

GUO LAB DODGEN B021/121 WEEKLY SWIPES & SURVEYS

Revised 7/9/2019

Week #	40	Dates:	10/03/2021-10/09/2021	Counted On	10/4/2021
INSTRUMENT USED: Quantasart (Serial# 073396)		CONTROL FACTOR:		1.40E-06	
CHANNEL ENERGY RANGE (keV)		CH A: 4-200	CH B: 200-2000	CH C: 4-2000	
COUNTING TIME: 5 Min.	uCi/swipe = CPM:C * Control Factor		uCi/cm ² = CPM:C * Control Factor / 100		
Limit of quantification (LOQ)=		8.93E-08 uCi/cm ²		QUANTIFICATION BELOW REG GUIDE 8.23 LIMITS OK	
Swipe #	LOCATION: ROOM # & AREA/OBJECT	GROSS CPM CHANNEL C	uCi/swipe	uCi/cm ²	NOTE:
1.	BACKGROUND 1	37	*****	*****	
2.	BACKGROUND 2	34	*****	*****	
3.	BACKGROUND 3	27	*****	*****	
4.	BACKGROUND 4	29	*****	*****	
5.	BACKGROUND 5	23	*****	*****	
6.	BACKGROUND 6	30	*****	*****	
7.	B021 ELEVATOR ENTRANCE	41	1.54E-05	1.54E-07	
8.	B021 FENCED GATE	31	M	M	
9.	B021 RAM SAFE	28	M	M	
10.	B021 EAST FLOOR	26	M	M	
11.	B021 NORTH BENCH TOP	29	M	M	
12.	B021 WEST LAB FLOOR	32	M	M	
13.	B021 WORK PLATFORM	31	M	M	
14.	B021 CALORIMETER	26	M	M	
15.	B021 COMPUTERS	33	M	M	
16.	B021 DSC/TGA	25	M	M	
17.	B021 SOUTH BENCH TOP	27	M	M	
18.	121 DOORWAY	27	M	M	
19.	121 GLOVE BOX- FLOOR	28	M	M	
20.	121 GLOVE BOX	29	M	M	
21.	121 WEST BENCH TOP	30	M	M	
22.	121 CENTER OF LAB	27	M	M	
23.	122 EAST BENCH TOP	30	M	M	
³⁶ CI SOURCE 09/14/1971		50351	*****	*****	
		101.52%	CALIBRATION CHECK OK?		YES
Notes(s): M = below limit of quantification on the LSC. The limit of quantification is checked against lowest allowable contamination limit of 1 x 10 ⁻⁶ uCi/cm ² .					
SURVEY PREPARED BY: R. Bergman			REVIEWED BY: J. Cummings		
SIGN/DATE: <i>R. Bergman</i> 10/04/21			SIGN/DATE: <i>J. Cummings</i> 10-6-21		

LABORATORY SURVEY

Radiation Safety Office
 Washington State University
 Pullman, WA 99164-1302
 (509) 335 8916

Building Dodgen Research Facility	Room B0021 - GUO	Lab Class D	Survey Instrument GM Detector Model 3	Serial No. 56680-172178	Radiation Detected Gamma
Authorized User Xiaofeng Guo	Date 10/04/2021	Time 8:40	Swipe Instrument Quantasmat	Serial No. 073396	Radiation Detected Beta/Gamma
Reactor Status (Check One) ON <input checked="" type="checkbox"/> OFF <input type="checkbox"/>					

LSC Printout Date 10/04/21

NOTE SWIPE AND SURVEY LOCATIONS ON MAP

DODG B0021 GUO LAB

Map details: Locations 1-12 are in the main lab area. Locations 13-17 are in the South Bench Top area. A north arrow points to the right. A RAM Safe is located near location 4. A Controller is near location 9. A work platform is near location 8. A Calorimeter is near location 9. A Computers area is near location 10. A DSC/TGA area is near location 11. An Elevator Entrance is near location 7. A Bench Top is near location 12. A Bench Top is near location 17.

