IN THE
COURT OF APPEALS OF MARYLAND

SEPTEMBER TERM, 2020

NO. 19

JAMES MATTHEW LEIDIG,

Petitioner,

v.

STATE OF MARYLAND,

Respondent.

ON WRIT OF CERTIORARI TO THE
COURT OF SPECIAL APPEALS OF MARYLAND

CORRECTED BRIEF AND APPENDIX OF RESPONDENT

BRIAN E. FROSH
Attorney General of Maryland

JER WELTER
Assistant Attorney General
CPF No. 0712120395

Office of the Attorney General
Criminal Appeals Division
200 Saint Paul Place
Baltimore, Maryland 21202
(410) 576-6422
jwelter@oag.state.md.us

Counsel for Respondent

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STATEMENT OF THE CASE

Respondent, the State of Maryland, accepts the Statement of the Case in Petitioner James Matthew Leidig's brief.

QUESTION PRESENTED

Was the admission at Leidig's trial of a report of the analysis of crime-scene DNA and serological evidence consistent with Leidig's right of confrontation because the report is not testimonial, because the report was admitted as basis evidence for the opinion testimony of the State's expert witness on DNA analysis, and/or because the report was admitted through the testimony of one of the report's peer reviewers?[1]

STATEMENT OF FACTS

The State accepts for purposes of appeal the Statement of Facts in Leidig's brief, as supplemented in the following Argument, and with the following specific additions and clarifications:

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[1] This case has been scheduled to be argued along with *State v. Miller*, No. 24, September Term, 2020, which concerns overlapping issues regarding DNA analysis and the right of confrontation. For the Court's convenience, the appendix to this brief includes a chart summarizing the similarities and differences between this case and *Miller*. (Apx. 1).

- Leidig notes that crime-scene DNA evidence was collected on September 1, 2016, by Sergeant David A. Haugh of the Washington County Sheriff's Office by swabbing suspected blood on the window frame and curtain adjacent to a broken window in the burglarized home of Ralph and Rebecca Brown. Leidig suggests that Sergeant Haugh did not take "certain preventative measures," such as cleaning his hands with bleach or changing the sterile rubber gloves he used between samples. (Petitioner's Br. at 4). But Sergeant Haugh testified that he had received post-academy training on DNA collection and had previously collected DNA samples on approximately 20 occasions (E. 64), and he described in detail the process he used to collect the samples. (E. 48–50). There is no indication that the "preventative measures" to which Leidig alludes were required or standard practices.
- Leidig also notes that Sergeant Haugh did not try to collect samples from other locations in the home. (Petitioner's Br. at 4). Sergeant Haugh explained that the

reason he did not swab other locations was that he did not see suspected biological matter anywhere else, and he believed that even if any DNA of the burglar were present in other locations, it would likely be cross-contaminated with DNA from others in the home who would also have touched the same surfaces. (E. 66–67).

- As Leidig notes, Molly Rollo, an analyst in the Maryland State Police ("MSP") crime lab, analyzed the evidentiary samples and produced a report in October 2016 documenting the single male DNA profile developed from those samples. (Petitioner's Br. at 4; E. 154–56). The Washington County Sheriff's Office chain-of-custody record for the evidentiary samples (admitted without objection as State's Exhibit #6) showed that the swabs that Sergeant Haugh collected were transmitted to the MSP crime lab on September 7, 2016. (E. 52; R1. 74–75). The lab's chain-of-custody record for the swabs (admitted without objection as State's Exhibit #9) showed that they were received in the MSP lab's vault on the same date,

and that Rollo checked them out to be analyzed on September 30, 2016. (E. 95; R1. 72).

- Leidig initially became a suspect because, as Sergeant Haugh testified, a database search using the evidentiary profile returned "a result from [the] database naming Mr. Leidig." (E. 53). The charging documents indicate that the database match was returned in November 2016, and that Leidig was then charged with the burglary in the District Court of Maryland. (E. 6; R1. 9–12). Sergeant Haugh testified that he subsequently used a buccal swab to collect a new reference sample from Leidig pursuant to a search warrant. (E. 53–55). As discussed in Leidig's brief (and in more detail, *infra*), analysis of that reference sample was performed in 2017 by another analyst in the MSP crime lab, Tiffany Keener. (E. 157–60).
- Leidig's case did not come to trial until 2019. Although not discussed at trial, the reason for the delay was that, in the interim, Leidig was incarcerated on other charges in Pennsylvania. Leidig was brought to Maryland to resolve the charges in this case (and another unrelated

one) pursuant to a request filed in 2018 under the Interstate Agreement on Detainers. (E. 6; R1. 15–21). An indictment was then filed in the circuit court in February 2019 (E. 6; R1. 22–27), and Leidig was tried in March 2019. (E. 4–5). By that point, Rollo had left the MSP crime lab and was employed at another lab in Prince George's County. (E. 83, 87).

Additional facts are discussed in the following Argument.

ARGUMENT

ADMISSION OF THE ROLLO REPORT DID NOT VIOLATE LEIDIG'S RIGHT OF CONFRONTATION.

The Sixth Amendment to the Constitution of the United States guarantees that, in a criminal prosecution, the accused has the right "to be confronted with the witnesses against him." Leidig contends that, as to the information contained in the Rollo report, his right to confront the witnesses against him was denied because the report's author, Rollo, did not testify at trial. For any of three independent reasons, Leidig is wrong.

First, the Confrontation Clause of the Sixth Amendment restricts the admission of otherwise-admissible hearsay only if

that hearsay is "testimonial." *Davis v. Washington*, 547 U.S. 813, 823–26 (2006) (holding that "the Confrontation Clause applies only to testimonial hearsay"). The paradigmatic examples of testimonial hearsay include "prior testimony at a preliminary hearing, before a grand jury, or at a former trial; and . . . police interrogations." *Crawford v. Washington*, 541 U.S. 36, 68 (2004).[2] Building on the Supreme Court's split decision in *Williams v. Illinois*, 567 U.S. 50 (2012), this Court has adopted a two-pronged rubric in *State v. Norton*, 443 Md. 517, 546 (2015), to determine whether a forensic report is testimonial. Under that rubric, a forensic report is testimonial if it is either "accusatory" or "formal." Leidig correctly concedes that the Rollo report is not accusatory. (Petitioner's Br. at 36 n.9). And, as discussed in Part B.1, *infra*, the Rollo report is not formal either. Therefore, it is not testimonial and does not implicate the Confrontation Clause.

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[2] Even testimonial hearsay may be admitted under the Confrontation Clause if the declarant is "unavailable" and the accused has "had a prior opportunity to cross-examine" the declarant. *Crawford*, 541 U.S. at 59. That exception is not at issue here.

Second, even if the Rollo report were otherwise testimonial, it was not hearsay because it was not admitted for the truth of the matter asserted. Rather, as discussed in Part B.2, the Rollo report was properly admitted under Maryland Rule 5-703 as basis evidence for Keener's opinion that Leidig's DNA profile matched the DNA samples collected from the crime scene. The plurality in *Williams*, 567 U.S. at 71–79, and this Court in *Cooper v. State*, 434 Md. 209 (2013), *cert. denied*, 573 U.S. 903 (2014), have both approved admission of testimony about DNA profiles developed from evidentiary samples as basis evidence for an expert witness's testimony concerning a DNA match with a defendant's reference profile. Because such basis evidence is not admitted for the truth of the matter asserted, it does not offend the Confrontation Clause.

Third, similar to this case's companion case, *Miller*, Leidig's right to confrontation was not violated because Keener, in addition to performing her own analysis of Leidig's reference sample and comparison of the reference and evidentiary DNA profiles, had served as a peer reviewer of Rollo's report. As discussed in Part B.3, Keener's peer review, which involved reviewing Rollo's underlying data and determining that she agreed with Rollo's

conclusions, meant that Keener was an appropriate witness regarding the conclusions of the Rollo report for Confrontation Clause purposes, because the conclusions of the Rollo report were conclusions that Keener herself had also reached.

Therefore, the Confrontation Clause was not offended. As a fallback position, Leidig looks to the confrontation right found in Article 21 of the Declaration of Rights. (Petitioner's Br. at 12–14). But this Court has long construed Article 21's confrontation guarantee *in pari materia* with the Sixth Amendment's Confrontation Clause, and although Leidig urges this Court to break with that practice and adopt a more restrictive interpretation of Article 21, this Court has rejected that invitation before, *see Derr v. State*, 434 Md. 88, 103 & n.11 (2013) ("*Derr II*"), *cert. denied*, 573 U.S. 903 (2014), and should continue to reject it.

A. Background

At trial, the State called Keener as its expert witness in forensic serology and forensic DNA analysis. (E. 74–76). Keener gave a brief summary of the process of DNA analysis (E. 77–78), and described the procedural safeguards employed at the MSP

crime lab to ensure against tampering and cross-contamination of samples. (E. 79–80).

Keener testified that the MSP crime lab received the crime-scene swabs that Sergeant Haugh had collected, and that Rollo was the primary forensic scientist who analyzed the evidentiary swabs under that case. (E. 80–81).

1. *Keener's testimony about the Rollo report.*

Keener testified that Rollo had developed a DNA profile from the evidentiary swabs and would have used the MSP lab's "standard operating procedures," which Keener described, to do so. (E. 81–82).

Keener also testified that "[e]very case must be peer reviewed by two separate analysts," in addition to the author, "before the report is released," and that she had been one of the peer reviewers for Rollo's report. (E. 82). Specifically, Keener testified that she was "the administrative reviewer for Molly Rollo's report," and that, on the bottom of each page of Rollo's report, Keener had "initialed indicating that [she] agree[d] with [Rollo's] results and conclusions." (E. 82–83). At this point,

defense counsel objected that "the State has the wrong expert here," and that Keener's testimony would convey "hearsay regarding another person's words and work product." (E. 83).

The State responded that Keener was the analyst who had developed Leidig's DNA profile and had compared it to the profile Rollo had developed from the evidentiary samples. (E. 83). Relying on this Court's decisions in *Cooper* and *Derr II* (discussed *infra*), the State derived from those cases three principles supporting Keener's testimony regarding Rollo's analysis: (1) that the report of the DNA profile from the evidentiary samples lacked "the required solemnity to be considered the equivalent of a[n] affidavit or testimony" and thus was not testimonial; (2) that under Maryland Rule 5-703, "an expert is allowed to rely on the reports of other experts" to formulate their own expert opinion; and (3) that such testimony was admissible where the testifying expert "performed peer review" on the non-testifying expert's report "and agreed with the results." (E. 83–85).

The trial court overruled the defense objection but acknowledged, "it's preserved." (E. 85). Defense counsel renewed

the objection moments later when Rollo's report was admitted as State's Exhibit #7. (E. 86, 154–56).

Keener testified that Rollo's report was a type of report routinely kept in the normal course of business at the MSP lab, and that it was a type of report that she, as a forensic scientist, "relies upon when doing comparisons with other individuals[.]" (E. 86).

Keener also testified, without objection, that Rollo had performed serology testing on the evidentiary samples, which showed that "blood was indicated on both swabs of the window frame and of the living room curtain." (E. 93).

Later, on cross-examination, defense counsel asked Keener whether she had reviewed the underlying data (specifically, the electrophoresis "peaks" indicating the presence of alleles at given loci in the profile) that contributed to Rollo's development of the profile from the evidentiary samples, or instead had simply "rel[ied] on [Rollo's] numerical chart." (E. 116). Keener responded that she had "reviewed [Rollo's] results as a peer reviewer at the time of the analysis," including reviewing the underlying "peaks" during her "initial review of [Rollo's] case," and that Keener had

later used Rollo's "reviewed results to make [her own] conclusions." (E. 116).

