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## NOTE BY THE DIRECTOR-GENERAL

### EVALUATION OF THE RESULTS OF THE SIXTH OFFICIAL OPCW BIOMEDICAL PROFICIENCY TEST

1. The Director-General wishes to inform the Member States of the results of the Sixth Official OPCW Biomedical Proficiency Test, which was conducted by the Technical Secretariat (hereinafter “the Secretariat”) from February to August 2021. 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. 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 0, dated 15 January 2021));
  - (b) “Work Instruction for the Preparation of Samples for OPCW Biomedical Proficiency Tests” (QDOC/LAB/WI/BioPT02 (Issue 2, Revision 0, dated 15 January 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 0, dated 22 January 2021)).
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 Sixth Official OPCW Biomedical Proficiency Test: The Laboratory of Chemical Analytical Control and Biotesting, Research Institute of Hygiene, Occupational Pathology and Human Ecology, Russian Federation, prepared the test samples, and the Laboratory of Analytical Chemistry, Research Institute of Chemical Defence, China, evaluated the test results.



4. The preliminary evaluation report was discussed via online meetings between Secretariat staff and the test participants on 28 June 2021. The participants were given two weeks to comment on the results and to inform the Secretariat 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 16 August 2021.
6. The principal results of the Sixth Official OPCW Biomedical Proficiency Test can be summarised as follows:
  - (a) Nineteen Member States nominated 25 laboratories, including the two assisting laboratories, to participate in the test.
  - (b) Four laboratories participated in the test on a trial basis; no performance rating was provided for these participants.
  - (c) The two assisting laboratories were awarded a performance rating of A.
  - (d) Thirteen test participants identified and reported, with sufficient analytical data, all of the four spiking chemicals and received a rating of A.
  - (e) Two test participants identified and reported all of the spiking chemicals; however, not all analytical data were accepted and they received a rating of B.
  - (f) One test participant identified and reported all of the spiking chemicals; however, the test participant did not comply with QDOC/LAB/WI/PT04 § 9.1(a) or § 13.8, and therefore received a rating of B.
  - (g) One test participant identified and reported four of the spiking chemicals; however, not all analytical data were accepted and they received a rating of C.
  - (h) There were 15 As, three Bs, and one C in the test performance ratings for the regular participants, including the two assisting laboratories.
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 Sixth Official OPCW Biomedical Proficiency Test

## Annex

FINAL RESULTS OF THE SIXTH OFFICIAL  
OPCW BIOMEDICAL PROFICIENCY TEST

Laboratory (Participant Code)	No. of Spiking Chemicals Reported <sup>1</sup>	No. of Chemicals Scored	Rating	Comments
<b>Australia</b> Defence Science and Technology Group (33)	-	-	-	Withdrew from test
<b>Chile</b> SERVITOX Ltda (09)	-	-	-	Trial participant
<b>China</b> Laboratory of Toxicant Analysis, Academy of Military Medical Sciences (03)	4	4	A	-
<b>China</b> Laboratory of Analytical Chemistry, Research Institute of Chemical Defence (31)	-	-	A	Evaluating laboratory
<b>Czech Republic</b> Katedra toxikologie a vojenskéfarmacie (18)	4	4	A	-
<b>Denmark</b> Danish Emergency Management Agency (27)	4	0	-	Trial participant
<b>France</b> DGA Maîtrise NRBC, Département Analyse Chimique (21)	4	4	A	-
<b>Germany</b> Institute of Pharmacology and Toxicology (22)	4	3	B	Data provided for one chemical were insufficient for scoring

<sup>1</sup> The spiking chemicals were as follows: P651 and P653 – Bis(2-chloroethyl)sulfide; U655 and U656 – 1,1'-Sulfonylbis[2-(methylsulfinyl)ethane].

<b>Laboratory (Participant Code)</b>	<b>No. of Spiking Chemicals Reported<sup>1</sup></b>	<b>No. of Chemicals Scored</b>	<b>Rating</b>	<b>Comments</b>
<b>Hungary</b> Hungarian Defence Forces Medical Centre (13)	4	4	A	-
<b>India</b> Vertox-Biochemistry Division, Defence Research and Development Establishment (24)	4	4	A	-
<b>Iran (Islamic Republic of)</b> Defense Chemical Research Laboratory (23)	4	4	A	-
<b>Japan</b> National Research Institute of Police Science (07)	4	2	C	Data provided for two chemicals were insufficient for scoring
<b>Morocco</b> Forensic Laboratory of National Security (16)	-	-	-	Trial participant
<b>Netherlands</b> TNO Defence, Safety and Security (25)	4	4	A	-
<b>Republic of Korea</b> Chemical Analysis Laboratory, CBR Directorate, Agency for Defense Development (06)	4	4	A	-
<b>Republic of Korea</b> CBRN Research Center, ROK CBRN Command (28)	4	4	A	-
<b>Russian Federation</b> Laboratory for the Chemical and Analytical Control of the Military Research Centre (12)	4	4	A	-

<b>Laboratory (Participant Code)</b>	<b>No. of Spiking Chemicals Reported<sup>1</sup></b>	<b>No. of Chemicals Scored</b>	<b>Rating</b>	<b>Comments</b>
<b>Russian Federation</b> Laboratory of Chemical Analytical Control and Biotesting, Research Institute of Hygiene, Occupational Pathology and Human Ecology (02)	-	-	A	Sample preparation laboratory
<b>Singapore</b> Verification Laboratory, Defence Medical and Environmental Research Institute, DSO National Laboratories (08)	4	4	A	-
<b>Spain</b> LAVEMA (Laboratorio de Verificación de Armas Químicas), INTA Campus La Marañosa (04)	-	-	-	Trial participant
<b>United Kingdom of Great Britain and Northern Ireland</b> Defence Science and Technology Laboratory, Porton Down (-)	-	-	-	Withdrew from test
<b>United States of America</b> Centers for Disease Control and Prevention (29)	4	3	B	Data provided for one chemical were insufficient for scoring
<b>United States of America</b> Combat Capabilities Development Command (DEVCOM), Chemical Biological Center (CBC), Forensic Analytical Laboratory (37)	4	4	A	-
<b>United States of America</b> Lawrence Livermore National Laboratory (26)	4	4	A	-
<b>United States of America</b> U.S. Army Medical Research Institute of Chemical Defense (39)	4	4	B	Laboratory did not comply with QDOC/LAB/WI/PT0 4 § 9.1 (a) and § 13.8