OPCW Technical Secretariat

S/2254/2024
22 February 2024
Original: ENGLISH

NOTE BY THE TECHNICAL SECRETARIAT

REPORT OF THE OPCW FACT-FINDING MISSION REGARDING AN ALLEGED USE OF TOXIC CHEMICALS AS A WEAPON IN AL-YARMOUK, SYRIAN ARAB REPUBLIC ON 22 OCTOBER 2017

1. SUMMARY

1.1. In a Note Verbale dated 1 November 2017, the Syrian Arab Republic reported to the Technical Secretariat of the OPCW (the Secretariat) on an incident that occurred in the al-Yarmouk district in Damascus in the Syrian Arab Republic on 22 October 2017. The Syrian Arab Republic reported the "use of toxic chemicals in an attack by the terrorist organisation ISIS against another terrorist group called Aknaf Beit al-Maqdis in the south area of the Yarmouk camp", resulting in several "cases of dyspnoea and loss of consciousness in the ranks of Aknaf terrorist group", according to correspondence with the Syrian Arab Republic.

1.2. Based on the above, the Director-General mandated the OPCW Fact-Finding Mission in Syria (FFM) to collect facts pertaining to the reported incident.

1.3. Through the following activities, the FFM obtained information regarding the reported incident that took place in the al-Yarmouk district on 22 October 2017:

(a) exchanging correspondence with the Syrian Arab Republic, including notes verbales;

(b) holding meetings with the Syrian Technical Committee of the National Authority of the Syrian Arab Republic (the Technical Committee);

(c) conducting and analysing interviews with witnesses and casualties of the reported incident;

(d) conducting a field visit to locations of interest relevant to the reported incident;

(e) reviewing and analysing photographs, video recordings, and documents it had gathered;

(f) examining the chemical analyses of samples received and collected; and

(g) reviewing open-source material.

1.4. After examining and analysing all the information received and gathered, the FFM established the following:

(a) According to witness accounts, a number of individuals were affected following the incident—two or three were reported as severe cases. The others presented with mild symptoms and did not seek medical treatment;

(b) The majority of the casualties presented with respiratory distress and irritation of the eyes;

(c) According to several witnesses, a number of casualties were treated in the field hospital in Yalda;

(d) Considering the time that had elapsed between the moment of the reported incident and the moment samples were collected, in addition to the evolving conflict and war activities in al-Yarmouk, the presence of amino-dinitrotoluene[1] (ADNT) identified in the samples cannot be linked to a specific event that had occurred up until when these samples were collected; and

(e) Based on the scope of analysis, and in the absence of scheduled chemicals and their precursors and/or their degradation products, the absence of riot control agents, and the absence of chlorinated organic chemicals or compounds containing chemically reactive chlorine, the overall results do not provide an indication of the use of toxic chemicals as a weapon.

1.5. The FFM actively pursued further information from all available sources. Nevertheless, the FFM still faced challenges in corroborating information gathered about the reported incident in light of the following:

(a) The time of day of the incident as indicated by witnesses did not correspond to the time reported by the Syrian Arab Republic;

(b) The documents provided by the Syrian Arab Republic contained discrepancies in the number of casualties;

(c) The number of individuals reported to be present at the site of the incident, the number of casualties, and the number of individuals seeking treatment at the field hospital in Yalda were not consistent among witnesses accounts;

(d) The account of events and the various descriptions provided of the "gas" present at the incident location, including its colour and its odour, were not consistent;

(e) No photographs or video recordings of the munitions allegedly used during the incident were available;

(f) Witness accounts describing the munition and/or delivery system were not consistent;

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[1] Amino-dinitrotoluene (ADNT) is a derivative of compounds known as nitroaromatics or nitroarenes. Nitroaromatics are used as explosive materials, pesticides, solvents, and intermediates in chemical synthesis. ADNT is a primary biotransformation product of trinitrotoluene (TNT) formed during biological degradation and reduction processes.

(g) No medical records or supporting documentation of the cases were available for the reported casualties. Therefore, the FFM cannot verify or corroborate the medical information collected during interviews; and

(h) The FFM cannot link the signs and symptoms that were presented to a specific factor or to a class of chemicals.

1.6. Furthermore, the FFM has actively pursued the collection of further testimonies and documentation from potential witnesses who were present at areas of interest at the time of the reported incident. As at the date of publication of this report, these attempts have remained unsuccessful.

1.7. The information obtained and analysed as a whole, in accordance with its mandate to gather facts regarding incidents of the alleged use of toxic chemicals as a weapon in the Syrian Arab Republic, was not sufficient to provide reasonable grounds for the FFM to determine that toxic chemicals were used as a weapon in the reported incident that occurred in al-Yarmouk, in the Syrian Arab Republic, on 22 October 2017.

1.8. The FFM is grateful to the Syrian Arab Republic, as well as to the individuals, witnesses, and other organisations that supported its activities, in addition to the States Parties to the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction (the Convention).

2. INTRODUCTION

2.1 This report contains the findings and conclusions of the FFM following its investigation into the alleged use of toxic chemicals as a weapon in the al-Yarmouk district in Damascus, in the Syrian Arab Republic, on 22 October 2017.

2.2 The activities of the FFM were conducted in accordance with the decisions of the OPCW Executive Council (the Council) EC-M-48/DEC.1 (dated 4 February 2015) and EC-M-50/DEC.1 (dated 23 November 2015), as well as other relevant Council decisions and the Director-General's authority to seek to uphold at all times the object and purpose of the Convention, as reinforced by United Nations Security Council resolutions 2118 (2013) and 2209 (2015), as applicable to this investigation.

2.3 The terms of reference of the FFM were mutually agreed upon by the OPCW and the Syrian Arab Republic through an exchange of letters between the Director-General and the Government of the Syrian Arab Republic, dated 1 and 10 May 2014, respectively (Annex to the Note by the Secretariat S/1255/2015[*], dated 10 March 2015). The States Parties expressed their support for the continued work of the FFM in order to study all available information relating to allegations of the use of chemical weapons in the Syrian Arab Republic.

2.4 Both the Council and the United Nations Security Council have called upon the FFM to study all available information relating to allegations of the use of chemical weapons in the Syrian Arab Republic, including information provided by the Syrian Arab Republic and others.

3. BACKGROUND

3.1 Al-Yarmouk Camp (the Camp) is one of the three unofficial Palestinian refugee camps in the Syrian Arab Republic.[2] It was founded between 1954 and 1957 through an initiative of the Syrian authorities to resettle Palestinian refugees who arrived in the Syrian Arab Republic in 1948. Gradually, political and military activities developed in the Camp, and Palestinian movements and factions opened offices in al-Yarmouk.[3] Prior to 2011, approximately 160,000 Palestinian refugees lived in the Camp, bringing the total population of the Camp and its surroundings to approximately 1,200,000. The Camp was considered the capital of the Palestinian diaspora.[4]

3.2 The information received from the Syrian Arab Republic regarding the incident that is the subject of this report refers to several armed groups that were present in al-Yarmouk at the time of correspondence, and states that these groups were reportedly involved in the incident. Accordingly, this section provides an overview of the general situation in al-Yarmouk Camp and its surroundings, as well as of the political and armed groups present in the area, to establish a clear understanding of the events that occurred in the period of the reported incident.

3.3 The information in this section and the sequence of the events presented are available in public sources[5] dating back to the beginning of the conflict in the Syrian Arab Republic and do not constitute an outcome of the FFM's analysis.

3.4 When the conflict began in the Syrian Arab Republic in 2011, the officials in the Camp and leaders of the Palestinian factions[6] decided that the Camp would remain neutral in the conflict.[7]

3.5 From early 2012, the Camp became a shelter for many internally displaced persons (IDPs). In February 2012, IDPs started to settle in the Camp and its surroundings after the battle of Homs.[8]

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2 https://www.unrwa.org/where-we-work/syria/yarmouk-unofficial-camp.

3 https://www.palquest.org/en/highlight/33649/yarmouk-refugee-camp.
Palestinian groups active in al-Yarmouk since its establishment include the Arab Nationalist Movement, the Ba'ath Party, and the Palestine Liberation Front. Later, with the foundation of the Fateh Movement, other groups and factions became active in the Camp, including the Popular Front for the Liberation of Palestine, the Democratic Front for the Liberation of Palestine, the Popular Front for the Liberation of Palestine–General Command, Saïqa (also known as the Vanguard for the Popular Liberation War-Lightning Forces. and linked to the Palestinian Branch of the Syrian-led Ba'ath Party), the Palestinian Communist Party, and other Palestinian factions and groups. In the 1990s, Islamic Jihad and the Hamas Party also opened offices in the Camp, and the Right of Return Committees opened an office there in the 2000s.

4 https://www.youtube.com/watch?v=rS3_aDVEJak.

5 This report contains open-source links in footnotes which may no longer be available online. The content of all these open-source links have been archived by the FFM.

6 https://www.palestine-studies.org/ar/node/1635822.

7 https://www.palquest.org/en/highlight/33649/yarmouk-refugee-camp.

8 https://www.cairn-int.info/article.php?ID_ARTICLE=E_COME_099_0047.

3.6 In July 2012, the Free Syrian Army (FSA) factions launched their first operation, which was dubbed the "Volcano of Damascus" or the "Earthquake of Syria", and aimed to "liberate" Damascus.[9,10] The battle, also known as the Battle of al-Midan, involved fierce clashes in Damascus and led to the displacement of thousands of Syrian residents from the al-Midan area to the southern adjacent Camp.[11]

3.7 The FSA groups and factions gained control of the Camp in September 2012. Thereafter, the Camp became an armed front due to its proximity[12] to Damascus. New armed factions and militias were then formed by the inhabitants of the Camp.[13]

3.8 In December 2012, the FSA and Al-Nusra Front prepared to jointly control the Camp and gain control over access to Damascus from the south. Fierce confrontations lasted for approximately two weeks between the two factions on the one side, and Palestinian groups in al-Yarmouk on the other.[14,15]

3.9 On 16 December 2012, sources reported that approximately 25 people had been killed and dozens injured[16] in air strikes targeting the Abdel Qadir al-Husseini Mosque and al-Faluja school in al-Yarmouk, where people were taking shelter.[17] The Syrian Government, in a letter to the United Nations,[18] accused the al-Nusra Front of carrying out the attack. Over a four-day period,[19] the air strikes and the continuous clashes caused more than two-thirds of the population of al-Yarmouk to flee to other parts and suburbs of Damascus, or to neighbouring countries, making this event the first significant demographic shift in the Camp during the conflict. Approximately 18,000 Palestinian refugees remained at the Camp.[20]

3.10 The day following the above-mentioned air strikes, and after armed opposition groups entered the Camp,[21] the Palestinian Popular Front for the Liberation of Palestine–General Command (PFLP-GC) in al-Yarmouk called upon resistance factions to join forces to expel armed opposition groups from the Camp and to put an end to the attempts to draw Palestinians into the internal crisis in the Syrian Arab Republic.[22]

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9 https://theworld.org/stories/2012-07-20/damascus-battle-rebel-operation-damascus-volcano-and-syrian-earthquake.

10 https://orientxxi.info/magazine/l-enfer-de-yarmouk-camp-palestinien-en-syrie,0518.

11 https://www.cairn-int.info/article.php?ID_ARTICLE=E_COME_099_0047#no119.

12 Al-Yarmouk camp is located eight kilometres to the south of Damascus city centre.

13 https://noria-research.com/yarmouk-a-war-of-all-against-all/.

14 https://www.cartercenter.org/resources/pdfs/peace/conflict_resolution/syria-conflict/yarmouk-status-report-2017.11.14.pdf.

15 https://english.alarabiya.net/articles/2012/12/16/255444.

16 https://www.reuters.com/article/syria-crisis-camp-idUSL5E8NG4DX20121216; https://www.theguardian.com/world/2012/dec/18/syria-palestinian-refugees-flee-yarmouk.

17 https://www.palestine-studies.org/ar/node/1635822.

18 https://syrianfreepress.wordpress.com/2012/12/21/12630/; https://digitallibrary.un.org/record/740786?ln=en.

19 https://www.acaps.org/sites/acaps/files/products/files/14_palestinians_from_syria_march_2014.pdf; https://reliefweb.int/map/syrian-arab-republic/syria-yarmouk-camp-situation-update-20-december-2012.

20 https://www.palquest.org/en/highlight/33649/yarmouk-refugee-camp.

21 Armed opposition groups that entered Yarmouk included Suqur al-Julan and Ababeel Huran Brigades. https://www.actionpal.org.uk/en/reports/special/yarmouk_truth_en.pdf.

22 https://syrianfreepress.wordpress.com/2012/12/18/12469/.

