sercon
innovators in isotopes

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Company Registration No. 4290072 Vat No. 771 1100 74

4 - LOG SHEET

Client:	Reacting SARL, Morocco C/O: JYH		
Quotation Number:	13993c	Date:	05/05/2021
Job Number:	IN1260	Date:	02/06/2021

Date	Action Taken	By Whom
14/7/21	Pumped down flight tube on its own (old pump)	Iain D
15/7/21	leak checked Gas box	Iain D
15/7/21	Pumped down with flight tube connected to system (old pump)	Iain D
15/7/21	Passed to test engineer	Iain D
16/7/21	vacuum after pumping overnight 6 then connected pipe 3e-08 mBar	RK
	Pressure set to 20 psi Helium & CO_2	
	flows V3 + V13 crimped down initially to 3-5 ml/min	
	Source pressure set to achieve 4.9 e-06 mbar	
	filament conditioned 10:50	
	Flow meter calibrated.	
	Att: Gas box flow D type connection soldered wrong. Corrected (AR)	
16.7.21	Vacuum after pumping over weekend 2e-08mbar	
	Att. Lost valve control when activated	
	Run mode in software.	
	V7 elbow fitted in wrong port (valve isn't turning)	
	Peak shape - Pass	
	V13 crimp adjusted accordingly to 1.3e-08	
	2/1 stability : Pass	
	Flows : to M/S 30 ml/min	
	Needle 30 ml/min	
	Specs : Ref Gas Precision 0.08	
	Breath Precision 0.14 (Low res. 6.9 e-08)	
	Attempted Reak check : Pass	
	Adjusted flows : TO M/S : 22.5 ml/min	
	Needle : 30 ml/min.	
	V3 crimp set to achieve 1.3 e-07	
	Actual set : 1.11 e-07	
	Att: feels very humid & warm outside the Test flows. Suspected partial blockage inside GC column.	
	Left Helium purging overnight.	

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Job Number:	IN1260	Date:	02/06/2021

Date	Action Taken	By Whom
20.7.21	Vacuum after pumping 1.0e-08 mBar.	
	Ref Gas precision from last night: 0.05 (1.11e-07)	
	Breath precision from last night: 0.14 (1.0e-07)	
	Peak shape: Pass Focus 86% IR 20	
	Peak shape 19.7.: Pass Focus 89% IR 30	
	2/1 Stability 20.7.: unable to obtain	
	Attention: Graphics / Software failure.	
	Error occured when running 2/1 stability 20.7. AM	
leading	Events: Software ON all night.	
	VS activated to purge GC column.	
	Peak shape scan	
	2/1 stability scan => graphics fail.	
	Ref Gas precision: ~~0.08~~ 0.05 (1.1e-07)	
	Breath precision: 0.11 (1.09e-07)	
	5% Precision: 0.04	
	Sensitivity : 8.71 e-09	
	Linearity : 0.84	
	Attempted different Magnet position + Tuning	
	IR -7.0 ; Focus 87	
	Good precision + poor linearity	
	Att: Software graphics failed again.	
	Rebooted the PC ~~Ref~~ (PC swap)	
	New PC in place	
	attempted to run linearity : 1.39 Std.	
	Moved magnet ; Focus 88 IR -3. improved	
	flat across 2/1 in Peak shape	
	Linearity : 0.29 Std.	
	Left Amp at 250pA overnight.	
		R.L.

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Job Number:	IN1260	Date:	02/06/2021

Date	Action Taken	By Whom
21.7.21	Vacuum after overnight leak/outgas.	
	Peak shape : Pass Focus 88% HP10 12-80	
	2/1 stability: Pass	
	Good Ref Gas Peak precision : 0.01 std (9.2 ref)	
	Breath precision : 0.08 std (7.5 ref)	
	Linearity : 0.31 std (full range)	
	But low sensitivity.	
	Increased IR voltage : Good precision	
	Poor Linearity	
22.7.21	Peak shape : Pass (AT)	
	Attempt to run Ref gas - Breath Precision	
	Software and Linearity.	
	Att. Time out 1/2 way through the batch.	
	Restarted the software / PC	
	Attempted to run same batch again.	
	Linearity 0.57 std	
	Breath prec 0.06 std Ref Gas : 0.03	
28-Jun-21	LINEARITY POOR. MAGNET TUNED BUT ISSUE RECURRING	CM