The first page of the two-page Rollo report contains three sets of handwritten initials: "MR," "TK," and "LCM." (E. 154). The last page is signed by "Molly Rollo" as "examiner" and contains handwritten initials of "TK" and "LCM." (E. 155). It does not include an oath or attestation. The heading of the report is directed to then-Corporal Haugh's attention at the Washington County Sheriff's Office, and contains the pertinent Sheriff's Office and MSP lab case and file numbers. (E. 154). It also states the name of the "victim" as "Ralph Douglas Brown" and lists the "suspect" as "Unknown." (E. 154). The report also contains the following three statements, among others:

- "This examination has been made with the understanding that the evidence is connected with an official investigation of a criminal matter and that the Laboratory Report will be used for official purposes only related to the investigation or a subsequent criminal prosecution." (E. 154).

- "This report contains the conclusions, opinions and interpretations of the examiner whose signature appears on the report." (E. 154).
- "The deoxyribonucleic acid (DNA) results reported below were determined by procedures which have been validated according to the Federal Bureau of Investigation's Quality Assurance Standards for Forensic DNA Testing Laboratories." (E. 154).

The second page of the report states that a "DNA profile from one male contributor was obtained" and contains a chart of two columns displaying two identical DNA profiles derived from the swabs from the "[w]indow frame" and the "[c]urtain." (E. 155). The chart lists numerical values for fifteen designated loci, and a value of "XY" for "Amelogenin." (E. 155). Keener explained that the DNA profile did not indicate a mixture: "A mixture is a DNA profile when we can see that there's more than one person present. For both the swabs from the window frame and the curtain the conclusions were that it was a DNA profile from one male contributor." (E. 113). She noted that Rollo "didn't see any evidence of an additional contributor being present." (E. 115).

2. *Keener's testimony about her own report.*

Keener also testified that she had received a "known oral standard from James Leidig" (E. 86–87), and authenticated the lab's chain-of-custody record for Leidig's reference sample, which was admitted as State's Exhibit #10. (E. 96; R1. 79–80).

Keener testified that she "performed the DNA analysis" on Leidig's reference sample to develop a DNA profile, and that she then "compared [her] results to the results that were previously obtained from Molly Rollo." (E. 87). Keener documented her analysis in a 2017 report, which was admitted as State's Exhibit #8. (E. 87, 94, 157–60).

Keener testified that she "compared the known standard from James Leidig" to the "DNA profile that was previously obtained" from "the swabs of the window frame and the living room curtain," and that Leidig "matched that DNA profile." (E. 97; *see also* E. 88). She testified that the probability "of selecting an unrelated individual at random that would have the same DNA profile from what was obtained from the swabs of the window frame and living room curtain are approximately one in 9.7 sextillion in the US Caucasian population," approximately "one in

3.0 sextillion [sic[3]] within the African American population," and approximately "one in 5.0[ ] [sex]tillion within the US Hispanic population." (E. 88; *see also* E. 159). Keener further testified that because the rarity of the DNA profile exceeded 1 in 333 billion, it would be unreasonable to conclude that an unrelated individual was the source of the profile obtained from the evidentiary samples. (E. 89, 159).

Keener also explained to the jury that the second page of her report contained a chart showing the DNA profiles developed from the evidentiary samples and the DNA profile developed from Leidig's reference sample. (E. 89–91). The chart lists numerical values for 23 designated loci, and an "XY" value for "Amelogenin." (E. 158). The values in each column are identical, except that in eight rows of the columns for the DNA profiles from the reference samples, the value is listed as "Not Tested." (E. 158). Keener explained (and was cross-examined extensively on the point) that this was because the lab had changed to a different commercially

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[3] Keener's report in fact quantifies the improbability of a coincidental match in the African American population as three orders of magnitude higher, at 1 in 3 septillion. (E. 159). It is unclear whether she misspoke in testimony or was mistranscribed.

available testing kit, which obtained results at more loci, between when Rollo had analyzed the evidentiary samples and when Keener had analyzed Leidig's reference sample. (E. 92, 107–12, 115–16). Keener testified that Leidig's profile "matches all the locations that were previously tested." (E. 92). Responding to a hypothetical posed by defense counsel during cross-examination, Keener acknowledged that if the evidentiary samples were tested at the previously untested loci "and the results did not match then [Leidig] would be excluded from the DNA profile." (E. 110). She also noted that if re-testing using the new kit were requested, "that could be possible if there was suitable sample remaining to be tested." (E. 116). According to Keener, if the evidentiary samples were re-tested, "depending on what the DNA profile was then it could be information that could include him as being a match or could exclude him." (E. 111).

3. *The Court of Special Appeals' ruling.*

The Court of Special Appeals affirmed admission of the Rollo report because the report is not testimonial. It held:

> Ms. Rollo's report in the case at bar is not testimonial because it is not formal or accusatory. As

> in *Williams*, "[n]owhere does the report *attest* that its statements *accurately* reflect the DNA testing processes used or the results obtained." 567 U.S. at 111 (Thomas, J., concurring*); see also Cooper v. State*, 434 Md. 209, 236 (2013) (holding that the non-accusatory report at issue was not formal because there was no "indication that the results are sworn to or certified or that any person attests to the accuracy of the results"); *Derr II*, [434 Md.] at 119–120 (holding that the DNA reports were not sufficiently formal because they lacked statements attesting to or certifying the accuracy of the procedures used or results obtained).
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> [Leidig] notes the following language on Ms. Rollo's report as evidence of sufficient formality: (1) "[t]his report contains conclusions, opinions and interpretations of the examiner whose signature appears on the report" and (2) "determined by procedures which have been validated according to the Federal Bureau of Investigation's Quality Assurance Standards for Forensic DNA Testing Laboratories." But neither is a "sworn" or "certified declaration of facts." *See Williams*, 567 U.S. at 111 (Thomas, J., concurring). Also unlike in *Norton*, Ms. Rollo's report does not express its conclusion with any degree of certainty.[4] Ms. Rollo's report is not testimonial for the purposes of the Confrontation Clause, and the trial court did not violate [Leidig's] constitutional right by admitting it without Ms. Rollo.

(E. 18–19).[5]

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[4] In a footnote, the Court of Special Appeals observed that, unlike an autopsy report at issue in *Malaska v. State*, 216 Md. App. 492, *cert. denied*, 439 Md. 696 (2014), *cert. denied*, 135 S. Ct. 1162 (2015), Rollo's report "was not mandated by statutes." (E. 19 n.14).

[5] In ruling on this basis, the Court of Special Appeals did not

B. Admission of the Rollo report did not violate the Confrontation Clause.

For three reasons, admission of the Rollo report through Keener's testimony did not violate the Confrontation Clause. First, as the Court of Special Appeals correctly held, the Rollo report is neither accusatory nor formal and, hence, not testimonial. Second, the Rollo report was properly admitted under Maryland Rule 5-703 as basis evidence for Keener's expert opinion testimony, as documented in Keener's own 2017 report. And third, the Rollo report was properly admitted to convey Keener's own conclusions as a peer reviewer of the Rollo report.

1. *Admission of the Rollo report did not violate Leidig's confrontation right because the Rollo report is not testimonial.*

The Confrontation Clause only limits the admission of hearsay to the extent that the hearsay is testimonial. *Davis*, 547 U.S. at 823. Leidig's right to confrontation was not implicated by the Rollo report, because the Rollo report is not testimonial. That conclusion follows from Supreme Court case law—particularly

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reach the State's other arguments for admissibility, as laid out in Parts B.2 and B.3, *infra*. (*See* E. 13; Appellee's Br. at 14–18).

Justice Thomas's jurisprudence on his formality standard for whether a statement is testimonial—as well as decisions of this Court.

i. Supreme Court case law on the testimonial standard.

In *Melendez-Diaz v. Massachusetts*, 557 U.S. 305 (2009), and *Bullcoming v. New Mexico*, 564 U.S. 647 (2011), the Court held that reports in the form of certificates executed by non-testifying analysts qualified as "testimonial." In *Melendez-Diaz*, the certificates were notarized affidavits of drug laboratory analysts certifying under oath that substances seized from the defendant contained cocaine. *Melendez-Diaz*, 557 U.S. at 308. In *Bullcoming*, a DUI prosecution, the certificate at issue was a section of a standardized form headed "certificate of analyst," regarding testing of the defendant's blood alcohol content. *Bullcoming*, 564 U.S. at 653. Although the certificate was unsworn, it was signed by the analyst at issue and it certified that the defendant's blood alcohol content was 0.21, that the "seal of th[e] sample was received intact and [was] broken in the laboratory," that the analyst had "followed the procedures set out on the reverse of th[e]

report," and that "the statements in [the analyst's block of the report] are correct." *Bullcoming*, 564 U.S. at 653, 664. In both cases, the Court held that the certificates at issue came within the "core class of testimonial statements" governed by the Confrontation Clause, like affidavits, depositions, prior testimony, or confessions under police interrogation. *Id.* at 665; *Melendez-Diaz*, 557 U.S. at 310.

But in *Williams*, the Court fractured, dividing 4-1-4, with Justice Alito writing for the plurality, Justice Thomas concurring, and Justice Kagan writing for the dissenters.[6] The Court divided on whether—and why or why not—DNA expert testimony based in part on analysis by other analysts was barred to that extent by the Confrontation Clause.

Williams was a rape prosecution. The state crime lab sent evidentiary samples collected during the victim's sexual assault forensic examination to an outside lab, Cellmark, for testing. *Williams*, 567 U.S. at 59 (plurality op.). Cellmark sent back a

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[6] Justice Breyer expressed additional views in a separate concurrence but "join[ed] the plurality opinion in full." *Williams*, 567 U.S. at 99 (Breyer, J., concurring).

report that—akin to the Rollo report here—documented a male DNA profile developed from semen found in the evidentiary samples. *Id.* That profile from the evidentiary samples was later matched to the defendant's reference profile, which had been acquired in another case. *Id.* At trial, no Cellmark analyst testified. *Id.* at 62. Rather, a state forensic analyst testified that she had developed the defendant's DNA profile from his reference sample. *Id.* at 60. And another state forensic analyst, Sandra Lambatos, who (like Keener in this case) had compared the evidentiary DNA profile from the Cellmark report to the defendant's reference DNA profile, testified regarding the match between the two profiles and the statistical significance of the match. *Id.* at 60–62.

Under those circumstances, five justices agreed that the Cellmark report was not testimonial, but they did not agree on why. Justice Alito, writing for the four-justice plurality, reasoned that the Cellmark report was not testimonial because it was not *accusatory*: it was not prepared with "the primary purpose of accusing a targeted individual of engaging in criminal conduct[.]" *Id.* at 82 (plurality op.). Justice Alito observed that the Cellmark

report "was produced before any suspect was identified" and was "sought not for the purpose of obtaining evidence to be used against petitioner, who was not even under suspicion at the time, but for the purpose of finding a rapist who was on the loose." *Id.* at 58. Moreover, Justice Alito reasoned, that DNA profiles are "not inherently inculpatory," and indeed are often exculpatory. *Id.*

In concurrence, Justice Thomas endorsed a different rationale. Consistent with his long-held views on the class of extrajudicial statements governed by the Confrontation Clause, Justice Thomas reasoned that the Cellmark report was not testimonial because it was not *formal*. He explained that the Cellmark report "lack[ed] the solemnity of an affidavit or deposition, for it is neither a sworn nor a certified declaration of fact." *Id.* at 111 (Thomas, J., concurring). The Cellmark report was signed by two reviewers, identified the methods and testing products used to perform the analysis, and reported the DNA profiles obtained from the evidentiary samples, including an "inferred male donor profile" that was deduced from a mixed

profile generated from one of the swabs. (Apx. 2).[7] But, as Justice Thomas pointed out, it contained no "attest[ation] that its statements accurately reflect the DNA testing processes used or the results obtained." *Williams*, 567 U.S. at 111 (Thomas, J., concurring). The signatures of the "reviewers" did not convey that they had "performed the DNA testing" themselves, nor did they "certify the accuracy of those who did." *Id.* And although the report obviously had been produced "at the request of law enforcement," it "was not the product of any sort of formalized dialogue resembling custodial interrogation." *Id.*

Justice Thomas specifically distinguished the certificate from *Bullcoming*, noting that the *Bullcoming* report, although unsworn, had "certif[ied] the truth of the analyst's representations[.]" *Id.* at 112. The Cellmark report, in contrast, was "marked by no such indicia of solemnity" and "in substance, certifie[d] nothing." *Id.*

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[7] The Cellmark report also included printouts of raw electrophoresis data from software used to generate the profiles. For context, a copy of the Cellmark report is included in the appendix to this brief at Apx. 2–14.