3.11 Later, on 26 December 2012, and following the aforementioned air strikes, the Syrian Armed Forces (SAF) conducted a partial military siege of al-Yarmouk. Checkpoints were set up at entrances and along the roads leading to the Camp. A few months later, Palestinian factions active in the Camp took control of the checkpoints and the siege gradually deteriorated, and imposed further restrictions.[23]

3.12 Following the deterioration of the security situation and the siege of al-Yarmouk, negotiation initiatives were undertaken by a popular committee in the Camp, involving official and popular Palestinian parties (including the so-called "Fourteen Palestinian Factions"). The aims of these initiatives included lifting the siege, assuring the neutrality of the Camp in the Syrian conflict, and achieving the retreat of non-Palestinian armed groups and factions from the Camp.[24]

3.13 In March 2013, the faction of Aknaf Bait al-Maqdis (Aknaf) was established; it included Palestinian members who reportedly had left their former factions when they could neither reach an agreement on their position on the conflict, nor agree on the establishment of protection units in al-Yarmouk. The faction was then in charge of protecting the Camp from shelling by the SAF, as well as from exactions and pillages reportedly committed by armed opposition groups such as the Suqur al-Julan Group, which was later ousted from the FSA. Aknaf counted approximately 200 members, most of whom were thought to be previously affiliated with Hamas[25, 26] and who were supplied with weapons and munitions from the southern areas of al-Yarmouk. At the time, these areas were under the control of al-Jabha al-Islamiya (the Islamic Front), Jaysh al-Islam, and al-Nusra Front.[27, 28, 29]

3.14 The Islamic State in Iraq and the Levant (ISIL)[30] first appeared in the area of Yalda, southeast of al-Yarmouk. In July 2014, ISIL made its first attempt to enter the Camp and took control of two sites in al-Yarmouk: the power plant and 15th Street, both of which were previously under the control of al-Nusra Front. Several members of al-Nusra Front joined ISIL then and handed over several positions in al-Yarmouk to ISIL. Many altercations then took place between Aknaf and ISIL, and the latter retreated to the city of al-Hajar al-Aswad, located in the south of al-Yarmouk, where it established its stronghold.[31]

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23 https://www.vdc-sy.info/pdf/reports/1379660373-Arabic.pdf.

24 http://actionpal.org.uk/ar/reports/special/yarmouknegos.pdf.

25 https://digitallibrary.un.org/record/3793509?ln=en.

26 https://noria-research.com/yarmouk-a-war-of-all-against-all/.

27 On 30 May 2013, the Islamic State in Iraq and the Levant (ISIL) and al-Nusra Front were designated as terrorist groups by the United Nations Security Council under resolution 1267 (1999). The two groups operate in the Syrian Arab Republic.

28 https://www.alwatanvoice.com/arabic/news/2015/04/05/692610.html.

29 https://noria-research.com/yarmouk-a-war-of-all-against-all/.

30 On 30 May 2013, the Islamic State in Iraq and the Levant (ISIL) and al-Nusra Front were designated as terrorist groups by the United Nations Security Council under resolution 1267 (1999). The two groups operate in the Syrian Arab Republic.

31 https://noria-research.com/yarmouk-a-war-of-all-against-all/.

3.15 Al-Nusra Front gained strength over the FSA factions in al-Yarmouk in 2013, and alongside Aknaf became the main armed force in the Camp.[32]

3.16 During local negotiations in 2013, the Fourteen Palestinian Factions failed to reach an agreement on the situation in al-Yarmouk and the siege. Negotiations continued in 2014 and further involved representatives from the Palestinian Liberation Organisation (PLO), as well as representatives from the Syrian Government.[33] The negotiations were aimed at lifting the siege, withdrawing foreign armed groups and factions from the Camp, and returning the families that had fled since December 2012. On 21 June 2014, the relevant parties in al-Yarmouk signed a neutrality agreement,[34] and in July – August 2014, the Syrian authorities went through the process to authorise the United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA) to distribute medical supplies for the first time since December 2012. As reported by the UNRWA, the distribution of aid was regularly hindered or interrupted by clashes taking place in al-Yarmouk.[35, 36]

3.17 Between December 2014 and 28 February 2015, the thirteenth report of the United Nations Secretary-General[37] on the Implementation of Security Council resolutions[38] outlined the armed conflict, including the frequent exchange of fire and the use of heavy weapons, restricting access to the besieged al-Yarmouk and further preventing the delivery and distribution of assistance and aid by humanitarian agencies. The report indicated the continuous shelling of neighbourhoods in Damascus, including the area of al-Yarmouk, which reportedly resulted in civilian casualties and further destruction of the infrastructure.

3.18 The negotiations between the Government of the Syrian Arab Republic and delegations from the Camp aimed at reaching a local agreement continued in March 2015, and the parties were due to meet on 2 April 2015. However, on 1 April 2015, ISIL and al-Nusra Front infiltrated the Camp, and heavy fighting erupted between ISIL and al-Nusra Front on one side, other armed groups and factions in al-Yarmouk on another, and the Syrian Government forces on a third. ISIL fighters claimed control of most of the area and reportedly carried out abductions and executions.[39] After ISIL's infiltration, most residents who were still in the Camp fled to Yalda.

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32 https://noria-research.com/yarmouk-a-war-of-all-against-all/.

33 http://actionpal.org.uk/ar/reports/special/yarmouknegos.pdf.

34 https://fatehwatan.ps/page-84721.html.

35 https://www.unrwa.org/where-we-work/syria/yarmouk-unofficial-camp.

36 United Nations Security Council, Report of the Secretary-General on the implementation of Security Council resolution 2139 (2014), 22 May 2014, S/2014/365, available at: https://www.refworld.org/docid/53ac00ee4.html [accessed 17 April 2023] .

37 United Nations Security Council, Implementation of Security Council resolutions 2139 (2014), 2165 (2014) and 2191 (2014), 23 March 2015, S/2015/206, available at: https://www.refworld.org/docid/5514009f4.html [accessed 17 April 2023].

38 United Nations Security Council resolutions S/RES/2139 (2014), S/RES/2165 (2014), and S/RES/2191 (2014).

39 United Nations Security Council, Implementation of Security Council resolutions 2139 (2014), 2165 (2014), and 2191 (2014) : report of the Secretary-General, 17 April 2015, S/2015/264, available at: https://www.refworld.org/docid/553e3f8d4.html [accessed 18 April 2023].

3.19 On 9 April 2015, a senior PLO official in Damascus announced that following talks with the Syrian Government, the Fourteen Palestinian Factions favoured the idea of joining forces with the Syrian Government against ISIL. However, Aknaf was not among the Fourteen Palestinian Factions in these talks.[40] Several members of Aknaf retreated to Yalda and on 4 April 2015 announced that they were still resisting inside the Camp at their position at the Japanese Hospital near Palestine Roundabout and promised to expel ISIL and regain control of the camp.[41, 42] Other members of the faction were reported to have joined ISIL, while several others surrendered to other Palestinian groups that were laying siege to the camp, thereby surrendering to the Syrian Army.[43, 44]

3.20 The security and humanitarian situation deteriorated after ISIL entered al-Yarmouk; the camp became home to ISIL, al-Nusra Front, FSA factions, local Palestinian factions, and Syrian Government troops.[45] The fighting continued between these parties, both within and around al-Yarmouk. In addition, al-Yarmouk was subject to sporadic artillery and mortar attacks around the front lines, which were reportedly carried out by the SAF.[46, 47,48]

3.21 In January 2016, relations between ISIL and Al-Nusra Front began to deteriorate and a major split accelerated in April 2016 following clashes between the two groups. Intense fighting between armed groups lasted for weeks, according to a report by the United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA), and UNRWA resumed its humanitarian operations in Yalda on 2 May 2016.[49] By the end of July 2016, al-Nusra Front announced its separation from al-Qaeda and changed its name to Jabhat Fath al-Sham, also known as Hay'at Tahrir al-Sham (HTS).[50] In August 2016, ISIL laid siege to civilians in areas that were, at the time, under the control of HTS, which represented approximately 40% of the Camp.

3.22 On 29 December 2016, it was reported that the Russian Federation and Türkiye had proposed a ceasefire throughout the Syrian Arab Republic to foster the necessary conditions for establishing a direct political dialogue among the parties in conflict.[51, 52]

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40 https://www.securitycouncilreport.org/whatsinblue/2015/04/syria-consultations-on-the-situation-in-yarmouk.php.

41 https://www.actionpal.org.uk/en/post/831/aknaf-bait-al-maqdis-declares-the-beginning-of-isis-elimination-out-of-the-yarmouk-refugee-camp.

42 https://www.arab48.com/19/9/2015.

43 https://syrianfreepress.wordpress.com/2015/04/10/yarmouk-truth/.

44 https://www.facebook.com/Alikhbaria.Sy/videos/1499208410102173?locale=ar_AR.

45 https://www.cartercenter.org/resources/pdfs/peace/conflict_resolution/syria-conflict/yarmouk-status-report-2017.11.14.pdf.

46 https://www.securitycouncilreport.org/un-documents/document/s2015468.php.

47 https://www.europarl.europa.eu/doceo/document/B-8-2015-0412_EN.html.

48 https://www.refworld.org/docid/55dc77b34.html [accessed 18 April 2023].

49 ocha_syria_biweekly_sitrep_no._4_23_apr_-_6_may_2016.pdf (humanitarianresponse.info).

50 https://eng-archive.aawsat.com/nazeer-rida/news-middle-east/al-nusra-uncovers-face-following-split-qaeda.

51 https://documents-dds-ny.un.org/doc/UNDOC/GEN/N16/471/14/PDF/N1647114.pdf?OpenElement.

52 https://digitallibrary.un.org/record/854281?ln=en.

3.23 On that same day, 13 leaders from the Syrian armed opposition factions agreed on the proposed ceasefire regime and signed a joint agreement to form the delegations participating in the Astana peace talks in January 2017.[53] The country-wide ceasefire was due to take effect from midnight on 30 December 2016, Damascus time; it excluded areas of combat operations against ISIL and al-Nusra Front. On 2 January 2017, Syrian armed opposition groups froze talks on their possible participation in peace negotiations, imposing the condition that the Syrian Government and its allies end their violations of the ceasefire.[54]

3.24 At the beginning of 2017, control of the Camp remained divided, with HTS controlling an area in the north-west, pro-Syrian Government Palestinian militias controlling north-eastern areas, and ISIL controlling the rest. There were violent clashes in the Camp involving mainly ISIL and HTS, with an escalation that took place in late April 2017, when ISIL attempted to take control of HTS-controlled areas.[55] On 29 April 2017, ISIL attacked Aknaf's positions in al-Yarmouk and confrontations erupted in the areas of Palestine Roundabout, the Japanese Hospital, and the Arab Cultural Centre, but made no advances in the area.[56] This escalation reportedly took place in anticipation of the possible handover of these areas to Syrian Government forces as part of the so-called "Four-Town agreement". While this agreement primarily addressed the situation in the towns of Madaya, Zabadani, Fuaa, and Kefraya, there had been attempts to include surrender deals for other areas, including al-Yarmouk. Through direct negotiations with HTS, several injured HTS fighters in al-Yarmouk were evacuated in exchange for the evacuation of several injured pro-Government fighters from Fuaa and Kefraya (Idlib Governorate).[57]

3.25 In May 2017, sources reported the imminent exit of ISIL from the southern parts of Damascus towards the area of ar-Raqqah. ISIL reportedly started selling several of its belongings on Ouroubeh Street in al-Yarmouk and distributing leaflets inviting civilians who wished to leave for ar-Raqqah. Within that same context, pro-Government media reported that ISIL was leaving the Camp and that the Syrian Arab Army (SAA), alongside allied forces, would enter al-Yarmouk after demining operations.[58]

53 https://janoubia.com/2016/12/31/.

54 https://www.reuters.com/article/us-mideast-crisis-syria-rebels-ceasefire-idUSKBN14M16Q.

55 https://siegewatch.org/wp-content/uploads/2015/10/siege-watch-6-pax-tsi.pdf.

56 https://www.actionpal.org.uk/ar/post/7237.

57 https://reliefweb.int/report/syrian-arab-republic/turkey-syria-four-towns-evacuations-20-april-2017-enar.

58 https://www.arab48.com/Daesh-leaves-Yarmouk-to-Raqqa.

