



Arbitration CAS 2022/ADD/46 United World Wrestling (UWW) v. Nathan Dyamin Jackson, award of 29 November 2022 (operative part of 13 May 2022)

Panel: Mrs Susan Ahern (Ireland), Sole Arbitrator

Wrestling

Doping (boldenone)

Burden and standard of proof

Source of the prohibited substance and intentional doping

- 1. The anti-doping organization has the burden of establishing that an Anti-Doping Rule Violation (ADRV) has occurred. The standard of proof shall be to the comfortable satisfaction of the hearing panel, bearing in mind the seriousness of the allegation which is made. Facts relating to an ADRV may be established by any reliable means including any reliable analytical data from either an A or B Sample establishing the presence of a prohibited substance. Where an ADRV has been established the burden of proof then shifts to the athlete to prove either that the ADRV should not be considered as such, that it was unintentional or that the applicable period of ineligibility can be reduced or eliminated. In that case, the standard of proof shall be by a balance of probabilities. If the athlete is to eliminate the otherwise applicable period of ineligibility he must meet the threshold test required under the No Fault or Negligence standard i.e. demonstrate that his ADRV was not intentional and the source of the prohibited substance in the sample.**
- 2. Under the WADA Code, although the requirement of the proof of the source of the prohibited substance is not mandatory, it remains a crucial factor in deciding whether the athlete has succeeded in discharging his burden of proof that the violation was not intentional and that consequently he bore No Fault or Negligence. Yet in some cases the proof of the source of the prohibited substance cannot be established. Thus, in a case of meat contamination due to the consumption of the subject meat, the athlete has to demonstrate on the basis of the objective circumstances of the ADRV and his behaviour, that circumstances existed which counteract to a sufficient degree, the likelihood of intentional doping. He must also offer persuasive evidence that the explanation he proffers is more likely than not to be correct, by providing specific, objective and persuasive evidence in support of his submission such as (i) scientific evidence and expertise to determine that it is more likely than not that boldenone is used as a growth promotor in livestock in the relevant country and that the concentration levels of boldenone in his sample are consistent with contamination of meat consumed in the relevant country, and (ii) other evidential factors which contribute to the general circumstances of the case such as the fact that the prohibited substances found in the athlete's sample was detected among 10% of the total number of athletes tested and, the delayed notification of his positive test which was not**

satisfactorily explained and may well have caused potentially relevant evidence regarding the source of the prohibited substance to become unavailable to the athlete. Fairness suggests that the delay should be construed in favour of the athlete.

I. PARTIES

1. United World Wrestling (“UWW”) is the international governing body for the sport of wrestling.
2. Nathan Dyamin Jackson (the “Athlete”) is an American wrestler, a two-time All-American and held a UWW license in 2021.

Together the “Parties”.

II. FACTUAL BACKGROUND

3. UWW is a Signatory to the World Anti-Doping Code (“WADC”) and has enacted the United World Wrestling’s Anti-Doping Rules (“UWW ADR”). While UWW has delegated the implementation of the UWW anti-doping programme to the International Testing Agency (“ITA”), such delegation includes, *inter alia*, the Results Management and subsequent prosecution of Adverse Analytical Findings (“AAFs”) arising out of anti-doping samples collected from wrestling athletes under the jurisdiction of the UWW. Notwithstanding such delegation UWW remains responsible for WADC compliance in connection with all aspects of the UWW ADR.
4. Pursuant to Article 8.1.2.1 of the UWW ADR, the ITA, on behalf of UWW, filed a Request to the Anti-Doping Division of the Court of Arbitration for Sport (the “CAS ADD”) to rule on the Athlete’s Adverse Analytical Finding (“AAF”).
5. The Athlete is considered to be an International Athlete-Level Athlete within the meaning of the UWW ADR.
6. Notwithstanding that the ITA is acting on its behalf, UWW is, in accordance with the UWW ADR, considered to be the party asserting any ADRV and for the purpose of any actions taken within the ADR Results Management process, including proceedings in front of the hearing body or in any other matter.
7. This matter arises from analysis conducted on the urine sample No.4501069 collected from the Athlete during an In-Competition Doping Control test on 29 May 2021 at the Senior Pan American Championships (the “Sample”). The analysis of the Sample resulted in an AAF for boldenone and metabolite.

8. Boldenone is an anabolic androgenic steroid. It is prohibited at all times according to S1.1 of the 2021 WADA International Standard Prohibited List (the “WADA List”). It is also classified as a non-Specified Substance.
9. The factual background was agreed between the Parties. Below is a summary of the relevant facts and allegations based on the Parties’ written submissions, pleadings and evidence adduced at the hearing on 13 May 2022 (the “Hearing”). Additional facts and allegations found in the Parties’ written submissions, pleadings and evidence may be set out, where relevant, in connection with the legal discussion that follows. While the Sole Arbitrator has considered all the facts, allegations, legal arguments, and evidence submitted by the parties in the present proceedings, she refers in her Award only to the submissions and evidence she considers necessary to explain her reasoning.
10. The Athlete competed for Indiana University and was the winner of the 2021 Senior Pan American Championships (the “Competition”), which took place between 27-30 May 2021 in Guatemala City, Guatemala, where he competed in the freestyle-senior 92kg weight class discipline.
11. The Athlete arrived in Guatemala City, Guatemala, on 25 May 2021. Prior to his arrival in Guatemala City, the Athlete was in Belle Mead, New Jersey, USA. The Athlete stayed at the Hotel Conquistador, with the rest of the U.S.A. wrestling team where he said he ate most of his meals in the days leading up to the Sample collection.
12. On 29 May 2021, the Athlete competed in the qualification rounds and finals of the freestyle discipline in the 92kg weight class, in which he won the gold medal. Following this Competition, the Athlete provided the Sample. The mission was carried out under the Testing Authority and Results Management Authority of UWW.
13. The Athlete declared on his Doping Control Form (“DCF”) that he had (i) not used any medications or supplements in the seven days prior to his Doping Control and (ii) that the Sample collection was undertaken in accordance with the relevant World Anti-Doping Agency (“WADA”) International Standards.
14. On 29 June 2021, the WADA-accredited laboratory in Montreal, Canada (Laboratoire de contrôle du dopage INRS - Centre Armand Frappier Santé Biotechnologie), where the Sample was analysed, reported that the Athlete’s A Sample had returned an AAF for boldenone and metabolite (estimated at 4ng/mL and 1ng/mL, respectively):
 - Result A Sample: *“TRMS results consistent with the exogenous origin of boldenone (-29.5‰) v. pregnanediol (-17.4‰) and 16-enol (-17.6‰). Boldenone and metabolite (respective roughly estimated levels 4 ng/mL and 1 ng/mL). Results reported on certificate of analysis no 21L03041HA”.*
 - Specific gravity (SG) of the urine sample: 1.029.

15. In accordance with the WADA Technical Document - Detection of Synthetic Forms of Endogenous Anabolic Androgenic Steroids by GC/C/IRMS (“TD2021IRMS”), Samples with a concentration of boldenone and metabolites between 2.5ng/mL and 30 ng/mL must undergo GC/C/IRMS analysis to determine whether the source of the substance is exogenous or endogenous. In the Athlete’s case, the concentration of boldenone and metabolite in his A Sample was roughly estimated at 4 ng/ml. The Laboratory performed a GC/C/IRMS analysis, which confirmed the exogenous origin of the Prohibited Substance, boldenone.
16. The Athlete had not provided any other anti-doping samples prior to 29 May 2021.
17. On 2 December 2021, the ITA, on behalf of the UWW, notified the Athlete of his AAF (the “AAF Notification”). The Athlete was informed that, due to the classification of boldenone as a non-Specified Substance, a Provisional Suspension was imposed against him with immediate effect.
18. On 9 December 2021, the Athlete sought the analysis of his B Sample. On the same date, the ITA obtained the menu from the Hotel Conquistador (the “Hotel”), which indicated the food that was served on the days that the Athlete was staying there with his team.
19. On 16 December 2021, the Athlete indicated to the ITA his position that the AAF should have been reported as an Atypical Finding (“ATF”) and not as an AAF. In support of this position, the Athlete cited Appendix B of WADA’s Guidelines for the International Standard for Results Management (December 2020) at Annex B – Investigation of Atypical Findings - indicates as follows:

“6. Boldenone

*In addition to the possible reporting of an ATF for boldenone or boldenone Metabolite(s) when the results of the GC-C-IRMS analysis are inconclusive, a **Laboratory may report an ATF when the concentrations are estimated below 5ng/mL** (after adjustment for urine specific gravity, if needed). Target Testing of the Athlete by the competent ADO is advised” [Emphasis added].*

20. The Athlete submitted to ITA that:
 - His Sample was reported below 5ng/mL, and when adjusted for specific gravity (1.029, in his case), the estimated concentration of boldenone detected would be even lower.
 - It is well known that boldenone is widely used in Guatemalan livestock, including poultry, and that he was aware that at least one other anti-doping sample was reported as an ATF at the Competition, which meant that the risk of boldenone meat contamination for athletes competing at the Competition had already been recognized.
 - His AAF should be treated as an ATF and that he should be provided with the same opportunity as the other Athletes who competed at the Competition and returned an ATF for boldenone (and/or clenbuterol) to provide an explanation.