Survey #	Location	CPM	Surveyed By:	Date:	Notes
1	Background	80	RB	10/04/21	
2	Elevator Entrance	100	RB	10/04/21	
3	South Floor	100	RB	10/04/21	
4	RAM Safe	300	RB	10/04/21	
5	East Lab Floor	90	RB	10/04/21	
6	North Bench Top	40	RB	10/04/21	
7	West Floor	100	RB	10/04/21	
8	Work Platform	110	RB	10/04/21	
9	Calorimeter	80	RB	10/04/21	
10	Computers	80	RB	10/04/21	
11	DSC/TGA	150	RB	10/04/21	
12	South Bench Top	90	RB	10/04/21	
13	Background				
14	Elevator Entrance				
15	South Floor				
16	RAM Safe				
17	East Lab Floor				
18	North Bench Top				
19	West Lab Floor				
20	Work Platform				
21	Calorimeter				
22	Computers				

Circled numbers on map indicate a swipe area of 100 square cm. Numbers not circled indicate a survey location.

Assay Definition-

Assay Description:

Assay Type: CPM
 Report Name: Report1
 Output Data Path: C:\Packard\Tricarb\Results\CSE\Reactor Weekly\20211004_0906
 Raw Results Path: C:\Packard\Tricarb\Results\CSE\Reactor Weekly\20211004_0906\20211004_0906.results
 Assay File Name: C:\Packard\TriCarb\Assays\Reactor Weekly.lsa

Count Conditions-

Nuclide: Reactor
 Quench Indicator: tSIE/AEC
 External Std Terminator (sec): 0.5 2s%
 Pre-Count Delay (min): 0.00
 Quench Set: n/a
 Count Time (min): 5.00
 Count Mode: Normal
 Assay Count Cycles: 1 Repeat Sample Count: 1
 #Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: Off
 Low CPM Threshold: Off
 2 Sigma % Terminator: Off

Regions	LL	UL
A	4.0	200.0
B	200.0	2000.0
C	4.0	2000.0

Count Corrections-

Static Controller: On Luminescence Correction: Off
 Colored Samples: n/a Heterogeneity Monitor: n/a
 Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time
A				
B				
C				

Cycle 1 Results

P#	DATE	TIME	S#	Count	Time	CPMA	CPMB	CPMC	SIS	MESSAGES
1	10/4/2021	9:07:37 AM	1		5.00	29	7	37	232.74	
1	10/4/2021	9:14:00 AM	2		5.00	27	7	34	157.81	
1	10/4/2021	9:20:30 AM	3		5.00	21	6	27	215.56	
1	10/4/2021	9:26:56 AM	4		5.00	22	6	29	236.31	
1	10/4/2021	9:33:22 AM	5		5.00	20	3	23	152.78	
1	10/4/2021	9:39:46 AM	6		5.00	24	7	30	347.22	
1	10/4/2021	9:46:07 AM	7		5.00	34	7	41	257.46	
1	10/4/2021	9:52:29 AM	8		5.00	25	6	31	314.52	
1	10/4/2021	9:58:55 AM	9		5.00	24	3	28	203.01	
1	10/4/2021	10:05:17 AM	10		5.00	21	5	26	252.95	
1	10/4/2021	10:11:36 AM	11		5.00	22	6	29	385.04	
1	10/4/2021	10:17:55 AM	12		5.00	26	6	32	275.79	

Protocol# 1 - Reactor Weekly.lsa

User: CSE

1	10/4/2021	10:24:23 AM	13	5.00	24	6	31	321.26
1	10/4/2021	10:30:45 AM	14	5.00	20	6	26	272.43
1	10/4/2021	10:37:00 AM	15	5.00	26	6	33	314.25
1	10/4/2021	10:43:20 AM	16	5.00	21	4	25	276.56
1	10/4/2021	10:49:44 AM	17	5.00	22	5	27	319.88
1	10/4/2021	10:56:04 AM	18	5.00	22	5	27	276.79
1	10/4/2021	11:02:26 AM	19	5.00	23	6	28	350.53
1	10/4/2021	11:09:04 AM	20	5.00	22	7	29	217.02
1	10/4/2021	11:15:20 AM	21	5.00	25	5	30	235.78
1	10/4/2021	11:21:34 AM	22	5.00	22	5	27	260.09
1	10/4/2021	11:27:55 AM	23	5.00	23	7	30	285.10
1	10/4/2021	11:33:38 AM	24	5.00	14587	35764	50351	1024.03