3.26 On 13 September 2017, as the sixth round of the Astana peace talks approached, armed opposition factions[59] in towns neighbouring al-Yarmouk—Yalda, Babila, Beit Sahm and al-Qadam—released a joint statement[60] rejecting any deal tied to the Four-Town Agreement that would involve forced civilian displacement. A protest was held by residents of these towns due to increased concerns among citizens related to a surrender agreement and forced displacement.[61, 62, 63]

3.27 On 8 October 2017, the factions of Jaysh al-Islam, Aknaf Bait al-Maqdis, and Jaysh al-Ababeel, which were controlling southern Damascus, signed a joint statement[64] in Cairo, Egypt, in which they announced that they had joined the Cessation of Hostilities agreement dated 30 December 2016. These factions invited the Russian Federation to serve as one of the guarantors of this agreement and continue to support and guarantee the opening of checkpoints in Babila and Al-Qadam and access for humanitarian and medical aid to the areas under their control.[65, 66, 67] The three factions once again indicated the rejection of any agreement that would imply forced displacement of the population in southern Damascus to other areas in the Syrian Arab Republic.

3.28 On 14 October 2017, the Action Group for Palestinians of Syria (the AGPS) reported that many ISIL members invaded the Camp after escaping the city of al-Hajar al-Aswad, which was considered ISIL's main stronghold.

3.29 Fearing a possible attack from armed groups present in the Camp,[68] on 18 October 2017, ISIL conducted an unannounced attack on the areas of the Japanese Hospital and al-Izz Ibn Abdessalam School near the intersection of the Camp, the town of Yalda, and the at-Tadamon neighbourhood. The attack led ISIL to take control of these positions. Violent clashes erupted rapidly between ISIL on one side, and Jaysh al-Islam, Aknaf Bait al-Maqdis, Sham al-Rasoul,[69] and Jaysh al-Ababil[70] on the other; the latter groups defended their positions at the Japanese Hospital and the school against ISIL's attacks and regained control of the UNRWA Dispensary (the Dispensary).

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59 Armed opposition factions signing the statement were: Jaysh Ababeel, Ahrar al-Sham Movement, Sham al-Rasoul, Jash al-Islam, Firqat Dimashq, and Aknaf Bait al-Maqdis.

60 https://www.actionpal.org.uk/ar/images/posts/1505296836.jpg.

61 https://siegewatch.org/wp-content/uploads/2015/10/PAX-TSI-Siegewatch-8.pdf.

62 https://www.arab48.com/september2017.

63 https://www.actionpal.org.uk/ar/post/8118.

64 https://www.actionpal.org.uk/ar/images/posts/1507883900.jpg.

65 https://www.actionpal.org.uk/ar/post/8327.

66 https://syriadirect.org/factions-joining-cessation-hostilities-agreement-October2017.

67 https://www.arabnews.com/node/1176791/middle-east.

68 https://www.actionpal.org.uk/en/post/5971/action-group-for-palestinians-of-syria/isis-escapes-al-hajar-al-aswad-and-invades-yarmouk-camp.

69 https://www.actionpal.org.uk/ar/post/8394/.

70 https://twitter.com/Desert61Fox/status/920601979587579904.

3.30 On 20 October 2017, the confrontations[71,72] between ISIL and the armed groups[73,74] in the area resumed and took place near the Dispensary and al-Baath Secondary School. The AGPS reported that light, medium, and heavy weaponry was used during these confrontations and that several ISIL members were killed, but there was no confirmation of casualties among the armed opposition groups. Civilians residing close to the confrontation lines were also evacuated.[75]

3.31 On 22 October 2017, after taking control of al-Izz Abessalam School, ISIL reportedly undertook all efforts to maintain control of its position at the Dispensary, which was the access point to the Japanese Hospital[76,77] and thus a strategic position in al-Yarmouk, as it overlooked wide areas in the town of Yalda.

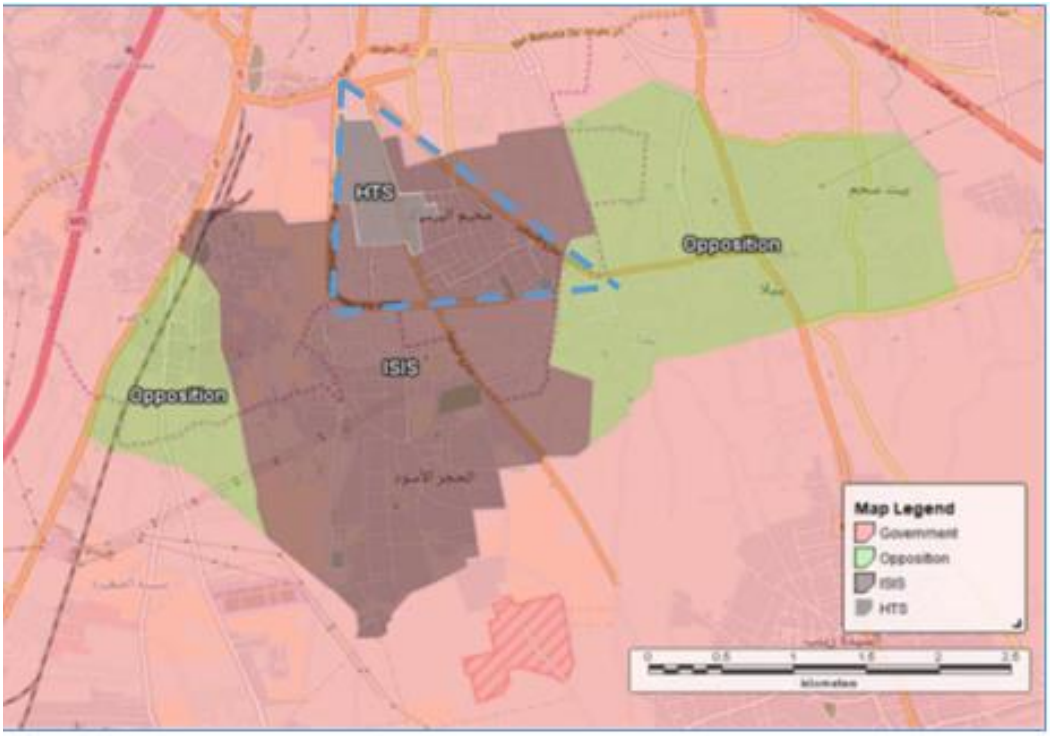
3.32 On that same day, the AGPS reported[78] that ISIL had targeted the positions of armed opposition groups at the Dispensary and the Japanese Hospital with "toxic gas bombs", which resulted in 10 casualties among Aknaf fighters, who were transported to the field hospital in Yalda with symptoms of shortness of breath and lacrimation.[79] The AGPS also added that on the same day, the SAF and allied Palestinian factions targeted several locations in al-Yarmouk with mortars.

3.33 On 23 October 2017, Zakaria Mawed (also known as Abu Yehia), one of the leaders of Aknaf, died by sniper fire from ISIL during combat at the Japanese Hospital front.[80] On the same day, sources reported that masked men were seen inside the Camp, while ISIL was imposing a curfew after the sunset prayer. Meanwhile, violent confrontations between ISIL and opposition groups around the Japanese Hospital were ongoing.[81]

3.34 In November 2017, reports[82] indicated that eastern Ghouta, located to the east of al-Yarmouk, was the site of continuous violence, with ongoing clashes along the outskirts of Damascus and air strikes on opposition-held towns in the area. On 12 November 2017, the SAF closed the Babila checkpoint, which leads to Babila and Yalda in southern Damascus. This closure completely cut off all access to opposition and ISIL-held areas, including the Camp. This measure came after armed opposition groups refused to close the Ouroubeh checkpoint leading to ISIL-held areas in al-Yarmouk. Figure 1 shows a map of al-Yarmouk and surrounding areas as at November 2017, reflecting the volatile security situation at that time.

71 https://twitter.com/Desert61Fox/status/921342637042479104.
72 https://www.actionpal.org.uk/ar/post/8378/.
73 https://twitter.com/Desert61Fox/status/922042211969138688.
74 https://twitter.com/Desert61Fox/status/921343667654283265.
75 https://www.actionpal.org.uk/ar/post/8381/.
76 https://twitter.com/Desert61Fox/status/922132549819949056.
77 https://twitter.com/Desert61Fox/status/922219337829748741.
78 https://www.actionpal.org.uk/ar/post/8397.
79 https://www.youtube.com/watch?v=YK5OVx7EP1w&t=3s.
80 https://www.actionpal.org.uk/en/post/6026.
81 https://www.actionpal.org.uk/en/post/6030.
82 https://www.cartercenter.org/resources/pdfs/peace/conflict_resolution/syria-conflict/weekly-conflict-summary-2017.11.09-15.pdf.

FIGURE 1: THE SITUATION IN THE SURROUNDINGS OF AL-YARMOUK CAMP (WITHIN THE BLUE TRIANGLE) AS AT NOVEMBER 2017[83]



3.35 On 11 December 2017, ISIL launched an attack on SAF checkpoints in the neighbourhood of Nisreen and took control of several blocks in the area. Fighting and bombardments subsequently intensified in the Camp and the adjacent at-Tadamon neighbourhood.[84]

3.36 As ISIL's attempts to advance towards Yalda persisted, [85] intermittent clashes between ISIL and the armed opposition groups continued in early 2018, with confrontations occurring at the intersection of Daaboul Street and the "Tuesday Market", located in the vicinity of the Palestine Roundabout.

3.37 According to an open-source report,[86] on 25 February 2018, the SAF and its allies launched an operation in Eastern Ghouta against their main opponents: HTS, Ahrar al-Sham, Faylaq al-Rahman, and Jaysh al-Islam. The previous day, 24 February 2018, the United Nations Security Council had passed a resolution to establish a comprehensive ceasefire throughout the Syrian Arab Republic; it did not include ISIL or HTS, or the areas under their control. The source reported that ISIL attacked HTS positions in the western parts of al-Yarmouk.

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83 https://www.cartercenter.org/resources/pdfs/peace/conflict_resolution/syria-conflict/yarmouk-status-report-2017.11.14.pdf.

84 https://www.actionpal.org.uk/en/post/6425/action-group-for-palestinians-of-syria/the-outskirts-of-yarmouk-camp-and-the-tadamon-neighborhood-bombarded-with-gas-cylinders.

85 https://www.actionpal.org.uk/en/post/6388/.

86 https://southfront.org/syrian-war-report-february-26-2018-tiger-forces-start-ground-operation-in-eastern-ghouta/.

3.38 In April 2018, negotiations took place between HTS and armed factions in south Damascus, which were besieged by ISIL in a small enclave inside al-Yarmouk. This occurred while Aknaf, Sham al-Rasoul, and Firqat Dimashq rejected any agreement[87] that would lead to displacement.[88]

3.39 By the end of April 2018, the Syrian Government focused its military operations on southern Damascus, especially the city of al-Hajar al-Aswad and the Camp, specifically targeting the positions held by ISIL and HTS.[89, 90] Confrontations between the SAF and ISIL continued in the outskirts of al-Yarmouk and neighbouring districts. At the time, approximately 3,000 civilians were estimated to have remained in the Camp.[91]

3.40 In May 2018, the Syrian Government intensified its military operations through aerial and artillery bombardment in order to seize al-Yarmouk and the city of al-Hajar al-Aswad. In late May, ISIL accepted a deal to be evacuated from Damascus to eastern Syria.[92,93] On 21 May 2018, Liwa al-Quds posted on the social media network now known as X, formerly Twitter, that al-Yarmouk Camp and al-Hajar al-Aswad were entirely under the control of the SAF.[94]

4. MISSION ACTIVITIES

Methodological considerations

4.1 The FFM followed the same methodological approach outlined in previous FFM reports, adhering to the most stringent protocols throughout its activities (Annex 1).

4.2 The FFM collected information related to the reported incident in the district of al-Yarmouk in Damascus, using its equipment and ensuring the chain of custody and witness identity protection throughout its deployments in accordance with the standard operating procedures (SOPs), work instructions (WIs), and the guidelines of the OPCW.

4.3 Interviews were conducted by inspectors who are trained and proficient in interviewing techniques, following the procedures set out in the OPCW WIs. Prior to commencing the interviews, the process was explained to the interviewees, with emphasis on the fact that with the consent of the interviewee, the interview would be recorded using audio, video, or both. After confirming that the process had been understood, interviewees were requested to sign a consent form. The interview process used the free recall approach, with follow-up questions to elicit information of potential evidentiary value and to clarify testimonies. To guarantee the impartiality of the interview process, only the interviewees and FFM personnel were present in the room during the interviews.

87 https://www.actionpal.org.uk/en/post/6847.
88 https://www.arab48.com/7/4/2018.
89 https://www.manartv.com.lb/3674669.
90 https://media2.almanar.com.lb/videofiles/2018/April/news/reports/21-aswad16.mp4.
91 https://www.alaraby.co.uk/24/4/2018.
92 https://www.ecoi.net/en/file/local/1441459/1788_1535029859_2208.pdf.
93 https://www.facebook.com/md.press.news/posts/986802614809885.
94 https://twitter.com/alqudsbrigade11/status/998521576051150849?s=21.