- The opening and analysis of his B Sample should be delayed until after the ITA had the opportunity to review his explanations.
21. On 17 December 2021, the ITA replied to the Athlete and confirmed that the opening and analysis of his B Sample would be postponed until after the ITA had an opportunity to assess his explanations.
22. By letter dated 4 January 2022, the Athlete provided an explanation regarding the boldenone and its metabolites detected in his Sample. He stated that:
- He never intentionally ingested boldenone, nor had he taken any product that could contain boldenone. Prior to his arrival in Guatemala, he was living in New Jersey and his diet was omnivorous and high in protein.
 - His diet during his time in Guatemala is most relevant particularly the days leading up to his Sample collection. In that period:
 - o he primarily consumed different meats paired with mashed potatoes and rice for lunch and dinner, and a lot of fruits with each meal, but he does not recall eating any fish;
 - o he ate all but three of his meals at the Hotel Conquistador; and
 - o the three meals he ate outside of the Hotel Conquistador were: (i) a chicken quesadilla that at a restaurant in Antigua, Guatemala, on 26 May 2021; and (ii) a hamburger (*Hamburguesa Hyatt Centric Guatemala*) on 28 May 2021 at the Zamat restaurant. The entire US men's freestyle team attended this restaurant, but the Athlete was the only athlete who ordered a hamburger; and (iii) the third meal, a steak, was consumed after he provided his urine Sample on 29 May 2021.
 - The only reasonable explanation for his positive test was that it was caused by his ingestion of boldenone-contaminated meat in Guatemala in the days leading up to his positive test. The Athlete noted in particular;
 - o the known risk of contaminated meat in Guatemala (including in cattle and chicken production);
 - o the very low concentration level of boldenone in his Sample was consistent with the consumption of contaminated meat close in time to the Sample collection;
 - o the fact that other athletes competing in the same Competition apparently also tested positive for boldenone which is consistent with the meat contamination scenario; and

- other boldenone positive tests in Latin America were determined to have been caused by meat contamination (i.e. International Tennis Federation v Robert Farah (10.02.20) – in Colombia; FISA v Arriaga Gomez (22.06.2015) – in Mexico).
23. On 31 January 2022, the ITA explained to the Athlete’s counsel that, while the concentration of boldenone and its metabolite detected in the Athlete’s Sample could be compatible with the ingestion of contaminated meat, it needed strong evidence of meat contaminated with boldenone in Guatemala. The Athlete was given time to assemble additional evidence.
24. On 29 March 2022, the Athlete provided additional explanations to the ITA, in which he explained the efforts that had been made to determine the sources of the meat that he had eaten on 25 and 28 May 2021. Despite attempts by the Athlete to contact the Ta’Cool Mexican Fusion restaurant in Antigua, where he ate a chicken quesadilla on 25 May 2021, no information could be obtained from the restaurant. Further, based on the information provided by the Hyatt hotel, where the Zamat Restaurant is located, the source of the meat used in the hamburger that the Athlete consumed on 28 May 2022 at the Zamat restaurant could not be identified.
25. On 13 April 2022, the ITA responded to the Athlete and provided its assessment of the case file. The ITA’s position was that the Athlete had not satisfied his burden of establishing the source of the boldenone detected in his Sample and consequently, the applicable period of Ineligibility under the UWW ADR was four (4) years.
26. The Athlete requested the analysis of his B Sample. He also sought information in relation to other athlete samples at the Competition where boldenone was detected to assist him in satisfying his burden of proof regarding the source of the boldenone detected in his Sample, and that the information was exclusively in the control of the ITA.
- “ITA identify (i) the number of athlete samples collected at the Competition in which boldenone and/or boldenone metabolites were detected at any level; (ii) the approximate concentration levels of boldenone and/or boldenone metabolites found in each such sample; and (iii) the disposition of each such sample (i.e., was the athlete charged with an anti-doping rule violation or not)”.*
27. On 14 April 2022, the ITA responded as follows to the Athlete’s disclosure request:
- a. *in addition to Mr Jackson’s sample, two other samples collected from wrestlers during the 2021 Pan-American Championship contained boldenone or boldenone metabolite.*
 - b. *These two other samples were reported by the WADA-accredited laboratory in Montreal as Atypical Findings (“ATF”) in accordance with the with the WADA Technical Document “Detection of Synthetic Forms of Endogenous Anabolic Androgenic Steroids by GC/C/IRMS” TD2019IRMS, in force at the time.*

- c. *The estimated concentrations reported in the two samples were roughly 0.3 ng/mL of boldenone metabolite.*
- d. *In accordance with the TD2019IRMS, the presence of boldenone or its main metabolite at a concentration below 5 ng/mL shall be reported as an ATF unless the results of the GC/C/IRMS analysis conclusively establish the exogenous origin of the banned substance.*
- e. *The WADA-accredited laboratory in Montreal has confirmed that the level of boldenone metabolite in the two other samples is too low to perform IRMS analysis.*
- f. *After conducting the appropriate investigation as per the UWW ADR and the International Standard for Results Management, the ITA decided not to bring these ATFs forward as apparent Anti-Doping Rule Violations since it could not be scientifically confirmed that the Prohibited Substance detected in the Athletes' samples was from an **exogenous** source.*

It is reiterated that Mr. Jackson's result is an Adverse Analytical Finding for boldenone (4 ng/ml of boldenone and 1 ng/ml of boldenone metabolite) and the analysis confirmed the exogeneous origin of the Prohibited Substance. This is the key distinction between Mr. Jackson's case and the two ATFs".

28. On 24 April 2022, the WADA-accredited laboratory in Montreal, Canada, conducted the B Sample analysis and reported that the Athlete's B Sample which confirmed the presence of exogeneous boldenone and its metabolite in the A Sample:
 - Result B Sample: "TRMS results consistent with the exogenous origin of boldenone (-28.9‰) v. pregnanediol (-17.5‰) and 16-enol (-17.8‰). Insufficient volume to estimate levels. Results reported on certificate of analysis no 21L03041LA".
 - Specific gravity of the urine sample: 1.028. Analyzed using Laboratory test method(s): CP: C441-boldenone.
29. On 25 April 2022, the Athlete was notified of the results of his B Sample analysis and the ITA asserted an ADRV against the Athlete pursuant to Articles 2.1 and/or Article 2.2. of the UWW ADR for the presence of boldenone and metabolites in his Sample and to impose the ensuing Consequences.
30. On 26 April 2022, the Athlete indicated to the ITA that he contested the ADRV charge and the sanction being sought and requested an expedited hearing before the CAS ADD pursuant to Article 8.1.2.2 of the UWW ADR so that a decision could be rendered before 13 May 2022, which is the date of the weigh-in for the USA Wrestling Last Chance World Team Trials Qualifier. The Athlete also requested that the case be heard and decided by a sole arbitrator, maintaining his right of appeal.
31. The matter proceeded to arbitration before the CAS ADD on an expedited basis.

III. PROCEEDINGS BEFORE THE COURT OF ARBITRATION FOR SPORT

32. The matter was treated as an expedited case with the expedited procedure and Operative Decision to be rendered by 13 May 2022.
33. On 27 April 2022, the Parties jointly nominated Susan Ahern as sole arbitrator.
34. On 3 May 2022, the President of the CAS ADD confirmed the appointment of Susan Ahern, Barrister, Ireland, as the Sole Arbitrator in these proceedings.
35. In accordance with Article A19.5 of the ADD Rules it was agreed that the Operative Decision would be rendered no later than 13 May 2022.
36. On 6 May 2022, the Athlete's Answer was provided. The CAS Court Office circulated details of the Hearing access to the Parties together with a Hearing Schedule proposed by the Sole Arbitrator.
37. On 9 May 2022, further documents were filed by UWW.
38. On that same day, 9 May 2022, a video hearing was held. The Sole Arbitrator was assisted by Mr Fabien Cagneux, Managing Counsel of the CAS ADD, and joined by the following:

For the Claimant:

- Adam Klevinas, Counsel for the ITA
- Christina Pers, Counsel for the ITA
- Professor Martial Saugy (Expert)

For the Athlete:

- Howard Jacobs, Attorney
 - Lindsay Brandon, Attorney
 - Nathan Dyamin Jackson (Athlete)
 - Dr. Anneleen Decloedt (Expert)
 - Reece Humphrey (Witness)
39. At the conclusion of the Hearing it became clear that some clarity was required on the nationalities who returned ATFs for boldenone during the Championships, the Claimant was asked to provide the relevant clarification.

