS = 0.020
14 0

15
16
17 NUMBER OF SAMPLES = 5 EST B = 0.00080728
18 ONE SIGMA EXPERIMENTAL ERROR IN X = 0.020000 ONE SIGMA EXPERIMENTAL ERROR IN Y = 0.000200
19

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22
23 EXPERIMENTAL ERROR MODEL I

24 0 A = 0.709062139 B = 0.000812212

25 0 MEAN SQUARE OF WEIGHTED DEVIATES = 0.51

26 0 SE OF A = 0.000082 SE OF B = 0.00002264
27

28 0 INITIAL RATIO = 0.70906 +/- 0.00008 AGE = 57.2 +/- 1.6 M.Y. (RB87 DECAY CONSTANT USED = 1.4200)
29 (AGE AND INITIAL RATIO ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)
30

31
32 X Y EST Y DIFF SE DIFF/SE SAMPLE
33
34 0 0.4640 0.709500 0.709439 0.000061 0.000143 0.43 PL1
35 0 0.9030 0.709650 0.709797 -0.000147 0.000144 -1.03 PL2
36 0 1.3420 0.710160 0.710152 0.000008 0.000145 0.05 WR
37 0 1.4280 0.710300 0.710222 0.000078 0.000145 0.54 PL3
38 0 12.1700 0.718950 0.718947 0.000003 0.000244 0.01 HBL
39 1
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41
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43 WITHOUT BI
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46 YORK LEAST SQUARES REGRESSION TREATMENT MODEL I
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51 NUMBER OF SAMPLES = 5 EST B = 0.00081221
52 ONE SIGMA EXPERIMENTAL ERROR IN X = 0.020000 ONE SIGMA EXPERIMENTAL ERROR IN Y = 0.000200
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56 SLOPE B = 0.00081296 INTERCEPT A = 0.70906046
57 MEAN X = 1.90976048 MEAN Y = 0.71061301
58 SE OF B = 0.00001628 SE OF A = 0.00009826
59
60

	X	WEIGHT X	PERCENTAGE RESIDUAL X	Y	WEIGHT Y	PERCENTAGE RESIDUAL Y	CORRL COEFF	SAMPLE NUMBER
63	0.4640000	0.11612E+05	-0.0466	0.7095000	0.49663E+08	-0.008760	0	PL1
64	0.9050000	0.30524E+04	0.2113	0.7096500	0.49642E+08	0.020381	0	PL2
65	1.3420000	0.13881E+04	-0.0181	0.7101600	0.49571E+08	-0.001177	0	WR
66	1.4280000	0.12260E+04	-0.1762	0.7103000	0.49551E+08	-0.010784	0	PL3
67	12.1700000	0.16879E+02	0.0274	0.7189500	0.48366E+08	0.000199	0	HBL
68	0	INITIAL RATIO= 0.70906 +/- 0.00006 AGE= 57.2 +/- 1.1 M.Y. (RB87 DECAY CONSTANT USED = 1.4200)						
69	(AGE AND INITIAL RATIO ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)							

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WITHOUT BI

YORK LEAST SQUARES REGRESSION TREATMENT MODEL II

84	NUMBER OF SAMPLES = 5 EST B = 0.00081296							
85	ONE SIGMA EXPERIMENTAL ERROR IN X = 0.020000 ONE SIGMA EXPERIMENTAL ERROR IN Y = 0.000200							
86	MINIMIZED WEIGHTED SUM OF RESIDUALS SQUARED (SUMS) = 1.54424940							
87	SQUARE ROOT OF (SUMS/(N-2)) = 0.71746063							
88								
89								
90								
91	SLOPE B = 0.00081296		INTERCEPT A = 0.70906052					
92	MEAN X = 1.90880585		MEAN Y = 0.71061230					
93	SE OF B = 0.00002273		SE OF A = 0.00008123					
94								
95								

	X	WEIGHT X	PERCENTAGE RESIDUAL X	Y	WEIGHT Y	PERCENTAGE RESIDUAL Y	CORRL COEFF	SAMPLE NUMBER
97	0.4640000	0.11612E+05	0.0465	0.7095000	0.49663E+08	-0.008752	0	PL1
98	0.9050000	0.30524E+04	-0.2114	0.7096500	0.49642E+08	0.020389	0	PL2
99	1.3420000	0.13881E+04	0.0179	0.7101600	0.49571E+08	-0.001168	0	WR
100	1.4280000	0.12260E+04	0.1761	0.7103000	0.49551E+08	-0.010775	0	PL3
101	12.1700000	0.16879E+02	-0.0279	0.7189500	0.48366E+08	0.000202	0	HBL
102	0	INITIAL RATIO= 0.70906 +/- 0.00008 AGE= 37.2 +/- 1.6 M.Y. (RB87 DECAY CONSTANT USED = 1.4200)						
103	(AGE AND INITIAL RATIO ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)							

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WITHOUT BI

WENDT LEAST SQUARES REGRESSION TREATMENT MODEL I

114	WENDT LEAST SQUARES REGRESSION TREATMENT MODEL I							
115								
116								
117								
118								
119	NUMBER OF SAMPLES = 5 EST B = 0.00081296							
120	ONE SIGMA EXPERIMENTAL ERROR IN X = 0.020000 ONE SIGMA EXPERIMENTAL ERROR IN Y = 0.000200							

SLOPE B= 0.00081312 INTERCEPT A= 0.7096068
 SE OF B 0.00002273 SE OF A= 0.00008123
 SUM OF CHISQUARE = 0.7173

X	ERROR IN X	Y	ERROR IN Y	SAMPLE
0.46400000	0.00928000	0.70950000	0.00014190	PL1
0.90500000	0.01810000	0.70965000	0.00014193	PL2
1.34200000	0.02684000	0.71016000	0.00014203	WR
1.42800000	0.02856000	0.71030000	0.00014206	PL3
12.17000000	0.24339999	0.71895000	0.00014379	HBL

INITIAL RATIO= 0.70906 +/- 0.00008 AGE= 57.2 +/- 1.6 M. Y. (RB87 DECAY CONSTANT USED = 1.4200)
 (AGE AND INITIAL RATIO ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)

WITHOUT BI

WENDT LEAST SQUARES REGRESSION TREATMENT MODEL II

NUMBER OF SAMPLES = 5 EST B = 0.00081312
 ONE SIGMA EXPERIMENTAL ERROR IN X = 0.020000 ONE SIGMA EXPERIMENTAL ERROR IN Y = 0.000200

SLOPE B= 0.00081296 INTERCEPT A= 0.7096068
 SE OF B 0.00002273 SE OF A= 0.00008123
 SUM OF CHISQUARE = 0.7173

X	ERROR IN X	Y	ERROR IN Y	SAMPLE
0.46400000	0.00928000	0.70950000	0.00014190	PL1
0.90500000	0.01810000	0.70965000	0.00014193	PL2
1.34200000	0.02684000	0.71016000	0.00014203	WR
1.42800000	0.02856000	0.71030000	0.00014206	PL3
12.17000000	0.24339999	0.71895000	0.00014379	HBL

INITIAL RATIO= 0.70906 +/- 0.00008 AGE= 57.2 +/- 1.6 M. Y. (RB87 DECAY CONSTANT USED = 1.4200)
 (AGE AND INITIAL RATIO ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)

WITHOUT BI AND HBI

MCINTYRE LEAST SQUARES CUBIC REGRESSION TREATMENT

NUMBER OF SAMPLES = 4 EST B = 0.0008
 CONK = 349.9998 TSFK = 0.020 TUS = 0.020

NUMBER OF SAMPLES = 4 EST B = 0.00082988
 ONE SIGMA EXPERIMENTAL ERROR IN X = 0.020000 ONE SIGMA EXPERIMENTAL ERROR IN Y = 0.000200

EXPERIMENTAL ERROR MODEL I

A = 0.709078306 B = 0.000796251

MEAN SQUARE OF WEIGHTED DEVIATES = 0.79

SE OF A = 0.000195 SE OF B = 0.00017572

INITIAL RATIO = 0.70908 +/- 0.00019 AGE = 56.1 +/- 12.4 M.Y. (RBB7 DECAY CONSTANT USED = 1.4200)
 (AGE AND INITIAL RATIO ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)

	X	Y	EST Y	DIFF	SE	DIFF/SE	SAMPLE
200							
201							
202	0	0.4640	0.709500	0.709448	0.000052	0.000142	0.37 PL1
203	0	0.9050	0.709650	0.709799	-0.000149	0.000143	-1.04 PL2
204	0	1.3420	0.710160	0.710147	0.000013	0.000144	0.09 WR
205	0	1.4280	0.710300	0.710215	0.000085	0.000144	0.59 PL3
206	1						

WITHOUT BT AND HBL

YORK LEAST SQUARES REGRESSION TREATMENT MODEL I

NUMBER OF SAMPLES = 4 EST B = 0.00079625
 ONE SIGMA EXPERIMENTAL ERROR IN X = 0.020000 ONE SIGMA EXPERIMENTAL ERROR IN Y = 0.000200

SLOPE B = 0.00084101 INTERCEPT A = 0.70903200
 MEAN X = 1.03090572 MEAN Y = 0.70989901
 SE OF B = 0.00016203 SE OF A = 0.00017832

PERCENTAGE

PERCENTAGE CORR

	X	WEIGHT X	RESIDUAL X	Y	WEIGHT Y	RESIDUAL Y	COEFF	SAMPLE NUMBER
228								
229								
230	0.4640000	0.11612E+05	-0.0601	0.7095000	0.49663E+08	-0.010931	0	PL1
231	0.9050000	0.30524E+04	0.2141	0.7096500	0.49642E+08	0.019962	0	PL2
232	1.3420000	0.13881E+04	0.0014	0.7101600	0.49571E+08	0.000088	0	WR
233	1.4280000	0.12260E+04	-0.1556	0.7103000	0.49551E+08	-0.009201	0	PL3

INITIAL RATIO = 0.70903 +/- 0.00018 AGE = 59.2 +/- 11.4 M.Y. (RBB7 DECAY CONSTANT USED = 1.4200)
 (AGE AND INITIAL RATIO ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)

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WITHOUT B1 AND HBL

YORK LEAST SQUARES REGRESSION TREATMENT MODEL II

NUMBER OF SAMPLES = 4 EST B = 0.00084101
ONE SIGMA EXPERIMENTAL ERROR IN X = 0.020000 ONE SIGMA EXPERIMENTAL ERROR IN Y = 0.000200

MINIMIZED WEIGHTED SUM OF RESIDUALS SQUARED (SUMS) = 1.52118635
SQUARE ROOT OF (SUMS/(N-2)) = 0.87211990

SLOPE B = 0.00084087 INTERCEPT A = 0.70903212
MEAN X = 1.03050900 MEAN Y = 0.70989865
SE OF B = 0.00018516 SE OF A = 0.00020386

X	WEIGHT X	PERCENTAGE RESIDUAL X	Y	WEIGHT Y	PERCENTAGE RESIDUAL Y	CORRL COEFF	SAMPLE NUMBER
0.4640000	0.11612E+05	0.0601	0.7095000	0.49663E+08	-0.010920	0	PL1
0.9050000	0.30524E+04	-0.2138	0.7096500	0.49642E+08	0.019938	0	PL2
1.3420000	0.13981E+04	-0.0013	0.7101600	0.49571E+08	0.000079	0	WR
1.4280000	0.12260E+04	0.1553	0.7103000	0.49551E+08	-0.009186	0	PL3

INITIAL RATIO = 0.70903 +/- 0.00020 AGE = 59.2 +/- 13.0 M. Y. (RBB7 DECAY CONSTANT USED = 1.4200)
(AGE AND INITIAL RATIO ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)

