

SHRIMP data acquisition logsheet

SHRIMP A or B

Mineral = RUT+W+Ta+Nb+Sn

Primary beam O⁻ or O₂⁻

Date	Sample/Mount(s)	Sample owner	SH operator	Night-runner(s)
7/11/16	08-03 N14-13 N16-36	McN	McN/CT	AUTO

Deadtime... 25 ns Kohler aperture... 100 Retard... 14 volts Resoln... 4940

Primary on steel: O⁻ Bits/nA O₂⁻ Bits/nA

Primary O₂⁻ on: epoxy nA standard nA PostESA BM on std

Raster: Time (mins) 2.0 Aperture 120 No. of scans 6

Rutile	192	197	200	202	204	Bkg	206	207	208
	Ti3O3	TaO	WO	Nb2O	Pb	bkg	Pb	Pb	Pb
Count time (secs)	2	<u>2</u>	2	<u>2</u>	10	10	10/20	30/10	10
Delay time (secs)	8	<u>4</u>	4	<u>4</u>	4	2	4	2	2
Pk centring time (secs)	3	-	3	-	-	-	6	-	-

Rutile (cont.)	216	240	248	254	256	270
	WO2	Sn2	ThO	UO	Sn2O	UO2
Count time (secs)	4	4	5	5	<u>4</u>	3
Delay time (secs)	4	4	4	2	<u>2</u>	3
Pk centring time (secs)	4	-	-	3	<u>4</u>	3

Offsets									
Rutile	192-200	200-204	204-Bk	204-206	206-207	206-208	206-WO	WO-Sn2	UO-Sn2O
Expected offset	~8.060	4.040	0.040	-2.001/9	1.001/5	2.001/9	206-216	216-240	254-256
Setup offsets	<u>8.079</u>	<u>4.035</u>	<u>.045</u>	<u>2.002</u>	<u>1.005</u>	<u>2.008</u>	<u>9.998</u>	<u>24.031</u>	<u>4.780</u>

192-197 = 5.078 (low mass of doublet!)

Notes:

No peak centring on 248.....check peak position on NBS611 or zircon on μ nt

WH has enough W to peak-centre, but no Sn

Use Universal Line Fit

Rutile Standard: WH (Windmill Hill) quartzite

207Pb/206Pb age = 2642 Ma

206Pb/238U age = 2625 Ma

U-content = 164 ppm U

WOD

206Pb/238U age = 2845.4 ± 0.5 Ma

U-content = 165 ppm U

Note to Neal: Check TaO @ 197 and Nb2O @ 202

Setup mount = N14-13

Before leaving 08-03 check the following.

- 1) ThO on NBS, 2R on μ nt
- 2) scan TaO @ 197 to check peak posn.

m

Date 7-8/11/16

Mount *cont.*

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		^{14/13} UO2/UO	¹ 192	⁷ 206	^{5/7} 4/6	¹⁴ UO2	³ 200	^{7/13} 206/270	Age/Ma	SMB
		270/254	Keps	cps	x10 ⁴	Keps	cps		207/206	%
N16-36	J. 6-3	0.67	5.6	13K	1.31	11K	47K	0.76	2839	
	J. 5-3	0.62	.91	7000	1.35	5.5	33K	0.79	2833	
08-03	WH-21-1	0.61	5.1	13K	.06	13K	1700	0.61	2630	
	" 22-1	0.67	5.9	16K	.05	15K	1900	0.72	2638	
	" 23-1	0.63	5.3	14K	.07	13K	1600	0.66	2614	
N16-36	J. 2-2	0.70	5.6	13K	1.17	11K	45K	0.80	2851	
	J. 1-3	0.65	6.0	12K	1.67	10K	43K	0.76	2853	
	J. 8-4	0.61	4.4	8000	0.83	7400	31K	0.67	2867	34.4
08-03	WH-24-1	0.63	5.1	16K	0.11	15K	1800	0.66	2639	

— FINISHED —

Offsets: 192-204 = 204-Bkg = 204-206 = 206-207 = 206-208 =