40. On 10 May 2022, the Claimant responded and confirmed that two USA athletes had reported ATFs for boldenone, providing supporting evidence. The Claimant also indicated that he was awaiting procedural instructions from the Sole Arbitrator in respect of submissions on the documentation it provided. The Sole Arbitrator invited each of the Parties to clarify their submissions on this discrete aspect of the case, to be provided in writing by 11 May 2022, which occurred.
41. On 12 May 2022, the Operative Decision was issued by the Sole Arbitrator.

IV. SUBMISSIONS OF THE PARTIES

A. The Claimant

42. The Claimant's position can be summarised as follows:
- The Prohibited Substance boldenone was found in the Athlete's A Sample and confirmed in his B Sample as an ADRV for presence contrary to Article 2.1 UWW ADR;
 - The Sample analysis was properly treated as an AAF and not an ATF by the Laboratory. WADA-accredited laboratories are presumed to have analysed the Samples in accordance with the International Standard for Laboratories (ISL) (Article 3.2.2 UWW ADR). This presumption has not been rebutted by the Athlete with evidence that a departure from the ISL occurred to have reasonably caused the AAF;
 - The reporting of the Sample as an AAF and not an ATF is correct as the Laboratory followed TD2021IRMS (in force at the time of Sample analysis) and the threshold limit was reached (>2.5 ng/mL);
 - The International Standard for Results Management Guidelines are not mandatory save where they incorporate provisions of the WADC, the ISRM and other International Standards;
 - The GC/C/IRMS analysis on the Sample conclusively confirmed the boldenone in the Sample was exogenous in origin;
 - The Athlete is strictly liable for the substances found in his Sample. There is no obligation on UWW to show intention, Fault, negligence or knowing Use on the part of the Athlete in order to establish and ADRV for presence under Article 2.1 UWW ADR.
 - The UWW has discharged its burden of proof to establish the ARV for the presence of the Prohibited Substance boldenone in the Athlete's Sample. The Athlete now bears the burden of proving on the balance of probabilities either that the ADRV should not be considered as such, or that the ADRV was unintentional or that the applicable

period of Ineligibility can be reduced, suspended or eliminated on the grounds provided for in the UWW ADR.

43. The Claimant's position in relation to Consequences is as follows:

- Pursuant to Article 10.2 UWW ADR the applicable period of Ineligibility for a violation of Article 2.1 and/or Article 2.2, for a non-Specified Substance (including boldenone) is 4 years, unless the Athlete can establish that his ADRV was unintentional. The notion of "intentional" is defined in Article 10.2.3 of the UWW ADR.
- Should the Athlete be successful in establishing that his ADRV was unintentional, the period of ineligibility may be reduced to two (2) years. The Athlete may then attempt to reduce or eliminate the applicable period of Ineligibility on the basis of the grounds provided in Article 10.5 (No Fault or Negligence), Article 10.6 (No Significant Fault or Negligence) and/or 10.7 (Substantial Assistance) of the UWW ADR.

B. The Athlete

44. The Athlete's position can be summarised as follows:

- He accepts the finding of the Prohibited Substance boldenone in his Sample. However, he did not intentionally ingest the boldenone;
- The ADRV should have been reported as an ATF not and ADRV;
- The approach to the analysis of the discharge of this burden of proof is not to furnish proof of source but to establish such proof on the balance of probabilities (51%);
- His ability to establish (a) a lack of intent to commit the ADRV and (b) the propriety of a further reduction in sanction based upon No Significant Fault or Negligence are not contingent upon providing direct evidence of source given *inter alia* the factual difficulty or impossibility for him to do so (CAS 2011/A/2384 & 2386; CAS 2019/A/6443 & 6593);
- He will demonstrate that the source of his positive test was the result of contaminated meat consumed prior to his Sample Collection in Guatemala. The logical explanation for the source of the Prohibited Substance "*in light of human experience and common sense*" is meat contamination and is supported by the scientific expert evidence.
- The delay in the notification of the ADRV meant that the evidence gathering was more difficult and this tardiness was inexplicable (CAS 2019/A/6313).
- He submitted that the factual circumstances mitigate against this being a case of intentional doping – including his credibility and that of his coach;

- Based upon Prof. Saugy's view that the AAF could have been caused by a single dose of boldenone a few days before the Sample collection (38-62 hours before Sample collection as the concentration level was consistent with a tail end excretion of an injected dose), it would mean that, in order to have a result of 2.7 ng/mL (when allowing for SG), the Athlete either had to travel to Guatemala with boldenone or procure it when there or it was caused by contamination. The intentional use proposition is not plausible;
- He will demonstrate that boldenone is used in livestock production in Guatemala – scientifically and it is relevant that two other athletes tested positive for boldenone at the Championships (but were treated as ATFs).

C. The Applicable Rules

45. The following provisions from the UWW ADR will be referenced in this Award:

“2.1 Presence of a Prohibited Substance or its Metabolites or Markers in an Athlete’s Sample

2.1.1 It is the Athletes’ personal duty to ensure that no Prohibited Substance enters their bodies. Athletes are responsible for any Prohibited Substance or its Metabolites or Markers found to be present in their Samples. Accordingly, it is not necessary that intent, Fault, Negligence or knowing Use on the Athlete’s part be demonstrated in order to establish an anti-doping rule violation under Article 2.1. 2

2.1.2 Sufficient proof of an anti-doping rule violation under Article 2.1 is established by any of the following: presence of a Prohibited Substance or its Metabolites or Markers in the Athlete’s A Sample where the Athlete waives analysis of the B Sample and the B Sample is not analyzed; or, where the Athlete’s B Sample is analyzed and the analysis of the Athlete’s B Sample confirms the presence of the Prohibited Substance or its Metabolites or Markers found in the Athlete’s A Sample; ...”.

(...)

ARTICLE 9 AUTOMATIC DISQUALIFICATION OF INDIVIDUAL RESULTS

An anti-doping rule violation in Individual Sports in connection with an In-Competition test automatically leads to Disqualification of the result obtained in that Competition with all resulting Consequences, including forfeiture of any medals, points and prizes.

(...)

10.1 Disqualification of Results in the Event during which an Anti-Doping Rule Violation Occurs

10.1.1 An anti-doping rule violation occurring during or in connection with an Event may, upon the decision of the ruling body of the Event, lead to Disqualification of all of the Athlete's individual results obtained

in that Event with all Consequences, including forfeiture of all medals, points and prizes, except as provided in Article 10.1.2.

Factors to be included in considering whether to Disqualify other results in an Event might include, for example, the seriousness of the Athlete's anti-doping rule violation and whether the Athlete tested negative in the other Competitions.

10.1.2 *If the Athlete establishes that he or she bears No Fault or Negligence for the violation, the Athlete's individual results in the other Competitions shall not be Disqualified, unless the Athlete's results in Competitions other than the Competition in which the anti-doping rule violation occurred were likely to have been affected by the Athlete's anti-doping rule violation.*

10.2 Ineligibility for Presence, Use or Attempted Use, or Possession of a Prohibited Substance or Prohibited Method

The period of Ineligibility for a violation of Article 2.1, 2.2 or 2.6 shall be as follows, subject to potential elimination, reduction or suspension pursuant to Article 10.5, 10.6 or 10.7:

10.2.1 *The period of Ineligibility, subject to Article 10.2.4, shall be four (4) years where:*

10.2.1.1 *The anti-doping rule violation does not involve a Specified Substance or a Specified Method, unless the Athlete or other Person can establish that the anti-doping rule violation was not intentional.*

10.2.3 *As used in Article 10.2, the term "intentional" is meant to identify those Athletes or other Persons who engage in conduct which they knew constituted an anti-doping rule violation or knew that there was a significant risk that the conduct might constitute or result in an anti-doping rule violation and manifestly disregarded that risk...*

[Comment to Article 10.2.1.1: While it is theoretically possible for an Athlete or other Person to establish that the anti-doping rule violation was not intentional without showing how the Prohibited Substance entered one's system, it is highly unlikely that in a doping case under Article 2.1 an Athlete will be successful in proving that the Athlete acted unintentionally without establishing the source of the Prohibited Substance].

(...)

10.5 Elimination of the Period of Ineligibility where there is No Fault or Negligence

If an Athlete or other Person establishes in an individual case that he or she bears No Fault or Negligence, then the otherwise applicable period of Ineligibility shall be eliminated.

[Comment to Article 10.5: This Article and Article 10.6.2 apply only to the imposition of sanctions; they are not applicable to the determination of whether an anti-doping rule violation has occurred. They will only apply in exceptional

circumstances, for example, where an Athlete could prove that, despite all due care, he or she was sabotaged by a competitor ...].

10.6 Reduction of the Period of Ineligibility based on No Significant Fault or Negligence

10.6.1 Reduction of Sanctions in Particular Circumstances for Violations of Article 2.1, 2.2 or 2.6.

All reductions under Article 10.6.1 are mutually exclusive and not cumulative...