WITHOUT B1 AND HBL

WENDT LEAST SQUARES REGRESSION TREATMENT MODEL I

NUMBER OF SAMPLES = 4 EST B = 0.00084087
ONE SIGMA EXPERIMENTAL ERROR IN X = 0.020000 ONE SIGMA EXPERIMENTAL ERROR IN Y = 0.000200

SLOPE B = 0.00083547 INTERCEPT A = 0.70903808
SE OF B = 0.00018311 SE OF A = 0.00020191
SUM OF CHISQUARE = 0.7941

X	ERROR IN X	Y	ERROR IN Y	SAMPLE
0.46400000	0.00928000	0.70950000	0.00014190	PL1
0.90500000	0.01810000	0.70965000	0.00014193	PL2
1.34200000	0.02684000	0.71016000	0.00014203	WR
1.42800000	0.02856000	0.71030000	0.00014206	PL3

INITIAL RATIO = 0.70904 +/- 0.00020 AGE = 58.8 +/- 12.9 M. Y. (RBB7 DECAY CONSTANT USED = 1.4200)
(AGE AND INITIAL RATIO ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)

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306 WITHOUT BY AND HBL

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309 WENDT LEAST SQUARES REGRESSION TREATMENT MODEL II

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314 NUMBER OF SAMPLES = 4 EST B = 0.00083547
315 ONE SIGMA EXPERIMENTAL ERROR IN X = 0.020000 ONE SIGMA EXPERIMENTAL ERROR IN Y = 0.000200

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319 SLOPE B = 0.00084087 INTERCEPT A = 0.70903227
320 SE OF B 0.00018520 SE OF A = 0.00020386
321 SUM OF CHISQUARE = 0.8721

322

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	X	ERROR IN X	Y	ERROR IN Y	SAMPLE
324	0.46400000	0.00928000	0.70950000	0.00014190	PL1
325	0.90500000	0.01810000	0.70965000	0.00014193	PL2
326	1.34200000	0.02684000	0.71016000	0.00014203	WR
327	1.42800000	0.02856000	0.71030000	0.00014206	PL3

328

328 0 INITIAL RATIO = 0.70903 +/- 0.00020 AGE = 59.2 +/- 13.0 M. Y. (RBB7 DECAY CONSTANT USED = 1.4200)
329 (AGE AND INITIAL RATIO ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)

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336 WITHOUT HBL

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339 MCINTYRE LEAST SQUARES CUBIC REGRESSION TREATMENT

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344 NUMBER OF SAMPLES = 5, EST. B = 0.0009
345 0 CONX = 399.9998, TSPK = 0.026, TUS = 0.026

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348 NUMBER OF SAMPLES = 5 EST B = 0.00088953
349 ONE SIGMA EXPERIMENTAL ERROR IN X = 0.020000 ONE SIGMA EXPERIMENTAL ERROR IN Y = 0.000200

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354 EXPERIMENTAL ERROR MODEL I

355 0 A = 0.708982438 B = 0.000889298

356 0 MEAN SQUARE OF WEIGHTED DEVIATES = 0.42

357 0 SE OF A = 0.000083 SE OF B = 0.00001781

358

359 0 INITIAL RATIO = 0.70898 +/- 0.00008 AGE = 62.6 +/- 1.3 M. Y. (RBB7 DECAY CONSTANT USED = 1.4200)

360 (AGE AND INITIAL RATIO ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)

	X	Y	EST	DIFF	SE	EDF	SAMPLE
360	0	0.4640	0.709500	0.709295	0.000103	0.000141	0.65 FL1
361	0	0.9050	0.709650	0.709767	-0.000137	0.000141	-0.85 FL2
362	0	1.3420	0.710160	0.710176	-0.000016	0.000142	-0.10 WR
363	0	1.4280	0.710300	0.710252	0.000048	0.000142	0.29 PL3
364	0	209.0000	0.895000	0.894846	0.000154	0.000141	0.04 BI

WITHOUT HBL

YORK LEAST SQUARES REGRESSION TREATMENT MODEL I

NUMBER OF SAMPLES = 5 EST B = 0.00088930
 ONE SIGMA EXPERIMENTAL ERROR IN X = 0.020000 ONE SIGMA EXPERIMENTAL ERROR IN Y = 0.000200

SLOPE B = 0.00088959 INTERCEPT A = 0.70898195
 MEAN X = 1.10713577 MEAN Y = 0.70996684
 SE OF B = 0.00001297 SE OF A = 0.00005412

	X	WEIGHT X	PERCENTAGE RESIDUAL X	Y	WEIGHT Y	PERCENTAGE RESIDUAL Y	CORRL CDEFF	SAMPLE NUMBER
394	0.4640000	0.11612E+05	-0.0860	0.7095000	0.49663E+08	-0.014789	0	PL1
395	0.9050000	0.30524E+04	0.2163	0.7096500	0.49642E+08	0.019063	0	PL2
396	1.3420000	0.13881E+04	0.0363	0.7101600	0.49571E+08	0.002160	0	WR
397	1.4280000	0.12260E+04	-0.1164	0.7103000	0.49551E+08	-0.006511	0	PL3
398	209.0000000	0.57233E-01	-0.0508	0.8950000	0.31210E+08	-0.000024	0	BI

INITIAL RATIO = 0.70898 +/- 0.00005 AGE = 62.6 +/- 0.9 M. Y. (RB87 DECAY CONSTANT USED = 1.4200)
 (AGE AND INITIAL RATIO ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)

WITHOUT HBL

YORK LEAST SQUARES REGRESSION TREATMENT MODEL II

NUMBER OF SAMPLES = 5 EST B = 0.00088959
 ONE SIGMA EXPERIMENTAL ERROR IN X = 0.020000 ONE SIGMA EXPERIMENTAL ERROR IN Y = 0.000200

MINIMIZED WEIGHTED SUM OF RESIDUALS SQUARED (SUMS) = 1.89085237
 SQUARE ROOT OF (SUMS/(N-2)) = 0.71820610

421 SLOPE B= 0.0008959 INTERCEPT A= 0.70898193
 423 MEAN X = 1.10708332 MEAN Y = 0.70996678
 424 SE OF B= 0.00001779 SE OF A= 0.00007431
 425

	X	WEIGHT X	PERCENTAGE RESIDUAL X	Y	WEIGHT Y	PERCENTAGE RESIDUAL Y	CORR COEFF	SAMPLE NUMBER
426								
427								
428								
429	0.4640000	0.11612E+05	0.0661	0.7095000	0.49663E+08	-0.014791	0	PL1
430	0.9050000	0.30524E+04	-0.2162	0.7096500	0.49642E+08	0.019061	0	PL2
431	1.3420000	0.13881E+04	-0.0363	0.7101600	0.49571E+08	0.002158	0	WR
432	1.4280000	0.12260E+04	0.1165	0.7103000	0.49551E+08	-0.006513	0	PL3
433	209.0000000	0.57233E-01	0.0507	0.8950000	0.31210E+08	-0.000024	0	BI

434 0 INITIAL RATIO= 0.70898 +/- 0.00007 AGE= 62.6 +/- 1.3 M.Y. (RB87 DECAY CONSTANT USED = 1.4200)
 435 (AGE AND INITIAL RATIO ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)
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442 WITHOUT HBL

443 WENDT LEAST SQUARES REGRESSION TREATMENT MODEL I

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 450 NUMBER OF SAMPLES = 5 EST B = 0.0008959
 451 ONE SIGMA EXPERIMENTAL ERROR IN X = 0.020000 ONE SIGMA EXPERIMENTAL ERROR IN Y = 0.000200
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 455 SLOPE B= 0.0008957 INTERCEPT A= 0.70898400
 456 SE OF B 0.00001780 SE OF A= 0.00007450
 457 SUM OF CHISQUARE = 0.6667
 458

	X	ERROR IN X	Y	ERROR IN Y	SAMPLE
459					
460	0.46400000	0.00928000	0.70950000	0.00014190	PL1
461	0.90500000	0.01810000	0.70965000	0.00014193	PL2
462	1.34200000	0.02684000	0.71016000	0.00014203	WR
463	1.42800000	0.02856000	0.71030000	0.00014206	PL3
464	209.00000000	4.17999991	0.89500000	0.00017900	BI

465 0 INITIAL RATIO= 0.70898 +/- 0.00007 AGE= 62.6 +/- 1.3 M.Y. (RB87 DECAY CONSTANT USED = 1.4200)
 466 (AGE AND INITIAL RATIO ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)
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 469 1

473 WITHOUT HBL

474 WENDT LEAST SQUARES REGRESSION TREATMENT MODEL II
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481 NUMBER OF SAMPLES = 5 EST B = 0.0008939
482 ONE SIGMA EXPERIMENTAL ERROR IN X = 0.000000 ONE SIGMA EXPERIMENTAL ERROR IN Y = 0.000200
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486 SLOPE B = 0.0008939 INTERCEPT A = 0.7089811
487 SE OF B 0.00001779 SE OF A = 0.00001431
488 SUM OF CHISQUARE = 0.7282
489

X	ERROR IN X	Y	ERROR IN Y	SAMPLE
0.46400000	0.00928000	0.70950000	0.00014190	PL1
0.90500000	0.01810000	0.70965000	0.00014193	PL2
1.34200000	0.02684000	0.71016000	0.00014203	WR
1.42800000	0.02856000	0.71030000	0.00014206	PL3
209.00000000	4.17999991	0.89500000	0.00017900	EI

496 0 INITIAL RATIO = 0.70898 +/- 0.00007 AGE = 62.6 +/- 1.3 M. Y. (RB87 DECAY CONSTANT USED = 1.4200)
497 (AGE AND INITIAL RATIO ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)
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End of file

FARO 9088

9088 Mineral + Rock

MCINTYRE LEAST SQUARES CUBIC REGRESSION TREATMENT

NUMBER OF SAMPLES= 7, EST. B= 0.0014

CONX= 399.9998, TSPK= 0.028, TUS= 0.028

NUMBER OF SAMPLES = 7 EST B = 0.00142973
ONE SIGMA EXPERIMENTAL ERROR IN X = 0.020000 ONE SIGMA EXPERIMENTAL ERROR IN Y = 0.000200

EXPERIMENTAL ERROR MODEL I

A= 0.740523320 B= 0.001424822

MEAN SQUARE OF WEIGHTED DEVIATES= 1.83

SE OF A= 0.000089

SE OF B= 0.00001962

INITIAL RATIO= 0.74052 +/- 0.00009 AGE= 100.3 +/- 1.4 M.Y. (RB87 DECAY CONSTANT USED = 1.4200)
(AGE AND INITIAL RATIO ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)

X	Y	EST Y	DIFF	SE	DIFF/SE	SAMPLE
0.3830	0.741270	0.741069	0.000201	0.000169	1.19	9088-1 PLAG
0.4980	0.741190	0.741233	-0.000043	0.000169	-0.25	9088-2 PLAG
2.5300	0.743680	0.744128	-0.000448	0.000183	-2.45	9088-3 PLAG + KSPAR
2.8500	0.744630	0.744584	0.000046	0.000187	0.25	9088
3.5300	0.745800	0.745553	0.000247	0.000196	1.26	9088-3 KSPAR
53.1000	0.816200	0.816181	0.000019	0.001522	0.01	9088-3 MS
140.5000	0.941600	0.940711	0.000889	0.004007	0.22	9088-3 BI

GEOLOGICAL ERROR MODEL II - ERROR ATTRIBUTED PRIMARILY IN X

A= 0.740557418 B= 0.001411640

MEAN SQUARE OF WEIGHTED DEVIATES= 1.00

SE OF A= 0.000115

SE OF B= 0.00004565

INITIAL RATIO= 0.74056 +/- 0.00012 AGE= 99.3 +/- 3.2 M.Y. (RB87 DECAY CONSTANT USED = 1.4200)
(AGE AND INITIAL RATIO ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)