The *Williams* dissenters took a much broader view of what counts as testimonial than either Justice Thomas or the four-justice Alito plurality. According to the *Williams* dissenters, a statement would be testimonial if it were "made for the primary purpose of establishing 'past events potentially relevant to later criminal prosecution'—in other words, for the purpose of providing evidence." *Williams*, 567 U.S. at 135 (Kagan, J., dissenting) (citation omitted).

But the fragmented *Williams* majority, albeit for different reasons, rejected such a broad "primary purpose" test as the determinant of whether a statement is testimonial. And in *Ohio v. Clark*, 576 U.S. 237, 246 (2015), a majority of the Supreme Court later confirmed that the Confrontation Clause does not "bar[ ] every statement that satisfies the 'primary purpose' test," and that, instead, "the primary purpose test is a necessary, but not always sufficient, condition for the exclusion of out-of-court statements under the Confrontation Clause."

ii. This Court's case law on the testimonial standard.

The Supreme Court has yet to revisit the issue of what makes a forensic document testimonial. *See Stuart v. Alabama*, 139 S. Ct. 36, 36 (2018) (Gorsuch, J., dissenting from denial of certiorari) (lamenting that the "fractured decision" in *Williams* "yielded no majority and its various opinions have sown confusion in courts across the country"). Many courts have despaired of taking substantial precedential guidance from *Williams*, but this Court has not. Initially, in *Derr II*, this Court adopted Justice Thomas's "formality" standard, reasoning that, under a *Marks* analysis,[8] "the narrowest holding of *Williams* is that a statement, at a minimum, must be formalized to be testimonial." *Derr II*, 434 Md. at 115.[9]

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[8] *See Marks v. United States*, 430 U.S. 188, 193 (1977) (the "holding" of a fragmented Supreme Court decision that lacks a majority opinion is "that position taken by those Members who concurred in the judgments on the narrowest grounds") (cleaned up).

[9] The Court held in *Derr II* that certain DNA forensic documentation was not formal (and hence, not testimonial), but *Derr II* has limited salience to this case because the documents at issue there consisted only of notes of bench work and raw printouts of electrophoresis data from DNA analysis software. *See Derr II*,

But in *Norton*, *supra*, 443 Md. at 546, the Court refined its approach by adopting Justice Alito's "accusatory" standard as well. *See id.* (stating that *Norton* decision "does not overrule *Derr II*, but serves to expand our application of *Williams* in an attempt to adhere as accurately and faithfully as we can to the Supreme Court precedent"). *Norton* established a rubric for "adherence to the opinions of a majority of the Justices" in *Williams* to determine whether a given forensic report is testimonial by assessing whether it is *either* formal *or* accusatory. *Id.*

Thus, to resolve the admissibility of forensic documents under the Confrontation Clause under the *Norton* rubric, courts must "consider first, whether the report in issue is formal, as analyzed by Justice Thomas; or, if not, whether it is accusatory, in that it targets an individual as having engaged in criminal conduct, under Justice Alito's rationale." *Id.* at 547 (internal citations omitted).[10]

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434 Md. at 118–20. For context, the documents at issue in *Derr II* are included in the appendix to this brief at Apx. 15–26.

[10] If a forensic document is testimonial under the tests advocated by either Justice Alito or Justice Thomas, "then it, necessarily, is testimonial under the [more expansive primary-purpose test] advocated by Justice Kagan's dissent, because each

Two decisions of this Court illustrate application of the *Williams* standard that *Norton* derived. First, in *Norton* itself, the Court held that both of the *Williams* tests were satisfied by a written report equivalent to Keener's report here—a report which stated that, based on a comparison of DNA profiles developed from a reference sample from the defendant and an evidentiary sample from a ski mask that witnesses testified had been used in a robbery, the defendant was, "within a reasonable degree of scientific certainty," the source of biological material found on the ski mask. *Id.* at 519–21, 549. The report was formal because it certified its conclusion with the "talismanic" phrase "within a reasonable degree of scientific certainty." *Id.* at 548–49. The report was also accusatory because "it was created with 'the primary purpose of accusing a targeted individual of engaging in criminal conduct,'" in that the assertion that the defendant was the source of the biological material from the ski mask "clearly 'accus[es] a targeted individual of engaging in criminal conduct.'"

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of the plurality's opinions narrows the broader rule urged by the dissent." *Norton*, 443 Md. at 547.

Id. at 549 (quoting *Williams*, 567 U.S. at 82 (plurality op.)) (alteration in *Norton*).[11]

Second, an earlier decision, *Cooper*, *supra*, 434 Md. 209, also provides substantial guidance for this case. *Cooper* came after *Derr II* but before *Norton*, and so it applied only Justice Thomas's formality standard from *Williams*. *Id.* at 235–36. The document at issue in *Cooper* was a report prepared by Sarah Shields, who was an analyst at Bode, a private lab. *Id.* at 219. Shields's report—again, like Rollo's report here—documented DNA profiles developed from evidentiary samples. *Id.* This Court held in *Cooper* that the Shields report was *not* "formal" because the report simply indicated "what items were tested, what procedures were used to develop the results, and the DNA results developed from the testing," but did not contain any "indication that the results are sworn to or certified or that any person attests to the accuracy of the results." *Id.* at 236.[12]

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[11] For context, a copy of the report at issue in *Norton* is appended to this brief at Apx. 27–29.

[12] Although *Cooper* predated *Norton* and thus did not assess whether the Shields report was accusatory under Justice Alito's standard, the report was obviously not accusatory because, like the

iii. The Rollo report is undisputedly not accusatory.

Here, Leidig does not contend that the Rollo report is accusatory under the Alito plurality test from *Williams*—and with good reason. (Petitioner's Br. at 36 n.9). Just like the non-accusatory Cellmark report in *Williams*, the Rollo report was an analysis of evidentiary samples from a crime scene, "produced before any suspect was identified." *Williams*, 567 U.S. at 58 (plurality op.). Thus, it "plainly was not prepared for the primary purpose of accusing a targeted individual." *Id.* at 84.

iv. The Rollo report is not formal.

The Rollo report also is not testimonial under Justice Thomas's formality test. To be "formal"—and hence, testimonial—under Justice Thomas's test, an extrajudicial statement must be a "formalized statement[ ] bearing indicia of solemnity." *Williams*, 567 U.S. at 113 (Thomas, J., concurring).

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non-accusatory Cellmark report in *Williams*, the Shields report consisted only of DNA analysis of evidentiary samples and did not identify the defendant. A copy of the Shields report at issue in *Cooper* is appended to this brief at Apx. 30–31.

Justice Thomas has expounded the requirements of his formality test in several opinions. Under his analysis, the right to confrontation was "developed to target particular practices that occurred under the English bail and committal statutes passed during the reign of Queen Mary, namely, the civil-law mode of criminal procedure, and particularly its use of ex parte examinations as evidence against the accused," and so what counts as "testimonial" must be understood in light of those practices of formal, systematic extrajudicial examination. *Davis v. Washington*, 547 U.S. 813, 835 (2006) (Thomas, J., concurring and dissenting). According to Justice Thomas, the "categories of extrajudicial statements that bear sufficient indicia of solemnity to fall within the original meaning of testimony" include statements "'contained in formalized testimonial materials, such as affidavits, depositions, prior testimony, or confessions,'" as well as "statements not contained in such materials . . . if they were obtained in 'a formalized dialogue'; after the issuance of the warnings required by *Miranda v. Arizona* . . . ; while in police custody; or in an attempt to evade confrontation." *Ohio v. Clark*,

576 U.S. 237, 255 (2015) (Thomas, J., concurring) (quoting *White v. Illinois*, 502 U.S. 346, 365 (1992) (Thomas, J., concurring)).

Thus, the sworn certificates of drug composition in *Melendez-Diaz* were formal because they were "'quite plainly affidavits.'" *Melendez-Diaz*, 557 U.S. at 330 (Thomas, J., concurring) (quoting majority op.). And the certificate regarding the defendant's blood alcohol content in *Bullcoming* was formal because, even though unsworn, it contained language "certifying the truth of the analyst's representations." *Williams*, 567 U.S. at 112 (Thomas, J., concurring) (discussing *Bullcoming*).

In contrast, the Cellmark report in *Williams*, which provided DNA profiles developed from evidentiary samples, was not formal because "in substance, [it] certifie[d] nothing." *Id.* It was "neither a sworn nor a certified declaration of fact." *Id.* at 111. Although the Cellmark report identified the testing methods by which the DNA profiles had been developed, stating that "DNA testing using the Polymerase Chain Reaction (PCR) and the AmpFISTR Profiler Plus™ and AmpFISTR COfiler™ Amplification Kits was performed on the indicated exhibits" (Apx. 2), it did not "*attest* that its statements *accurately* reflect the DNA testing processes used

or the results obtained." 567 U.S. at 111 (Thomas, J., concurring) (emphasis added). Although the Cellmark report contained the signatures of two "reviewers," those signatures did not "certify the accuracy" of the testing. *Id.* And, "although the report was produced at the request of law enforcement, it was not the product of any sort of formalized dialogue resembling custodial interrogation." *Id.*

The report at issue in *Norton*, similar to the Cellmark report in *Williams*, was a report of DNA analysis, albeit one that compared DNA profiles developed from evidentiary samples to a DNA profile developed from the defendant's reference sample. This Court held that the report in *Norton* was formal. *Norton*, 443 Md. at 548. What differentiated the report in *Norton* from the report in *Williams* was this statement: "Therefore, within a reasonable degree of scientific certainty, Harold Norton (2506-062-01) is the major source of the biological material obtained from evidence item 2506-062-02." *Id.* at 521. Notably, the Court quoted the entirety of the report in its opinion, and highlighted that phrase—and only that phrase—in bold. *Id.*

The "phrase 'within a reasonable degree of scientific certainty'" functioned as a "certification" of the assertion that there was a "match between a defendant's profile [and] that of a perpetrator[.]" *Id.* at 548. Those "talismanic words" were "key to the acceptance of the expert's testimony into evidence," because "[w]ithout this language certifying the result, the testimony is without foundation." *Id.* Although the report was not titled a "certificate" and did not use the word "certification," it certified a match "'*in substance*'"; the Court observed that "requiring such magic words as 'certification' would elevate form over substance." *Id.* at 549 n.29 (quoting *Williams*, 567 U.S. at 112 (Thomas, J., concurring) (emphasis in *Norton*).

The Rollo report, in contrast, is unsworn and is not a certificate in either form or substance. Unlike the report in *Norton*, none of the results in the Rollo report is reported using any phrase such as "within a reasonable degree of scientific certainty."[13] And although the report was prepared by the State

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[13] This contrasts, for example, with Keener's report. Although the Keener report also does not contain the phrase "within a reasonable degree of scientific certainty," it does contain an equivalent assertion of the certainty of the match between Leidig's

Police lab, is addressed to another law enforcement agency, and contains a statement recognizing that it was generated in connection with an "investigation of a criminal matter" (E. 154), that does not make it formal. As Justice Thomas stated, the Cellmark report in *Williams* was also prepared at the request of law enforcement as part of a criminal investigation, but "it was not the product of any sort of formalized dialogue resembling custodial interrogation." *Williams*, 567 U.S. at 111 (Thomas, J., concurring); *see also Cooper*, 434 Md. at 236 ("Although Bode developed the results at the request of the Baltimore City Police Department, the Shields report is not the result of any formalized police interrogation.").

