



Isotope Analyses for:  
Amphos 21

IT<sup>2</sup> FILE #  
240069

2024-03-27

Approved by:

**Orfan Shouakar-Stash, PhD**  
**Director**

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 Metropolitana,  
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**Phone:** 0056 9 84731546

**File Number:** 240069

**Project #:** 1115

**PO:**

#	Sample ID	Sample Collection		Sample #	$\delta^{18}\text{O}$	Aver	Stdv	$\delta^2\text{H}$	Aver	Stdv	Sample Size
		Date	Time		H <sub>2</sub> O	VSMOW		H <sub>2</sub> O	VSMOW		
1	GOR-M4	28/02/2024	9:15	164348	X	7.64	0.13	X	6.2	0.3	1 x 60mL
2	GOR-M5	28/02/2024	9:50	164349	X	-6.78	0.05	X	-63.5	0.4	1 x 60mL
3	GOR-M3	28/02/2024	10:15	164350	X	-7.23	0.14	X	-65.1	0.2	1 x 60mL
4	GOR-M2	28/02/2024	11:00	164351	X	-7.87	0.09	X	-66.6	0.3	1 x 60mL
5	GOR-M1	28/02/2024	11:50	164352	X	7.89	0.12	X	-2.9	0.3	1 x 60mL
6	PAR-M7	2024-02-03	10:30	164353	X	-5.66	0.13	X	-61.9	0.5	1 x 60mL
7	PAR-M1	2024-02-03	10:55	164354	X	5.93	0.08	X	-4.1	0.3	1 x 60mL
8	PAR-M6	2024-02-03	11:35	164355	X	-7.82	0.12	X	-68.5	0.3	1 x 60mL
9	PAR-M5	2024-02-03	12:15	164356	X	6.66	0.08	X	-13.7	0.2	1 x 60mL
10	PAR-BACKUP	2024-02-03	12:45	164357	X	6.59	0.11	X	-12.6	0.4	1 x 60mL
11	PAR-M4	2024-02-03	13:10	164358	X	4.29	0.03	X	-21.4	0.3	1 x 60mL
12	PAR-M3	2024-02-03	13:45	164359	X	7.95	0.08	X	-4.7	0.1	1 x 60mL
13	ISL-M2	2024-02-03	14:30	164360	X	-4.34	0.11	X	-51.8	0.4	1 x 60mL
14	ISL-M1	2024-02-03	15:45	164361	X	6.55	0.04	X	-10.5	0.4	1 x 60mL
15	ISL-BACKUP	2024-02-03	14:20	164362	X	-8.61	0.07	X	-69.7	0.5	1 x 60mL
16	ISL-M7	2024-02-03	16:40	164363	X	0.60	0.05	X	-34.4	0.3	1 x 60mL
17	ISL-M5	2024-02-03	17:00	164364	X	9.36	0.10	X	9.2	0.2	1 x 60mL
18	ISL-M4	2024-02-03	17:30	164365	X	-0.07	0.05	X	-30.8	0.4	1 x 60mL
19	ISL-M3	2024-02-03	17:55	164366	X	3.95	0.03	X	-19.0	0.2	1 x 60mL
20	AGI-M5	2024-05-03	9:15	164367	X	6.56	0.12	X	-6.7	0.1	1 x 60mL
21	AGI-M6	2024-05-03	9:35	164368	X	1.79	0.12	X	-18.9	0.5	1 x 60mL
22	AGI-M4	2024-05-03	10:15	164369	X	6.95	0.01	X	-5.3	0.2	1 x 60mL
23	AGI-M3	2024-05-03	10:45	164370	X	3.42	0.11	X	-22.0	0.2	1 x 60mL
24	AGI-M1	2024-05-03	11:30	164371	X	8.26	0.08	X	-3.0	0.1	1 x 60mL
25	AGI-MD1	2024-05-03	11:30	164372	X	7.21	0.03	X	-1.7	0.3	1 x 60mL
26	AGI-M2	2024-05-03	12:50	164373	X	4.67	0.13	X	-17.9	0.4	1 x 60mL



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**Address:** Nueva Tajamar #481, Oficina 1005,  
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**Phone:** 0056 9 84731546

**File Number:** 240069  
**Project #:** 1115  
**PO:**

 **$^{18}\text{O}$  &  $^2\text{H}$  (CRDS)**

**Instrument Used:** Cavity Ring Down Spectroscopy (CRDS)  
CRDS (Model L2130-i) (Picarro, California, USA).

**Standard Used:**

IT2-12D / IT2-13C / IT2-14C / IT2-00B Calibrated with IAEA Standards (V-SMOW, SLAP, and GISP)