X	Y	EST Y	DIFF	SE	DIFF/SE	SAMPLE
0.3830	0.741270	0.741098	0.000172	0.000171	1.01	9088-1 PLAG
0.4980	0.741190	0.741260	-0.000070	0.000173	-0.41	9088-2 PLAG
2.5300	0.743680	0.744129	-0.000449	0.000257	-1.74	9088-3 PLAG + KSPAR
2.8500	0.744630	0.744581	0.000049	0.000277	0.18	9088
3.5300	0.745800	0.745541	0.000259	0.000320	0.81	9088-3 KSPAR
53.1000	0.816200	0.815516	0.000684	0.004091	0.17	9088-3 MS
140.5000	0.941600	0.938893	0.002707	0.010817	0.25	9088-3 BI

SLOPE OF ABSF(DIFF/SE) ON X -0.00481063

GEOLOGICAL ERRGR.MODEL III.ERROR ATTRIBUTED PRIMARILY IN Y

A= 0.740520729 B= 0.001426135

MEAN SQUARE OF WEIGHTED DEVIATES= 1.00

SE OF A= 0.000119

SE OF B= 0.00002022

INITIAL RATIO= 0.74052 +/- 0.00012 AGE= 100.4 +/- 1.4 M.Y. (RB87 DECAY CONSTANT USED = 1.4200)
(AGE AND INITIAL RATIO ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)

X	Y	EST Y	DIFF	SE	DIFF/SE	SAMPLE
0.3830	0.741270	0.741067	0.000203	0.000238	0.85	9088-1 PLAG
0.4980	0.741190	0.741231	-0.000041	0.000238	-0.17	9088-2 PLAG
2.5300	0.743680	0.744129	-0.000449	0.000248	-1.81	9088-3 PLAG + KSPAR
2.8500	0.744630	0.744585	0.000045	0.000251	0.18	9088
3.5300	0.745800	0.745555	0.000245	0.000258	0.95	9088-3 KSPAR
53.1000	0.816200	0.816249	-0.000049	0.001533	-0.03	9088-3 MS
140.5000	0.941600	0.940893	0.000707	0.004015	0.18	9088-3 BI

SLOPE OF ABSF(DIFF/SE) ON X -0.00 386

NEGATIVE SLOPES OF ABSF (DIFF/SE) ON X FOR ANALYSES(2) AND (3)
SUGGEST ANALYSIS(3) AS THE MOST APPROPRIATE

FARO 9088

YORK LEAST SQUARES REGRESSION TREATMENT.MODEL I

NUMBER OF SAMPLES = 7 EST B = 0.00142614
ONE SIGMA EXPERIMENTAL ERROR IN X = 0.020000 ONE SIGMA EXPERIMENTAL ERROR IN Y = 0.000200

SLOPE B= 0.00142559 INTERCEPT A= 0.74052183
MEAN X = 1.92688560 MEAN Y = 0.74326879
SE OF B= 0.00002919 SE OF A= 0.00012181

X	WEIGHT X	PERCENTAGE RESIDUAL X	Y	WEIGHT Y	PERCENTAGE RESIDUAL Y	CORRL COEFF	SAMPLE NUMBER
0.3830000	0.17043E+05	-0.1998	0.7412700	0.45497E+08	-0.027126	.0	9088-1 PLAG
0.4980000	0.10080E+05	0.0535	0.7411900	0.45507E+08	0.005585	.0	9088-2 PLAG
2.5300000	0.39057E+03	2.3680	0.7436800	0.45203E+08	0.048826	.0	9088-3 PLAG + KSPAR
2.8500000	0.30779E+03	-0.2553	0.7446300	0.45088E+08	-0.004679	.0	9088
3.5300000	0.20063E+03	-1.5279	0.7458000	0.44946E+08	-0.022644	.0	9088-3 KSPAR
53.1000000	0.88665E+00	0.0272	0.8162000	0.37527E+08	0.000029	.0	9088-3 MS
140.5000000	0.12664E+00	-0.3894	0.9416000	0.28197E+08	-0.000183	.0	9088-3 BI

INITIAL RATIO= 0.74052 +/- 0.00012 AGE= 100.3 +/- 2.1 M.Y. (RB87 DECAY CONSTANT USED = 1.4200)
(AGE AND INITIAL RATIO ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)

FARO 9088

YORK LEAST SQUARES REGRESSION TREATMENT MODEL II

NUMBER OF SAMPLES = 7 EST B = 0.00142559
ONE SIGMA EXPERIMENTAL ERROR IN X = 0.020000 ONE SIGMA EXPERIMENTAL ERROR IN Y = 0.000200

MINIMIZED WEIGHTED SUM OF RESIDUALS SQUARED (SUMS) = 11.26781868
SQUARE ROOT OF (SUMS/(N-2)) = 1.50118732

SLOPE B= 0.00142560 INTERCEPT A= 0.74052187
MEAN X = 1.92710781 MEAN Y = 0.74326915
SE OF B= 0.00001932 SE OF A= 0.00008100

X	WEIGHT X	PERCENTAGE RESIDUAL X	Y	WEIGHT Y	PERCENTAGE RESIDUAL Y	CORRL COEFF	SAMPLE NUMBER
0.3830000	0.17043E+05	0.1998	0.7412700	0.45497E+08	-0.027121	.0	9088-1 PLAG
0.4980000	0.10080E+05	-0.0535	0.7411900	0.45507E+08	0.005590	.0	9088-2 PLAG
2.5300000	0.39057E+03	-2.3686	0.7436800	0.45203E+08	0.048838	.0	9088-3 PLAG + KSPAR
2.8500000	0.30779E+03	0.2551	0.7446300	0.45088E+08	-0.004676	.0	9088
3.5300000	0.20063E+03	1.5280	0.7458000	0.44946E+08	-0.022645	.0	9088-3 KSPAR
53.1000000	0.88665E+00	-0.0275	0.8162000	0.37527E+08	0.000030	.0	9088-3 MS
140.5000000	0.12664E+00	0.3895	0.9416000	0.28197E+08	-0.000183	.0	9088-3 BI

INITIAL RATIO= 0.74052 +/- 0.00008 AGE= 100.3 +/- 1.4 M.Y. (RB87 DECAY CONSTANT USED = 1.4200)
(AGE AND INITIAL RATIO-ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)

FARO 9088

WENDT LEAST SQUARES REGRESSION TREATMENT MODEL I

NUMBER OF SAMPLES = 7 EST B = 0.00142560
ONE SIGMA EXPERIMENTAL ERROR IN X = 0.020000 ONE SIGMA EXPERIMENTAL ERROR IN Y = 0.000200

SLOPE B= 0.00142522 INTERCEPT A= 0.74053770
SE OF B 0.00001940 SE OF A= 0.00008215
SUM OF CHISQUARE = 1.1675

X	ERROR IN X	Y	ERROR IN Y	SAMPLE
0.38300000	0.00766000	0.74127000	0.00014825	9088-1 PLAG
0.49800000	0.00996000	0.74119000	0.00014824	9088-2 PLAG
2.53000000	0.05060000	0.74368000	0.00014874	9088-3 PLAG + KSPAR
2.85000000	0.05700000	0.74463000	0.00014893	9088
3.53000000	0.07060000	0.74580000	0.00014916	9088-3 KSPAR
53.10000000	1.06199998	0.81620000	0.00016324	9088-3 MS
140.50000000	2.80999994	0.94160000	0.00018832	9088-3 BI

INITIAL RATIO= 0.74054 +/- 0.00008 AGE= 100.3 +/- 1.4 M.Y. (RB87 DECAY CONSTANT USED = 1.4200)
(AGE AND INITIAL RATIO ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)

FARO 9088

WENDT LEAST SQUARES REGRESSION TREATMENT MODEL II

NUMBER OF SAMPLES = 7 EST B = 0.00142522
ONE SIGMA EXPERIMENTAL ERROR IN X = 0.020000 ONE SIGMA EXPERIMENTAL ERROR IN Y = 0.000200

SLOPE B= 0.00142560 INTERCEPT A= 0.74052209
SE OF B 0.00001932 SE OF A= 0.00008102
SUM OF CHISQUARE = 1.5012

X	ERROR IN X	Y	ERROR IN Y	SAMPLE
0.38300000	0.00766000	0.74127000	0.00014825	9088-1 PLAG
0.49800000	0.00996000	0.74119000	0.00014824	9088-2 PLAG
2.53000000	0.05060000	0.74368000	0.00014874	9088-3 PLAG + KSPAR
2.85000000	0.05700000	0.74463000	0.00014893	9088
3.53000000	0.07060000	0.74580000	0.00014916	9088-3 KSPAR
53.10000000	1.06199998	0.81620000	0.00016324	9088-3 MS
140.50000000	2.80999994	0.94160000	0.00018832	9088-3 BI

INITIAL RATIO= 0.74052 +/- 0.00008 AGE= 100.3 +/- 1.4 M.Y. (RB87 DECAY CONSTANT USED = 1.4200)
(AGE AND INITIAL RATIO ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)

lee pigage revisited

AR 14, AR = AR 17

MCINTYRE LEAST SQUARES CUBIC REGRESSION TREATMENT

NUMBER OF SAMPLES= 3, EST. B= 0.0014

CONX= 399.9998, TSPK= 0.021, TUS= 0.021

NUMBER OF SAMPLES = 3 EST B = 0.00140883
ONE SIGMA EXPERIMENTAL ERROR IN X = 0.020000 ONE SIGMA EXPERIMENTAL ERROR IN Y = 0.000200

EXPERIMENTAL ERROR MODEL I

A= 0.716079346 B= 0.001405302

MEAN SQUARE OF WEIGHTED DEVIATES= 0.21

SE OF A= 0.000133

SE OF B= 0.00003368

INITIAL RATIO= 0.71608 +/- 0.00013 AGE= 98.9 +/- 2.4 M.Y. (RB87 DECAY CONSTANT USED = 1.4200)
(AGE AND INITIAL RATIO ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)

X	Y	EST Y	DIFF	SE	DIFF/SE	SAMPLE
1.6870	0.718400	0.718450	-0.000050	0.000153	-0.33	ar 14
1.6870	0.718500	0.718450	0.000050	0.000153	0.33	ar 15
16.3800	0.739100	0.739098	0.000002	0.000483	0.00	ar 17

lee pigage revisited

YORK LEAST SQUARES REGRESSION TREATMENT.MODEL I

NUMBER OF SAMPLES = 3 EST B = 0.00140530
ONE SIGMA EXPERIMENTAL ERROR IN X = 0.020000 ONE SIGMA EXPERIMENTAL ERROR IN Y = 0.000200

SLOPE B= 0.00140545 INTERCEPT A= 0.71607886
MEAN X = 2.37283516 MEAN Y = 0.71941376
SE OF B= 0.00001575 SE OF A= 0.00006148

X	WEIGHT X	PERCENTAGE RESIDUAL X	Y	WEIGHT Y	PERCENTAGE RESIDUAL Y	CORRL COEFF	SAMPLE NUMBER
1.6870000	0.87844E+03	0.2065	0.7184000	0.48440E+08	0.006258	.0	ar 14
1.6870000	0.87844E+03	-0.2077	0.7185000	0.48427E+08	-0.006294	.0	ar 15
16.3800000	0.93178E+01	0.0004	0.7391000	0.45765E+08	0.000001	.0	ar 17

INITIAL RATIO= 0.71608 +/- 0.00006 AGE= 98.9 +/- 1.1 M.Y. (RB87 DECAY CONSTANT USED = 1.4200)
(AGE AND INITIAL RATIO ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)

lee pigage revisited

WENDT LEAST SQUARES REGRESSION TREATMENT MODEL I

NUMBER OF SAMPLES = 3 EST B = 0.00140545
ONE SIGMA EXPERIMENTAL ERROR IN X = 0.020000 ONE SIGMA EXPERIMENTAL ERROR IN Y = 0.000200

