



S/2203/2023
24 August 2023
ENGLISH only

NOTE BY THE DIRECTOR-GENERAL

EVALUATION OF THE RESULTS OF THE EIGHTH OFFICIAL OPCW BIOMEDICAL PROFICIENCY TEST

1. The Director-General wishes to inform the States Parties of the results of the Eighth Official OPCW Biomedical Proficiency Test, which was conducted by the Technical Secretariat (hereinafter “the Secretariat”) from February to August 2023. The OPCW Laboratory is accredited by the Raad voor Accreditatie (RvA), the Netherlands, to conduct proficiency testing in compliance with the criteria laid down in ISO/IEC 17043.¹ The test was conducted according to the following quality management system documents:
 - (a) “Standard Operating Procedure for the Organisation of OPCW Biomedical Proficiency Tests” (QDOC/LAB/SOP/BioPT01 (Issue 2, Revision 2, dated 10 January 2023));
 - (b) “Work Instruction for the Preparation of Samples for OPCW Biomedical Proficiency Tests” (QDOC/LAB/WI/BioPT02 (Issue 2, Revision 1, dated 25 November 2021));
 - (c) “Work Instruction for the Evaluation of Results of OPCW Biomedical Proficiency Tests” (QDOC/LAB/WI/BioPT03 (Issue 2, Revision 0, dated 22 January 2021)); and
 - (d) “Work Instruction for the Reporting of the Results of the OPCW Biomedical Proficiency Tests” (QDOC/LAB/WI/BioPT04 (Issue 2, Revision 2, dated 10 January 2023)).
2. Designated laboratories must, in order to retain their designation, demonstrate once per calendar year that they have maintained their capabilities in a biomedical proficiency test organised by the Secretariat, unless the additional guidelines in the annex to decision C-20/DEC.4 (dated 2 December 2015) are applicable.
3. Two laboratories offered to assist the Secretariat in conducting the Eighth Official OPCW Biomedical Proficiency Test: the Laboratory of the Defence Science and Technology Group, Australia, prepared the test samples, and the Laboratory of the Bundeswehr Institute for Pharmacology and Toxicology, Germany, evaluated the test results.

¹ Standard ISO/IEC 17043 of the International Organization for Standardization/International Electrotechnical Commission.



4. The preliminary evaluation report was discussed on 19 July 2023 at a hybrid meeting (held online and at the OPCW Centre for Chemistry and Technology) between Secretariat staff and the test participants. The participants were given two weeks to comment on the results and to inform the Secretariat as to whether they accepted their performance evaluation.
5. The final evaluation report was prepared by the OPCW Laboratory, together with the evaluation laboratory, and sent to all of the participants on 23 August 2023.
6. The principal results of the Eighth Official OPCW Biomedical Proficiency Test can be summarised as follows:
 - (a) Twenty-two States Parties nominated 29 laboratories, including the two assisting laboratories, to participate in the test.
 - (b) Five laboratories opted to participate in the test on a trial basis. One trial laboratory withdrew from the test before the dispatch of samples. Of these four, only one trial participant submitted a report. No performance rating is assigned to trial participants.
 - (c) Sixteen regular participants identified and reported all of the four spiking chemicals with sufficient analytical data and received a performance rating of A.
 - (d) Three regular participants identified and reported three of the four spiking chemicals with sufficient analytical data and received a performance rating of B.
 - (e) One regular participant identified and reported three of the four spiking chemicals, but one chemical was without sufficient analytical data, thus resulting in a performance rating of C.
 - (f) One regular participant did not identify or report any of the spiking chemicals and received a performance rating of D.
 - (g) One regular participant reported false positive chemicals and received a performance rating of F.
 - (h) The two assisting laboratories were each awarded a performance rating of A.
 - (i) Overall, the total number of participants for this test was 28, composed of 22 regular participants, four trial participants and the two assisting laboratories. There were 18 As (including the assisting laboratories), 3 Bs, 1 C, 1 D, and 1 F in the test performance ratings.
7. The final results for all of the laboratories participating in the test are presented in the table annexed hereto.

8. The participating laboratories are reminded that if they have made any errors or reported false positives or false negatives (arising from a failure to find a spiking chemical or to provide sufficient supporting data for a chemical that is found), they should take immediate remedial action. Before participating in the next test, each such laboratory is required to submit a detailed follow-up report to the Secretariat stating the cause of the problem and any remedial action it has taken. Any such laboratory failing to submit the required report, including details of the remedial action it has taken, will not be permitted to participate in the next biomedical proficiency test.