10.6.1.2 Contaminated Products¹

In cases where the Athlete or other Person can establish both No Significant Fault or Negligence and that the detected Prohibited Substance (other than a Substance of Abuse) came from a Contaminated Product, then the period of Ineligibility shall be, at a minimum, a reprimand and no period of Ineligibility, and at a maximum, two (2) years Ineligibility, depending on the Athlete or other Person's degree of Fault.

[Comment to Article 10.6.1.2: In order to receive the benefit of this Article, the Athlete or other Person must establish not only that the detected Prohibited Substance came from a Contaminated Product, but must also separately establish No Significant Fault or Negligence. It should be further noted that Athletes are on notice that they take nutritional supplements at their own risk. The sanction reduction based on No Significant Fault or Negligence has rarely been applied in Contaminated Product cases unless the Athlete has exercised a high level of caution before taking the Contaminated Product. In assessing whether the Athlete can establish the source of the Prohibited Substance, it would, for example, be significant for purposes of establishing whether the Athlete actually Used the Contaminated Product, whether the Athlete had declared the product which was subsequently determined to be contaminated on the Doping Control form ...].

(...)

10.10 Disqualification of Results in Competitions Subsequent to Sample Collection or Commission of an Anti-Doping Rule Violation

In addition to the automatic Disqualification of the results in the Competition which produced the positive Sample under Article 9, all other competitive results of the Athlete obtained from the date a positive Sample was collected (whether In-Competition or Out-of-Competition), or other anti-doping rule violation occurred, through the commencement of any Provisional Suspension or Ineligibility period, shall, unless fairness requires otherwise, be Disqualified with all of the resulting Consequences including forfeiture of any medals, points and prizes.

¹ "A product that contains a Prohibited Substance that is not disclosed on the product label or in information available in a reasonable Internet search".

V. JURISDICTION

46. The UWW ADR sets out in its Introduction the scope of the application of the ADR and in particular provides (*inter alia*) that the ADR apply to all Athletes (i) who are members of UWW or of any National Federation, (ii) who participate in such capacity in events, competitions and other activities organised, convened, authorised or recognised by UWW or any National Federation and/or (iii) who are accredited or hold a license making them subject to the authority of UWW or of any National Federation. The Athlete held UWW license number 62816 at the time of the ADRV and is therefore bound by the UWW ADR.
47. Article 8.1.2.1 UWW ADR provides for the jurisdiction of the CAS ADD in the following terms:
- “When the UWW sends a notice to an Athlete or other Person notifying them of a potential anti-doping rule violation, and the Athlete or other Person does not waive a hearing in accordance with Article 8.3.1. or Article 8.3.2, then the case shall be referred to CAS ADD for hearing and adjudication, which shall be conducted in accordance with its procedural rules and the principles described in Articles 8 and 9 of the International Standard for Results Management”.*
48. Article A2 of the CAS ADD Rules provide that in relation to jurisdiction:
- “CAS ADD shall be the first instance authority to conduct proceedings and issue decisions when an alleged anti-doping rule violation has been filed with it and for imposition of any sanctions resulting from a finding that an anti-doping rule violation has occurred. CAS ADD has jurisdiction to rule as a first-instance authority on behalf of any WADC signatory which has formally delegated its powers to CAS ADD to conduct anti-doping proceedings and impose applicable sanctions”.*
49. Article 8.1.2.2. of the UWW ADR provides for the possibility of an expedited process where permitted by the CAS ADD. Article A19.5 of the CAS ADD Rules provide that expedited proceedings are permitted with the consent of the Parties, the President of the CAS ADD or the Panel if already constituted.
50. The UWW ADR and CAS ADD Rules provide that the CAS ADD has jurisdiction to rule as a first instance authority where it has been so delegated by the relevant sports entity. The CAS ADD has been appointed pursuant to the UWW ADR and its authority to determine the matter is not contested. The Sole Arbitrator therefore determines that the CAS ADD has the relevant jurisdiction to consider the current matter. It may also act on an expedited basis as was the case in the instant proceedings.

VI. APPLICABLE LAW

51. Article A20 of the ADD Rules provides as follows:

“The Panel shall decide the dispute in accordance with the WADC and with the applicable ADR or with the laws of a particular jurisdiction chosen by agreement of the parties or, in the absence of such a choice, according to Swiss law”.

52. The UWW ADR applies to all athletes who are members of the UWW. It provides in Article 24 that:

“24.2 These Anti-Doping Rules shall be interpreted as an independent and autonomous text and not by reference to existing law or statutes.

24.3 These Anti-Doping Rules have been adopted pursuant to the applicable provisions of the Code and the International Standards and shall be interpreted in a manner that is consistent with applicable provisions of the Code and the International Standards. The Code and the International Standards shall be considered integral parts of these Anti-Doping Rules and shall prevail in case of conflict”.

53. No party to the proceedings objected to the application of the UWW ADR. The Sole Arbitrator, therefore, confirms that the UWW ADR, in conjunction with the WADA Code and International Standards (as provided for in the UWW ADR), apply to these proceedings.

VII. MERITS

54. The submissions of the Parties were considered in their totality by the Sole Arbitrator. This Award, however, sets out only those matters which are necessary to the determination of whether or not an ADRV has been committed by the Athlete.

A. Burden and Standard of Proof

(a) The Legal Basis

55. The Athlete is charged with an ADRV for the presence of boldenone (a non-Specified Substance) and metabolite in his system, based on Article 2.1 of the 2021 UWW ADR which provides that the Athlete is personally responsible for what enters his body. It is sufficient proof of an ADRV if the presence of boldenone is found in his A Sample and it is confirmed by his B Sample.
56. Article 10.2.1 of the UWW ADR provides that the period for Ineligibility for an Article 2.1 ADRV for a first offence shall be four (4) years where the ADRV involves a Prohibited Substance (such as boldenone). A presumption also arises under UWW ADR Article 10.2.1.1 that the ADRV was intentionally used to enhance sports performance unless the Player establishes the ADRV was not intentional.
57. Article 3.1 of the UWW ADR sets out the burdens and standards of proof:

“UWW shall have the burden of establishing that an anti-doping rule violation has occurred. The standard of proof shall be whether UWW has established an anti-doping rule violation to the comfortable satisfaction of the hearing panel bearing in mind the seriousness of the allegation which is made. This standard of proof in all cases is greater than a mere balance of probability but less than proof beyond a reasonable doubt. Where these Anti-Doping Rules place the burden of proof upon the Athlete or other Person alleged to have committed an anti-doping rule violation to rebut a presumption or establish specified facts or circumstances, except as provided in Articles 3.2.2 and 3.2.3, the standard of proof shall be by a balance of probability” (Emphasis added).

58. The Claimant has the burden of establishing that an ADRV has occurred, in this case the presence of boldenone. The standard of proof upon the Claimant shall be to the comfortable satisfaction of the hearing panel, bearing in mind the seriousness of the allegation which is made. The test of comfortable satisfaction has been regularly applied by CAS (see CAS 2009/A/1912) and *“must take into account the circumstances of the case”* (CAS 2013/A/3258).
59. Where an ADRV has been established by the Claimant the burden of proof then shifts to the Athlete to prove either that the ADRV should not be considered as such, that it was unintentional or that the applicable period of Ineligibility can be reduced or eliminated (within the context of Article 10 UWW ADR).
60. Where the UWW ADR places the burden of proof upon the Athlete to rebut a presumption or to establish specified facts or circumstances, the standard of proof shall be by a balance of probabilities.

(b) Presumptions

61. Facts relating to an ADRV may be established by any reliable means. The Comments to Article 3.2 of the UWW ADR set out further non-exhaustive examples of reliable means including *“reliable analytical data from either an A or B Sample as provided in the Comments to Article 2.2”*.
62. The Athlete’s B Sample confirmed the presence of the Prohibited Substance, boldenone, which was present in his A Sample, thus confirming the ADRV as provided for in Article 2.1.2 UWW ADR. The reliability of these results is premised upon certain presumptions including that WADA-accredited laboratories are presumed to have conducted Sample analysis in accordance with the International Standard for Laboratories (Article 3.2.2. of the UWW ADR). The Athlete did not adduce any argument or evidence that there was any departure from the ISL in order to rebut this presumption.
63. Taking into account the evidence submitted and that the Athlete accepted the finding of boldenone in his Sample, the Claimant has demonstrated the ADRV for the presence of boldenone in the Athlete’s Sample to the comfortable satisfaction of the Sole Arbitrator.
64. Having established the ADRV, the burden of proof now shifts to the Athlete to prove either that the ADRV should not be considered as such, or that the ADRV was unintentional or that the applicable period of Ineligibility can be reduced, suspended or eliminated on the grounds provided for in the UWW ADR.