SLOPE B= 0.00140547 INTERCEPT A= 0.71607893
SE OF B 0.00003371 SE OF A= 0.00013157
SUM OF CHISQUARE = 0.3700

X	ERROR IN X	Y	ERROR IN Y	SAMPLE
1.68700000	0.03374000	0.71840000	0.00014368	ar 14
1.68700000	0.03374000	0.71850000	0.00014370	ar 15
16.38000000	0.32759999	0.73910000	0.00014782	ar 17

INITIAL RATIO= 0.71608 +/- 0.00013 AGE= 98.9 +/- 2.4 M.Y. (RB87 DECAY CONSTANT USED = 1.4200)
(AGE AND INITIAL RATIO ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)

1ee pigage revisited

WENDT LEAST SQUARES REGRESSION TREATMENT MODEL I

NUMBER OF SAMPLES = 3 EST B = 0.00140545
ONE SIGMA EXPERIMENTAL ERROR IN X = 0.020000 ONE SIGMA EXPERIMENTAL ERROR IN Y = 0.000200

SLOPE B= 0.00140547 INTERCEPT A= 0.71607893
SE OF B 0.00003371 SE OF A= 0.00013157
SUM OF CHISQUARE = 0.3700

X	ERROR IN X	Y	ERROR IN Y	SAMPLE
1.68700000	0.03374000	0.71840000	0.00014368	ar 14
1.68700000	0.03374000	0.71850000	0.00014370	ar 15
16.38000000	0.32759999	0.73910000	0.00014782	ar 17

INITIAL RATIO= 0.71608 +/- 0.00013 AGE= 98.9 +/- 2.4 M.Y. (RB87 DECAY CONSTANT USED = 1.4200)
(AGE AND INITIAL RATIO ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)

Tea pigage revisited

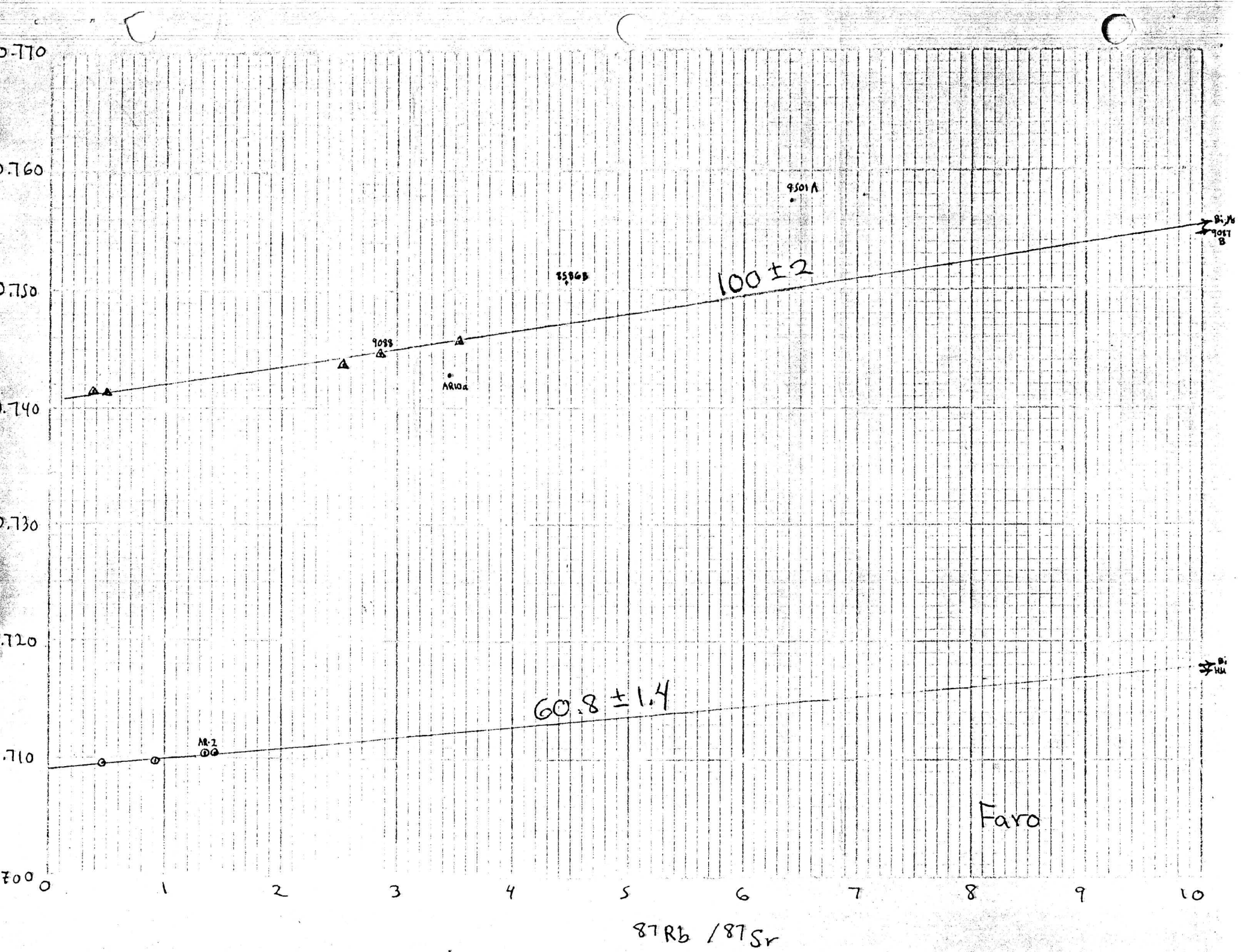
WENDT LEAST SQUARES REGRESSION TREATMENT MODEL II

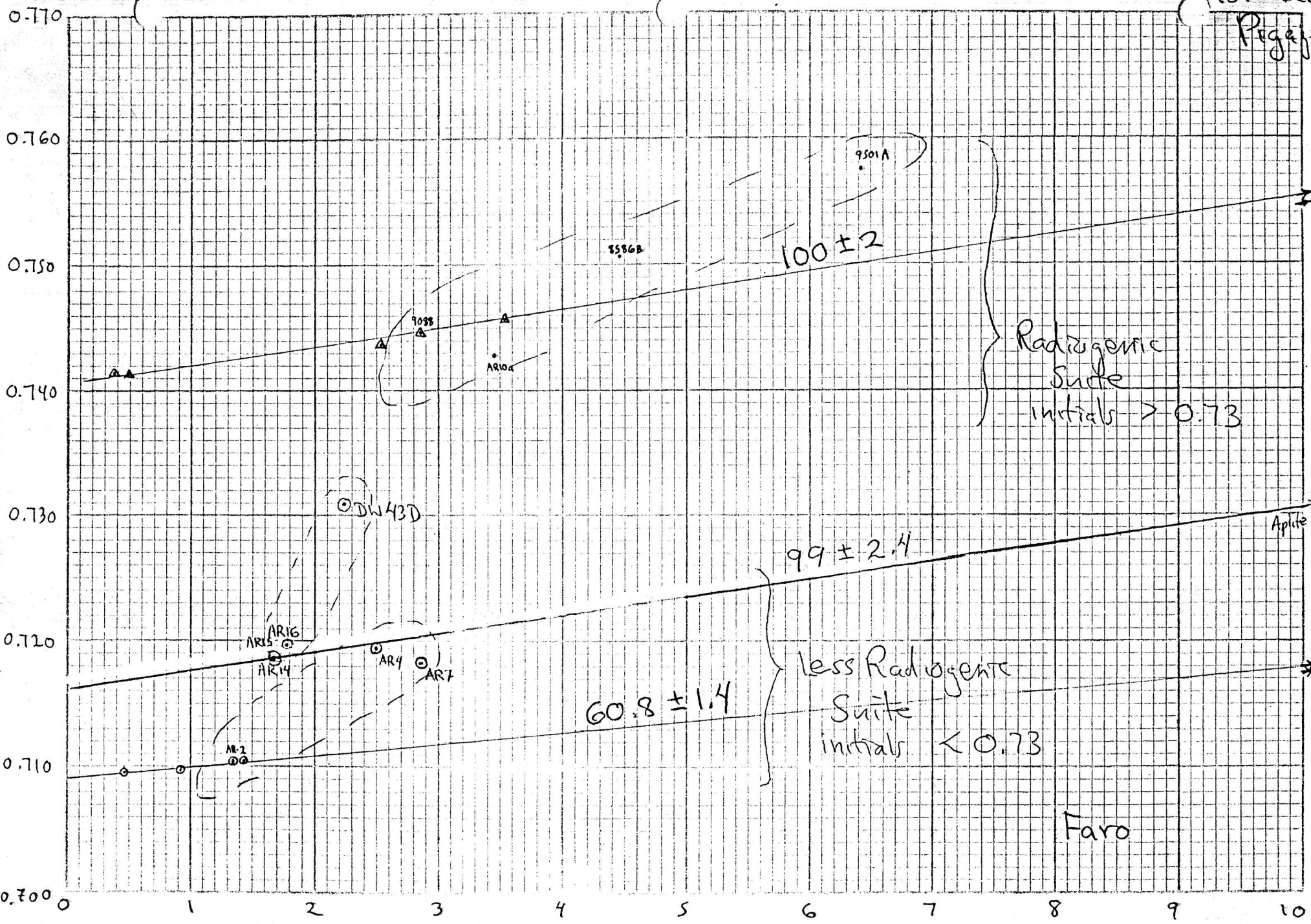
NUMBER OF SAMPLES = 3 EST B = 0.00140547
ONE SIGMA EXPERIMENTAL ERROR IN X = 0.020000 ONE SIGMA EXPERIMENTAL ERROR IN Y = 0.000200

SLOPE B= 0.00140545 INTERCEPT A= 0.71607899
SE OF B 0.00003371 SE OF A= 0.00013157
SUM OF CHISQUARE = 0.4673

X	ERROR IN X	Y	ERROR IN Y	SAMPLE
1.68700000	0.03374000	0.71840000	0.00014368	ar 14
1.68700000	0.03374000	0.71850000	0.00014370	ar 15
16.38000000	0.32759999	0.73910000	0.00014782	ar 17

INITIAL RATIO= 0.71608 +/- 0.00013 AGE= 98.9 +/- 2.4 M.Y. (RB87 DECAY CONSTANT USED = 1.4200)
(AGE AND INITIAL RATIO ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)