Arguing to the contrary, Leidig identifies three features of the Rollo report that he claims make it formal: (1) the fact that it contains Rollo's signature, which Leidig asserts "is meaningful in

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profile and the profile developed from the evidentiary samples: "Because the rarity of this profile exceeds 1 in 333 billion, *it is unreasonable to conclude that an unrelated individual would be the source of this DNA profile*." (E. 159) (emphasis added). Although this Court does not need to decide here whether the Keener report is formal, it could well be concluded that such language is a certification in substance, like the critical language in *Norton*.

itself" (Petitioner's Br. at 36); (2) the inclusion of the statement that the report "contains the conclusions, opinions and interpretations of the examiner whose signature appears on the report" (E. 154); and (3) the inclusion of the statement that the results "were determined by procedures which have been validated according to the Federal Bureau of Investigation's Quality Assurance Standards for Forensic DNA Testing Laboratories." (E. 154). But none of those features, together or in combination, renders the Rollo report formal under Justice Thomas's test.

Rollo's signature, by itself, plainly does not render the report formal. After all, the report in *Williams* was signed (Apx. 2), but it was not formal because the signatories did not "certify the accuracy" of the testing. *Williams*, 567 U.S. at 111 (Thomas, J., concurring). Likewise, although the majority opinion in *Bullcoming* stated that the certificate at issue there was "'formalized' in a signed document," 564 U.S. at 665, Justice Thomas later made clear in his concurrence in *Williams* that the reason the *Bullcoming* report was formal was not merely that it was signed by the authoring analyst but that it had "certif[ied] the

truth of the analyst's representations." *Williams*, 567 U.S. at 112 (Thomas, J., concurring).

Nor does the statement that the report "contains the conclusions, opinions and interpretations" of the signing examiner imbue the signature with greater formality. (E. 154). That statement is an attribution, but it is not an attestation. Taken together with the signature, the statement still "in substance, certifies nothing." *Williams*, 567 U.S. at 112 (Thomas, J., concurring). Although such language might identify Rollo as the author, it does not even "purport" that Rollo "performed the DNA testing" underlying the report's conclusions and opinions herself. *Id.* at 111. Most importantly, it does not underwrite Rollo's conclusions and opinions with any assurance of veracity or solemnity—it does not "certify[ ] the truth of the analyst's representations[.]" *Id.* at 112.

Leidig places most weight on the statement that the results reported "were determined by procedures which have been validated according to the Federal Bureau of Investigation's Quality Assurance Standards for Forensic DNA Testing Laboratories" (E. 154), suggesting that this statement lays to rest

"any lingering doubt as to the formal nature of the report." (Petitioner's Br. at 36). But that statement cannot shoulder the burden.

To support his reliance on the statement of validation using the FBI's Quality Assurance Standards ("QAS"), Leidig invokes this Court's decision in *Norton*. (Petitioner's Br. at 37). But *Norton* points strongly in the other direction. Recall that the statement that rendered the report in *Norton* formal was its certification that "within a reasonable degree of scientific certainty" the defendant was the source of the crime-scene DNA evidence. *Norton*, 443 Md. at 548. Indeed, the Court quoted the report in *Norton* in its entirety, and emphasized *only* that "talismanic" statement. *Id.* at 520–22, 548.

But the report in *Norton also* contained a statement that is substantively identical to the statement regarding the FBI QAS here. The report in *Norton* stated: "The DNA profiles reported in this case were determined by procedures that have been validated according to standards established by the Scientific Working Group on DNA Analysis Methods (SWGDAM) and adopted as Federal Standards." *Id.* at 521 (Apx. 27). As this Court has

recognized, the QAS *are* the standards adopted by SWGDAM. *See Phillips v. State*, 451 Md. 180, 198–203 (2017) (tracing history of QAS and standards-setting bodies established under FBI purview). It is telling, therefore, that this Court in *Norton* did not highlight that statement, *see Norton*, 443 Md. at 521, and relied instead on the "talismanic" phrase "within a reasonable degree of scientific certainty" to conclude that the report there was formal.

Indeed, this Court has held that a report containing equivalent language is *not* formal under Justice Thomas's standard. The Shields report in *Cooper* likewise included the statement that the "DNA profiles reported in this case were determined by procedures that have been validated according to standards established by the Scientific Working Group on DNA Analysis Methods (SWGDAM) and adopted as Federal Standards." (Apx. 31). This Court observed in *Cooper* that the Shields report indicates "when the report was created, what items were tested, *what procedures were used to develop the results*, and the DNA results developed from the testing." *Cooper*, 434 Md. at 236 (emphasis added). That was not enough. "Nowhere on either page of the report, however, is there an indication that the results are

sworn to or certified or that any person *attests to the accuracy* of the results." *Id.* (emphasis added). "Therefore," the Court held, "applying Justice Thomas's reasoning we conclude that the Shields report lacks the formality to be testimonial." *Id.* As this Court has previously recognized, invocation of the FBI's standards for DNA testing is not equivalent to a certification of the results.

Moreover, Justice Thomas's opinion *Williams* itself indicates that such language identifying the procedures used to develop the results does not render a report formal. The Cellmark report in *Williams* identified the testing methods by which the DNA profiles had been developed, stating that "DNA testing using the Polymerase Chain Reaction (PCR) and the AmpFISTR Profiler Plus™ and AmpFISTR COfiler™ Amplification Kits was performed on the indicated exhibits." (Apx. 2). Yet, as Justice Thomas explained, it was not formal because it did not "*attest* that its statements *accurately* reflect the DNA testing processes used or the results obtained." 567 U.S. at 111 (Thomas, J., concurring) (emphasis added).

Leidig argues nevertheless that the statement regarding use of the FBI QAS has formal significance because the General

Assembly has made such a statement a precondition to so-called "automatic admissibility" of DNA analysis under § 10-915 of the Courts & Judicial Proceedings Article. (Petitioner's Br. at 37). *See generally Phillips*, 451 Md. at 194–207 (discussing application of § 10-915). But this argument seeks to fit a square peg into a round hole.

Section 10-915 provides that a "DNA profile is admissible . . . if it is accompanied by a statement from the testing laboratory setting forth that the analysis of genetic loci has been validated by" standards established at various times by certain FBI-affiliated standards-setting bodies, including the QAS. Md. Code, Cts. & Jud. Proc. § 10-915(b). Section 10-915 was enacted in order to allow "DNA profile evidence to be admitted without reevaluation of the [DNA analysis] technique's general reliability" under the then-prevailing *Frye–Reed* test, *i.e.*, "to eliminate the necessity of holding a '*Frye–Reed*' hearing to prove that the technique has gained general acceptance in the relevant scientific community." *Armstead v. State*, 342 Md. 38, 57 (1996).[14]

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[14] Earlier this year, this Court adopted the federal *Daubert* standard for admissibility of expert testimony in lieu of the *Frye–*

Compliance with the statute thus addresses the general scientific reliability of the techniques used to analyze DNA. But it does not constitute an attestation or certification of the results in any given particular case. *Cf. Armstead*, 342 Md. at 88 (concluding that, even where DNA evidence is admissible under § 10-915, a defendant can present "case-specific challenges" to DNA evidence "to the jury at trial, and the jury [is] able to factor them into its assessment of the DNA evidence").

Indeed, the "statement from the testing laboratory" contemplated by § 10-915 is not integral to any particular analyst's report, and may be provided by the laboratory separately. *Robinson v. State*, 151 Md. App. 384, 396–97 (holding that State complied with § 10-915 where, when defendant challenged admissibility of report under statute, State "responded with a copy of a [separate] letter from Cellmark that the tests had been so validated"), *cert. denied*, 377 Md. 276 (2003). A statement under

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Reed standard. *Rochkind v. Stevenson*, 471 Md. 1 (2020). Although the Court has not yet had occasion to consider § 10-915's application under *Rochkind*, presumably the effect of *Rochkind* will be that compliance with the statute will obviate the need for a *Daubert* hearing rather than a *Frye–Reed* hearing.

§ 10-915 regarding a laboratory's compliance with the QAS is not equivalent to a certification by the authoring analyst of the certainty or correctness of the results in a given case.

For a related reason, Leidig's analogy to *Malaska v. State*, 216 Md. App. 492, *cert. denied*, 439 Md. 696 (2014), *cert. denied*, 135 S. Ct. 1162 (2015), also fails. In *Malaska* (a pre-*Norton* case), the Court of Special Appeals held that an autopsy report was formal because state statutes mandate the performance of an autopsy under certain circumstances and govern how an autopsy is conducted and the form and content of the resulting report. *Id.* at 510–11. According to the *Malaska* court, "the formalities required by the statutes," in conjunction with the signatures of the pathologists conducting the autopsy, render an autopsy "sufficiently formalized to be 'testimonial' for purposes of the confrontation clause." *Id.* at 511. But, as the Court of Special Appeals recognized in this case, reports of DNA analysis, unlike autopsy reports, are "not mandated by statutes." (E. 19 n.14). Section 10-915 imposes no statutory formalities on how analysts conduct DNA analysis or how they prepare reports of their findings. Rather, it merely regulates the potential admission of

later expert testimony at trial. Even assuming that the Court of Special Appeals' conclusion in *Malaska* regarding the formality of autopsy reports was sound,[15] § 10-915 does not bring the same considerations to bear with regard to reports of DNA analysis.

Thus, contrary to Leidig's claim, none of the statements in Rollo's report constituted—in form or in substance—an "attest[ation] to the accuracy of the results contained therein." (Petitioner's Br. at 38).

As a final argument on this point, Leidig cautions against a "rigid application of Justice Thomas' formality test." (Petitioner's Br. at 38). Invoking the dissent in *Williams*, Leidig argues that to find the Rollo report non-testimonial would elevate form over substance and allow the State to evade the confrontation right by simply omitting indicia of solemnity from its forensic reports. (*Id.*)

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[15] Cases in other jurisdictions are divided as to whether autopsy reports are testimonial, but the better-reasoned cases, in the State's view, have held that they are not, because they ordinarily do not accuse a particular defendant, are not sworn or otherwise formal, and/or often are not prepared with a purpose to be introduced in evidence in the first place. *See, e.g.*, *State v. Hutchison*, 482 S.W.3d 893, 911–14 (Tenn. 2016) (holding autopsy report non-testimonial); *Ackerman v. State*, 51 N.E.3d 171, 179–89 (Ind. 2016) (same; collecting cases), *cert. denied*, 137 S. Ct. 475 (2016).

This concern is misplaced. Justice Thomas's standard is not a "magic words" test. It can be satisfied by a report that is not sworn, as in *Bullcoming*, or by a report that does not use the terms "certify" or "certification," as in *Norton*. What it requires is that the report bears "indicia of solemnity": textual indicators that the author is not merely stating findings but is, in substance, certifying the correctness of those findings.

Moreover, Justice Thomas's standard (particularly as applied under the *Norton* rubric, in tandem with the *Williams* plurality's "accusatory" standard) withstands the charge that it would enable "a prosecutorial conspiracy to elude confrontation by using only informal extrajudicial statements against an accused." *Williams*, 567 U.S. at 113 (Thomas, J., concurring). For one thing, as Justice Thomas observed, "the prosecution's use of informal statements comes at a price," because informal statements are "less reliable than formalized statements, and therefore less persuasive to the factfinder." *Id.* (cleaned up).