65. The Athlete accepted that he bears the burden of proof in this matter. Consistent with the caselaw of the Court of Arbitration for Sport the requisite standard of proof the Athlete has the burden of demonstrating is on the balance of probabilities:

“... for the Panel to be satisfied that a means of ingestion is demonstrated on a balance of probability simply means, in percentage terms, that it is satisfied that there is a 51% chance of it having occurred. The Player thus only needs to show that one specific way of ingestion is marginally more likely than not to have occurred” (CAS 2009/A/1926 & 1930, adopted and confirmed in CAS 2017/A/5296, at para. 52).

(c) *Threshold*

66. If the Athlete is to eliminate the otherwise applicable period of Ineligibility he must meet the threshold test required under the No Fault or Negligence standard. This is defined in the UWW ADR as follows:

“No Fault or Negligence: The Athlete or other Person's establishing that he or she did not know or suspect and could not reasonably have known or suspected even with the exercise of utmost caution, that he or she had Used or been administered the Prohibited Substance or Prohibited Method or otherwise violated an anti-doping rule. Except in the case of a Protected Person or Recreational Athlete, for any violation of Article 2.1, the Athlete must also establish how the Prohibited Substance entered the Athlete's system” (Emphasis added).

67. It was not contested that the Athlete in trying to demonstrate that his ADRV was not intentional, has to prove the source of boldenone in the Sample on a balance of probabilities as a precondition of establishing a No Fault defense. The Claimant conceded that if the source of the Prohibited Substance was demonstrated to the satisfaction of the Sole Arbitrator (on the balance of probabilities), then the burden would be met by the Athlete and this would be a No Fault Case.
68. The Athlete submitted that he did not intentionally ingest the boldenone and that he would demonstrate that the source of his positive test was more likely than not the result of contaminated meat consumed prior to his In-Competition Test in Guatemala.
69. The Claimant was aware from an early stage that the Athlete would be relying upon a meat contamination defense. The Claimant took the position that they had no obligation to proffer any or any alternative theory as to how the boldenone came to be present in the Athlete's Sample it being sufficient that they have met their burden of proof (Article 2.1 Presence) to the requisite standard. Consequently, if the Athlete is not subsequently able to identify the source of the boldenone then he cannot demonstrate that the presence was unintentional and therefore a 4 year sanction should apply.
70. The Athlete did not counter this position put by the Claimant. In any event, once the burden of proof has shifted from the Claimant to the Athlete the load falls squarely on the shoulders of the Athlete alone to prove the source of the Prohibited Substance present in his Sample if he is to establish he bore No Fault or Negligence. The UWW ADR rules, which mirror the WADC, are clear on where the evidentiary burden lies.

71. It is acknowledging that, in some circumstances, Anti-Doping Organisations may have an obligation to contribute to the finding of facts through substantiated submissions relating to the clarification of the corresponding facts (CAS 2011/A/2384 & 2386 at para. 209). In CAS 2011/A/2384 & 2386, the Panel was faced with three possible scenarios for the source of the Prohibited Substance as the appellants had proffered two counter theories to compete with the contaminated meat defense of Mr Contador. That is not the case here, where only source has been offered by the Athlete and he has adduced evidence, both physical and scientific to support that defense, which will be considered further below.
72. A preliminary argument was raised by the Athlete that the ADRV should have been reported as an ATF by the Claimant and not as an AAF in accordance with WADA's International Standard for Results Management Guidelines – given the concentration levels involved and the WADA Technical Document TD2021IRMS and TD2019IRMS. A comparison between the two documents is set out below:
- The 2019 TD provided that *“Findings for boldenone and/or its Metabolite(s) at concentrations estimated below 5 ng/mL (SG-adjusted³, if needed) should be reported as Atypical Findings, unless the results of the GC/C/IRMS analysis, if performed (depending on Laboratory’s analytical capacity and following consultation with the Testing Authority), conclusively establish the exogenous origin of the substance (Adverse Analytical Finding)”*.
 - The 2021 TD provided that: *“Samples containing Boldenone (B) ... - Confirmed findings (following the application of a CP confirming the identity of the Analyte in accordance with the TD IDCR [4]) for B and/or BM1 at concentrations estimated below (<) 2.5 ng/mL should be reported as Atypical Findings (ATF), unless the results of the GC/C/IRMS analysis, if performed (depending on Laboratory’s analytical capacity and following consultation with the Testing Authority), conclusively establish the exogenous (AAF) or endogenous (Negative Finding) origin of the substance”*.
73. Between 2019 and 2021 the threshold concentration for boldenone analysis to be reported as an Atypical Finding was reduced from <5ng/mL to <2.5 ng/mL. However, in either case they were subject always to the outcome of the GC/C/IRMS and whether it collusively established the exogenous origin of the boldenone. That was the case here. The Athlete rightly took the view at the Hearing that notwithstanding the change in the WADA Technical Documents between 2019 and 2021 he would still have to show the source of the boldenone found in his Sample.
74. It is noteworthy but not determinative that the TD2019IRMS was used in the assessment of the other two USA ATF cases for boldenone but the TD2021IRMS was applied to the Athlete's case, as it came into force on 1 June 2021 and the Sample was received by the Montreal Laboratory on 3 June 2021. However, nothing turns upon it save to note the efflux of time and how samples from the same Competition can be treated under different procedural regimes depending upon when they come into effect.

B. Issues for Determination

75. The Sole Arbitrator considers that the following matters need to be determined in this case:
- (i) Has the Athlete established the source of the boldenone present in his Sample?
 - (ii) Is boldenone used in livestock or poultry in Guatemala?
 - (iii) Did the Athlete consume these products in the days leading up to his positive Sample?
 - (iv) Has the Athlete demonstrated he bore No Fault or Negligence?

(i) *What is the source of the boldenone?*

76. Boldenone is an anabolic androgenic steroid and synthetic derivative of testosterone. It stimulates muscle growth and assists recovery in athletes after strenuous effort. It is a non-Specified Substance that is prohibited at all times according to S1.1 of the 2021 WADA List.
77. The Athlete's defence is that he never intentionally consumed boldenone but rather that it entered his body through the consumption of contaminated meat in Guatemala prior to his Sample Collection. There being no intention he consequently bore No Fault or Negligence.
78. In seeking to meet his burden of proof the Athlete asserts he is not required to provide direct evidence of the source of the boldenone, but that circumstantial evidence will suffice and in this regard he will rely upon CAS jurisprudence (CAS 2019/A/6313 at para 73) that he "*need not be required to present the perfect case for this Panel to be convinced that he is entitled to a No Fault or Negligence reduction*". Instead, he says, he needs only to show that it is more likely than not that the presence of 4 ng/mL of boldenone in his urine resulted from eating the contaminated meat on the evening before his positive test. This is in circumstances where the alleged source of the contamination, the meat, is gone and therefore direct evidence of the definitive source is impossible.
79. Reference was also made to a leading commentary on the question of the source:
- "The 2015[WADA] Code does not explicitly require an Athlete to show the origin of the substance to establish that the violation was intentional. While the origin of the substance can be expected to represent an important, or even critical, element of the factual basis of the consideration of the Athlete's level of Fault, in the context of Article 10.2.3, panels are offered flexibility to examine all the objective and subjective circumstances of the case and decide if a finding that the violation was not intentional is warranted ..."* (RIGOZZI/HAAS/WISNOSKY/VIRET, Int. Sports Law J (2015) 15:3-48 at p27).
80. The Claimant's view as regards the Athlete's threshold for proving lack of intent (Article 10.2.3 UWW ADR) is consistent with the CAS authorities (in CAS 2016/A/4534 and CAS 2017/A/5017) that the requirement of the proof of source of the Prohibited Substance is not mandatory but remains a crucial factor in deciding whether the Athlete has succeeded in

discharging his burden of proof – *“while failing to show how the Prohibited Substance entered the athlete’s system may not preclude the athlete from establishing that his ADRV was not intentional, exceptional circumstances and/ or evidence must be submitted to justify the assumption of lack of intent”*.

81. The Claimant, while it does not contest that the Athlete may have eaten meat prior to the collection of his Sample on 29 May 2021, it asserts that the Athlete has not established the source of the boldenone in his Sample was caused by the ingestion of meat that contained the Prohibited Substance. Therefore, deliberate doping cannot be ruled out and the AAF has been brought forward as an ADRV consistent with the International Standards.
82. The position of the Claimant is that:
- there is no evidence that boldenone is used in livestock in Guatemala;
 - the beef the Athlete consumed was from the USA, there is no evidence of another source and the ham (on the hamburger) might have come from Guatemala but it is unlikely it could have caused the AAF given the insufficient volume;
 - the most recent WADA Stakeholder Report regarding potential meat contamination cases while it extended the list of building agents that could be found in the cattle industry in China, Mexico and Guatemala and recognised that clenbuterol is used in livestock production in Guatemala, this list did not extend to include boldenone. The Report was issued proximate to the Athletes AAF (June 2021);
 - relying upon the medical expert Professor Saugy, that the concentration of boldenone is consistent with deliberate doping;
 - the cases of the other two athletes who tested positive for boldenone but were treated as ATF cases together with the three clenbuterol ATF cases at the Championships are not relevant. If the presumption is that all the USA athletes ate in the Hotel Conquistador more cases would have been anticipated that occurred;
83. The Athlete submits that meat contamination is the most likely explanation on the basis that:
- On the evening of 28 May 2021, at approximately 6:30 pm, the Athlete ate dinner at Zamat restaurant (Hyatt centric hotel, Guatemala City). It is accepted that the Athlete ate a hamburger meal on this occasion.
 - He consumed the *“Hamburguesa Hyatt Centric Guatemala”* which was made from ground beef and topped with *“smoked ham from Tecpán”*. According to the Zamat Restaurant the size of the burger patty was approximately 220g. The constituents of the burger are listed as follows on the menu:

HAMBURGUESA HYATT CENTRIC GUATEMALA
HYATT CENTRIC GUATEMALA BURGER

Torta de res, queso brie, jamón ahumado de Tecpán, arúgula, manzana y cebolla caramelizada, aderezo de aguacate y chipotle.