87Rb / 87Sr

Lee Far Page

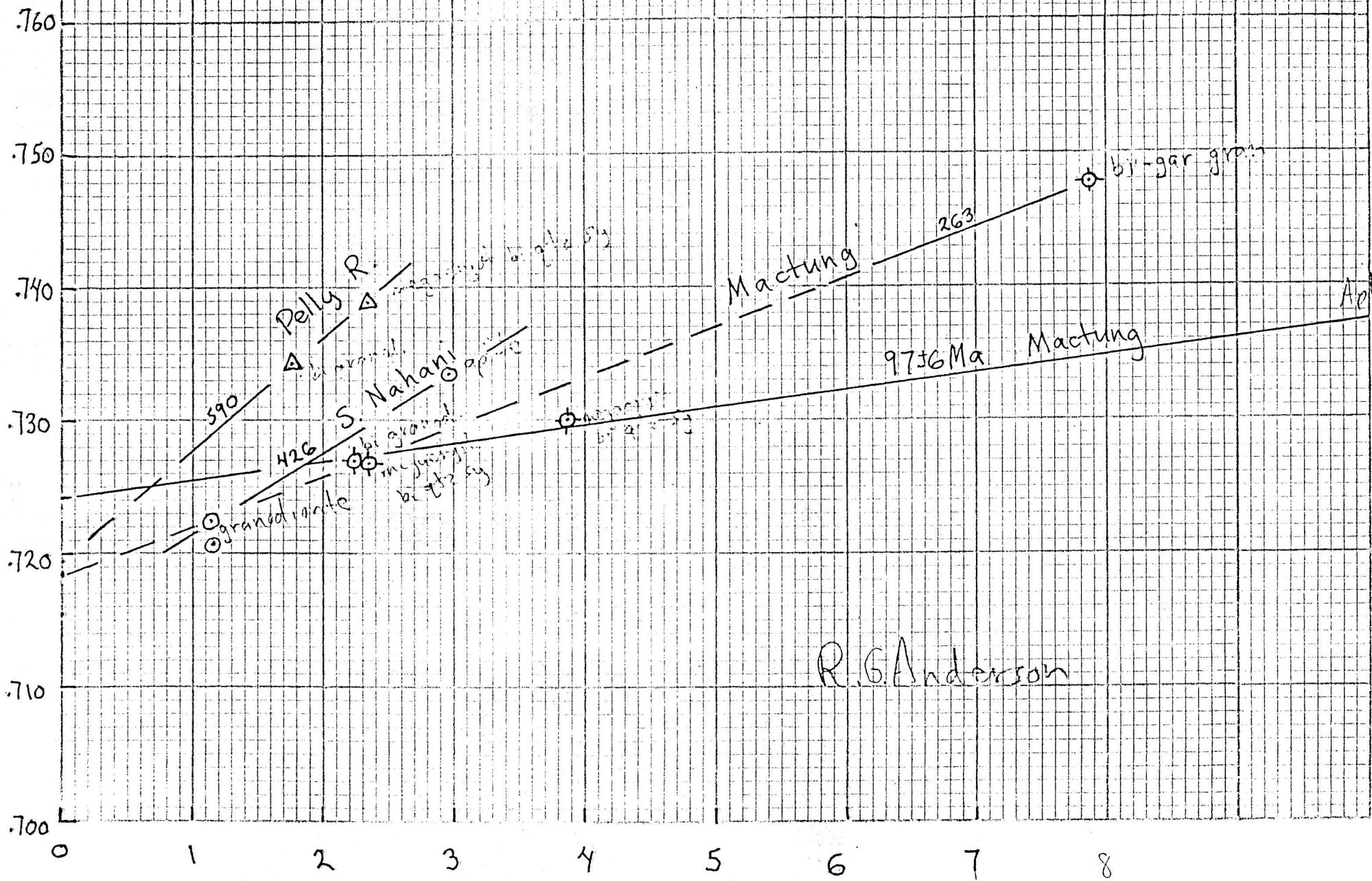


TABLE I K-Ar apparent dates for Anvil Batholith

<u>Sample</u>	<u>Latitude (N)</u>	<u>Longitude (W)</u>	<u>Rock</u>	<u>Material</u>	<u>Apparent age (± 20)^σ*</u>	<u>Reference</u>
GSC 65-41	62° 27'	133° 27.5'	quartz monzonite	biotite	92±5	1
GSC 65-42	62° 17'	133° 03'	quartz monzonite	muscovite	81±6	1
GSC 65-43	62° 17'	133° 03'	quartz monzonite	biotite	89±5	1
GSC 67-47	62° 22'	133° 23'	schist (Mt. Mye Fm.)	muscovite	102±5	2
GSC 67-48	62° 22'	133° 23'	schist (Mt. Mye Fm.)	biotite	96±4	2
GSC 70-45	62° 17.5'	133° 16.5'	sheared granodiorite	muscovite	96±5	3
GSC 70-46	62° 17.5'	133° 16.5'	sheared granodiorite	biotite	97±5	3
GSC 72-32	62° 22'	133° 23'	granodiorite	biotite	101±4	4

* Apparent age recalculated using constants from Steiger and Jäger (1977)

$$\lambda_{\beta} = 4.962 \times 10^{-10} / \text{yr.}, \quad \lambda_{\epsilon} = 0.581 \times 10^{-10} / \text{yr.}, \quad 40\text{K}/\text{K} = 0.0167 \text{ atom \%}.$$

data for all analyzed samples

	<u>Sr (ppm)</u>	<u>Rb (ppm)</u>	<u>$^{87}\text{Rb}/^{86}\text{Sr}$</u>	<u>$^{87}\text{Sr}/^{86}\text{Sr}$</u>
	396	184	1.342	0.7102
	347	56	0.464	0.7095
*	370	116	0.905	0.7096
*	494	244	1.428	0.7103
	34	142	12.17	0.7190
	13	938	209	0.8950
	205	177	2.495	0.7195
	192	189	2.850	0.7181
	229	133	1.687	0.7184
	224	142	1.687	0.7185
	235	144	1.775	0.7196
	65	365	16.38	0.7391
	192	229	3.45	0.7429
	165	253	4.46	0.7506
	66	285	12.54	0.7583
	219	215	2.85	0.7446
	129	17	0.383	0.7413
	285	49	0.498	0.7412
*	348	303	2.53	0.7437
	367	446	3.53	0.7458
	28	511	53.1	0.8162
	21	989	140.5	0.9416
	116	256	6.41	0.7576

0.0002(1 σ). See appendix for sample descriptions and analytical methods.

TABLE 2. Intercepts and apparent ages for whole rock and mineral separate data listed in Table 1

<u>Samples used in calculation</u>	<u>Intercept $\pm 1\sigma$ ($^{87}\text{Sr}/^{86}\text{Sr}$)</u>	<u>Apparent age $\pm 1\sigma$ (Ma BP)</u>
Whole rock		
WR1: AR14, AR15, AR17	0.7161 \pm 0.0001	98.9 \pm 1.1
Mineral - Whole rock		
M1: AR 2 bio, AR2 hbl AR 2 plag-1, 2, 3, AR2	0.7090 \pm 0.0001	60.8 \pm 1.4
M2: 9088 bio, 9088 mus, 9088 plag-1, 2, 3, 9088 K-spar 9088	0.7405 \pm 0.0001	100.3 \pm 2.1

NOTE: $\lambda_{\text{Rb}} = 1.42 \times 10^{-11}$ /year. Apparent age and initial ratio calculated using YORK I model (York 1966).

RESEARCH SAMPLE LOG

PROJECT: Rb/Sr ANVIL BATHOLITH

ANVIL BATHOLITH/ANVIL CK (N) PHASE

STATION: AR 2

Biotite-hornblende ~~granite~~ ^{granodiorite} monzonite

DDH: _____

DEPTH: _____

LATITUDE: 62° 28.1' N

LONGITUDE 131° 51.2' W

HAND SAMPLE: Medium-fine grained, unfoliated, equigranular intrusive.

Subhedral to euhedral plagioclase. K-feldspar as small irregular grains in matrix.

Plagioclase / K-feldspar = 3/1

THIN SECTION: Reject block stained for K-feldspar

POLISHED SECTION: _____

POLISHED THIN SECTION: _____

ANALYSIS: XRF whole rock + minerals for total Rb and Sr

PROBE: _____

XRD: _____

ISOTOPE: Sr⁸⁷/Sr⁸⁶ for whole rock and mineral separates.

FOSSIL: _____

STAINED: Slab stained for K-feldspar

OTHER: _____

COMMENTS:

Mineral isochron 60.8 ± 1.4 @ 0.7090 ± 0.0001

whole rock Rb 183.57 ppm
Sr 396.66 ppm

$Rb/Sr = 0.464$

$^{87}Sr/^{86}Sr = 0.71016$

RESEARCH SAMPLE LOG

PROJECT: Rb/Sr ANVIL BATHOLITH

ANVIL BATHOLITH / N. ANVIL CREEK PHASE

STATION: AR 4

Biotite quartz monzonite

DDH: _____

DEPTH: _____

LATITUDE: 62° 33.5' N

LONGITUDE: 133° 45.8' W

HAND SAMPLE: Coarse-grained, unfoliated, biotite quartz monzonite. K-feldspar forms large subhedral phenocrysts which typically contain numerous small plagioclase grains. Minor K-feldspar occurs as small anhedral grains in the matrix. Subhedral to anhedral plagioclase grains.

Plagioclase / K-feldspar \approx 1/1

THIN SECTION:

Stained reject block for K-feldspar

POLISHED SECTION: _____

POLISHED THIN SECTION: _____

ANALYSIS: XRF = total Rb and Sr - whole rock

PROBE: _____

XRD: _____

ISOTOPE: whole rock $^{87}\text{Sr}/^{86}\text{Sr}$

FOSSIL: _____

STAINED: slab stained for K-feldspar

OTHER: _____

COMMENTS:

Whole rock Pb = 179.01 ppm . .

Rb/Sr = 0.862

Sr = 207.60 ppm

Whole rock $^{87}\text{Sr}/^{86}\text{Sr}$ = 0.7195

RESEARCH SAMPLE LOG

PROJECT: Rb/Sr ANVIL BATHOLITH

ANVIL BATHOLITH / N. ANVIL CREEK PHASE

STATION: AR 7

Biotite quartz monzonite

DDH: _____

DEPTH: _____

LATITUDE: 62° 35.0' N

LONGITUDE: 134° 34.4' W

HAND SAMPLE: Coarse-grained, unfoliated, porphyritic biotite quartz monzonite. Biotite is locally altered to chlorite. K-feldspar generally forms interstitial anhedral grains.

Plagioclase / K-feldspar = 2/1

THIN SECTION: reject block stained for K-feldspar

POLISHED SECTION: _____

POLISHED THIN SECTION: _____

ANALYSIS: XRF - whole rock for Rb and Sr

PROBE: _____

XRD: _____

ISOTOPE: $^{87}\text{Sr}/^{86}\text{Sr}$ for whole rock

FOSSIL: _____

STAINED: slab stained for K-feldspar

OTHER: _____

COMMENTS:

Rb = 191.67 ppm

$\text{Rb/Sr} = 0.984$

Sr = 194.73 ppm

$^{87}\text{Sr}/^{86}\text{Sr} = 0.7181$

$^{87}\text{Rb}/^{86}\text{Sr} = 0.850$

RESEARCH SAMPLE LOG

PROJECT: Rb/Sr ANVIL BATHOLITH

UNIT: _____

STATION: 8586 B

ROCK NAME: _____

DDH: _____

DEPTH: _____

LATITUDE: 62° 22.0' N

LONGITUDE: 133° 08.6' W

HAND SAMPLE: Fine-grained, unfoliated granodiorite. Irregular to subhedral plagioclase and K-feldspar. Locally K-feldspar forms slightly larger phenocrysts with abundant inclusions.

Plagioclase / K-feldspar ~ 1/2

THIN SECTION: reject block stained for K-feldspar

POLISHED SECTION: _____

POLISHED THIN SECTION: _____

ANALYSIS: XRF - whole rock for Rb and Sr

PROBE: _____

XRD: _____

ISOTOPE: $^{87}\text{Sr}/^{86}\text{Sr}$ - whole rock

FOSSIL: _____

STAINED: slab stained for K-feldspar

OTHER: _____

COMMENTS:

Rb = 254.42 ppm

Sr = 166.08 ppm

Rb/Sr = 1.520

$^{87}\text{Sr}/^{86}\text{Sr} = 0.7506$

$^{87}\text{Rb}/^{86}\text{Sr} =$

RESEARCH SAMPLE LOG

PROJECT: Rb/Sr ANVIL BATHOLITH

UNIT: ANVIL BATHOLITH /
MT MYE PHASE

STATION: 9087 B

ROCK NAME: Muscovite - biotite
quartz monzonite

DDH: _____

DEPTH: _____

LATITUDE: 62° 19.2' N

LONGITUDE: 133° 13.0' W

HAND SAMPLE: Medium-grained, unfoliated quartz monzonite. Subhedral to anhedral plagioclase and K-feldspar. Both feldspars have abundant quartz inclusions. Only minor mafics. Minor garnet. Looks to be an aplitic phase.