For another, Justice Thomas has repeatedly emphasized that his approach to the Confrontation Clause also bars the use of "technically informal statements" if they are "used to evade the

formalized process." *Davis*, 547 U.S. at 838 (Thomas, J., concurring and dissenting); *see also Williams*, 567 U.S. at 113 (Thomas, J., concurring) ("[T]he Confrontation Clause reaches bad-faith attempts to evade the formalized process."). Such evasion, Justice Thomas has envisioned, would consist of intentionally producing informal extrajudicial statements in lieu of readily available witnesses. *See, e.g.*, *Davis*, 547 U.S. at 840 (finding "no suggestion that the prosecution attempted to offer [non-testifying witnesses'] hearsay evidence at trial in order to evade confrontation" where State had subpoenaed one witness but she did not appear, and was unable to locate other witness at time of trial); *see also Clark*, 576 U.S. at 256 (finding no indication of evasion where "record suggests that the prosecution would have produced [non-testifying child witness] to testify had he been deemed competent to do so"). There is no indication of such evasion here. Instead, Rollo simply was no longer employed by the Maryland State Police by the time of trial. Rather than evade confrontation, the State introduced Rollo's report through an expert witness who had peer reviewed Rollo's report, who had also

relied on it for her own further analysis of evidence in the case, and who was subject to cross-examination.

In sum, the Rollo report is not formal under Justice Thomas's test. Because it is also undisputedly not accusatory, it is not testimonial, and did not implicate the Confrontation Clause.

2. *Admission of the Rollo report did not violate Leidig's confrontation right because the report was basis evidence, admitted under Maryland Rule 5-703, for Keener's expert opinion testimony.*

Even if the Rollo report were testimonial, however, the Confrontation Clause "does not bar the use of testimonial statements for purposes other than establishing the truth of the matter asserted." *Crawford*, 541 U.S. at 60 n.9. The Confrontation Clause was not violated here because Rollo's report was admitted through Keener's testimony, as part of the basis for Keener's expert opinion that Leidig's profile matched the DNA evidence at the scene and that a coincidental match was so unlikely as to be an unreasonable conclusion. (E. 88–89). Such basis evidence for expert testimony is admissible as non-hearsay under Maryland Rule 5-703. And it does not violate the Confrontation Clause, as

recognized by the plurality in *Williams*, by this Court in *Cooper* and *Norton*, and by courts in other jurisdictions.

Keener's testimony on direct examination about the DNA analysis in Rollo's report was relatively limited. It consisted of:

- verifying when Rollo had taken custody of the evidentiary samples, based on the lab's chain-of-custody records (E. 80–81, 95);
- confirming that Rollo had developed a DNA profile from the evidentiary samples, and that she would have used the lab's standard operating procedures to do so (E. 81–82);
- testifying that Rollo had prepared a report concerning the DNA profile she developed, for which Keener had served as a peer reviewer (E. 82–83); and
- explaining that Rollo's report was of a type that the lab kept in the normal course of business, and on which Keener, as a forensic scientist, would rely when making comparisons to other profiles. (E. 86).

The bulk of Keener's testimony concerned her own analysis: her development of a DNA profile from Leidig's reference sample, her

comparison of that profile to the profile Rollo had generated, her determination that the profiles matched; and her calculation of statistics to qualify the significance of that match. (E. 86–92).

At the time of trial in March 2019, Maryland Rule 5-703 provided in pertinent part:

> **(a) In General.** The facts or data in the particular case upon which an expert bases an opinion or inference may be those perceived by or made known to the expert at or before the hearing. If of a type reasonably relied upon by experts in the particular field in forming opinions or inferences upon the subject, the facts or data need not be admissible in evidence.
>
> **(b) Disclosure to Jury.** If determined to be trustworthy, necessary to illuminate testimony, and unprivileged, *facts or data reasonably relied upon by an expert* pursuant to section (a) *may, in the discretion of the court, be disclosed to the jury even if those facts and data are not admissible in evidence. Upon request*, the court shall instruct the jury to use those facts and data only for the purpose of evaluating the validity and probative value of the expert's opinion or inference.

(Emphasis added.)[16]

The rule thus allows "an expert to express his or her opinion upon facts in the evidence which he or she has heard or read, upon

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[16] Effective July 1, 2019, after the trial in this case, the rule was amended to require the trial court to make an on-the-record balancing of probative value against prejudice before admitting otherwise-inadmissible basis evidence under the rule.

the assumption that these facts are true." *Cooper*, 434 Md. at 230 (cleaned up). And, provided the requirements of subsection (b) are satisfied, the trial judge may, "in his or her discretion, . . . admit evidence as the factual basis for the expert's opinion" even if the evidence is otherwise substantively inadmissible. *Id.*

Four elements must be satisfied for an otherwise-inadmissible document to be admissible as basis evidence under the rule. "The document must be (1) trustworthy, (2) unprivileged, (3) reasonably relied upon by an expert in forming her or his opinion, and (4) necessary to illuminate that expert's testimony." *Brown v. Daniel Realty Co.*, 409 Md. 565, 601 (2009); *accord Cooper*, 434 Md. at 230.

Although the rule speaks of basis evidence being "disclosed" to the jury, there is no distinction "between 'disclosure' and 'admission'"—"for purposes of Maryland Rule 5-703(b), 'disclosure' of facts or data reasonably relied upon by an expert witness means 'admission' of the information at issue provided that the four elements of the Rule are fulfilled." *Lamalfa v. Hearn*, 457 Md. 350, 381–82 (2018).

In *Williams*, the plurality opined that, under a similar provision of Illinois evidentiary law, information about the Cellmark report concerning the DNA profile generated from evidentiary samples there was properly admitted as basis evidence rather than for the truth of the matter asserted, and thus did not violate the Confrontation Clause. *Williams*, 567 U.S. at 71–79 (plurality op.). The *Williams* plurality rejected the views of Justice Thomas and the dissenters "that [the testifying expert's] testimony could be 'true' only if the predicate facts asserted in the Cellmark report were true, and therefore [the expert's] reference to the report must have been used for the purpose of proving the truth of those facts." *Id.* at 77.

As the plurality explained, the dissenters' view was "directly contrary" to the rule of admissibility of basis evidence in the first place. *Id.* at 77–78. But the dissenters' view also ignored the ample other record support for the expert's conclusions:

> As to the source of the sample, the State offered conventional chain-of-custody evidence, namely, the testimony of the physician who obtained the vaginal swabs, the testimony of the police employees who handled and kept custody of that evidence until it was sent to Cellmark, and the shipping manifests, which provided evidence that the swabs were sent to

> Cellmark and then returned to the ISP lab. In addition, . . . the match between the Cellmark profile and petitioner's profile was itself telling confirmation that the Cellmark profile was deduced from the semen on the vaginal swabs.
>
> This match also provided strong circumstantial evidence regarding the reliability of Cellmark's work. Assuming . . . that the Cellmark profile was based on the semen on the vaginal swabs, how could shoddy or dishonest work in the Cellmark lab have resulted in the production of a DNA profile that just so happened to match petitioner's? If the semen found on the vaginal swabs was not petitioner's and thus had an entirely different DNA profile, how could sloppy work in the Cellmark lab have transformed that entirely different profile into one that matched petitioner's? And without access to any other sample of petitioner's DNA (and recall that petitioner was not even under suspicion at this time), how could a dishonest lab technician have substituted petitioner's DNA profile? Under the circumstances of this case, it was surely permissible for the trier of fact to infer that the odds of any of this were exceedingly low.

Id. at 76–77.

All of the same observations apply to this record. The State introduced evidence of the chain of custody of the evidentiary samples, which indicated that the profile Rollo generated had come from the evidentiary samples. Leidig was not even under suspicion at the time that the single-source DNA profile was developed from those samples—it only later turned out to match his profile.

Moreover, as Keener testified, Rollo's report memorializing the DNA profile developed from the reference samples was a type of laboratory record that she, as a forensic scientist, would rely upon when making comparisons to other DNA profiles.[17]

Cooper is also directly on point. There, this Court held that "under Rule 5-703," a report of DNA analysis of evidentiary samples was properly "admitted as the basis for [the] expert opinion" of the testifying expert (who, as in this case, had also been a peer reviewer of the report). *Cooper*, 434 Md. at 220–21, 230. This Court held that the trial court did not abuse its discretion in finding the four elements for admission of basis evidence under Rule 5-703 satisfied.

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[17] It is true that five justices (the four dissenters and Justice Thomas) disagreed with the *Williams* plurality on this point. *See Williams*, 567 U.S. at 104–09 (Thomas, J., concurring); *id.* at 125–33 (Kagan, J., dissenting). But, unlike this Court, the Supreme Court does not view five-vote alignments split across concurrences and dissents as precedential; rather, under *Marks*, 430 U.S. at 193, the holdings of a fractured decision can only be derived from the justices "who concurred in the judgments[.]" The dissent's view thus does not control, and the State submits that the *Williams* plurality's view is the better reasoned and most consistent with Maryland law on this point among the *Williams* opinions.

First, as to trustworthiness, the trial judge's admission of the report indicated that the judge "found it to be trustworthy," and the trustworthiness was also bolstered by the general reliability of DNA evidence as memorialized in § 10-915, and by the expert witness' testimony about procedures used at the Bode lab "to ensure the reliability of the results[.]" *Id.* at 230–31. *Second*, there was no claim that the report was privileged. *Id.* at 230. And as to the *third* element (whether the expert witness, Fulmer, relied on the report) and *fourth* element (that it illuminated her testimony), this Court held that the trial court did not abuse its discretion in so concluding: "Fulmer testified that when she reviewed Shields's work, she 'ma[de] sure . . . [Shields] performed the right procedures, that the data looks accurate and then I also agree with the results that she generated and issued in her report.' In other words, Fulmer adopted the results in the Shields report." *Id.* at 231. Accordingly, the trial judge in *Cooper* "did not abuse his discretion in determining that Fulmer relied upon the Shields report" and "also did not abuse his discretion when he admitted the report into evidence, as the content of the report illuminated the conclusions Fulmer adopted." *Id.*; *see also Norton*, 443 Md. at

552 n.32 (suggesting that no Confrontation Clause violation would occur where "the testifying expert was a witness with respect to his or her own analysis, review and certification").

Cooper applies here. In opposing the defense's objection to the Rollo report, the State relied on *Cooper*, arguing that under Rule 5-703, "an expert is allowed to rely on the reports of other experts when [reaching] their expert opinion." (E. 84). And the trial court did not abuse its discretion in finding the four elements under Rule 5-703 satisfied, for precisely the same reasons as in *Cooper*.[18]

Leidig argues that under Rule 5-703, the original analyst's testimonial report itself cannot be admitted as substantive evidence, and argues that Rule 5-703 cannot justify the trial court's admission of the Rollo report here. (Petitioner's Br. at 39).

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[18] In this Court's pre-*Williams* decision in *Derr I* (*i.e.*, *Derr v. State*, 422 Md. 211 (2011), *vac'd*, 567 U.S. 948 (2012)), the Court ruled that Rule 5-703 would violate the Confrontation Clause to the extent that it allowed an expert to "render as true the testimonial statements or opinions of others" under the rubric of basis evidence. *Derr I*, 422 Md. at 243. As noted, however, the *Williams* plurality took a different view. In *Cooper*, this Court stated: "As a vacated decision, *Derr I* is no longer good law in Maryland." *Cooper*, 434 Md. at 232.

But this Court approved admission of the underlying report itself in *Cooper*, 434 Md. at 231, and more recently has confirmed in *Lamalfa* that the rule contemplates basis evidence being admitted into evidence. *Lamalfa*, 457 Md. at 381–82.