4.4 Available open-source information, such as maps and security updates, was primarily used for planning activities and general situation assessment.

4.5 The FFM examined the data that was obtained and collected, both separately and combined. The conclusions of this report are based on an analysis of the information taken as a whole:

(a) witness accounts during interviews conducted by FFM;

(b) information and material provided and clarified by the Syrian Arab Republic during meetings through documents and digital content;

(c) supporting material gathered during the interview process;

(d) results of laboratory analyses of the environmental samples collected; and

(e) subsequent cross-reference and corroboration of the information.

Activities

4.6 The activities of the FFM were conducted in accordance with its terms of reference, as well as OPCW guidelines, SOPs, and WIs as set out in Annex 1. The mission activities included:

(a) exchanging notes verbales and internal memoranda with the Syrian Arab Republic;

(b) holding meetings with the Technical Committee;

(c) conducting and analysing interviews with witnesses of the reported incident in al-Yarmouk;

(d) conducting field visits to relevant locations;

(e) reviewing and analysing photographs, video recordings, and files gathered by the FFM;

(f) conducting laboratory analyses of the environmental samples collected; and

(g) reviewing open-source material.

4.7 On 1 November 2017, the Syrian Arab Republic informed the Secretariat via Note Verbale No. 106 of "information received from [our] National Authority regarding the use of toxic chemicals in an attack by the terrorist organisation ISIS against another terrorist group called Aknaf Beit al-Maqdis in the south area of Yarmouk Camp" in Damascus, which had occurred on 22 October 2017.

4.8 Over the course of the FFM's activities, the Secretariat and the Syrian Arab Republic exchanged a number of letters of correspondence, including notes verbales; these are listed in Annex 5.

4.9 Through the exchange of notes verbales in November 2017, September 2018, October 2019, and November 2019, the Syrian Arab Republic and the Secretariat agreed on dates for the deployment of the FFM to the Syrian Arab Republic in order to conduct its activities.

4.10 From 6 to 17 December 2017, the FFM conducted its first deployment to the Syrian Arab Republic for this investigation, held meetings with the Technical Committee, and received initial information related to the reported incident. During the deployment, the Syrian Arab Republic informed the FFM that for the time being, no witnesses or additional information were available; at the time of this deployment, the area of al-Yarmouk was not under the control of the Syrian Government.

4.11 From 27 September to 4 October 2018, the FFM deployed a second time to the Syrian Arab Republic, held meetings with the Technical Committee, and conducted interviews with witnesses. During the deployment, the FFM was informed that a team from the Technical Committee had collected environmental samples in al-Yarmouk linked to the reported incident on 22 October 2017. On 4 October 2018, in the presence of Syrian Authorities, the FFM received, packed, and sealed four environmental samples, in accordance with the relevant OPCW SOPs and WIs. The samples were left in the custody of the National Authority of the Syrian Arab Republic.

4.12 From 21 October to 6 November 2019, the FFM conducted a third deployment to the Syrian Arab Republic, during which it held meetings with the Technical Committee, collected and received information in relation to the reported incident, and conducted a field visit.

4.13 The FFM did not plan to collect samples during the field visit as a primary activity due to the following considerations:

(a) the significant damage to the infrastructure and buildings resulting from the heavy shelling that the area experienced in the two years following the reported incident;

(b) the extensive confrontations and war activities between several groups in the area at the time of the reported incident, using various types of weapons;

(c) the high risk present in the area resulting from unexploded remnants of war; and

(d) the absence of safe access to relevant locations inside collapsed buildings that would allow the FFM to perform its activities.

4.14 During the meeting held in Damascus on 2 November 2019 to prepare and coordinate the field visit to al-Yarmouk, the FFM explained to the Technical Committee that it would not be able to link any result of chemical analysis performed on any environmental sample collected during the deployment to a particular event or incident that took place in 2017 in light of the circumstances mentioned above. Nevertheless, at a meeting with the FFM, the Technical Committee insisted upon the collection of samples from the incident location, stating that “the visit would be meaningless if no sample was taken”. Subsequently, the FFM reiterated that “any FFM sampling activity will be subject to an on-site assessment”, with major emphasis on the safety and the security of the FFM team.

4.15 On 4 November 2019, the FFM visited locations of interest in al-Yarmouk that had been identified through the course of the investigation. At the time of the visit, the Camp was under the control of the Syrian Government, and the security situation assessed by the United Nations Department of Safety and Security (UNDSS) allowed for safe movement to the locations. The FFM's activities included:

(a) a visit to the location of a former field hospital in Yalda and other locations relevant to the reported incident;

(b) documentation of areas of interest in al-Yarmouk, including alleged incident location(s), by taking photos and video recordings at sites relevant to the incident; and

(c) the collection of two environmental samples in the presence of the FFM upon the request of a Technical Committee representative.

4.16 From 2 to 15 December 2019, the FFM conducted a fourth deployment to the Syrian Arab Republic, held meetings with the Technical Committee, and conducted interviews with witnesses.

4.17 The FFM has actively pursued further available information in possession of the Syrian Arab Republic, State Parties to the Convention, and non-governmental organisations, in addition to conducting in-depth research into public information.

4.18 Moreover, the FFM has actively pursued opportunities to gather further testimonies from potential witnesses who were present in areas of interest at the time of the reported incident.

4.19 From February 2020, the FFM continued its activities in relation to the incident that is the subject of this report, gathered additional information, and sent the environmental samples that were collected in the Syrian Arab Republic for chemical analysis at OPCW designated laboratories (DLs).

5. ACCESS TO THE SITE AND RELATED CONSIDERATIONS

5.1 The safety and security of individuals involved in any FFM deployment are of the utmost importance.

5.2 The safe deployment of the FFM to locations of interest during the first deployment in December 2017—approximately two months after the incident occurred—was not possible for the following reasons:

(a) The Camp was not under the control of the Syrian Government;

(b) The military hostilities in al-Yarmouk were ongoing;

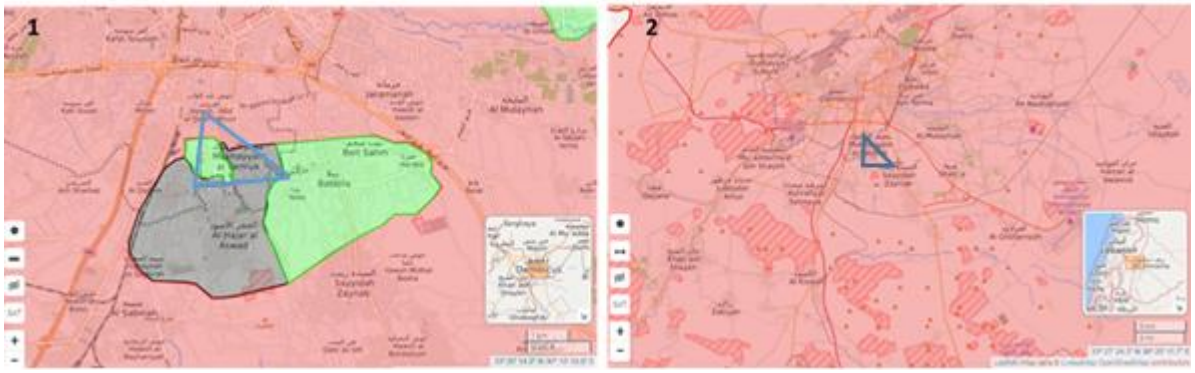
(c) The situation in the surroundings of the camp at the time of the incident was volatile; and

(d) A high level of risk was present in the area resulting from unexploded remnants of war.

5.3 The map[95] in Figure 2–1 depicts the situation in and around al-Yarmouk in October 2017. At the time, the SAF were in control of several regions surrounding al-Yarmouk and its neighbouring areas.

5.4 As mentioned previously, the FFM deployed to the Syrian Arab Republic in November 2019.[96] The SAA had regained control over the Camp and surrounding areas since May 2018, and the security situation allowed for the safe movement to locations of interest in al-Yarmouk (Figure 2–2).

FIGURE 2: MAP OF AL-YARMOUK AND SURROUNDING AREAS ON 21 OCTOBER 2017 (1) AND 4 NOVEMBER 2019 (2)



6. FACTUAL FINDINGS

Information provided by the Syrian Arab Republic

6.1 During its investigation, The FFM received a number of letters of correspondence from the Syrian Arab Republic. The documents (listed in Annex 5) included reports on the incident, an analysis report conducted by the Scientific Studies and Research Centre (SSRC) of the Syrian Arab Republic on the samples that were collected from the location of the reported incident, video recordings, maps, and GPS coordinates.

6.2 In a first report entitled "Al-Yarmouk Camp Incident", received on 9 December 2017, the Syrian Arab Republic informed the Secretariat that the "the terrorist group Aknaf Bait al-Maqdis … carried out an attack to regain control over Tajammu al-Madaris near Palestine Roundabout … which was recently taken over by terrorist group ISIS. … ISIS terrorist group conducted an attack to regain control over the locations … using projectiles that contained chemical toxic substances which caused shortness of breath and loss of consciousness among the terrorist Aknaf group. Over 15 terrorists among them were rescued to field hospitals in the village of Yalda". The report included additional information mentioning that "Aknaf Bait al-Maqdis had a warehouse within the Camp where there were toxic chemical substances located near Kaoush Street". The Syrian Arab Republic additionally mentioned in the report that "the so-called Aknaf Bait al-Maqdis are not present anymore in al-Yarmouk since April 2015 and are now located in the town of Yalda". The coordinates of the Dispensary were also provided.

95 https://web.archive.org/web/20171021200800/https://syria.liveuamap.com/.

96 https://web.archive.org/web/20191104113514/https://syria.liveuamap.com/.

6.3 In another report entitled "Al-Yarmouk Incident 22/10/2017", which was received by the FFM on 30 September 2018 and included a description of the reported incident, the Syrian Arab Republic indicated that on at 9:00 on 22 October 2017, an incident occurred involving the use of "toxic chemical gases" in the Camp in southern Damascus. As a result of this incident, over 10 casualties were transported to the Yalda field hospital "to be treated from shortness of breath and unconsciousness". Furthermore, the report provides the coordinates of the location of the incident, photographs of the incident location, and photographs of the sample collection points.

6.4 This four-page report included five photographs and a video clip of an interview conducted with individuals reportedly linked to the incident as an attachment.[97]

6.5 The report also included the results of the chemical analysis of four samples from an analytical report issued by the SSRC on 20 September 2018. The details of the samples and the sample analyses will be presented later in this section.

6.6 In a third report entitled "Updated Report on al-Yarmouk Incident 22/10/2017" and received by the FFM on 2 October 2018, the Syrian Arab Republic provided additional details including:

(a) the places where the above-mentioned video clip was "likely" taken;

(b) the names of several identified witnesses;

(c) the locations of sample collection; and

(d) a description of the analytical method used to conduct the qualitative analysis of the four samples, and the results of the analysis.

6.7 The report also mentioned that "it is possible to visit the location of the incident, take samples and interview witnesses".

6.8 During its deployments for this investigation, the FFM held several meetings with relevant personnel in relation to the reported incident to receive and clarify information, as well as to coordinate and prepare for the field visit; these meetings were facilitated by the Technical Committee.

6.9 In a meeting held in Damascus on 26 October 2019, the Technical Committee informed the FFM that the incident in al-Yarmouk "happened in the context of a battle and skirmishes that took place between two armed groups and toxic substances were used". The FFM additionally received and clarified information regarding:

(a) locations related to the reported incident and clarification of the coordinates provided;

(b) locations of the sampling performed by the Technical Committee's team when they visited al-Yarmouk in September 2018; and

97 The video clip is also available in public sources.

(c) the positions of the SAF, which "at the time, did not have any presence in the area", as well as the positions of armed factions and groups in al-Yarmouk at the time of the incident. One of these factions is "Aknaf Bait al-Maqdis that was controlling the Japanese Hospital at the time … a strategic location for the armed factions because it oversees the town of Yalda … and it provides a transit route for food, weapons and logistic support for armed factions".

6.10 During the same meeting, the Technical Committee mentioned that based on the analysis of the data they had collected, "it was proven" that chlorine was used by one of the two groups.