THIN SECTION: reject block stained for K-feldspar

POLISHED SECTION: _____

POLISHED THIN SECTION: _____

ANALYSIS: XRF - whole rock for Rb and Sr

PROBE: _____

XRD: _____

ISOTOPE: $^{87}\text{Sr}/^{86}\text{Sr}$

FOSSIL: _____

STAINED: slab stained for K-feldspar

OTHER: _____

COMMENTS:

Rb = 285.47 ppm

Rb/Sr = 4.3102

Sr = 66.23 ppm

$^{87}\text{Sr}/^{86}\text{Sr} = 0.7583$

$^{87}\text{Rb}/^{86}\text{Sr} = 12.54$

RESEARCH SAMPLE LOG

PROJECT: Rb/Sr ANVIL BATHOLITH

STATION: 9088

DDH: _____

ANVIL BATHOLITH

UNIT: MT. MYE PHASE

ROCK NAME: Biotite-muscovite

DEPTH: quartz monzonite

LATITUDE: 62°18.5'N

LONGITUDE: 133°11.5'W

HAND SAMPLE: Poorly foliated, medium grained quartz monzonite. Subhedral plagioclase with anhedral, interstitial K-feldspar. Locally K-feldspar coarsens to form phenocrysts with abundant inclusions. Two foliations visible.

Plagioclase / K-feldspar ~ 1/1

THIN SECTION: ✓ reject block stained for K-feldspar

POLISHED SECTION: _____

POLISHED THIN SECTION: _____

ANALYSIS: ✓ XRF - whole rock + mineral separates for Rb and Sr

PROBE: _____

XRD: _____

ISOTOPE: ✓ $^{87}\text{Sr}/^{86}\text{Sr}$ for whole rock + mineral separates

FOSSIL: _____

STAINED: _____

OTHER: _____

COMMENTS:

whole rock Rb = 214.61 ppm
Sr = 219.59 ppm

Rb/Sr = 0.977

$^{87}\text{Sr}/^{86}\text{Sr} = 0.7446$

Mineral + whole rock isochron = $100 \pm 2 \text{ Ma}$ w/ initial $^{87}\text{Sr}/^{86}\text{Sr} =$

RESEARCH SAMPLE LOG

PROJECT: Rb/Sr ANVIL BATHOLITH

UNIT: ANVIL BATHOLITH /
MT MYE PHASE

STATION: 9501 A

ROCK NAME: Muscovite-biotite quartz
monzonite

DDH: _____

DEPTH: _____

LATITUDE: 62° 16.6' N

LONGITUDE 133° 07.6' W

HAND SAMPLE: Medium grained, poorly foliated quartz monzonite. Subhedral to anhedral plagioclase and K-feldspar. K-feldspar often looks like irregular rims on plagioclase. Plagioclase / K-feldspar ~ 1.5/1. Two foliations visible.

THIN SECTION: reject block stained for K-feldspar

POLISHED SECTION: _____

POLISHED THIN SECTION: _____

ANALYSIS: XRF - whole rock for Rb and Sr

PROBE: _____

XRD: _____

ISOTOPE: $^{87}\text{Sr}/^{86}\text{Sr}$ - whole rock

FOSSIL: _____

STAINED: slab stained for K-feldspar

OTHER: _____

COMMENTS:

254.14
Rb = ~~115.84~~ ppm
Sr = 115.84 ppm

Rb/Sr = 2.194

$^{87}\text{Sr}/^{86}\text{Sr} = 0.7576$

$\frac{^{87}\text{Rb}}{^{86}\text{Sr}} =$

RESEARCH SAMPLE LOG

PROJECT: R6/Sr ANVIL BATHOLITH

STATION: AR 10A

DDH: _____

LATITUDE: 62° 23.5' N

ANVIL BATHOLITH/

UNIT: MT. MYE PHASE

ROCK NAME: Biotite-muscovite quartz monzonite

DEPTH: _____

LONGITUDE: 133° 18.4' N

HAND SAMPLE: Coarse to medium grained, unfoliated, porphyritic biotite quartz monzonite. Large K-feldspar phenocrysts contain inclusions of quartz, plagioclase, mica. Locally phenocrysts are partly enclosed by plagioclase. Plagioclase occurs as small subhedral to anhedral grains.

Plagioclase/K-feldspar ~ 1/2

Minor chlorite alteration of biotite along fractures

THIN SECTION: reject block stained for K-feldspar

POLISHED SECTION: _____

POLISHED THIN SECTION: _____

ANALYSIS: XRF - whole rock for Rb and Sr

PROBE: _____

XRD: _____

ISOTOPE: $^{87}\text{Sr}/^{86}\text{Sr}$ for whole rock

FOSSIL: _____

STAINED: slab stained for K-feldspar

OTHER: _____

COMMENTS:

Rb = 95.50 ppm

Sr = 192.02 ppm

Rb/Sr = 0.497

$^{87}\text{Sr}/^{86}\text{Sr} = 0.7429$

$^{87}\text{Rb}/^{86}\text{Sr}$

RESEARCH SAMPLE LOG

PROJECT: Rb/Sr ANVIL BATHOLITH

STATION: AR 14

DDH: _____

ANVIL BATHOLITH/

UNIT: ORCHAY PHASE

ROCK NAME: Biotite-hornblende

DEPTH: _____ quartz monzonite

LATITUDE: 62° 07.3'N

LONGITUDE: 132° 42.2'W

HAND SAMPLE: Medium grained, unfoliated quartz monzonite. Biotite locally altered to chlorite. Subhedral plagioclase with interstitial, anhedral K-feldspar. Both feldspars are about the same size.

Plagioclase / K-feldspar ~ 2/1

THIN SECTION: reject block stained for K-feldspar

POLISHED SECTION: _____

POLISHED THIN SECTION: _____

ANALYSIS: XRF - whole rock for Rb and Sr

PROBE: _____

XRD: _____

ISOTOPE: $^{87}\text{Sr}/^{86}\text{Sr}$ - whole rock

FOSSIL: _____

STAINED: slab stained for K-feldspar

OTHER: _____

COMMENTS:

Rb = 132.46

Sr = 228.19

Rb/Sr = 0.580

$^{87}\text{Sr}/^{86}\text{Sr} = 0.7184$

$^{87}\text{Rb}/^{86}\text{Sr} =$

RESEARCH SAMPLE LOG

ANVIL BATHOLITH /

PROJECT: Rb/Sr ANVIL BATHOLITH

UNIT: ORCHARD PHASE

STATION: AR 15

ROCK NAME: Hornblende-biotite quartz

DDH: _____

DEPTH: _____ metre

LATITUDE: 62° 17.7' N

LONGITUDE: 132° 38.6' W

HAND SAMPLE: Medium-grained, unfoliated quartz monzonite. Minor epidote present.

Subhedral plagioclase partly rimmed by anhedral, interstitial, K-feldspar.

Plagioclase / K-feldspar ~ 1/1

THIN SECTION: reject block stained for K-feldspar

POLISHED SECTION: _____

POLISHED THIN SECTION: _____

ANALYSIS: XRF - whole rock for Rb and Sr

PROBE: _____

XRD: _____

ISOTOPE: ⁸⁷Sr / ⁸⁶Sr - whole rock

FOSSIL: _____

STAINED: slab stained for K-feldspar

OTHER: _____

COMMENTS:

Rb = 142.87 ppm
Sr = 245.70 ppm

Rb/Sr = 0.5815

⁸⁷Sr / ⁸⁶Sr = 0.7815

⁸⁷Rb / ⁸⁶Sr =

RESEARCH SAMPLE LOG

PROJECT: Rb/Sr ANVIL BATHOLITH

ANVIL BATHOLITH /

UNIT: ORCHIE LAKE PHASE

STATION: AR 16

ROCK NAME: Biotite quartz monzonite

DDH: _____

DEPTH: _____

LATITUDE: 62° 07.1' N

LONGITUDE: 132° 15.6' W

HAND SAMPLE: Coarse grained, porphyritic quartz monzonite. Euhedral to subhedral phenocrysts of K-feldspar, plagioclase, quartz in a fine grained K-feldspar-rich matrix. K-feldspar phenocrysts contain numerous inclusions. Phenocrysts are matrix supported. All phenocrysts are roughly the same size.

THIN SECTION: reject block stained for K-feldspar

POLISHED SECTION: _____

POLISHED THIN SECTION: _____

ANALYSIS: XRF - whole rock for Rb and Sr

PROBE: _____

XRD: _____

ISOTOPE: $\frac{87}{86} \text{Sr} / \text{Sr}$ - whole rock

FOSSIL: _____

STAINED: slab stained for K-feldspar

OTHER: _____

COMMENTS:

Rb = 144.06 ppm

Rb/Sr = 0.611

Sr = 235.90 ppm

$\frac{87}{86} \text{Sr} / \text{Sr} = 0.7196$

$\frac{87}{86} \text{Rb} / \text{Sr} = 1.775$

RESEARCH SAMPLE LOG

ANVIL BATHOLITH

PROJECT: Rb/Sr ANVIL BATHOLITH

UNIT: ORCHARD PHASE

STATION: AR 17

ROCK NAME: APLITE

DDH: _____

DEPTH: _____

LATITUDE: 62° 05.0' N

LONGITUDE: 132° 15.6' W

HAND SAMPLE: Fine grained felsic aplite with only minor mafics. Graphic intergrowths of quartz and the feldspars. "Rough" zoning of rock into parallel layers based on different concentrations of K-feldspar. Contains minor garnet.

Plagioclase / K-feldspar ~ 1/1

THIN SECTION: reject block stained for K-feldspar

POLISHED SECTION: _____

POLISHED THIN SECTION: _____

ANALYSIS: XRF - whole rock for Rb and Sr

PROBE: _____

XRD: _____

ISOTOPE: $^{87}\text{Sr}/^{86}\text{Sr}$ - whole rock

FOSSIL: _____

STAINED: lab stained for K-feldspar

OTHER: _____

COMMENTS:

Rb = 362.13 ppm

Sr = 63.82 ppm

Rb/Sr = 5.675

$^{87}\text{Sr}/^{86}\text{Sr} = 0.7391$

$^{87}\text{Rb}/^{86}\text{Sr} =$

THE UNIVERSITY OF BRITISH COLUMBIA

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DEPARTMENT OF
GEOLOGICAL SCIENCES

December 1, 1981

Cyprus Anvil Corp.
330 - 355 Burrard Street
Vancouver, B.C.

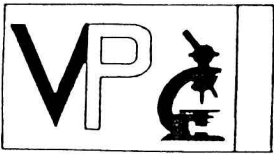
Attention: L. Pigage

INVOICE LP0001-81

13 Rb-Sr and Sr isotopic analyses on rocks and minerals of the Anvil Range pluton @ \$110.50	=	\$1436.50
3 Rb-Sr analyses of powders for sample evaluation @ \$19.50	=	<u>58.50</u>
Total		\$1495.00

Make cheque payable to: The University of British Columbia

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Geological Sciences, U.B.C.
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Vancouver, B.C.
V6T 2B4



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8887 NASH STREET — P.O. BOX 39 — FORT LANGLEY, B.C. V0X 1J0

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INVOICE N^o 2620

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Ordered By: L.C. Pigage

FOR

Cyprus Anvil Mining Corp.
300-355 Burrard Street
Vancouver, B.C.