What both Rule 5-703 and the Confrontation Clause would preclude is the admission of testimonial basis evidence *for the truth of the matter asserted*. And to be sure, the jury here was not instructed to consider the Rollo report only as basis evidence. But that is because Rule 5-703 obligates the court to give such a limiting instruction only on request, and Leidig did not request one. *See Lamalfa*, 457 Md. at 387 (holding that, under Rule 5-703, "failure to request a limiting instruction at any point . . . constitutes a waiver of any issue as to the weight the jury may have accorded" to basis evidence). Moreover, through cross-examination of Keener, defense counsel was able to demonstrate for the jury that the validity of Keener's expert opinion of a match was premised on the assumed accuracy of the DNA profile from the evidentiary samples in the Rollo report. Under cross-examination, Keener admitted that, if the alleles at any of the untested loci in the evidentiary samples were found to differ from

the alleles at those loci in Leidig's profile as developed with the newer testing kit, Leidig "would be excluded from the DNA profile." (E. 110). Thus, it would have been clear to the jury that the evidentiary DNA profile Rollo had generated was basis evidence for Keener's expert opinion that Leidig's profile matched the crime-scene evidence and that a coincidental explanation was so unlikely as to be unreasonable.

Other state and federal courts agree that "the Confrontation Clause is not violated when an expert testifies regarding his or her independent judgment, even if that judgment is based upon inadmissible testimonial hearsay." *State v. McLeod*, 66 A.3d 1221, 1230 (N.H. 2013) (collecting cases); *see also State v. Watson*, 185 A.3d 845, 859 (N.H. 2018) (collecting additional federal and state authority recognizing that an expert may offer an independent opinion based on testing and analysis performed by others).[19]

Keener thus was permitted to offer conclusions based on the

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[19] Indeed, if anyone other than the original analyst who developed an evidentiary DNA profile were barred from using the evidentiary profile as basis evidence for testimony about matches to that profile, the use of DNA evidence to prosecute cold cases would be drastically diminished.

DNA profile developed by Rollo, and the Rollo report was properly admitted under Rule 5-703 as the basis for Keener's expert opinion that the evidence profile matched Leidig's profile.

3. *Admission of the Rollo report did not violate Leidig's confrontation right because the report conveyed the conclusions that Keener had reached as its peer reviewer.*

The admission of the Rollo report also did not violate the Confrontation Clause—even if admitted for its substance—due to Keener's status as a peer reviewer. Because Keener participated in the issuance of the Rollo report as a peer reviewer and agreed with its findings and conclusions, Keener's in-court testimony was sufficient to satisfy Leidig's right of confrontation.[20]

Although the record as to Keener's peer review is somewhat sparse, Keener testified that she was the "administrative reviewer" for Rollo's report (E. 82), and in that capacity had "reviewed [Rollo's] results as a peer reviewer at the time of the analysis," including Rollo's underlying data. (E. 116). Keener

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[20] In *Miller*, the principal issue presented is similarly whether the testimony of a "technical reviewer" of a testimonial report satisfies the defendant's confrontation right.

further testified that she "agree[d] with [Rollo's] results and conclusions," and had initialed each page of the Rollo report to indicate her agreement. (E. 83, 154–55). She also explained that peer review was part of the development of the report: "[e]very case must be peer reviewed by two separate analysts," in addition to the author, "before the report is released." (E. 82).

In *Bullcoming*, the Supreme Court disapproved pure "surrogate testimony"—testimony given by an expert witness who was merely familiar with the pertinent laboratory procedures but had "no[t] reviewed" the non-testifying analyst's report. 564 U.S. at 655. But Justice Sotomayor emphasized in concurrence that *Bullcoming* did not disapprove testimony by "a supervisor, *reviewer*, or someone else with a personal, albeit limited, connection to the scientific test at issue." *Id.* at 673 (Sotomayor, J., concurring) (emphasis added).

This Court included the same express caveats in *Norton*. *Norton* was devoted primarily to refinement of the testimonial standard based on *Williams*, but in a footnote the Court expressly distinguished cases in which the "testifying expert was a witness

with respect to his or her own analysis, review and certification." *Norton*, 443 Md. at 552 n.32.

Cooper, once again, is even more directly on point. There, the testifying analyst, Fulmer, had performed a "technical review" of the report at issue—which, similar to the peer review described by Keener here, involved ensuring that the authoring analyst "performed the right procedures, that the data looks accurate and then I also *agree with the results that she generated and issued in her report*." *Cooper*, 434 Md. at 221 (emphasis added). Not only did this Court find no error in admission of Fulmer's testimony, it concluded that "Fulmer adopted the results in the Shields report" and on that basis also approved the admission (albeit as basis evidence rather than for the truth of the matter asserted) of the report itself. *Id.* at 231.

Indeed, numerous cases from around the country have come to similar conclusions. In *Watson*, *supra*, 185 A.3d at 858–59, the New Hampshire Supreme Court held that the Confrontation Clause did not preclude the testimony of an analyst who did not perform the toxicology testing at issue but had "reviewed all of the testing results" during the preparation of the report and "testified

to his own, independent conclusions." Although acknowledging some contrary authority, the *Watson* court collected decisions of "at least seven federal courts and 21 state courts, which, in opinions since 2012, have found no Confrontation Clause violation under similar circumstances." *Id.* at 859 & nn.2–3 (collecting cases).

Leidig observes that the FBI QAS distinguish between "administrative review" and "technical review," and that administrative review involves only an evaluation of the report and supporting documentation for "consistency with laboratory policies and editorial correctness," whereas technical review involves a more searching review of "reports, notes, data, and other documents" to "ensure there is an appropriate and sufficient basis for the scientific conclusions." (Petitioner's Br. at 42 (quoting FBI QAS)). As Leidig also notes, a witness in *Cooper* described the difference between administrative review and technical review in similar terms. *See Cooper*, 434 Md. at 219–20 (describing administrative review as checking "grammar . . . punctuation and that sort of stuff").[21]

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[21] The record in *Miller*, where the testimony of peer reviewers who conducted "technical review" is at issue, also suggests a

It may be that an "administrative review" of the kind envisioned by the QAS ordinarily would not be sufficiently substantial to satisfy the Confrontation Clause. But the record in this case does not distinguish between administrative review and technical review. And, more importantly, Keener's testimony suggests that she performed the more substantial sort of peer review that would ordinarily be characterized as "technical review." Far from describing her review as a mere check of punctuation and grammar, Keener testified that she had reviewed the "peaks" in the underlying data (E. 116), had "reviewed [Rollo's] results as a peer reviewer at the time of the analysis" (E.116), and, critically, "agree[d] with [Rollo's] results and conclusions." (E. 83).

When Keener testified to the conclusions contained in the Rollo report, she was thus testifying to conclusions she herself had also come to as a participant in generating the report. And of course, Keener also testified to the additional conclusions that she had reached in her own further analysis. Keener was no mere

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similar difference between the two types of review.

"surrogate" as in *Bullcoming*.[22] It follows that Leidig's right to confront the witness against him was not denied, because Keener—not Rollo—was the witness against him.

C. Leidig presents no basis to depart from this Court's practice of construing the Article 21 of the Declaration of Rights *in pari materia* with the Sixth Amendment.

Alternatively, Leidig requests that, if this Court finds that the Confrontation Clause does not avail him, the Court should depart from its longstanding practice of construing the confrontation right under Article 21 of the Declaration of Rights *in pari materia* with the Sixth Amendment's Confrontation Clause, and hold that he is entitled to relief under Article 21. The Court should reject this request.

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[22] This point also suffices to reject analogy to *Rainey v. State*, 246 Md. App. 160, *cert. denied*, 468 Md. 556 (2020), where the testifying expert simply relayed the conclusions of psychiatric tests that had been conducted by another, non-testifying expert, rather than "offer[ing] a truly independent conclusion regarding the test results." *Id.* at 184 n.15. Indeed, the testifying expert in *Rainey* had not "observe[d] the raw data generated from those tests" and admitted that "as to two of the three tests . . . , had she been provided with the underlying data, she would not have been qualified to analyze it." *Id.* at 169.

Indeed, this Court has already expressly declined, in the wake of *Williams* and in the context of claims concerning forensic analysis, "to deviate from th[e] practice" of construing Article 21 *in pari materia* with the Confrontation Clause. *Derr II*, 434 Md. at 103 & n.11. That decision in *Derr II* continued a practice of *in pari materia* construction that was already well-established[23] and has continued since.[24]

Notably, the Court decided *Derr II* over the dissent of Judge Eldridge, who advocated a break with the *in pari materia* practice. *Id.* at 140–49 (Eldridge, J., dissenting). But, although Judge Eldridge argued that "the failure of the Supreme Court to render a[ ] [majority] opinion in *Williams v. Illinois* would clearly justify basing our decision on Article 21," *id.* at 144, he did not propose any alternative interpretive framework to adjudicate confrontation issues under Article 21.

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[23] *See, e.g.*, *Lawson v. State*, 389 Md. 570, 587 n.7 (2005); *State v. Snowden*, 385 Md. 64, 74 n.9 (2005); *Simmons v. State*, 333 Md. 547, 555 n.1, *cert. denied*, 513 U.S. 815 (1994); *Craig v. State*, 322 Md. 418, 430 (1991).

[24] *See, e.g.*, *Peterson v. State*, 444 Md. 105, 122 n.4 (2015); *Miller v. State*, 435 Md. 174, 197–98 (2013); *Cooper*, 434 Md. at 232–33; *Grandison v. State*, 425 Md. 34, 64–65 (2012), *cert. denied*, 568 U.S. 1093 (2013).

Nor does Leidig. The Court of Special Appeals observed that Leidig provided "no argument as to why Article 21 provides additional protection other than that it preceded its federal counterpart," and accordingly "decline[d] to consider [his] claim separately under Article 21." (E. 14 n.8). In this Court, Leidig still fails to propose a test by which forensic evidence should be evaluated under Article 21 that would differ from the *Williams* rubric, as discerned by this Court in *Norton*.[25] He simply argues that, if he loses on the Sixth Amendment, this Court should "consider whether the Maryland Constitution offers additional protection[.]" (Petitioner's Br. at 14). This Court rejected such a hazy invitation in *Derr II* and, like the Court of Special Appeals, should reject it here as well.

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[25] Indeed, *Gregory v. State*, 40 Md. App. 297 (1978), on which Leidig principally relies, reveals that there is no basis in extant Maryland Article 21 jurisprudence for a different framework. Writing for the Court of Special Appeals in *Gregory*, Judge Wilner explained that before the Confrontation Clause was made applicable to the states in 1965, this Court's Article 21 jurisprudence had indicated "that the right of confrontation did not apply to documentary evidence in any form," and that, "if a document was otherwise admissible under traditional or statutory rules of evidence, it was not rendered inadmissible under Article 21, regardless of what it contained." *Id.* at 314 (citing, albeit with some criticism, *Jones v. State*, 205 Md. 528 (1954)).

CONCLUSION

The judgment of the Court of Special Appeals should be affirmed.

Dated: November 2, 2020

Respectfully submitted,

BRIAN E. FROSH
Attorney General of Maryland

JER WELTER
Assistant Attorney General
CPF No. 0712120395

Counsel for Respondent

CERTIFICATION OF WORD COUNT AND COMPLIANCE WITH THE MARYLAND RULES

This filing was printed in 13-point Century Schoolbook font; complies with the font, line spacing, and margin requirements of Maryland Rule 8-112; and contains 12,563 words, excluding the parts exempted from the word count by Maryland Rule 8-503.