6.11 The FFM examined the information, reports, and documents provided by the Syrian Arab Republic and noted the following:

(a) The incident is reported to have occurred on 22 October 2017 at 9:00 in al-Yarmouk;

(b) The geographic coordinates, photographs, and a description of the reported incident location in al-Yarmouk are available in the documents provided;

(c) Four samples were collected by the Technical Committee's team and analysed at the SSRC in September 2018, and two additional samples were collected from the reported incident location in the presence of the FFM on 4 November 2019, upon the request of the Technical Committee;

(d) The FFM was given access by the Syrian Arab Republic to witnesses for interview purposes;

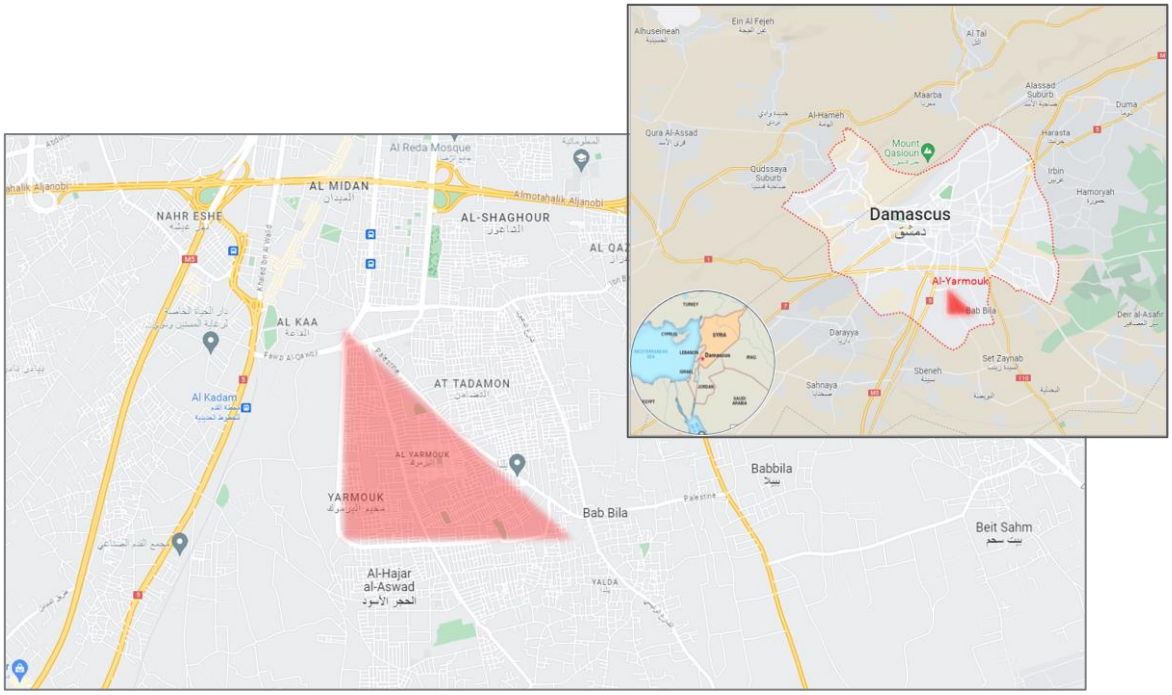
(e) The documents provided by the Syrian Authorities showed different casualty counts from one document to another; and

(f) Through the information provided, the FFM notes that on the one hand, Aknaf Bait al-Maqdis had not been not present in al-Yarmouk since April 2015 or held positions in Yalda, and that several of its members presented with shortness of breath and loss of consciousness following the reported incident on 22 October 2017 in al-Yarmouk. On the other hand, the information indicates that at the time, Aknaf was stationed south of al-Yarmouk after regaining control over Tajammu al-Madaris.

Incident sites: al-Yarmouk

6.12 The al-Yarmouk district (Figure 3 below) is located eight kilometres south of Damascus city centre. It is surrounded by the neighbourhood of at-Tadamon (in the al-Midan district) to the north-east, the town of Yalda (in Rif Dimashq) to the south-east, the city of al-Hajar al-Aswad to the south, and al-Qadam municipality to the west.

FIGURE 3: LOCATION OF AL-YARMOUK IN THE GOVERNORATE OF DAMASCUS



6.13 Al-Yarmouk is located in the area between Palestine Street to the north-east and Thalatheen Street to the west and south.

6.14 As mentioned in Section 3 of this report, prior to 2011, the Camp was home to approximately 160,000 Palestinian refugees. By the end of April 2018, approximately 3,000 civilians were estimated to have remained in the Camp.

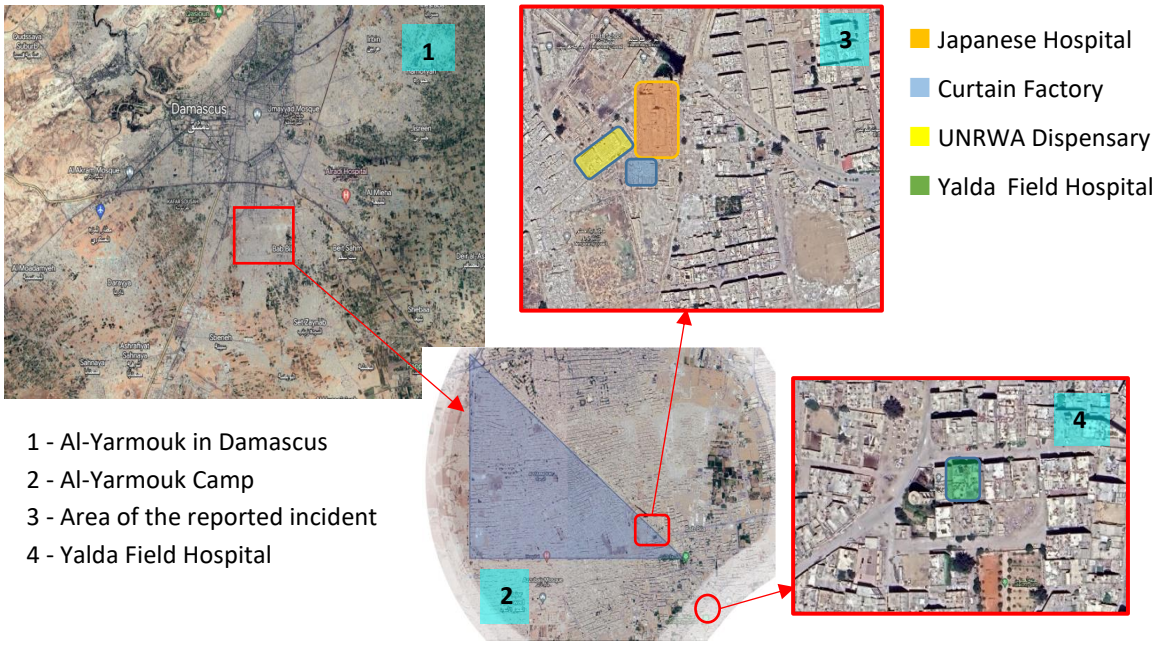
6.15 The incident is reported to have taken place between Palestine Street and al-Maghariba Street in the eastern outskirt of the Camp. The site of the incident is adjacent to the Arab Cultural Centre in al-Yarmouk, and is referred to as the Japanese Hospital, approximately 260 meters to the south-east of Palestine Roundabout. The location where the incident occurred as reported by the Syrian Arab Republic is shown in Figure 4 below.

FIGURE 4: LOCATION OF THE REPORTED INCIDENT AND NEIGHBOURING STREETS IN AL-YARMOUK

6.16 The location consists of several multilevel concrete buildings in an urban area. Other buildings in the area are referred to as the 'curtain factory' and the UNRWA Dispensary, as shown in Figure 5 below.

6.17 The Japanese Hospital building was abandoned before its completion. Nevertheless, the name remained and the area around it is known as the area of the Japanese Hospital.

FIGURE 5: LOCATIONS OF THE JAPANESE HOSPITAL, THE UNRWA DISPENSARY, THE CURTAIN FACTORY, AND YALDA FIELD HOSPITAL



6.18 On 4 November 2019, the FFM conducted a field visit to locations of interest in al-Yarmouk, in light of the fact that at this time, the Syrian Government had regained control of the area and the security situation allowed for safe movement to the location.

6.19 During the visit, the FFM team was able to confirm the location of the Japanese Hospital building (as referred to by the witnesses), the curtain factory, the area of the armed groups' positions, and the Yalda field hospital.

6.20 The hospital where casualties were treated was established in the basement of two buildings in Yalda, near a water supply tower. This location was identified by witnesses and by the Syrian National Authorities. Although one of the identified locations was partially accessible—the curtain factory—all the other locations described by witnesses, including the main building of the Japanese Hospital and the open area between the factions' positions, were inaccessible. This was due either to significant damage to the infrastructure and buildings, or to the high risk present in the area due to unexploded remnants of war.

6.21 The FFM visited and documented the armed groups' positions and headquarters, with both still and video photography, in the vicinity of Ummahat al-Mu'menin Mosque. The FFM also visited the building that used to house the Yalda field hospital, which appeared to be abandoned despite the medical supplies that remained, such as dressings and medication (Figure 6).

6.22 The topography of the area presented no significant variation and had no relevance to the incident in this case, therefore the FFM team did not elaborate further on this factor (Figure 7).[98]

FIGURE 6: PHOTOGRAPHS OF THE LOCATIONS VISITED IN 2019

A1–A2: Japanese Hospital; B1–B2: Curtain factory; C1–C2: Yalda field hospital

98 https://en-gb.topographic-map.com/maps/lplu/Syria/.

FIGURE 7: TOPOGRAPHY OF THE AREA

6.23 The FFM reviewed the meteorological conditions on 22 October 2017 in Damascus based on available public sources. The meteorological conditions are displayed in Table 1.[99] The FFM is aware that this meteorological data may vary slightly from one public source to another. The source refers to Damascus, the closest main city to the incident area, and therefore the data is more indicative of a general forecast in al-Yarmouk rather than a precise account of exact weather conditions at the time of the incident.

TABLE 1: METEOROLOGICAL CONDITIONS IN DAMASCUS ON 22 OCTOBER 2017

Max: 23°C Min: 14°C Sunrise: 05:45 AM Sunset: 05:53 PM Moonrise: 08:55 PM Moonset: 07:51 AM								
Time	**Temperature**	**Wind (Km/h)**	**Gust (Km/h)**	**Rain (mm)**	**Humidity %**	**Cloud %**	**Pressure (mbar)**	**Visibility**
00:00	17	3 from WNW	5	0	72	0	1014	Excellent
03:00	15	2 from WSW	4	0	77	0	1014	Excellent
06:00	19	3 from W	3	0	57	0	1014	Excellent
09:00	23	8 from SW	10	0	34	1	1014	Excellent
12:00	22	10 from SW	12	0	27	2	1013	Excellent
15:00	19	10 from SW	14	0	39	0	1013	Excellent
18:00	16	5 from SE	8	0	57	0	1013	Excellent
21:00	14	2 from SE	3	0	68	0	1014	Excellent
23:00	15	1 from E	2	0	71	0	1013	Excellent

Collected information

Interviews

6.24 In fulfilment of its mandate to examine all available information relating to allegations of the use of toxic chemicals as weapons, the FFM conducted in-person interviews with witnesses who consented to be interviewed. The identity of all witnesses was verified before signing an interview consent form.

99 https://www.worldweatheronline.com.

6.25 Interviews were conducted by inspectors who are trained and proficient in interviewing techniques, and in accordance with the procedures set out in the OPCW WIs. To guarantee the independence and impartiality of the interview process, only the witnesses and relevant FFM team members were present during the interviews.

6.26 The following is a composite summary of the statements given by witnesses interviewed by the FFM.

6.27 According to witness testimonies, Aknaf was positioned in a location known as the Japanese Hospital, a hospital building under construction in al-Yarmouk. Approximately one month prior to the reported incident, the area witnessed confrontations between ISIL and other factions—mainly the Jaysh al-Furqan and Jaysh al-Ababil factions—which provided reinforcements to Aknaf in its fight against ISIL. Witnesses mentioned that the Camp was also targeted from other areas, such as Sayyidah Zaynab (to the south), and areas around the Camp where Iranian militias and the SAF were present.

6.28 Witnesses stated that two to three days before the reported incident, ISIL intensified its attacks on the area around the Japanese Hospital. Several witnesses stated that the incident occurred in October 2017, while other witnesses recalled that it happened near the end of 2017.

6.29 On the day of the reported incident, witnesses positioned at the Japanese Hospital stated that, between the afternoon and the early evening, they heard the sound of a loud explosion followed by a second. Promptly, a witness who had been inside the Japanese Hospital headed to their shooting position to counter the attack with other colleagues. Based on their account, this is when the witnesses were affected and started to experience difficulty breathing. Another witness stated that when they entered the Japanese Hospital to check on their colleagues after hearing the two explosions, they experienced difficulty breathing, ran outside the building, and called the operations room before slipping on the gravel and losing consciousness.

6.30 On the same evening, several witnesses near the area where the attack took place were notified via radio of an attack in the vicinity of the Japanese Hospital. Other witnesses said that the notification included information about cases of respiratory distress among fighters.

6.31 Following the notification, witnesses at a location adjacent to Ummahat al-Mo'mimin Mosque—located approximately at 650 meters east of the incident location—moved towards the Japanese Hospital.