Beef, brie cheese, smoked ham from Tecpán, arugula, apple and caramelized onion, avocado and chipotle dressing.

Q.120

- The origin of the beef is not established to be the USA. There is no meat certificate available for the beef, rather there are two fliers one of which notes the origin as being the USA – “**ORIGEN: USA / Planta de producción Servi**”. The Athlete was unable to identify any Servi production plants in the USA and there is no link between the presented flier and the beef consumed in the Zamat Restaurant.
 - Two other USA athletes returned atypical findings for boldenone at the Championships. Athlete One, said he attended the team dinner with the Athlete at the Zamat Restaurant and he believed he ate steak. Athlete Two also attended the team dinner but did not eat anything there, but said he did consume steak and hamburgers with some of his teammates at another restaurant (outside the Hotel) prior to his competition on 30 May 2021. These facts are submitted by the Athlete as further evidence of the existence of boldenone in the meat supply in Guatemala.
84. The experts witness, each of whom provided a report in advance of the Hearing, were called upon to provide evidence in relation to a number of questions which are key to the success or failure of the contaminated meat defence propounded by the Athlete. The principal questions, all of which are relevant to the determination of this case were whether:
- (i) Boldenone was used as a growth promoter in livestock in Guatemala?;
 - (ii) The concentration levels of boldenone in the Athlete’s Sample were consistent with contamination of meat consumed in Guatemala?; and
 - (iii) whether there was enough boldenone in the hamburger to cause the positive finding?

Dr. Anneleen Decloedt

85. The Athlete called Dr. Anneleen Decloedt to provide expert evidence. Dr Decloedt is the project lead at Quality Control cv (Belgian independent inspection body, ISO17020 certified) and a post-doctoral researcher at Ghent University (Laboratory of Integrative Metabolomics, LIMET).
86. In her report Dr Decloedt looked at hormone usage both worldwide and in Guatemala noting that in meat-producing animals, hormones, such as the androgenic steroid boldenone, may be

used to promote growth. Hormones generally used by the meat industry are either natural steroids (estrogens, progestogens as well as androgens) or their synthetic derivatives or compounds that are not steroidal but have similar biological actions. But in recent times she noted that there has been “a significant switch to “natural” steroids such as testosterone and boldenone instead of their synthetic counterparts such as diethylstilbestrol (DES) and trenbolone (TBA, trenbolone acetate), because they are more difficult to trace”.

87. In her evidence Dr Decloedt stated the boldenone was used as a growth promotor in the meat industry in Guatemala. She reached her conclusion based on a number of factors, studies and evidence:

- (i) Boldenone was originally introduced and sold under the form of boldenone undecylenate (“a precursor or pro drug of boldenone”) for medical use mainly in horses, but also human medicine. Over time it came to be used beyond medicine, to improve performance in animals and humans².
- (ii) In Guatemala, boldenone is commercialised as a sterile parenteral solution for use in cattle e.g. “**Boldemec L.A**”. a. “Solución inyectable - Endectabólico de acción prolongada para bovinos” (**Figure 2**), registered [sic] for Guatemala as **PE241-01-01-12**”.

Boldemec® L.A.
Solución inyectable
Endectabólico de acción prolongada para bovinos
agrovetmarket s.a.

FORMULACIÓN
Cada mL contiene:

Boldenona undecilinato.....	28 mg
Ivermectina.....	10 mg
Excipientes..... c.s.p.....	1 mL

- (iii) The use of growth promoting hormones remains an issue in Guatemala. A published study of The University of San Carlos, Guatemala³, set out the acceptable levels of various steroid additives in the meat supply of Guatemala including the excretion concentration levels acceptable in livestock bred for meat consumption. It included boldenone. Table 5 of the Study lists boldenone implant as “one of the popular choices for growth promotion in cattle” (Emphasis added).

² SCARTH ET AL., 2011, Approaches to the detection of steroid abuse in veterinary species.

³ PROYECTO: “DETERMINACIÓN DE ESTEROIDES ANABÓLICOS EN CARNE DE GANADO BOVINO (VACAS Y NOVILLOS) PROVENIENTE DE LA REGION SUR OCCIDENTAL DE GUATEMALA” – Universidad de San Carlos de Guatemala centro universitario del sur occidental, Dirección General de Investigación – Instituto de Investigaciones del Sur Occidente (IIDESO).

5 USO DE HORMONAS EN LA PRODUCCIÓN ANIMAL BOVINA

Tabla Número 1: Principales hormonas usadas en la producción de ganado bovino.

NOMBRE E INGREDIENTE ACTIVO	DOSIS Y FORMA DE ADMINISTRACIÓN	PRECAUCIONES Y RESTRICCIONES
Dietilstilbestrol (D.E.S.)	Implante 30 mg/100 días	Está prohibido su uso
Synovex S (20 mg Estradiol + 200 mg progesterona)	Implante 1 dosis/100 días	Debe ser implantado con un mínimo de 60 días antes del sacrificio
Raigro (Zeranol)	Implante 36 mg/100 días	Debe ser implantado con un mínimo de 65 días antes del sacrificio
Finaplix (Acetato de Trembolona 300 mg) (Andrógeno)	Implante 1 dosis/90-100 días	Administrar junto con estradiol o zeranol
Computose 400 (45 mg estradiol en goma siliconada)	Implante 45 mg/90-100 días	La ganancia diaria de peso se ve afectada al 2do. Y 3er. Implante. Agregar harina de pescado en la alimentación
Nandrolona (Andrógenos)	Implante de 200 mg o 400 mg	Funciona mejor si se administra con estrógenos.
Undecilinato de Boldenona	Implante de 500 mg	Funciona mejor si se administra con estrógenos
Ganavet machos (200 mg progesterona + 20 mg benzoato estradiol)	Implante de 200-500 mg los últimos 60-450 días de la engorda.	No usar 65 días antes del sacrificio.

In addition, the study also indicated that anabolic steroids were found in the urine of animals tested pre-slaughter and in Dr Decloedt’s view appeared to indicate that *2ng/ml* would be an acceptable level in the meat.

TABLA 9

ESTEROIDES ANABOLICOS DETERMINADOS Y MINIMOS PERMISIBLES EN CARNE DE GANADO BOVINO

ESTEROIDE ANABOLICO	MINIMO PERMISIBLE
Boldenone (Equipose)	2 ng/mL

- (iv) The use of boldenone as a growth promotor was also shown to be widespread in pigs raised in the same Region of Guatemala - (i.e. *DE LA REGION SUR OCCIDENTAL DE GUATEMALA*) – in a similar study by the same university⁴. It concluded that:

⁴ PROYECTO: “DETERMINACIÓN DE ESTEROIDES ANABÓLICOS EN CARNE DE GANADO PORCINO PROVENIENTE DE LA REGION SUR OCCIDENTAL DE GUATEMALA” – Universidad de San Carlos de

“CONCLUSIONES”: “2. Las muestras de orina de porcinos machos castrados y hembras porcinas indican que la carne destazada en esas instalaciones no es apta para consumo humano en un 47 %, ya que un consumo excesivo podría ocasionara daños orgánicos a la salud sobre todo disfunciones del Sistema reproductivo y digestivo” and “3. En términos generales los esteroides anabólicos 6B hidroxiboldenona (47%) y Methandrostenolone(6%), son los que se detectaron en el presente estudio” and “4. Los porcinos provenientes de granjas tecnificadas de los lugares muestreados en donde más se utilizan los esteroides anabólicos como promotores de ganancia de peso es Coatepeque (20%)”.

(free translation)

“Conclusions”: “2. The urine samples of castrated pig males and female pigs indicate that the meet produced in these premises is not suitable for human consumption in 47%, because its excessive consumption may cause organic damages to the health, specifically to the reproductive and digestive system” and “3. In general term the anabolic steroids 6B hydroxyboldenon (47%) y Methandrostenolone (6%), were detected in this report” and “4. Pigs coming from the sampled farms in where anabolic steroid are more used to promote the increase of weight is Coatepeque (20%)”.