/s/ Jer Welter

JER WELTER
Assistant Attorney General
CPF. No. 0712120395

Counsel for Respondent

APPENDIX

Table of Similarities and Differences Between Leidig v. State *and* State v. Miller

	Leidig	***Miller***
Nature of Crime	Burglary	Rape
Nature of Report at Issue	Report of DNA profiles developed from evidentiary samples.	Report of comparison between DNA profiles developed from evidentiary samples and DNA profile developed from suspect's reference sample, with statistical calculations.
Formal?	In the Court of Special Appeals, the panel held that language in a report that it "contains conclusions, opinions and interpretations of the examiner whose signature appears" and that it used procedures "validated according to" the FBI Quality Assurance Standards did *not* make the report formal.	In the Court of Special Appeals, the panel ruled that the same language rendered the report formal.
Accusatory?	The parties agree that the report at issue is <u>not</u> accusatory, because no individual is identified as the source of evidentiary DNA profiles.	The parties agree that the report at issue <u>is</u> accusatory, because it identifies the defendant as the source of evidentiary DNA profiles.
Was the report itself entered into evidence?	Yes.	No.
Author of report	Molly Rollo	Brian Hebert
Identity of testifying witness	Tiffany Keener, characterized as "administrative reviewer" or "peer reviewer."	Kimberly Morrow, characterized as "technical reviewer."

CELLMARK DIAGNOSTICS
20271 Goldenrod Lane · Germantown, Maryland 20876
Telephone: (301) 428-4980 (800) USA-LABS
Administration Fax: (301) 428-4877
Laboratory Fax: (301) 428-7946

Report of Laboratory Examination

February 15, 2001

Mr. Rodney Anderson
Forensic Science Center at Chicago
1941 West Roosevelt Road
Chicago, IL 60608

L. J.

CASE NO: ILBL00-0029 **SUBJECT:**

AGENCY CASE NO: C00-007770

STORAGE NO:

EXHIBITS RECEIVED:

ITEM	DATE RECEIVED	QTY.	DESCRIPTION	TESTED (#)
C00-007770:1B1	11/29/00	4	Vaginal Swab	☑ 1
C00-007770:1A1	11/29/00	1	Victim Standard	☑ 1

RESULTS AND CONCLUSIONS:

DNA testing using the Polymerase Chain Reaction (PCR) and the AmpFlSTR Profiler Plus™ and AmpFlSTR COfiler ™ Amplification Kits was performed on the indicated exhibits. The loci tested and the results obtained for each tested sample are listed in Table 1. Additional information regarding possible male contributor(s) is listed in Table 2.

The DNA obtained from the epithelial cell fraction of the vaginal swab is from a female and matches the profile obtained for L. J.

The DNA obtained from the sperm fraction of the vaginal swab is a mixture from a male and a female. Types present in the mixture are consistent with the types obtained from L. J. Assuming that the mixture contains DNA from only two sources and L. J. is one of the sources, the possible types of the male donor are listed in Table 2.

DISPOSITION:

In the absence of specific instruction, evidence will be returned to the submitting agency by Federal Express or another appropriate carrier.

Reviewer: Robin Cotton
Robin W. Cotton, Ph.D.
Laboratory Director
Forensic Laboratory

Reviewer: J.E. Reynolds
Jennifer E. Reynolds, Ph.D.
Laboratory Director
Identity Laboratory

2 C00-7770 SA

Report of Laboratory Examination

2/15/2001

Case Number: ILBL00-0029

Agency Case No: C00-007770

Table 1: (Sample Profiles)

Sample Name	D3S1358	vWA	FGA	D8S1179	D21S11	D18S51	D5S818	D13S317	D7S820	D16S539	TH01	TPOX	CSF1PO	AMEL
Vaginal Swab -E1	16,17	17,18	22,26	14,16	29,30	18	10,12	11,12	11	10,12	7,8	8,11	10	X
ILBL00-0029VS-01E1														
C00-007770:1B1														
Vaginal Swab -E2	16,17,[18], 19	17,18	18,22,26	14,16	29,30,(32)	13,17,18	10,12,13	11,12	10,11,12	9,10,11,12	7,8	8,11	8,10	X,Y
ILBL00-0029VS-01E2														
C00-007770:1B1														
ILBL00-0029VC-01	16,17	17,18	22,26	14,16	29,30	18,18	10,12	11,12	11,11	10,12	7,8	8,11	10,10	X,X
C00-007770:1A1														

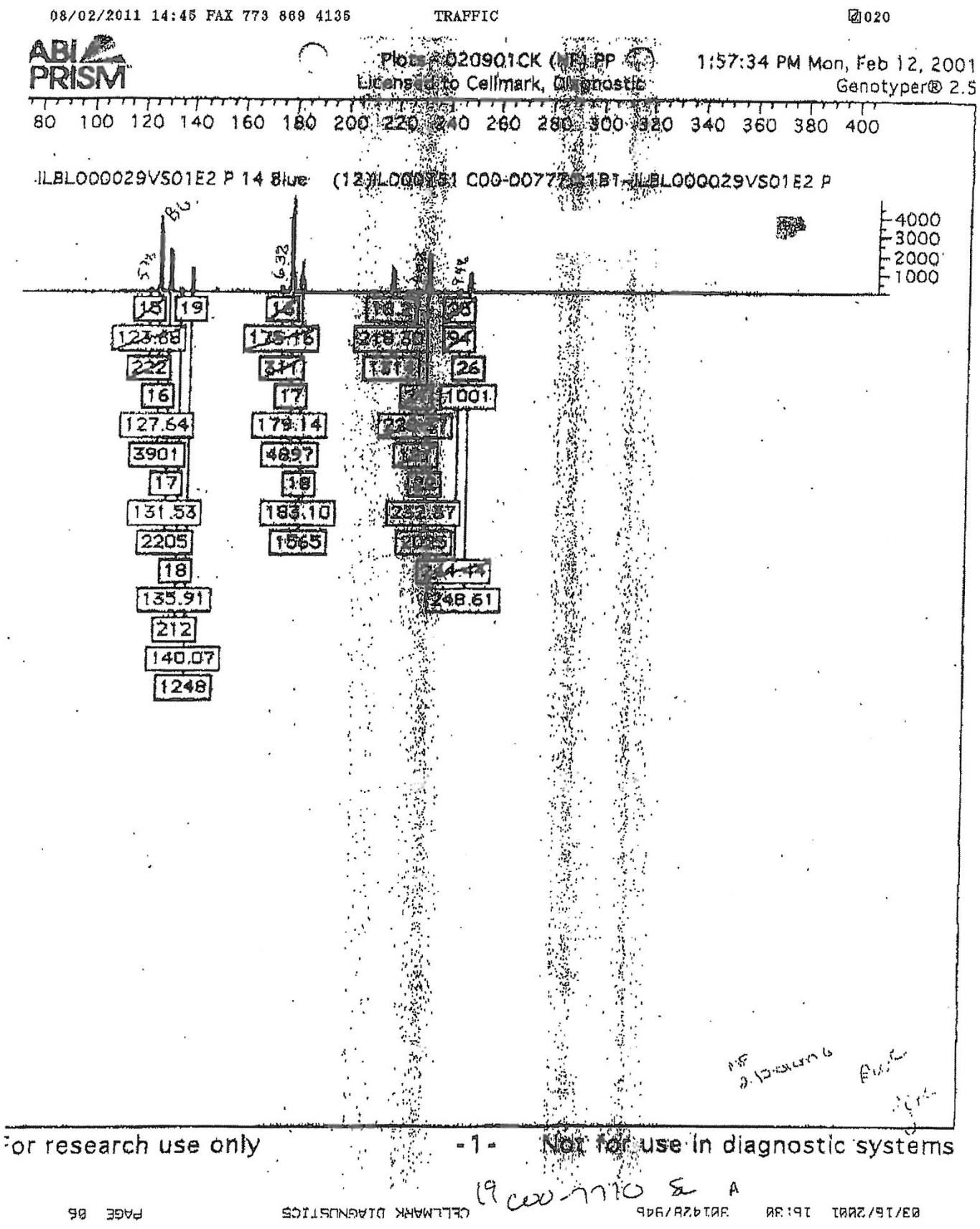
Table 2: (Deduced Male Donor Profile)

Vaginal Swab -D	16,19	17	18,22	14	29,30	13,17	10,12,13	11	10,12	9,11	7	8,11	8,10	XY
ILBL00-0029VS-01D CODIS														
C00-007770:1B1														

E1 = Epithelial Cell Fraction
E2 = Sperm Fraction
D = Deduced

[] = Minor Alleles most likely from a third source, not included in deduced male donor profile.
() = The results in parentheses may be present.