QUANTITY	DESCRIPTION	COST
28	THIN SECTIONS @ \$6.00 ea.	\$168.00
	POLISHED THIN SECTIONS	
	POLISHED ORE MOUNTS	
28	GROUND & LABELLED THIN SECTION REJECT SLICES 75¢ ea.	21.00
	POLISHED MINERAL GRAIN MOUNTS	
	MINERAL GRAIN THIN SECTIONS	
	MINERAL GRAIN POLISHED THIN SECTIONS	
	THIN SECTION K-SPAR STAINS	
28	ROCK K-SPAR STAINS @ \$1.00 ea.	28.00
	CERAMIC PULVERIZER PLATES LAPPED	
28	Rough grind & stain on slabs @ \$2.00 ea.	56.00
	PETROGRAPHIC REPORT	
	FED. TAX	
	PROV. TAX	
	SHIPPING	6.00
	TOTAL	\$279.00

Receiving Date May 10, 1981

Shipping Date May 28, 1981

Via B.D.C. Delivery Service

LESS RADIOGENIC SUITE

MCINTYRE LEAST SQUARES CUBIC REGRESSION TREATMENT

NUMBER OF SAMPLES= 4, EST. B= 0.0014

CONX= 399.9998, TSPK= 0.021, TUS= 0.021

NUMBER OF SAMPLES = 4 EST B = 0.00140883
 ONE SIGMA EXPERIMENTAL ERROR IN X = 0.020000 ONE SIGMA EXPERIMENTAL ERROR IN Y = 0.000200

EXPERIMENTAL ERROR MODEL I

A= 0.716062065 B= 0.001401858

MEAN SQUARE OF WEIGHTED DEVIATES= 0.21

SE OF A= 0.000120

SE OF B= 0.00003342

INITIAL RATIO= 0.71606 +/- 0.00012 AGE= 98.7 +/- 2.4 M.Y. (RB87 DECAY CONSTANT USED = 1.4200)
 (AGE AND INITIAL RATIO ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)

X	Y	EST Y	DIFF	SE	DIFF/SE	SAMPLE
1.6870	0.718400	0.718427	-0.000027	0.000153	-0.18	AR14
1.6870	0.718500	0.718427	0.000073	0.000153	0.48	AR15
2.4950	0.719500	0.719560	-0.000060	0.000162	-0.37	AR4
16.3800	0.739100	0.739024	0.000076	0.000482	0.16	AR17

LESS RADIOGENIC SUITE

YORK LEAST SQUARES REGRESSION TREATMENT.MODEL I

NUMBER OF SAMPLES = 4 EST B = 0.00140186
 ONE SIGMA EXPERIMENTAL ERROR IN X = 0.020000 ONE SIGMA EXPERIMENTAL ERROR IN Y = 0.000200

SLOPE B= 0.00140516 INTERCEPT A= 0.71605395
 MEAN X = 2.41115189 MEAN Y = 0.71944201
 SE OF B= 0.00001539 SE OF A= 0.00005459

X	WEIGHT X	PERCENTAGE RESIDUAL X	Y	WEIGHT Y	PERCENTAGE RESIDUAL Y	CORRL COEFF	SAMPLE NUMBER
1.6870000	0.87844E+03	0.1014	0.7184000	0.48440E+08	0.003072	.0	AR14
1.6870000	0.87844E+03	-0.3130	0.7185000	0.48427E+08	-0.009486	.0	AR15
2.4950000	0.40160E+03	0.3277	0.7195000	0.48292E+08	0.006726	.0	AR4
16.3800000	0.93178E+01	-0.1168	0.7391000	0.45765E+08	-0.000375	.0	AR17

INITIAL RATIO= 0.71605 +/- 0.00005 AGE= 98.9 +/- 1.1 M.Y.(RB87 DECAY CONSTANT USED = 1.4200)
 (AGE AND INITIAL RATIO ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)

LESS RADIOGENIC SUITE

YORK LEAST SQUARES REGRESSION TREATMENT.MODEL II

NUMBER OF SAMPLES = 4 EST B = 0.00140516
 ONE SIGMA EXPERIMENTAL ERROR IN X = 0.020000 ONE SIGMA EXPERIMENTAL ERROR IN Y = 0.000200

MINIMIZED WEIGHTED SUM OF RESIDUALS SQUARED (SUMS) = 0.41876947
 SQUARE ROOT OF (SUMS/(N-2)) = 0.45758575

SLOPE B= 0.00140515 INTERCEPT A= 0.71605405
 MEAN X = 2.40939808 MEAN Y = 0.71943963
 SE OF B= 0.00003358 SE OF A= 0.00011912

X	WEIGHT X	PERCENTAGE RESIDUAL X	Y	WEIGHT Y	PERCENTAGE RESIDUAL Y	CORRL COEFF	SAMPLE NUMBER
1.6870000	0.87844E+03	-0.1017	0.7184000	0.48440E+08	0.003081	.0	AR14
1.6870000	0.87844E+03	0.3125	0.7185000	0.48427E+08	-0.009471	.0	AR15
2.4950000	0.40160E+03	-0.3279	0.7195000	0.48292E+08	0.006729	.0	AR4
16.3800000	0.93178E+01	0.1163	0.7391000	0.45765E+08	-0.000374	.0	AR17

INITIAL RATIO= 0.71605 +/- 0.00012 AGE= 98.9 +/- 2.4 M.Y. (RB87 DECAY CONSTANT USED = 1.4200)
 (AGE AND INITIAL RATIO ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)

LESS RADIOGENIC SUITE

WENDT LEAST SQUARES REGRESSION TREATMENT MODEL I

NUMBER OF SAMPLES = 4 EST B = 0.00140515
ONE SIGMA EXPERIMENTAL ERROR IN X = 0.020000 ONE SIGMA EXPERIMENTAL ERROR IN Y = 0.000200

SLOPE B= 0.00140524 INTERCEPT A= 0.71605594
SE OF B 0.00003362 SE OF A= 0.00011927
SUM OF CHISQUARE = 0.3555

X	ERROR IN X	Y	ERROR IN Y	SAMPLE
1.68700000	0.03374000	0.71840000	0.00014368	AR14
1.68700000	0.03374000	0.71850000	0.00014370	AR15
2.49500000	0.04990000	0.71950000	0.00014390	AR4
16.38000000	0.32759999	0.73910000	0.00014782	AR17

INITIAL RATIO= 0.71606 +/- 0.00012 AGE= 98.9 +/- 2.4 M.Y. (RB87 DECAY CONSTANT USED = 1.4200)
(AGE AND INITIAL RATIO ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)

LESS RADIOGENIC SUITE

WENDT LEAST SQUARES REGRESSION TREATMENT MODEL II

NUMBER OF SAMPLES = 4 EST B = 0.00140524
 ONE SIGMA EXPERIMENTAL ERROR IN X = 0.020000 ONE SIGMA EXPERIMENTAL ERROR IN Y = 0.000200

SLOPE B= 0.00140515 INTERCEPT A= 0.71605414
 SE OF B 0.00003358 SE OF A= 0.00011914
 SUM OF CHISQUARE = 0.4576

X	ERROR IN X	Y	ERROR IN Y	SAMPLE
1.68700000	0.03374000	0.71840000	0.00014368	AR14
1.68700000	0.03374000	0.71850000	0.00014370	AR15
2.49500000	0.04990000	0.71950000	0.00014390	AR4
16.38000000	0.32759999	0.73910000	0.00014782	AR17

INITIAL RATIO= 0.71605 +/- 0.00012 AGE= 98.9 +/- 2.4 M.Y. (RB87 DECAY CONSTANT USED = 1.4200)
 (AGE AND INITIAL RATIO ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)

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INITIAL RATIO= 0.71624 +/- 0.00081 AGE= 84.0 +/- 25.2 M.Y. (RB87 DECAY CONSTANT USED = 1.4200)
 (AGE AND INITIAL RATIO ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)

X	Y	EST Y	DIFF	SE	DIFF/SE	SAMPLE
1.6870	0.718400	0.718254	0.000146	0.000608	0.24	AR14
1.6870	0.718500	0.718254	0.000246	0.000608	0.40	AR15
2.4950	0.719500	0.719219	0.000281	0.000885	0.32	AR4
2.8500	0.718100	0.719643	-0.001543	0.001007	-1.53	AR7
16.3800	0.739100	0.735799	0.003301	0.005730	0.58	AR17

SLOPE OF ABSF(DIFF/SE) ON X 0.00165996

GEOLOGICAL ERROR MODEL III. ERROR ATTRIBUTED PRIMARILY IN Y

A= 0.715529561 B= 0.001431785

MEAN SQUARE OF WEIGHTED DEVIATES= 1.00

SE OF A= 0.000596

SE OF B= 0.00008437

INITIAL RATIO= 0.71553 +/- 0.00060 AGE= 100.8 +/- 5.9 M.Y. (RB87 DECAY CONSTANT USED = 1.4200)
 (AGE AND INITIAL RATIO ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)

X	Y	EST Y	DIFF	SE	DIFF/SE	SAMPLE
1.6870	0.718400	0.717945	0.000455	0.000992	0.46	AR14
1.6870	0.718500	0.717945	0.000555	0.000992	0.56	AR15
2.4950	0.719500	0.719102	0.000398	0.000994	0.40	AR4
2.8500	0.718100	0.719610	-0.001510	0.000995	-1.52	AR7
16.3800	0.739100	0.738982	0.000118	0.001097	0.11	AR17

SLOPE OF ABSF(DIFF/SE) ON X -0.03989523

A POSITIVE SLOPE OF ABSF (DIFF/SE) ON X FOR ANALYSIS(2) AND A
 NEGATIVE SLOPE FOR (3) FAVOURS NEITHER ANALYSIS

INITIAL RATIO= 0.71624 +/- 0.00081 AGE= 84.0 +/- 25.2 M.Y. (RB87 DECAY CONSTANT USED = 1.4200)
 (AGE AND INITIAL RATIO ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)

X	Y	EST Y	DIFF	SE	DIFF/SE	SAMPLE
1.6870	0.718400	0.718254	0.000146	0.000608	0.24	AR14
1.6870	0.718500	0.718254	0.000246	0.000608	0.40	AR15
2.4950	0.719500	0.719219	0.000281	0.000885	0.32	AR4
2.8500	0.718100	0.719643	-0.001543	0.001007	-1.53	AR7
16.3800	0.739100	0.735799	0.003301	0.005730	0.58	AR17

SLOPE OF ABSF(DIFF/SE) ON X 0.00165996

GEOLOGICAL ERROR MODEL III. ERROR ATTRIBUTED PRIMARILY IN Y

A= 0.715529561 B= 0.001431785

MEAN SQUARE OF WEIGHTED DEVIATES= 1.00

SE OF A= 0.000596

SE OF B= 0.00008437

INITIAL RATIO= 0.71553 +/- 0.00060 AGE= 100.8 +/- 5.9 M.Y. (RB87 DECAY CONSTANT USED = 1.4200)
 (AGE AND INITIAL RATIO ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)

X	Y	EST Y	DIFF	SE	DIFF/SE	SAMPLE
1.6870	0.718400	0.717945	0.000455	0.000992	0.46	AR14
1.6870	0.718500	0.717945	0.000555	0.000992	0.56	AR15
2.4950	0.719500	0.719102	0.000398	0.000994	0.40	AR4
2.8500	0.718100	0.719610	-0.001510	0.000995	-1.52	AR7
16.3800	0.739100	0.738982	0.000118	0.001097	0.11	AR17

SLOPE OF ABSF(DIFF/SE) ON X -0.03989523

A POSITIVE SLOPE OF ABSF (DIFF/SE) ON X FOR ANALYSIS(2) AND A
 NEGATIVE SLOPE FOR (3) FAVOURS NEITHER ANALYSIS

LESS RADIOGENIC SUITE

YORK LEAST SQUARES REGRESSION TREATMENT.MODEL II

NUMBER OF SAMPLES = 5 EST B = 0.00139522
 ONE SIGMA EXPERIMENTAL ERROR IN X = 0.020000 ONE SIGMA EXPERIMENTAL ERROR IN Y = 0.000200

MINIMIZED WEIGHTED SUM OF RESIDUALS SQUARED (SUMS) = 110.94784908
 SQUARE ROOT OF (SUMS/(N-2)) = 6.08133316

SLOPE B= 0.00139699 INTERCEPT A= 0.71564204
 MEAN X = 2.51006794 MEAN Y = 0.71914858
 SE OF B= 0.00003187 SE OF A= 0.00010983