Annex: Final Results of the Eighth Official OPCW Biomedical Proficiency Test

Annex

**FINAL RESULTS
OF THE EIGHTH OFFICIAL OPCW BIOMEDICAL PROFICIENCY TEST**

Participant Code Laboratory	No. of Spiking Chemicals Reported²	No. of Chemicals Scored	Rating	Comments
01 Republic of Korea Chem-Bio Technology Center, Advanced Defense Science & Technology Research Institute, Agency for Defense Development	4	4	A	-
02 United States of America U.S. Army Medical Research Institute of Chemical Defence	4	4	A	-
03 Finland Finnish Institute for Verification of the Chemical Weapons Convention (VERIFIN)	4	4	A	-
04 France DGA Maîtrise NRBC, Département Analyse Chimique	4	4	A	-
05 United States of America Lawrence Livermore National Laboratory	4	4	A	-
08 Türkiye University of Health Sciences, Institute of Gulhane Health Sciences, Department of Medical CBRN Defense	0	0	D	No chemicals were reported.
09 United Kingdom of Great Britain and Northern Ireland Defence Science and Technology Laboratory, Porton Down	4	4	A	-

2

The spiking chemicals were as follows:

Sample P081	A. Soman, O-Pinacolyl methylphosphonofluoridate
Sample P082	B. Soman, O-Pinacolyl methylphosphonofluoridate
Sample P084	C. Sesquimustard, 1,2-Bis(2-chloroethylthio)ethane
Sample P086	D. Sulfur mustard, Bis(2-chloroethyl)sulfide

Participant Code Laboratory	No. of Spiking Chemicals Reported²	No. of Chemicals Scored	Rating	Comments
11 China Laboratory of Analytical Chemistry, Research Institute of Chemical Defence	4	3	B	One of the spiking chemicals (C) was not reported.
12 Iran (Islamic Republic of) Defense Chemical Research Laboratory (DCRL)	4	4	A	-
13 China Laboratory of Toxicant Analysis, Academy of Military Medical Sciences	4	3	B	One of the spiking chemicals (C) was not reported.
15 Japan National Research Institute of Police Science	4	3	C	One of the spiking chemicals (C) was not reported. Data provided for one chemical (D) were insufficient for scoring.
16 Hungary Hungarian Defence Forces Medical Centre	4	4	A	-
19 Republic of Korea CBRN Defense Research Institute, ROK CBRN Defense Command	5	2	F	False positive chemical reported.
21 United States of America U.S. Army Combat Capabilities Development Command (DEVCOM) Chemical Biological Center, Forensic Analytical Laboratory	4	4	A	-
22 United States of America Centers for Disease Control and Prevention	4	4	A	-
24 India Biomedical Verification Division (BVD), Defence Research and Development Establishment (DRDE)	4	4	A	-
27 Netherlands TNO Defence, Safety and Security	4	4	A	-

Participant Code Laboratory	No. of Spiking Chemicals Reported²	No. of Chemicals Scored	Rating	Comments
28 Russian Federation Laboratory for the Chemical and Analytical Control of the Military Research Centre	4	4	A	-
30 Czech Republic Katedra toxikologie a vojenska farmacie	4	3	B	One of the spiking chemicals (C) was not reported.
32 Singapore Verification Laboratory, Defence Medical and Environmental Research Institute, DSO National Laboratories	4	4	A	-
35 Sweden Swedish Defence Research Agency, FOI	4	4	A	-
36 Spain Toxicology Institute of Defence	-	-	-	Trial participant.
38 Russian Federation Laboratory of Chemical Analytical Control and Biotesting, Research Institute of Hygiene, Occupational Pathology and Human Ecology (RIHOPHE)	4	4	A	-
Denmark Danish Emergency Management Agency	-	-	-	Trial participant, no report submitted.
Kenya Government Chemists' Department	-	-	-	Trial participant, no report submitted.
Spain Laboratorio de Verificación de Armas Químicas (LAVEMA), INTA Campus La Marañosa	-	-	-	Trial participant, no report submitted.
United Republic of Tanzania Government Chemist Laboratory Authority	-	-	-	Trial participant. Withdrew from the test before sample dispatch.
<u>EVALUATION LABORATORY</u> Germany Bundeswehr Institute of Pharmacology and Toxicology	-	-	A	-

Participant Code Laboratory	No. of Spiking Chemicals Reported²	No. of Chemicals Scored	Rating	Comments
<u>SAMPLE PREPARATION LABORATORY</u> Australia Defence Science and Technology Group	-	-	A	-

--- 0 ---