- (v) Evidence of monitoring of growth hormone usage in livestock in Guatemala is limited and Dr Decloedt considered that there appeared to be “a lack of validated analytical laboratory methods and/or laboratories available to monitor the use of steroids in meat producing animals (e.g. Laboratorio de Sanidad Animal analysis not available on the website May 2, 2022)”. The samples referred to in the Universidad de San Carlos de Guatemala studies were send to foreign laboratories for analysis.
88. In relation to the question of whether anabolic steroids can be transmitted into the human body through the human digestive system via contaminated meat, Dr Decloedt reviewed a number of Studies⁵ which demonstrated that experiments with volunteers (who consumed a dose of between 150g to 310g of meat) showed “that the consumption of meat contaminated with or naturally containing anabolic-androgenic steroids can lead to the detection of this anabolic steroid or its metabolite(s) in the urine of the person consuming the meat”.
89. However, Dr Decloedt’s view was that this type of transfer of steroids from meat into the urine of the person consuming the meat “is most likely to occur in those instances where **injection sites** are processed into meat products. The meat that was consumed in these experiments (Debruyckere et al., 1997) was **raw minced beef meat**, which is mostly produced by mincing lower quality muscle tissue such as the neck from cattle. This part of the animal frequently contains the injection site. **Minced beef is also the main ingredient in a typical hamburger**”. Further, she concluded that this outcome can be achieved from the person consuming a single portion of meat.
90. By way of comparison, Dr Decloedt looked at Other Studies⁶ where intramuscular injection or oral anabolic steroids were given to volunteers. While the Other Studies showed varying

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⁵ LE BIZEC ET AL., 2000 and DE WASCH ET AL., 2001 (the “Studies”).

⁶ DEBRUYCKERE ET AL. (1993) – a Clostebol; DEBRUYCKERE ET AL. (1993) – b Nandrolone; WU ET AL. (2015) – Boldenone (the “Other Studies”).

urine concentrations as between test subjects (between 50 and 500 ng/ml within 24 hours) they did evidence in general that anabolic-androgenic steroid residues were detectable for at least 24h post consumption, and the highest concentrations were measured less than 12h post-contaminated meat consumption.

91. When these results were extrapolated to look at the Athlete's situation, with 24 hours being the time period between when the meat was consumed and the Sample collected, Dr Decloedt concluded that the concentration of the boldenone by the Athlete was in theory compatible with meat contamination:

*“this would imply that the **contaminated meat was 50 to 250 fold less rich in β -boldenone than the single 30 mg dose taken by the volunteers in this study.** This would suggest that the meat portion consumed by the Athlete (200 - 250 g) contained 0.12 to 0.60 mg β -boldenone (30 mg divided by 250 respectively 50). Depending on the time between treatment of the animal and slaughter, the route of administration (intramuscular injection, implant), the concentration used and the parts of meat consumed (close to the injection site or not) etc this [is] can be considered a plausible explanation. The concentration of the banned substance is, in theory, compatible with meat contamination”.*

92. The GC-C-IRMS result in urine, will be comparable for an athlete that has consumed contaminated meat as for an athlete who directly used the steroid themselves as the GC-C-IRMS cannot make a distinction - on this point the experts were in agreement and it is reflected in the WADA Stakeholder Notice regarding potential meat contamination cases (1 June 2021) – *“it is not currently possible for anti-doping laboratories to distinguish between (a) low concentrations that reflect the tail-end of excretion of a steroid used for doping purposes; and (b) low concentrations that are due to the consumption of contaminated meat”.*
93. Thus, Dr Decloedt's position in relation to the three questions was that she confirmed that boldenone was used as a growth promoter in livestock in Guatemala, that the concentration levels of boldenone in the Athlete's Sample were consistent with contaminated meat and that it was plausible there was sufficient boldenone in the hamburger to cause the positive finding.

Professor Martial Saugy

94. Professor Martial Saugy, PhD, was called as an expert by the Claimant. He is the Scientific Adviser and former Director of the Center of research & Expertise in antidoping Sciences (REDS) of the University of Lausanne and the former Director of the Swiss Laboratory for Doping analyses, CHUV.
95. In relation to the question of the use of boldenone in the cattle industry in Guatemala, Prof. Saugy noted that while its use was known in Colombia, and there had been some anti-doping cases (and he referred to *ITF v Farah*) where the concentrations of boldenone and its metabolites were comparable with the Athlete's case. He was also cognisant that the WADA group on environmental contaminants in its Stakeholder Notice had not included boldenone as one of the Prohibited Substances which could lead to a positive due to meat contamination in Guatemala. He determined in his report that *“based on the information provided by the athlete and*

- available to me, I am not aware of the use [of Boldenone] in Guatemala, nor its prevalence*". At the Hearing Prof. Saugy explained the very limited scope of his research on this point and fairly agreed that he had not seen the Universidad de San Carlos de Guatemala reports in reaching his conclusions.
96. In relation to the source of the ground beef, his view was that if the source was from the USA he had "*serious doubts*" it would contain boldenone, but if it comes from somewhere else e.g. Guatemala he would have "*no idea what it contains*". He was aware of meat being injected with boldenone in Colombia and Mexico. In Colombia, a Ministry for Agriculture report permitted a maximum concentration of boldenone of up to *3 mg/kg* of meat while it can go up to *10 mg/kg* in Mexico (as found in a number of football contamination cases).
97. Prof. Saugy conceded that he was not aware of the ham as part of the hamburger before writing his report and therefore did not address it there. However, at the Hearing his view was that it was "*very unlikely*" that the slice of ham (the size of which was unknown) could contain sufficient boldenone, even after injection to result in the AAF. This view was based on the fact that with other anabolic steroids (e.g. nandrolone) the highest recorded concentration is *16 mg/kg* found in the liver and kidney but never in muscle or fat (like the ham). He explained that to optimally increase muscle mass in animals, injections of growth hormones would normally be done 30 days before the animal is slaughtered and the chance of eating the injection site (frequently the neck area) would be very low due to necrosis and rejection of that piece of the animal.
98. Even when looking at the hamburger meal as a whole (beef + ham) he did not believe it would be sufficient to be the "*sole source*" of the AAF as he could not conceive that *120 mg/kg* of boldenone could be present in the ground beef/ham, which goes beyond residual contamination and is the volume that would be necessary in order to produce the AAF concentration levels in the Athlete's Sample (i.e. boldenone *4 ng/mL* and metabolite *1 ng/ml* respectively, when corrected for specific gravity (1.029), could be considered as respectively *2.8 ng/ml* and *0.7 ng/ml*). The only possibility he could conceive of was if the consumed meat included the injection site.
99. Prof. Saugy also considered the *Wu et al.* study (2015) and concluded that it gives the best available indication of what can be found in an athlete's urine after boldenone intake. The study found that several hours after a single oral intake of *30 mg* of boldenone, the peak concentrations of total boldenone varied from *300 ng/ml* to *2500 ng/ml*. When applied to the Athlete's case he concluded that: "*This study does not give any indication on the application of multiple doses of boldenone. And here, based on the athlete's explanation, there are no precise information on the amount of boldenone that could have been absorbed by the athlete. Therefore, it is not possible for me to provide an opinion on the athlete's scenario. That said, I can state that the low level of boldenone detected in the sample can be, in theory, compatible with the ingestion of contaminated meat*".
100. Prof. Saugy's view was that "*Considering that the athlete was not tested prior to 29 May 2021 and the sport of wrestling, it cannot be ruled out that the AAF is the tail-end excretion of a therapeutic dose of boldenone*". He did nevertheless accept that: "*In summary, it is my opinion that, in theory and purely*

based on the low concentration of boldenone in the sample, the AAF may be consistent with the ingestion of meat contamination. However, based on the available scientific literature and reports, it is not possible to assert that the athlete's hypothesis that the AAF was caused by the ingestion of meat contaminated in Guatemala is the most likely scenario. Based on the information available, the intentional use of boldenone is also a likely explanation of the AAF" (Emphasis added).

101. Prof. Saugy's position in relation to the three questions was that he was not aware of the Studies referred to by Dr Decloedt on boldenone use in livestock in Guatemala nor had he done independent research on the point; he had not taken the consumption of the ham into consideration in his report as he was not aware of it at that time. He did consider that the concentration levels of boldenone in the Athlete's Sample was is in theory consistent with the ingestion of contaminated meat, but it could also be the tail-end excretion of a therapeutic dose, based upon the Athlete not having been tested previously.