6.32 Upon arrival at the incident location, several witnesses explained that they smelled an odour that was described as pungent and similar to a mixture of detergents (witnesses named the local brands "Flash" and "Klor") containing bleach, with a strong chlorine odour. One witness mentioned that the pungent odour persisted into the next day at the location and became similar to the smell of urine. Several witnesses had respiratory protection, varying from scarves on the face to respirators, and therefore could not confirm the presence of an odour. One witness said that there was no odour when they removed their full face masks approximately 15 to 30 minutes after arriving at the incident location.

6.33 Additionally, witnesses mentioned that they saw “gas or smoke” inside the Japanese Hospital. One of them described it as a greenish white smoke that did not dissipate until they poured water on it. Another witness—who had been approximately 100 meters away and rushed to the Japanese Hospital—stated that they could perceive a “certain shade of red” of the “gas” upon arrival at the incident location before it dissipated.

6.34 Witnesses confirmed that the devices containing the gas were launched from the Dispensary building. However, one witness stated that they saw an unexploded bomb fired from a gun or something like “a bomb launcher”. The witness added that the bomb ricocheted and did not explode.

6.35 Another witness saw a fragment of what they perceived to be a mortar shell brought to them one day after the incident, and said that it looked like a piece of the munition used in the alleged chemical attack. This fragment was yellow in colour on the inside and had no smell, according to their statement. No photograph or video recording of this fragment was available. The witness stated that the fragment had been discarded.

6.36 One witness saw approximately 17 casualties, five to seven of which were unconscious. Another witness said that seven or eight casualties were inside the Japanese Hospital on the floor, while other witnesses stated that five to six people suffered from respiratory distress, and three casualties were severely affected and remained unconscious.

6.37 One witness smelled a strong chlorine odour and started to experience difficulty breathing and excessive lacrimation. Subsequently, the witness lost consciousness and awoke around midnight at al-Mehrab Martyr Hospital, (the Yalda field hospital) and was discharged at approximately 3:30, upon their request.

6.38 A witness located at the Japanese Hospital heard explosions and went to the “shooting position”, where they were exposed to the reported substance. The witness experienced difficulty breathing, vision impairment, and loss of consciousness, and awoke in the Yalda field hospital, where they spent around three days. They were then transferred to another hospital located in Beit Sahm, where they stayed 10 days.

6.39 Rescuers initially used water and other improvised means to wash the casualties or protect their airways; witnesses mentioned using “Coca-Cola and onions” in an attempt to wake the casualties up. The casualties were then undressed and transported to a nearby field hospital located in Yalda.

6.40 The Yalda field hospital is described by the witnesses as the main field hospital in the area. Although located in the basement of a building, it was considered an advanced hospital and included an emergency area.

6.41 On the evening of the attack, one witness was explained that he was at the Yalda field hospital, and stated that three patients from a faction known as Jaysh al-Ababeel had arrived at the hospital. All of them had symptoms, including shortness of breath, lacrimation, and a burning sensation in the throat; they were discharged two to three hours later.

6.42 Witnesses saw casualties at the Japanese Hospital who had been at the incident location and suffered a mild burning sensation in the eyes. The same witnesses had also been told about six fighters who were exposed to the reported substance during the incident and had been transferred to the Yalda field hospital. However, when they went to the Yalda field hospital, the casualties had already been released.

Epidemiology and toxicology

Symptoms, signs, and treatment

6.43 No medical records for the casualties were made available to the FFM during the information collection phase. The following paragraphs are based on witness recollection.

6.44 The number of individuals reportedly affected in the incident vary from five to 17, two or three of which were considered severe cases. Casualties with mild symptoms did not seek medical treatment. The number of casualties treated at the Yalda field hospital also varied from three to six, according to different witness accounts.

6.45 Casualties described the symptoms based on their various experiences. According to their descriptions, the symptoms included difficulty breathing, a sensation of constriction in the chest, shortness of breath, loss of consciousness, impaired vision, increased lacrimation, itchiness that lasted for two days following exposure, shaking limbs, dark frothy secretions from the mouth, and nausea in a few cases. While all casualties mentioned some form of respiratory distress in their accounts, only one witness mentioned dilated pupils as a symptom of exposure.

6.46 On the other hand, the symptoms observed in the affected individuals were dyspnoea, cough, eye irritation, lacrimation, and nausea. According to information gathered by the FFM, the casualties—with the exception of one—did not show signs of dilated pupils; several casualties displayed a dispersed rash on the skin, including those who suffered a mild burning sensation in the eyes, and did not seek treatment.

6.47 Reported medical treatment included oxygen, nebulised beta-2 agonists, and atropine; in one case, steroids were administered by nebulisation. The FFM does not have information about the type of treatment that each casualty received.

6.48 While all casualties were reported to have been discharged on the same or the next day after receiving the treatment, one casualty confirmed being hospitalised for three days at the Yalda field hospital before being transferred to a hospital in Beit Sahm for 10 days.

6.49 No signs of external trauma were reported.

Epidemiological and toxicological assessment

6.50 The signs and symptoms described constitute a general physiological response to a variety of factors that can be caused by a wide range of substances or diseases.

6.51 Generally, exposure to any class of chemical substances produces a predictable and known set of signs and symptoms, which is referred to as a 'toxidrome'. Some variations from one patient to another may be observed depending on the amount, the route, and the duration of exposure, in addition to an individual's premorbid condition. However, patients would generally display the characteristics of toxicity associated with a chemical substance upon exposure.

6.52 Despite the differences in the description of an odour perceived at the incident location, the witnesses indicated that the detection of the odour and the onset of physical complaints were correlated.

6.53 Although witnesses described the symptoms based on their different experiences and perspectives, the FFM noted that the majority of the casualties presented with respiratory distress and irritation of the eyes, and one casualty presented with acute respiratory distress. Nevertheless, the FFM cannot independently verify or corroborate the symptoms described, since no additional information or medical records are available.

6.54 The FFM could not link the signs and symptoms that were presented to any specific factor or class of chemicals based on the information presented in this section.

Collection of samples and chemical analyses results

Collection of samples

6.55 As mentioned in Section 5 of this report, due to the volatile safety and security situation in al-Yarmouk and its surroundings, and since the area was not under the control of the Syrian Government at the time the incident was reported, the FFM did not access areas of interest in the Camp during its first deployment in December 2017, approximately two months after the incident occurred.

6.56 After April 2018, when the SAA regained control over al-Yarmouk, a team from the Technical Committee visited the district in September 2018 and collected four environmental samples from a location reportedly linked to the incident that is the subject of this report approximately 11 months after the incident had occurred on 22 October 2017.

6.57 On 4 October 2018 during its third deployment, the FFM received from the Syrian Arab Republic four samples for further analysis by OPCW DLs. The FFM received information about the type of samples and the sampling points, in addition to the analysis report and the description of the qualitative analytical method[100] used in the chemical tests conducted by the Syrian Arab Republic (the analysis report is an attachment to the document entitled "Updated Report on Yarmouk Incident 22/10/2017"). The samples were packed and sealed by the FFM for transportation to the OPCW Laboratory, and the Syrian Authorities witnessed these operations.

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100 Qualitative analysis is used to identify the presence or absence of chemical compounds or elements in a sample. Quantitative analysis is used to determine the amount or concentration of a particular compound or element in a sample.

6.58 During the field visit to al-Yarmouk on 4 November 2019, in the presence of Syrian officials, the FFM took photographs and video recordings of areas where the Technical Committee's team collected the environmental samples in September 2018. The three samples had been collected from the ground floor of a destroyed two-storey curtain factory, and one blank sample was taken 200 meters from a point between the Japanese Hospital and the Arab Cultural Centre. During the field visit, no safe access was guaranteed to this point, therefore the FFM did not access the area and did not take photographs.

6.59 The FFM had not planned to collect samples from the reported incident location due to the extensive shelling and military activities in the Camp, as explained in Section 5. Nevertheless, upon the request of the Technical Committee accompanying the FFM team during the field visit, two additional samples were collected, packed, sealed, and added to the previous set of collected samples. The FFM documented the sampling and packing processes with photographs, video recordings, and GPS coordinates. A description of the samples collected from the reported incident site in al-Yarmouk is provided in Table 2 below.

6.60 Samples were transported back to the OPCW Laboratory in January 2020 when the security situation allowed for safe movement from Damascus.

6.61 Figure 8 shows the location where the samples were collected in September 2018 and November 2019.

FIGURE 8: SAMPLE COLLECTION LOCATION

TABLE 2: DESCRIPTION OF THE COLLECTED SAMPLE

No.	Sample code	Sample Description
Samples Collected by the Syrian Arab Republic in September 2018		
1	01SDS	A construction block with a thin yellowish green layer
2	02SDS	A yellowish green block-shaped material
3	03SDS	A rusty metal tube
4	01SDB	Blank sample of a construction substance (block) taken from a place approximately 200 metres from the location of the incident
Samples Collected by the Syrian Arab Republic on 4 November 2019 in the Presence of the FFM		
5	04SDS	A piece of fabric from a bed cover taken from the curtain factory
6	05SDS	A piece of concrete (construction block) from the curtain factory

Scope of analysis and analytical methods

6.62 On 13 September 2018, the SSRC received the four environmental samples that were collected in September 2018. Upon receipt of a request letter dated 15 September 2018 and addressed to the Director General of the SSRC, the National Authority of the Syrian Arab Republic requested that "the necessary chemical analyses" be conducted on the four samples (samples 1 to 4 listed in Table 2). A water extract from each sample was analysed using iodometry[101] to qualitatively identify the following:

(a) chlorine or an oxidising substance;

(b) chloride ions;

(c) sulfate ions; and

(d) metallic ions.

6.63 On 17 January 2020, all environmental samples listed in Table 2 arrived at the OPCW Laboratory. The unpacking, extraction, and splitting of the samples was carried out on 25 February 2020 in the presence of a member of the Permanent Representation of the Syrian Arab Republic to the OPCW. The procedure was documented, and the chain of custody of the samples was maintained.

[101] Iodometry is a titration method used to determine the presence of oxidizing agents through an indirect process involving iodine (a chemical element) as the intermediary. This titration method can be quantitative.

6.64 The scope of analysis covered the identification of scheduled chemicals under the Convention and their precursors and degradation products, in addition to riot control agents, chlorinated organic chemicals or compounds containing chemically reactive chlorine, and inorganic elemental analysis.

6.65 Advanced analytical methods were used in the analysis performed by the DLs, including chromatography techniques with mass spectrometry detection (GC-MS and LC-MS/MS[102]) to identify organic chemical compounds, and ion chromatography (IC) or inductively coupled plasma with optical emission spectroscopy detection (ICP-OES) for the elemental analysis.

Analysis results

6.66 The results of the qualitative analysis of the water extracts from the four samples analysed in SSRC indicated that:

(a) Both water extracts from samples 01SDS (a construction block with a thin yellowish green layer) and 02SDS (a yellowish green block-shaped material) contained "a high percentage of chloride, sulfate and nickel ions and do not contain traces of an oxidizing substance such as hypochlorite ions or any other substances";

(b) The water extract of a wipe sample from the corroded metallic sample 03SDS (a rusty metal tube) contained "trace amounts of chloride"; and

(c) The water extract of the blank sample 01SDB (a blank sample of a construction substance) contained "traces of sulfate ions and there was no indication of presence of chloride".

6.67 The final analysis reports of the DLs were received in August 2021. All the samples were analysed in line with the scope of analysis specified above, and the results presented the following:

(a) No scheduled chemicals under the Convention or their precursors and/or degradation products, and no riot control agents or chlorinated organic chemicals or compounds containing chemically reactive chlorine were identified in the samples;

(b) The results of the elemental analysis performed by the DLs on the samples showed high concentrations of sulfate and chloride (anions), similar to the results obtained by the SSRC in the qualitative analyses performed on the four samples;

(c) The results of the elemental analysis performed by the DLs showed high concentrations of calcium, sodium, and nickel (cations). The presence of high concentrations of anions such as sulfate and chloride on the one hand, and high concentrations of cations such as calcium, sodium, and nickel on the other hand, in the same matrix, is not indicative of exposure of this matrix to chlorine gas; and

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[102] GC-MS: gas chromatography-mass spectrometry; LC-MS/MS: liquid chromatography-tandem mass spectrometry.

(d) The DLs identified traces of amino-dinitrotoluene (ADNT)[103,104] in sample 04SDS (a piece of fabric from a bed cover) that had been collected from the area of the building of the curtain factory. The presence of ADNT alone is not indicative of the use of chemical weapons or toxic chemicals as a weapon.