**Typical Standard deviation:**

( $^{18}\text{O} \pm 0.1\%$ ) ( $^2\text{H} \pm 1\%$ )

Approved by:

*Orfan S-Stash*

**Orfan Shouakar-Stash, PhD**

**Director**

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## CHAIN OF CUSTODY / ANALYTICAL SERVICES REQUEST FORM Page \_1\_ of \_1\_

<div> <div>  </div> <div> <b>MINISTERIO DE SALUD</b>  <b>LABORATORIO NACIONAL DE AGUAS</b> </div> </div>		Note: all TAT Quoted material is in business days which exclude statutory holidays and weekends.		Specify date required Service Requested (regular) (Rush)		X			
COMPANY NAME Amphos 21		REPORT FORMAT/DISTRIBUTION EMAIL ____X__ FAX _____ BOTH _____ SELECT: PDF __X__ DIGITAL _____ BOTH _____ EMAIL 1 Samuel.iglesias@amphos21.com EMAIL 2 pilar.enguita@amphos21.com		NUMBER OF CONTAINERS		ANALYSIS REQUEST 2H & 180 of water samples 180 & 345 of dissolved sulphate (including extraction) Rock sample prep 345 (S2) of dissolved sulphide (including extraction) 180 & 345 of dissolved sulphate (including extraction)		PLEASE INDICATE FILTERED, PRESERVED OR BOTH <---- (F, P, F/P)	
PROJECT MANAGER: Pilar Enguita								SUBMISSION #:	
PROJECT # 1115								ENTERED BY:	
PHONE 0056 9 84731546 FAX								DATE/TIME ENTERED:	
PO #								BIN #:	
SAMPLING INFORMATION		SAMPLE DESCRIPTION TO APPEAR ON REPORT		COMMENTS		LAB ID			
Sample Date/Time		TYPE		MATRIX					
Date (YYYY-MM-DD)		Time (24hr) (hh:mm)		COMP CRAB WATER SOIL ROCK					
28-02-2024		9:15		X		GOR-M4		1 x 60 ml	
28-02-2024		9:50		X		GOR-M5		1 x 60 ml	
28-02-2024		10:15		X		GOR-M3		1 x 60 ml	
28-02-2024		11:00		X		GOR-M2		1 x 60 ml	
28-02-2024		11:50		X		GOR-M1		1 x 60 ml	
02-03-2024		10:30		X		PAR-M7		1 x 60 ml	
02-03-2024		10:55		X		PAR-M1		1 x 60 ml	
02-03-2024		11:35		X		PAR-M6		1 x 60 ml	
02-03-2024		12:15		X		PAR-M5		1 x 60 ml	
02-03-2024		12:45		X		PAR-BACKUP		1 x 60 ml	
02-03-2024		13:10		X		PAR-M4		1 x 60 ml	
02-03-2024		13:45		X		PAR-M3		1 x 60 ml	
02-03-2024		14:30		X		ISL-M2		1 x 60 ml	
02-03-2024		15:45		X		ISL-M1		1 x 60 ml	
02-03-2024		14:20		X		ISL-BACKUP		1 x 60 ml	
02-03-2024		16:40		X		ISL-M7		1 x 60 ml	
02-03-2024		17:00		X		ISL-M5		1 x 60 ml	
02-03-2024		17:30		X		ISL-M4		1 x 60 ml	
02-03-2024		17:55		X		ISL-M3		1 x 60 ml	
05-03-2024		9:15		X		AGI-M5		1 x 60 ml	
05-03-2024		9:35		X		AGI-M6		1 x 60 ml	
05-03-2024		10:15		X		AGI-M4		1 x 60 ml	
05-03-2024		10:45		X		AGI-M3		1 x 60 ml	
05-03-2024		11:30		X		AGI-M1		1 x 60 ml	
05-03-2024		11:30		X		AGI-MD4 MDL?		1 x 60 ml	
05-03-2024		12:50		X		AGI-M2		1 x 60 ml	
SPECIAL INSTRUCTIONS/COMMENTS		THE QUESTIONS BELOW MUST BE ANSWERED FOR WATER SAMPLES ( CHECK Yes Or No )		SAMPLE CONDITION					
Are any samples taken from a regulated DW System? If yes, an authorized drinking water COC MUST be used for this submission. Is the water sampled intended to be potable for human consumption?		Yes ____ No <u>X</u> ____ Yes ____ No <u>X</u> ____		____ FROZEN ____ COLD ____ COOLING INITIATED ____ X AMBIENT					
SAMPLED BY: Amphos21		DATE & TIME		RECEIVED BY:		DATE & TIME		Observations	
RELINQUISHED BY:		DATE & TIME		RECEIVED AT LAB BY:		DATE & TIME			