C. Review

102. On the preliminary question of whether boldenone is used in livestock production in Guatemala, there is sufficient evidence from the extensive research and expert testimony of Dr Decloedt, which is preferred, for the Sole Arbitrator to determine that it is more likely than not that boldenone is used as a growth promotor in livestock (pork and beef) in Guatemala.
103. On the second question of the origin of the meat, the Athlete identified the likely source of the boldenone was from his consumption of a hamburger on the evening before his Sample was taken. There were competing theories as to the source of the ground beef in the hamburger, whether it was from the USA or not. If it was the former then it was not contested that boldenone is not used as a bulking agent in the USA cattle industry.
104. The Zamat Restaurant provided a certificate in relation to the source of the minced beef meat supply. It is unclear if the documentation produced was actually for the meat used by the restaurant on the date in question (28 May 2021) or generally. However, upon analysis it is the view of the Sole Arbitrator that the certificate provided for the ground beef was not a certificate, rather it was a sales brochure. The origin is referenced as "USA / Planta de producción Servi" and is described as "Torta de carne de res importada Certified Angus Beef" – which goes to indicate that the production plant for the Servi restaurants is in the USA and that the beef is imported. No Servi production plants were identified following a search by the Athlete. The documentation provided by the Zama Restaurant is not conclusive as to the origin of the beef.
105. The experts acknowledge that there is no evidence that boldenone is used in beef/meat production in the USA, but they also agree that the source of the hamburger beef could be the USA but it might be from elsewhere. The Sole Arbitrator is not satisfied on the balance of probabilities that the source of the minced beef in the hamburger consumed by the Athlete on 28 May 2021 was from the USA and it was more likely than not from Guatemala.
106. In relation to the third question: both experts agree that (i) there is no precise information regarding the amount of boldenone consumed by the Athlete and the IRMS analysis could

- only indicate that the boldenone was exogenous to the Athlete and not whether that exogenous source was from contaminated meat or via injection for example and (ii) that the ingestion of contaminated meat can cause the urine of the person consuming the meat to produce a positive test for the steroid (in this case, boldenone).
107. There was a significant discussion as to whether the quantum of beef in the hamburger (220g) and/or the ham from Tecpán could have contained sufficient boldenone to lead to the concentration levels in the Athlete;
- Prof. Saugy accepted that after a single 30mg dose of boldenone (consumed in meat) it might be possible to detect 2.7ng/ml in a subject after 38-52 hours post administration but it dependent upon a number of factors including route of administration – e.g. oral where the metabolization effect is significant (Wu et al.) or by injection (for which there was no peer review available).
 - Dr Decloedt’s opinion was that consuming 200g – 250g meat containing 0.12 to 0.60 mg β -boldenone (equivalent to the 30 mg dose in the Wu study) and subject to factors such as timing and route of administration, the concentration used and the parts of meat consumed that the concentration of boldenone in the Sample is compatible with meat contamination. Ultimately the experts were in unison that the volume of boldenone in the Sample could be compatible with meat contamination in the volume of meat consumed by the Athlete.
108. Guatemala is a country know to produce and serve meat contaminated with banned substances e.g., clenbuterol. The WADA Shareholder Notice regarding potential meat contamination cases of 1 June 2021 noted that “*The Contaminants Working Group determined that clenbuterol is used in China, Mexico, and Guatemala as a growth promoter for cattle, lamb, poultry, and swine*”. The same group looked at the likelihood of livestock fed on clenbuterol and other named substances (not boldenone) leading to urinary concentrations of that Prohibited Substance of more than ($>$) 5 ng/mL and concluded that “*any urinary concentrations caused by consumption of contaminated meat would likely be below ($<$) 5 ng/ml*”. The urinary concentration level ($<$ 5 ng/mL) is consistent with the volume found in the Athlete’s case. Contextually, it would also appear that the permissible concentration levels of steroids in Guatemalan meat, according to limited data available to Dr Decloedt, appear to provide for an allowance of 2 ng/mL per sample.
109. In addition to the scientific evidence and expertise there were a number of other evidential factors which contribute to the general circumstance of the case which were considered by the Sole Arbitrator.
110. While it is unusual that an athlete of the age and experience of the Athlete could go his whole post-college athletic career without an anti-doping test, the absence of such testing does not cast any aspersions upon the Athlete. He gave evidence of his knowledge and education around anti-doping, how he treats his body and the diet that he adheres to and that he does not take food supplements. The Sole Arbitrator found his evidence to be credible. This was echoed by his coach Mr Humphrey who spoke to the Team USA education on anti-doping

and the Athlete's own training and nutritional regime. While credible, persuasive and relevant, this testimony is not determinative in the context of the establishment of the Athlete's intention.

111. It is striking that during the course of the Pan-American Championships so many athletes, four in total excluding the Athlete, tested positive for the livestock growth promoters clenbuterol and boldenone. All were treated as ATF's save for the Athlete – in the case of the boldenone positives, on the basis that IRMS testing was not possible given insufficient volume. According to the Athlete's calculations, which were not challenged, the percentage of boldenone positive findings at the Championships corresponded to 10% of the total number of athletes tested as part of the ITA Mission for the Pan-American Championships. When added to the positive finding for clenbuterol, this amounted to 17% of the total cohort of athletes who tested positive for substances which are known to be used as animal growth hormones. The fact that such Prohibited Substances were detected and across different national team members is, while not determinative, a factor of relevance in the context of the case as a whole.
112. The delayed notification of his positive test to the Athlete is a factor to be considered. The Athlete was tested on 29 May 2021, the Montreal Laboratory received the Sample on 3 June 2021 and the Athlete was notified of the AAF on 2 December 2021. The evidence gathering process was not assisted by the delayed notification. The time-gap was not satisfactorily explained. The Sole Arbitrator agrees with the Athlete that that as a consequence of the efflux of time it may well have caused potentially relevant evidence regarding the source of the Prohibited Substance to become unavailable to him. It is the intention of the anti-doping regime that matters should be dealt with quickly and therefore unexplained delays are incompatible with that position. As the Panel found in CAS 2009/A/1782, where proceedings on an ADRV had taken a particularly long time and delay is not attributable to the athlete, fairness suggests that the delay should be construed in favour of the Athlete (See: CAS 2021/ADD/44 at para 120, CAS 2021/ADD/47; CAS 2016/O/4463; CAS 2016/O/4481).
113. This is not a case whether the Athlete has simply pleaded his innocence without providing any convincing explanation to attempt to prove on the balance of probabilities that he did not engage in deliberate doping. Neither did the Athlete speculate as to the possible existence of a number of conceivable explanations for his AAF and then further speculate as to which might be the most likely of those possibilities in order to conclude that such possibility excludes intent.
114. Rather, the Athlete has set out in a systematic way to demonstrate that he was the victim of meat contamination in a country, Guatemala, which is known to use steroids in its livestock production. While the Athlete is not strictly bound to prove the source of the Prohibited Substance, and in this scenario could not due to the consumption of the subject meat, he has to demonstrate on the basis of the objective circumstances of the ADRV and his behaviour, that circumstances existed which counteract to a sufficient degree, the likelihood of intentional doping. He must also offer persuasive evidence that the explanation he proffers is more likely

than not to be correct, by providing specific, objective and persuasive evidence in support of his submission.

115. Based on the persuasive evidence submitted the Sole Arbitrator determines that the Athlete has demonstrated on the balance of probabilities that meat consumed on the day before his Sample collection was likely contaminated with the Prohibited Substance and it was unintentional.
116. Having established that he bore No Fault or Negligence for the AAF, then consistent with Article 10.5 UWW ADR, the otherwise applicable period of Ineligibility is eliminated and no period of Ineligibility is imposed.
117. In accordance with Article 9 UWW ADR, all the competitive results of Mr Nathan Dyamin Jackson from the Pan-American Championship of May 2021 are Disqualified, with all resulting Consequences, including forfeiture of any medals, points and prizes.

VIII. COSTS

(...).

IX. APPEAL

122. Article 13.2.1 of the UWW ADR provides:

“13.2.1 Appeals Involving International-Level Athletes or International Events

In cases arising from participation in an International Event or in cases involving International-Level Athletes, the decision may be appealed exclusively to CAS”.

123. Pursuant to Article A21 of the ADD Rules, this award may be appealed to the CAS Appeals Arbitration Division within 21 days from receipt of the notification of the final award with reasons in accordance with Articles R47 et seq. of the CAS Code of Sports-Related Arbitration, applicable to appeals procedures.

ON THESE GROUNDS

The Court of Arbitration for Sport rules that:

1. Mr Nathan Dyamin Jackson is found guilty of an anti-doping rule violation in accordance with Article 2.2 of the United World Wrestling Anti-Doping Rules (“UWW ADR”).
2. Mr Nathan Dyamin Jackson has established in accordance with Article 10.5 of the UWW ADR, that he bore No Fault or Negligence for the anti-doping rule violation. No period of Ineligibility is imposed.
3. In accordance with Article 9 UWW ADR, all the competitive results of Mr Nathan Dyamin Jackson from the Pan-American Championship of May 2021 are Disqualified, with all resulting Consequences, including forfeiture of any medals, points and prizes.
4. (...).
5. (...).
6. All other motions or prayers for relief are dismissed.