6.68 Moreover, considering the time that had elapsed between the moment of the reported incident and the moment samples were collected, in addition to the evolving conflict and war activities in al-Yarmouk, the presence of amino-dinitrotoluene (ADNT) identified in the samples cannot be linked to any specific event that had occurred up until the time at which these samples were collected.

6.69 Based on the scope of analysis, and in the absence of scheduled chemicals and their precursors and/or their degradation products, the absence of riot control agents, and the absence of chlorinated organic chemicals or compounds containing chemically reactive chlorine, the overall results do not provide an indication of the use of toxic chemicals as a weapon.

6.70 Given the considerations outlined in Section 4 of this report, the analysis results demonstrate that the FFM took the appropriate approach in not planning to collect samples during the field visit, which took place approximately two years after the reported incident occurred.

7. CONCLUSIONS

7.1 This report sets out the findings of the FFM's investigation into the incident that occurred in al-Yarmouk on 22 October 2017, as reported to the OPCW by the Syrian Arab Republic on 1 November 2017. The report covers the FFM's activities between October 2017 and the date of issue of this report.

7.2 The conclusions drawn by the FFM are the result of the combination, consistency, and corroboration of evidence gathered as a whole throughout the mission; they are not based on isolated evidentiary elements.

7.3 The FFM visited and documented locations of interest in al-Yarmouk that are relevant to the reported incident, including the area where the armed groups were positioned at the time of the reported incident.

7.4 The FFM examined and analysed all the information received and gathered and established the following:

(a) According to witness accounts, a number of individuals were affected following the reported incident at the Japanese Hospital, and two or three of them were reported as severe cases. Other individuals presented with mild symptoms and did not seek medical treatment;

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103 Isomerism of amino-dinitrotoluene was not defined.

104 Amino-dinitrotoluene (ADNT) is a derivative of compounds known as nitroaromatics or nitroarenes. Nitroaromatics are used as explosive materials, pesticides, solvents, and intermediates in chemical synthesis. ADNT is a primary biotransformation product of trinitrotoluene (TNT) formed during biological degradation and reduction processes.

(b) The majority of the casualties presented with respiratory distress and irritation of the eyes;

(c) According to several witnesses, a number of casualties were treated at the Yalda field hospital;

(d) Considering the time that had elapsed between the moment of the reported incident and the moment samples were collected, in addition to the evolving conflict and war activities in al-Yarmouk, the presence of amino-dinitrotoluene (ADNT) that was identified in the samples cannot be linked to any specific event that had occurred up until the time at which these samples were collected; and

(e) Based on the scope of analysis, and in the absence of scheduled chemicals and their precursors and/or their degradation products, the absence of riot control agents, and the absence of chlorinated organic chemicals or compounds containing chemically reactive chlorine, the overall results do not provide an indication of the use of toxic chemicals as a weapon.

7.5 The FFM actively pursued further information from all available sources. Nevertheless, the FFM still faced challenges in corroborating information gathered about the reported incident:

(a) The time of day of the incident as indicated by witnesses did not correspond to the time reported in the documents provided by the Syrian Arab Republic;

(b) The documents provided by the Syrian Arab Republic contained discrepancies in the number of casualties;

(c) The number of individuals reported to be present at the site of the incident, the number of casualties, and the number of individuals seeking treatment at the field hospital in Yalda were not consistent among witness accounts;

(d) The account of events and the various descriptions provided of the “gas” present at the incident location, including its colour and its odour, were not consistent;

(e) No photographs or video recordings of munitions allegedly used during the incident were available;

(f) Witness accounts describing the munition and/or delivery system were not consistent;

(g) No medical records or supporting documentation of the cases were available for the reported casualties. Therefore, the FFM cannot verify or corroborate the medical information collected during interviews; and

(h) The signs and symptoms presented by the casualties could not be linked to a specific factor or to a class of chemicals.

7.6 Furthermore, the FFM has actively pursued the collection of further testimonies and documentation from potential witnesses present in areas of interest at the time of the reported incident. To date, these attempts have not been successful, as several potential witnesses lost their lives during the conflict, others are missing, while several others initially agreed to testify but ultimately declined to provide their account of the events to the FFM.

7.7 The information obtained and analysed as a whole, in accordance with its mandate to gather facts relevant to incidents of the alleged use of toxic chemicals as a weapon in the Syrian Arab Republic, was not sufficient to provide reasonable grounds for the FFM to determine that toxic chemicals were used as a weapon in the reported incident that occurred in al-Yarmouk, in the Syrian Arab Republic, on 22 October 2017.

Annexes (English only):

Annex 1: Reference Documentation

Annex 2: Open Sources

Annex 3: Mission Timeline

Annex 4: Information Collected by the Fact-Finding Mission

Annex 5: Documents Received from the Syrian Arab Republic

Annex 6: Map of al-Yarmouk and Areas of Interest Related to the Reported Incident

Annex 1

REFERENCE DOCUMENTATION

Document Reference	Full Title of Document
QDOC/INS/SOP/IAU01 (Issue 1, Revision 1)	Standard Operating Procedure for Evidence Collection, Documentation, Chain-of-Custody and Preservation during an Investigation of Alleged Use of Chemical Weapons
QDOC/INS/WI/IAU05 (Issue 1, Revision 2)	Work Instruction for Conducting Interviews during an Investigation of Alleged Use
QDOC/INS/SOP/IAU02 (Issue 1, Revision 0)	Standard Operating Procedure Investigation of Alleged Use (IAU) Operations
QDOC/INS/SOP/GG011 (Issue 1, Revision 0)	Standard Operating Procedure for Managing Inspection Laptops and other Confidentiality Support Materials
QDOC/LAB/SOP/OSA2 (Issue 1, Revision 2)	Standard Operating Procedure for Off-Site Analysis of Authentic Samples
QDOC/LAB/WI/CS01 (Issue 1, Revision 2)	Work Instruction for Handling of Authentic Samples from Inspection Sites and Packing Off-Site Samples at the OPCW Laboratory
QDOC/LAB/WI/OSA3 (Issue 2, Revision 1)	Work Instruction for Chain of Custody and Documentation for OPCW Samples On-Site
QDOC/LAB/WI/OSA4 (Issue 1, Revision 3)	Work Instruction for Packing of Off-Site Samples

Annex 2

OPEN SOURCES[105]

Open-source Internet Links Related to the incident in al-Yarmouk District in Damascus on 22 October 2017
1. https://twitter.com/Firasias/status/922226628143636480 2. https://twitter.com/ZamanEnglish/status/922268969217806336 3. https://twitter.com/Desert61Fox/status/922189972517646336 4. https://syria.liveuamap.com/en/2017/22-october-south-damascus-ababil-army-accuses-is-of-using 5. https://en.zamanalwsl.net/news/30593.html 6. https://twitter.com/lylarose18/status/922256821062119424 7. http://www.all4syria.info/Archive/451028

105 The links were available in November 2017.

Annex 3

MISSION TIMELINE

Date	Activities
1 Nov 2017	The Secretariat received a note verbale from the Syrian Arab Republic with information on a reported use of toxic chemicals as a weapon in al-Yarmouk Camp, Damascus, Syrian Arab Republic, on 22 Oct 2017.
After 1 Nov 2017	The FFM conducted open-source research and started identifying witnesses and collecting information and material pertaining to the reported incident.
17 Nov 2017	The Secretariat sent a note verbale informing the Syrian Arab Republic of its intention to deploy the FFM.
22 Nov 2017	The Secretariat received a note verbale from the Syrian Arab Republic proposing a date for the deployment of the FFM.
6 – 17 Dec 2017	The FFM conducted the first deployment to the Syrian Arab Republic and received initial information from the Syrian National Authorities.
Jan – Sept 2018	The FFM looked for additional potential witnesses to gather further information.
27 Sept – 4 Oct 2018	The FFM conducted the second deployment to the Syrian Arab Republic and held in-person interviews, collected information, and met with the Technical Committee.
4 Oct 2018	The FFM secured the environmental samples collected by the Technical Committee in September 2018.
Feb – Oct 2019	The FFM further pursued the identification of witnesses to gather information.
21 Oct – 06 Nov 2019	The FFM conducted its third deployment to the Syrian Arab Republic, where it received additional information, collected material and documents, and held meetings with the Technical Committee. The FFM also conducted a field visit to locations of interest in al-Yarmouk and witnessed the collection of environmental samples.
2 – 14 Dec 2019	The FFM conducted its fourth deployment to the Syrian Arab Republic. The FFM conducted in-person interviews, collected information, held meetings with Technical Committee, and had several meetings with representatives from the National Authorities of the Syrian Arab Republic.
17 Jan 2020	The OPCW Laboratory received the samples.
Feb – Dec 2020	The FFM looked for additional potential witnesses to gather further information.
17 Feb 2021	The Secretariat received the sample analysis report from a DL.
28 Feb – 13 Mar 2021	The FFM collected additional information.
Apr – Sept 2021	The FFM looked for additional potential witnesses to gather further information.
29 Jul 2021	The Secretariat received the sample analysis report from a DL.
3 – 11 Oct 2021	The FFM collected additional information.
Nov 2021 – Sep 2023	The FFM has actively pursued the collection of further testimonies and documentation from potential witnesses who were identified to be present in areas of interest at the time of the reported incident.
Nov 2021 – The date of issue of this report	The FFM collected additional information, and analysed and corroborated the gathered information

Annex 4

INFORMATION COLLECTED BY THE FACT-FINDING MISSION

The tables below summarise the list of physical evidence collected from various sources by the FFM. The list is split into electronic evidence stored in electronic media storage devices, including USB sticks and micro-SD cards and hard-copy evidence. Electronic files include audio-visual captions, still photographs, and documents. Hard-copy files consist of various documents, including drawings made by witnesses during the interview.

TABLE A4.1: ELECTRONIC DATA COLLECTED BY THE FACT-FINDING MISSION

Entry number	Assigned Code			
1	7303/080			
File names				
DSCN2856.jpg	DSCN2860.jpg	DSCN2863.jpg	DSCN2866.jpg	DSCN2869.jpg
DSCN2857.jpg	DSCN2861.jpg	DSCN2864.jpg	DSCN2867.jpg	DSCN2870.jpg
DSCN2858.jpg	DSCN2862.jpg	DSCN2865.jpg	DSCN2868.jpg	DSCN2871.jpg
DSCN2859.jpg				
Entry number	**Assigned Code**			
2	2028_20181002202803			
File names				
1.jpg	Location by interviewee.docx			
Entry number	**Assigned Code**			
3	2030_20180930203003			
File names				
Map of location by interviewee.jpg	2030_Map of location.docx			
Entry number	**Assigned Code**			
4	7477/041			
File names				
DSCN0022.jpg	DSCN0029.jpg	DSCN0036.jpg	DSCN0043.jpg	DSCN0050.jpg
DSCN0023.jpg	DSCN0030.jpg	DSCN0037.jpg	DSCN0044.jpg	DSCN0051.jpg
DSCN0024.jpg	DSCN0031.jpg	DSCN0038.jpg	DSCN0045.jpg	DSCN0052.jpg
DSCN0025.jpg	DSCN0032.jpg	DSCN0039.jpg	DSCN0046.jpg	
DSCN0026.jpg	DSCN0033.jpg	DSCN0040.jpg	DSCN0047.jpg	
DSCN0027.jpg	DSCN0034.jpg	DSCN0041.jpg	DSCN0048.jpg	
DSCN0028.jpg	DSCN0035.jpg	DSCN0042.jpg	DSCN0049.jpg	
Entry number	**Assigned Code**			
5	7477/052			
File names				
GH010026.mp4	GH010027.mp4	GH010028.mp4	GH020028.mp4	GH030028.mp4
Entry number	**Assigned Code**			
6	7477/053			
File names				
MAH00270.mp4	MAH00276.mp4	MAH00282.mp4	MAH00288.mp4	MAH00294.mp4
MAH00271.mp4	MAH00277.mp4	MAH00283.mp4	MAH00289.mp4	MAH00295.mp4
MAH00272.mp4	MAH00278.mp4	MAH00284.mp4	MAH00290.mp4	MAH00296.mp4
MAH00273.mp4	MAH00279.mp4	MAH00285.mp4	MAH00291.mp4	MAH00297.mp4
MAH00274.mp4	MAH00280.mp4	MAH00286.mp4	MAH00292.mp4	MAH00298.mp4
MAH00275.mp4	MAH00281.mp4	MAH00287.mp4	MAH00293.mp4	