X	WEIGHT X	PERCENTAGE RESIDUAL X	Y	WEIGHT Y	PERCENTAGE RESIDUAL Y	CORRL COEFF	SAMPLE NUMBER
1.6870000	0.87844E+03	1.6542	0.7184000	0.48440E+08	-0.050425	.0	AR14
1.6870000	0.87844E+03	2.0660	0.7185000	0.48427E+08	-0.062986	.0	AR15
2.4950000	0.40160E+03	2.0312	0.7195000	0.48292E+08	-0.041929	.0	AR4
2.8500000	0.30779E+03	-8.9969	0.7181000	0.48481E+08	0.162270	.0	AR7
16.3800000	0.93178E+01	2.2767	0.7391000	0.45765E+08	-0.007354	.0	AR17

INITIAL RATIO= 0.71564 +/- 0.00011 AGE= 98.3 +/- 2.2 M.Y. (RB87 DECAY CONSTANT USED = 1.4200)
 (AGE AND INITIAL RATIO ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)

LESS RADIOGENIC SUITE

YORK LEAST SQUARES REGRESSION TREATMENT MODEL II

NUMBER OF SAMPLES = 5 EST B = 0.00139522
 ONE SIGMA EXPERIMENTAL ERROR IN X = 0.020000 ONE SIGMA EXPERIMENTAL ERROR IN Y = 0.000200

MINIMIZED WEIGHTED SUM OF RESIDUALS SQUARED (SUMS) = 110.94784908
 SQUARE ROOT OF (SUMS/(N-2)) = 6.08133316

SLOPE B= 0.00139699 INTERCEPT A= 0.71564204
 MEAN X = 2.51006794 MEAN Y = 0.71914858
 SE OF B= 0.00003187 SE OF A= 0.00010983

X	WEIGHT X	PERCENTAGE RESIDUAL X	Y	WEIGHT Y	PERCENTAGE RESIDUAL Y	CORRL COEFF	SAMPLE NUMBER
1.6870000	0.87844E+03	1.6542	0.7184000	0.48440E+08	-0.050425	.0	AR14
1.6870000	0.87844E+03	2.0660	0.7185000	0.48427E+08	-0.062986	.0	AR15
2.4950000	0.40160E+03	2.0312	0.7195000	0.48292E+08	-0.041929	.0	AR4
2.8500000	0.30779E+03	-8.9969	0.7181000	0.48481E+08	0.162270	.0	AR7
16.3800000	0.93178E+01	2.2767	0.7391000	0.45765E+08	-0.007354	.0	AR17

INITIAL RATIO= 0.71564 +/- 0.00011 AGE= 98.3 +/- 2.2 M.Y. (RB87 DECAY CONSTANT USED = 1.4200)
 (AGE AND INITIAL RATIO ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)

LESS RADIOGENIC SUITE

WENDT LEAST SQUARES REGRESSION TREATMENT MODEL I

NUMBER OF SAMPLES = 5 EST B = 0.00139699
 ONE SIGMA EXPERIMENTAL ERROR IN X = 0.020000 ONE SIGMA EXPERIMENTAL ERROR IN Y = 0.000200

SLOPE B = 0.00140734 INTERCEPT A = 0.71565613
 SE OF B 0.00003275 SE OF A = 0.00011205
 SUM OF CHISQUARE = 4.5318

X	ERROR IN X	Y	ERROR IN Y	SAMPLE
1.68700000	0.03374000	0.71840000	0.00014368	AR14
1.68700000	0.03374000	0.71850000	0.00014370	AR15
2.49500000	0.04990000	0.71950000	0.00014390	AR4
2.85000000	0.05700000	0.71810000	0.00014362	AR7
16.38000000	0.32759999	0.73910000	0.00014782	AR17

INITIAL RATIO = 0.71566 +/- 0.00011 AGE = 99.0 +/- 2.3 M.Y. (RB87 DECAY CONSTANT USED = 1.4200)
 (AGE AND INITIAL RATIO ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)

LESS RADIOGENIC SUITE

WENDT LEAST SQUARES REGRESSION TREATMENT MODEL II

NUMBER OF SAMPLES = 5 EST B = 0.00140734
ONE SIGMA EXPERIMENTAL ERROR IN X = 0.020000 ONE SIGMA EXPERIMENTAL ERROR IN Y = 0.000200

SLOPE B= 0.00139699 INTERCEPT A= 0.71564220
SE OF B 0.00003179 SE OF A= 0.00011055
SUM OF CHISQUARE = 6.0813

X	ERROR IN X	Y	ERROR IN Y	SAMPLE
1.68700000	0.03374000	0.71840000	0.00014368	AR14
1.68700000	0.03374000	0.71850000	0.00014370	AR15
2.49500000	0.04990000	0.71950000	0.00014390	AR4
2.85000000	0.05700000	0.71810000	0.00014362	AR7
16.38000000	0.32759999	0.73910000	0.00014782	AR17

INITIAL RATIO= 0.71564 +/- 0.00011 AGE= 98.3 +/- 2.2 M.Y. (RB87 DECAY CONSTANT USED = 1.4200)
(AGE AND INITIAL RATIO ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)

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LESS RADIOGENIC SUITE

MCINTYRE LEAST SQUARES CUBIC REGRESSION TREATMENT

NUMBER OF SAMPLES= 6, EST.B= 0.0014

CONX= 399.9998, TSPK= 0.021, TUS= 0.021

NUMBER OF SAMPLES = 6 EST B = 0.00140883
 ONE SIGMA EXPERIMENTAL ERROR IN X = 0.020000 ONE SIGMA EXPERIMENTAL ERROR IN Y = 0.000200

EXPERIMENTAL ERROR.MODEL I

A= 0.716023920 B= 0.001362817

MEAN SQUARE OF WEIGHTED DEVIATES= 45.25

SE OF A= 0.000103

SE OF B= 0.00003236

INITIAL RATIO= 0.71602 +/- 0.00010 AGE= 95.9 +/- 2.3 M.Y. (RB87 DECAY CONSTANT USED = 1.4200)
 (AGE AND INITIAL RATIO ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)

X	Y	EST Y	DIFF	SE	DIFF/SE	SAMPLE
1.6870	0.718400	0.718323	0.000077	0.000153	0.50	AR14
1.6870	0.718500	0.718323	0.000177	0.000153	1.16	AR15
1.7750	0.719600	0.718443	0.001157	0.000154	7.53	AR16
2.4950	0.719500	0.719424	0.000076	0.000161	0.47	AR4
2.8500	0.718100	0.719908	-0.001808	0.000165	-10.95	AR7
16.3800	0.739100	0.738347	0.000753	0.000469	1.60	AR17

GEOLOGICAL ERROR.MODEL II-ERROR ATTRIBUTED PRIMARILY IN X

A= 0.716689109 B= 0.001118876

MEAN SQUARE OF WEIGHTED DEVIATES= 1.00

LESS RADIOGENIC SUITE

YORK LEAST SQUARES REGRESSION TREATMENT MODEL I

NUMBER OF SAMPLES = 6 EST B = 0.00140755
 ONE SIGMA EXPERIMENTAL ERROR IN X = 0.020000 ONE SIGMA EXPERIMENTAL ERROR IN Y = 0.000200

SLOPE B= 0.00136472 INTERCEPT A= 0.71602066
 MEAN X = 2.35614014 MEAN Y = 0.71923614
 SE OF B= 0.00022508 SE OF A= 0.00070587

X	WEIGHT X	PERCENTAGE RESIDUAL X	Y	WEIGHT Y	PERCENTAGE RESIDUAL Y	CORRL COEFF	SAMPLE NUMBER
1.6870000	0.87844E+03	-0.3099	0.7184000	0.48440E+08	-0.009670	.0	AR14
1.6870000	0.87844E+03	-0.7119	0.7185000	0.48427E+08	-0.022216	.0	AR15
1.7750000	0.79349E+03	-4.8300	0.7196000	0.48279E+08	-0.143483	.0	AR16
2.4950000	0.40160E+03	-0.3950	0.7195000	0.48292E+08	-0.008346	.0	AR4
2.8500000	0.30779E+03	10.4057	0.7181000	0.48481E+08	0.192117	.0	AR7
16.3800000	0.93178E+01	-2.7654	0.7391000	0.45765E+08	-0.009143	.0	AR17

INITIAL RATIO= 0.71602 +/- 0.00071 AGE= 96.0 +/- 15.8 M.Y. (RB87 DECAY CONSTANT USED = 1.4200)
 (AGE AND INITIAL RATIO ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)

LESS RADIOGENIC SUITE

WENDT LEAST SQUARES REGRESSION TREATMENT MODEL I

NUMBER OF SAMPLES = 6 EST B = 0.00136722
ONE SIGMA EXPERIMENTAL ERROR IN X = 0.020000 ONE SIGMA EXPERIMENTAL ERROR IN Y = 0.000200

SLOPE B= 0.00138554 INTERCEPT A= 0.71601223
SE OF B 0.00003218 SE OF A= 0.00010176
SUM OF CHISQUARE = 5.1280

X	ERROR IN X	Y	ERROR IN Y	SAMPLE
1.68700000	0.03374000	0.71840000	0.00014368	AR14
1.68700000	0.03374000	0.71850000	0.00014370	AR15
1.77500000	0.03550000	0.71960000	0.00014392	AR16
2.49500000	0.04990000	0.71950000	0.00014390	AR4
2.85000000	0.05700000	0.71810000	0.00014362	AR7
16.38000000	0.32759999	0.73910000	0.00014782	AR17

INITIAL RATIO= 0.71601 +/- 0.00010 AGE= 97.5 +/- 2.3 M.Y. (RB87 DECAY CONSTANT USED = 1.4200)
(AGE AND INITIAL RATIO ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)

RADIOGENIC SUITE

MCINTYRE LEAST SQUARES CUBIC REGRESSION TREATMENT

NUMBER OF SAMPLES= 5, EST. B= 0.0014

CONX= 399.9998, TSPK= 0.023, TUS= 0.023

NUMBER OF SAMPLES = 5 EST B = 0.00141383
 ONE SIGMA EXPERIMENTAL ERROR IN X = 0.020000 ONE SIGMA EXPERIMENTAL ERROR IN Y = 0.000200

EXPERIMENTAL ERROR MODEL I

A= 0.752412653 B=-0.000718502

MEAN SQUARE OF WEIGHTED DEVIATES=2777.53

SE OF A= 0.000105

SE OF B= 0.00001095

INITIAL RATIO= 0.75241 +/- 0.00011 AGE= -50.6 +/- 0.8 M.Y. (RB87 DECAY CONSTANT USED = 1.4200)
 (AGE AND INITIAL RATIO ESTIMATES GIVEN AT THE ONE SIGMA CONFIDENCE INTERVAL)

X	Y	EST Y	DIFF	SE	DIFF/SE	SAMPLE
2.8500	0.744630	0.750365	-0.005735	0.000160	-35.77	9088
3.4500	0.742910	0.749934	-0.007024	0.000165	-42.63	AR10A
4.4600	0.750640	0.749208	0.001432	0.000174	8.24	8586B
6.4100	0.757550	0.747807	0.009743	0.000196	49.77	9501A
12.5400	0.758330	0.743403	0.014927	0.000288	51.87	9087B

GEOLOGICAL ERROR MODEL II-ERROR ATTRIBUTED PRIMARILY IN X

A= 0.737808432 B= 0.002293726

MEAN SQUARE OF WEIGHTED DEVIATES= 1.00

SE OF A= 0.003885

SE OF B= 0.00093234

RADIOGENIC SUITE

YORK LEAST SQUARES REGRESSION TREATMENT.MODEL I

NUMBER OF SAMPLES = 5 EST B = 0.00149024
ONE SIGMA EXPERIMENTAL ERROR IN X = 0.020000 ONE SIGMA EXPERIMENTAL ERROR IN Y = 0.000200

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