Entry number	Assigned Code			
7	7477/054			
File names				
IMG_0015.jpg	IMG_0073.jpg	IMG_0130.jpg	IMG_0187.jpg	IMG_0243.jpg
IMG_0016.jpg	IMG_0074.jpg	IMG_0131.jpg	IMG_0188.jpg	IMG_0244.jpg
IMG_0017.jpg	IMG_0075.jpg	IMG_0132.jpg	IMG_0189.jpg	IMG_0245.jpg
IMG_0020.jpg	IMG_0076.jpg	IMG_0133.jpg	IMG_0190.jpg	IMG_0246.jpg
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IMG_0022.jpg	IMG_0078.jpg	IMG_0135.jpg	IMG_0192.jpg	IMG_0248.jpg
IMG_0023.jpg	IMG_0079.jpg	IMG_0136.jpg	IMG_0193.jpg	IMG_0249.jpg
IMG_0024.jpg	IMG_0080.jpg	IMG_0137.jpg	IMG_0194.jpg	IMG_0250.jpg
IMG_0025.jpg	IMG_0081.jpg	IMG_0138.jpg	IMG_0195.jpg	IMG_0251.jpg
IMG_0026.jpg	IMG_0082.jpg	IMG_0139.jpg	IMG_0196.jpg	IMG_0252.jpg
IMG_0027.jpg	IMG_0083.jpg	IMG_0140.jpg	IMG_0197.jpg	IMG_0253.jpg
IMG_0028.jpg	IMG_0084.jpg	IMG_0141.jpg	IMG_0198.jpg	IMG_0254.jpg
IMG_0029.jpg	IMG_0085.jpg	IMG_0142.jpg	IMG_0199.jpg	IMG_0255.jpg
IMG_0030.jpg	IMG_0086.jpg	IMG_0143.jpg	IMG_0200.jpg	IMG_0256.jpg
IMG_0031.jpg	IMG_0087.jpg	IMG_0144.jpg	IMG_0201.jpg	IMG_0257.jpg
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IMG_0035.jpg	IMG_0091.jpg	IMG_0148.jpg	IMG_0205.jpg	IMG_0261.jpg
IMG_0036.jpg	IMG_0092.jpg	IMG_0149.jpg	IMG_0206.jpg	IMG_0262.jpg
IMG_0037.jpg	IMG_0093.jpg	IMG_0150.jpg	IMG_0207.jpg	IMG_0263.jpg
IMG_0038.jpg	IMG_0094.jpg	IMG_0151.jpg	IMG_0208.jpg	IMG_0264.jpg
IMG_0039.jpg	IMG_0095.jpg	IMG_0152.jpg	IMG_0209.jpg	IMG_0265.jpg
IMG_0040.jpg	IMG_0096.jpg	IMG_0153.jpg	IMG_0210.jpg	IMG_0266.jpg
IMG_0041.jpg	IMG_0097.jpg	IMG_0154.jpg	IMG_0211.jpg	IMG_0267.jpg
IMG_0042.jpg	IMG_0098.jpg	IMG_0155.jpg	IMG_0212.jpg	IMG_0268.jpg
IMG_0043.jpg	IMG_0100.jpg	IMG_0157.jpg	IMG_0213.jpg	IMG_0269.jpg
IMG_0044.jpg	IMG_0101.jpg	IMG_0158.jpg	IMG_0214.jpg	IMG_0270.jpg
IMG_0045.jpg	IMG_0102.jpg	IMG_0159.jpg	IMG_0215.jpg	IMG_0271.jpg
IMG_0046.jpg	IMG_0103.jpg	IMG_0160.jpg	IMG_0216.jpg	IMG_0272.jpg
IMG_0047.jpg	IMG_0104.jpg	IMG_0161.jpg	IMG_0217.jpg	IMG_0273.jpg
IMG_0048.jpg	IMG_0105.jpg	IMG_0162.jpg	IMG_0218.jpg	IMG_0274.jpg
IMG_0049.jpg	IMG_0106.jpg	IMG_0163.jpg	IMG_0219.jpg	IMG_0275.jpg
IMG_0050.jpg	IMG_0107.jpg	IMG_0164.jpg	IMG_0220.jpg	IMG_0276.jpg
IMG_0051.jpg	IMG_0108.jpg	IMG_0165.jpg	IMG_0221.jpg	IMG_0277.jpg
IMG_0052.jpg	IMG_0109.jpg	IMG_0166.jpg	IMG_0222.jpg	IMG_0278.jpg
IMG_0053.jpg	IMG_0110.jpg	IMG_0167.jpg	IMG_0223.jpg	IMG_0279.jpg
IMG_0054.jpg	IMG_0111.jpg	IMG_0168.jpg	IMG_0224.jpg	IMG_0280.jpg
IMG_0055.jpg	IMG_0112.jpg	IMG_0169.jpg	IMG_0225.jpg	IMG_0281.jpg
IMG_0056.jpg	IMG_0113.jpg	IMG_0170.jpg	IMG_0226.jpg	IMG_0282.jpg
IMG_0057.jpg	IMG_0114.jpg	IMG_0171.jpg	IMG_0227.jpg	IMG_0283.jpg
IMG_0058.jpg	IMG_0115.jpg	IMG_0172.jpg	IMG_0228.jpg	IMG_0284.jpg
IMG_0059.jpg	IMG_0116.jpg	IMG_0173.jpg	IMG_0229.jpg	IMG_0285.jpg
IMG_0060.jpg	IMG_0117.jpg	IMG_0174.jpg	IMG_0230.jpg	IMG_0286.jpg
IMG_0061.jpg	IMG_0118.jpg	IMG_0175.jpg	IMG_0231.jpg	IMG_0287.jpg
IMG_0062.jpg	IMG_0119.jpg	IMG_0176.jpg	IMG_0232.jpg	IMG_0288.jpg
IMG_0063.jpg	IMG_0120.jpg	IMG_0177.jpg	IMG_0233.jpg	IMG_0289.jpg
IMG_0064.jpg	IMG_0121.jpg	IMG_0178.jpg	IMG_0234.jpg	IMG_0290.jpg

IMG_0065.jpg	IMG_0122.jpg	IMG_0179.jpg	IMG_0235.jpg	IMG_0291.jpg
IMG_0066.jpg	IMG_0123.jpg	IMG_0180.jpg	IMG_0236.jpg	IMG_0292.jpg
IMG_0067.jpg	IMG_0124.jpg	IMG_0181.jpg	IMG_0237.jpg	IMG_0293.jpg
IMG_0068.jpg	IMG_0125.jpg	IMG_0182.jpg	IMG_0238.jpg	IMG_0295.jpg
IMG_0069.jpg	IMG_0126.jpg	IMG_0183.jpg	IMG_0239.jpg	
IMG_0070.jpg	IMG_0127.jpg	IMG_0184.jpg	IMG_0240.jpg	
IMG_0071.jpg	IMG_0128.jpg	IMG_0185.jpg	IMG_0241.jpg	
IMG_0072.jpg	IMG_0129.jpg	IMG_0186.jpg	IMG_0242.jpg	

TABLE A4.2: HARD COPY OF DATA COLLECTED BY THE FACT-FINDING MISSION

Entry Number	Assigned Package Code	Evidence Reference Number	Description
1.	2028	20181002202803	Drawings + Printout
2.	2030	20180930203003	Drawing + Printout
3.	10116	202103051011603	Drawing
4.	10112	202103061011203	Drawing
5.	10109	202103091010903	Drawing
6.	10110	202103101011003	Drawing
7.	10113	202110071011303	Drawing

Annex 5

DOCUMENTS RECEIVED FROM THE SYRIAN ARAB REPUBLIC

1. **On 1 November 2017**, the Syrian Arab Republic informed the Secretariat through **Note Verbale No. 106** about toxic gas attacks in al-Yarmouk Camp, Damascus on 22 October 2017.

2. On **22 November 2017**, the Syrian Arab Republic sent **Note Verbale No. 124** regarding the FFM's deployment.

3. On **9 December 2017,** the Syrian Arab Republic provided a first report entitled **"Al-Yarmouk Camp Incident"** containing information about the incident, an alleged warehouse with toxic chemicals, and the coordinates of the Dispensary.

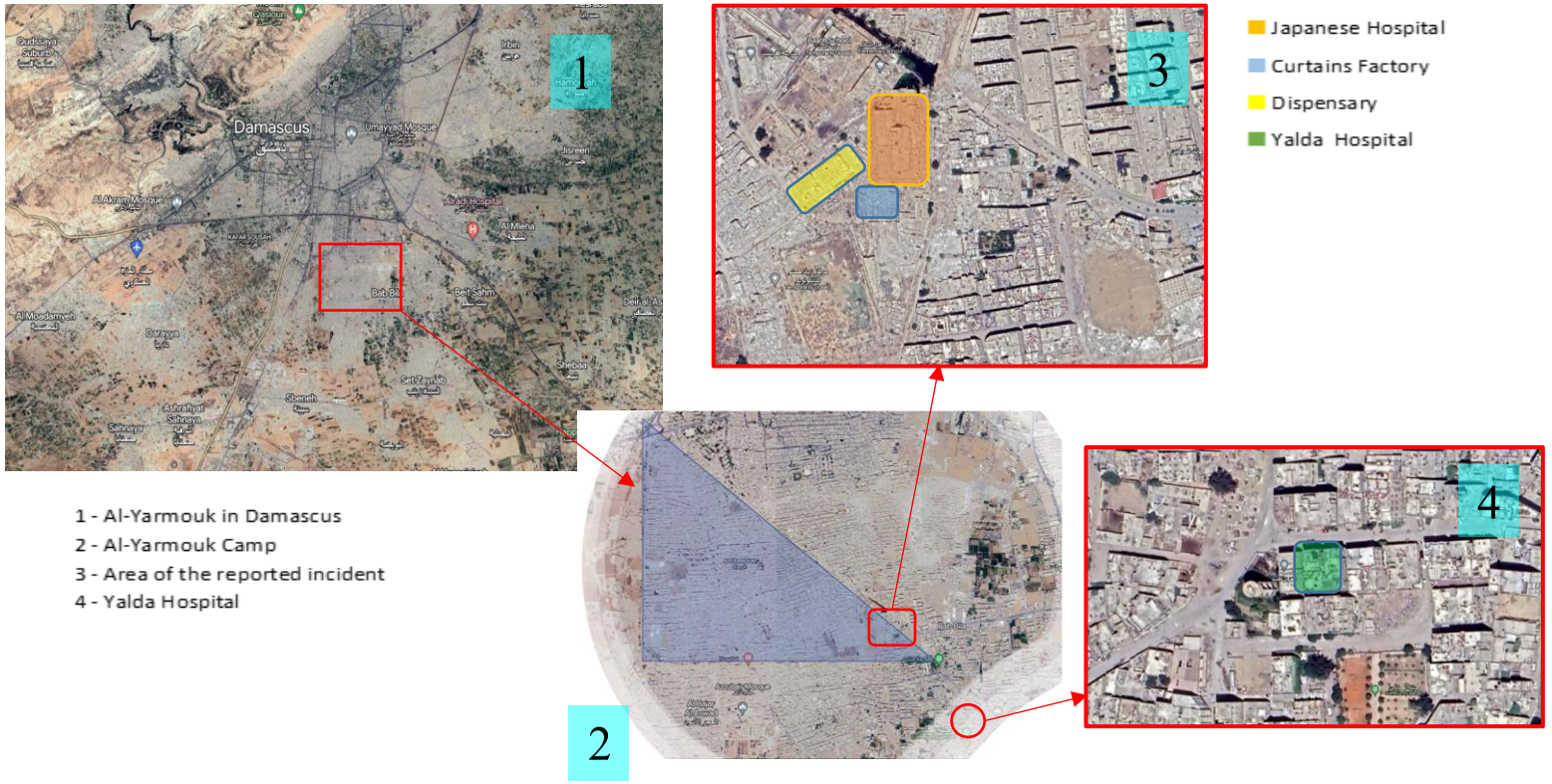
4. On **30 September 2018,** the FFM received a brief report entitled **"Al-Yarmouk Incident 22/10/2017"** from the Syrian Arab Republic with additional information, including a description of the reported incident, the coordinates of the location of the incident, photographs of the incident location, and photographs of the sample collection points. This brief report included a video clip of an interview, and the results of the chemical analysis of four samples.

5. On **2 October 2018,** the FFM received a third report entitled **"Updated Report on al-Yarmouk Incident 22/10/2017"** from the Syrian Arab Republic. This report provided additional details, including the potential filming location of the video clip, the names of several identified witnesses, the locations of sample collection points, and a description of the analytical method used in the sample analysis.

6. The Secretariat received **Note Verbale No. 38** (dated **21 May 2020**) from the Syrian Arab Republic with additional information about the incident.

Annex 6

MAP OF AL-YARMOUK AND AREAS OF INTEREST RELATED TO THE REPORTED INCIDENT



1 - Al-Yarmouk in Damascus
2 - Al-Yarmouk Camp
3 - Area of the reported incident
4 - Yalda Hospital

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