It may not be possible to determine whether DNA from a female is present when DNA from a male is detected.
The results listed in the table do not depict intensity differences.
Weak or ambiguous results may have been observed that were due to the presence of DNA from more than one individual or to technical artifacts; these additional results were not interpreted.
CODIS = This sample is reported in a CODIS CMF file.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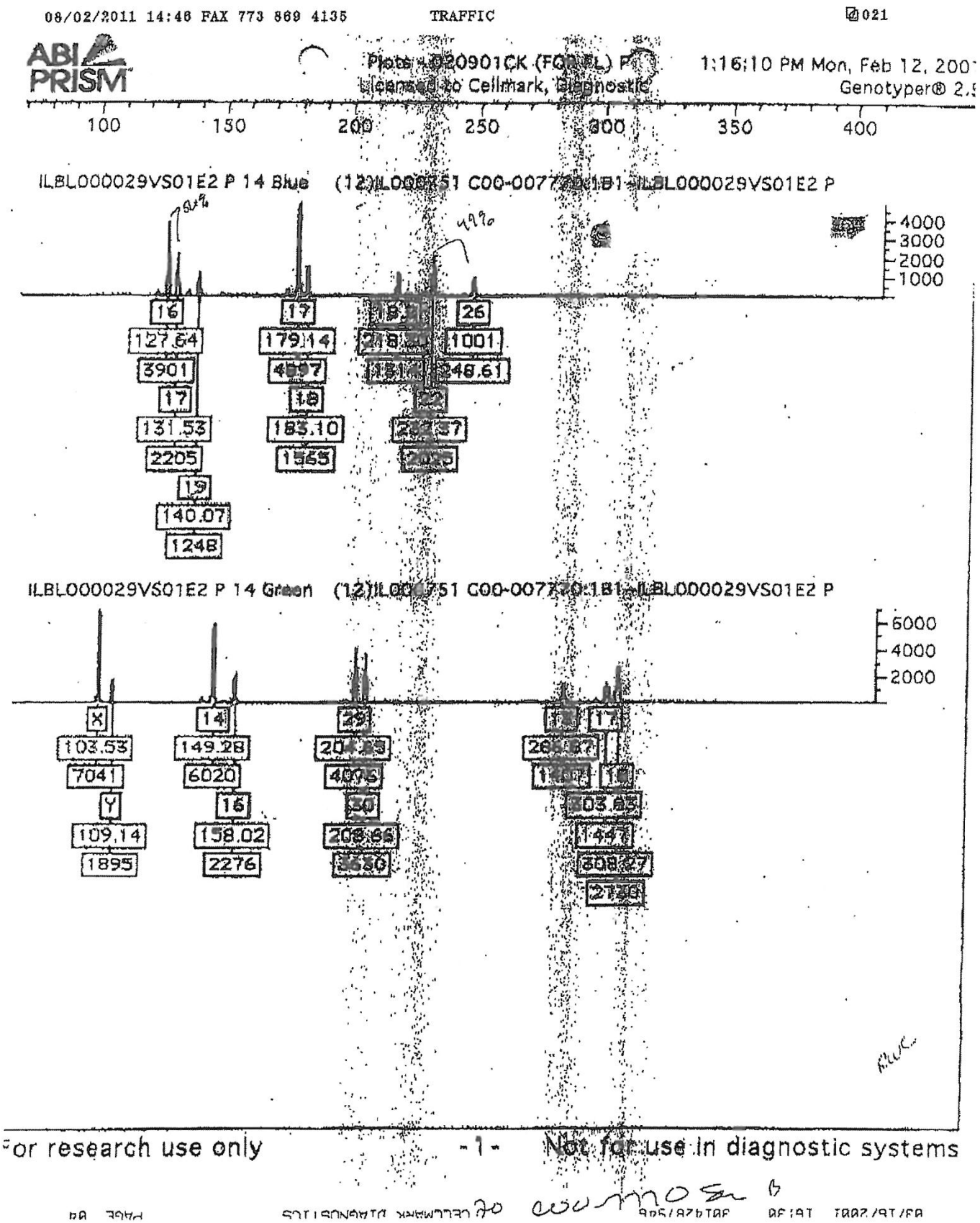
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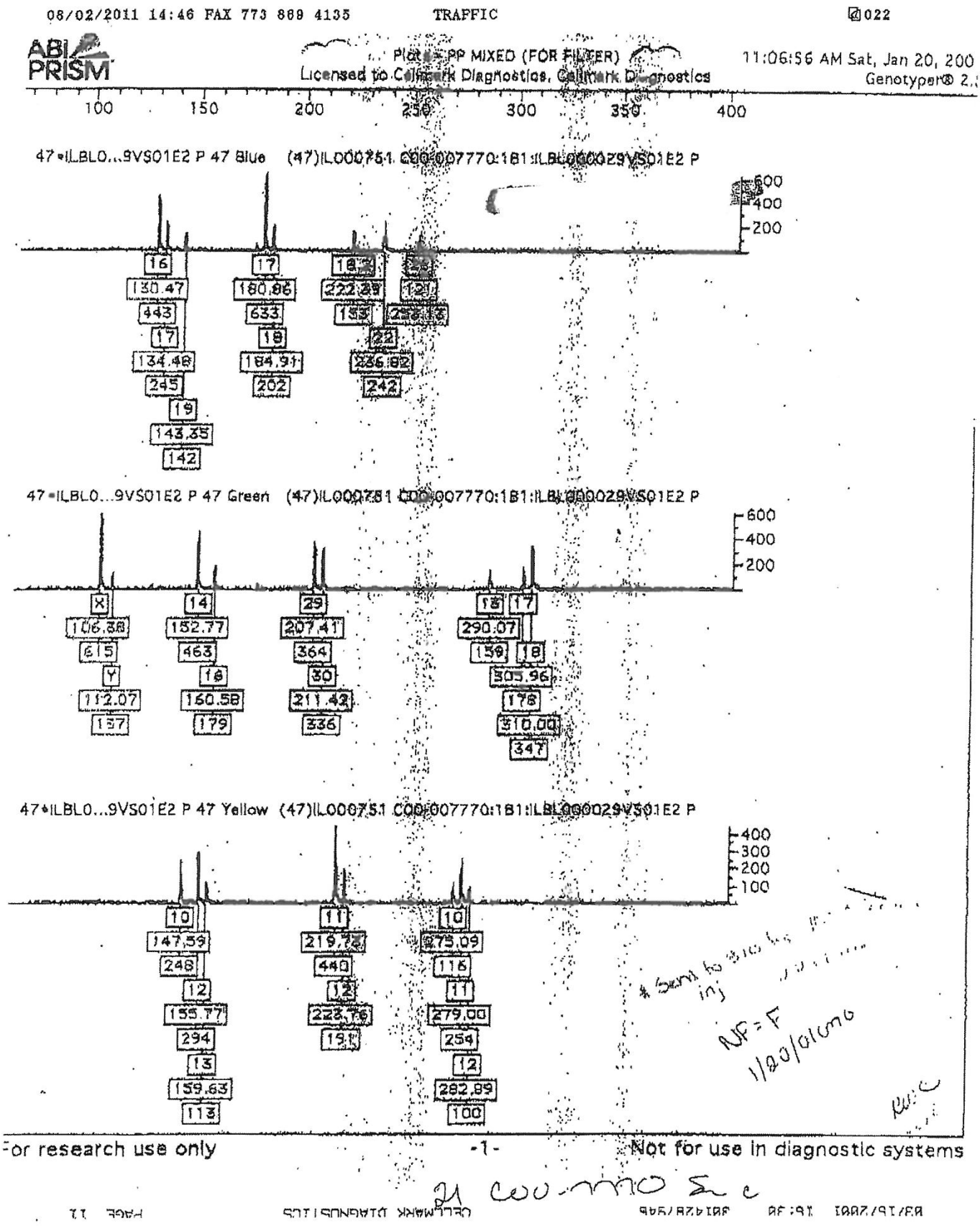
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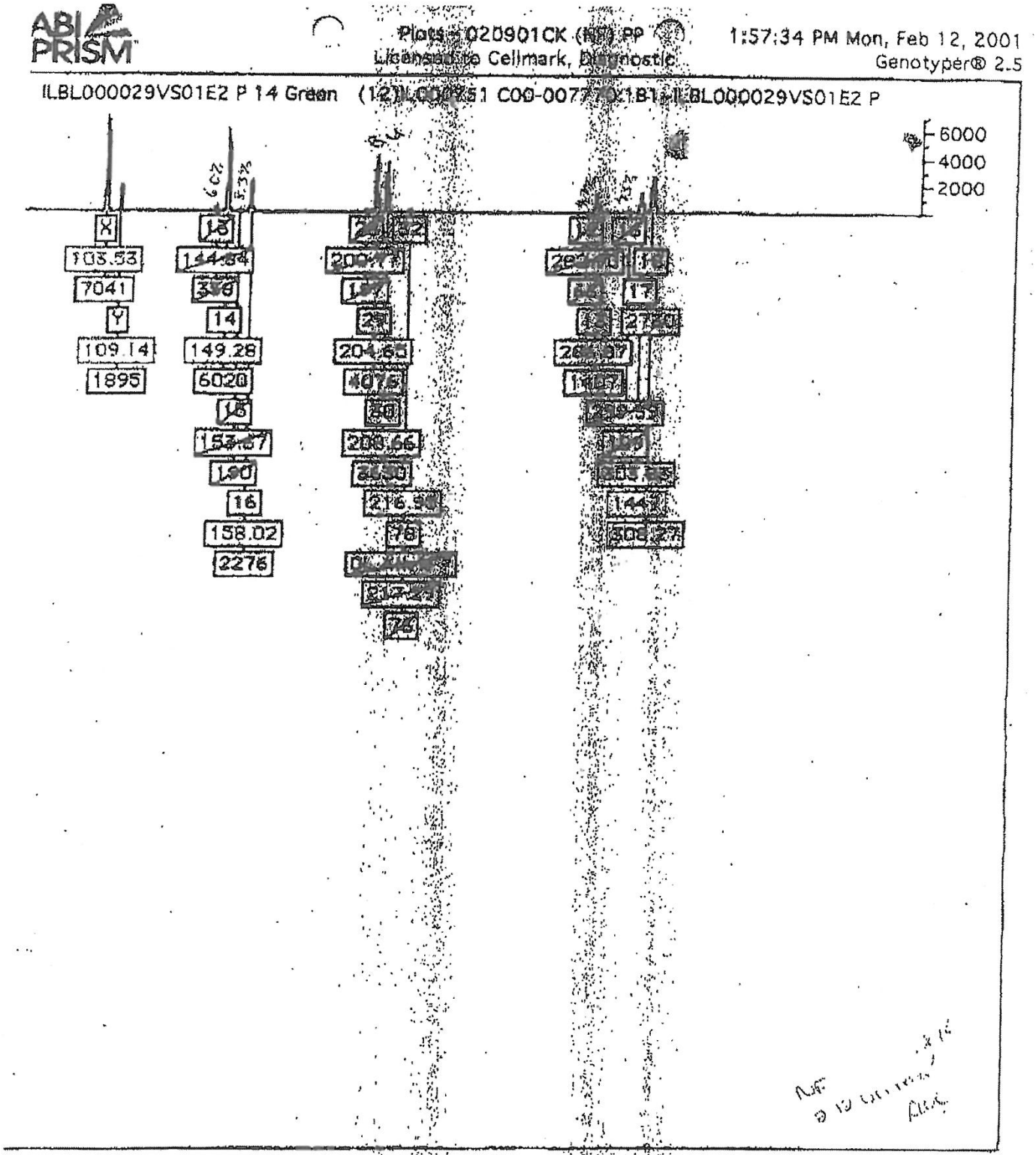

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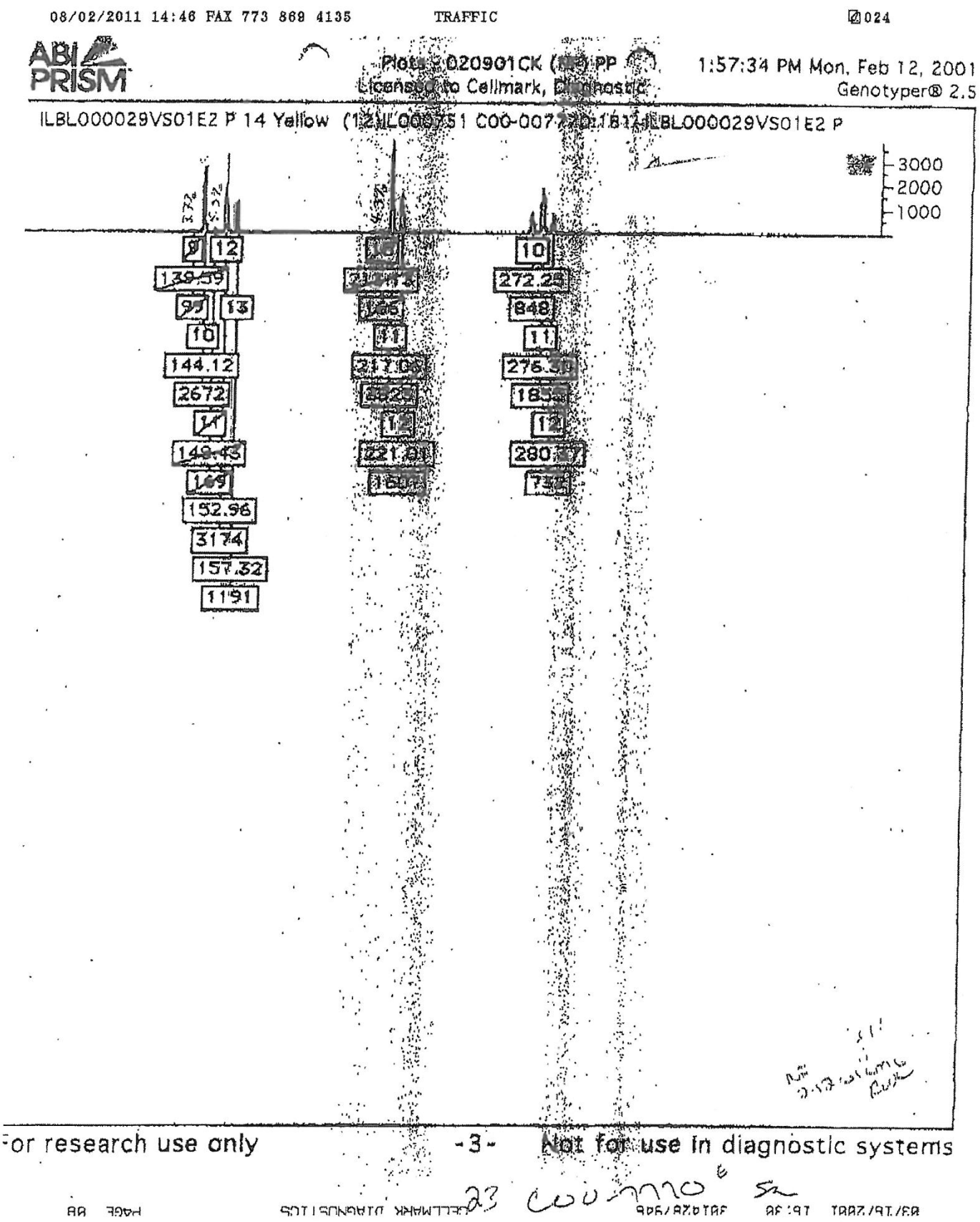
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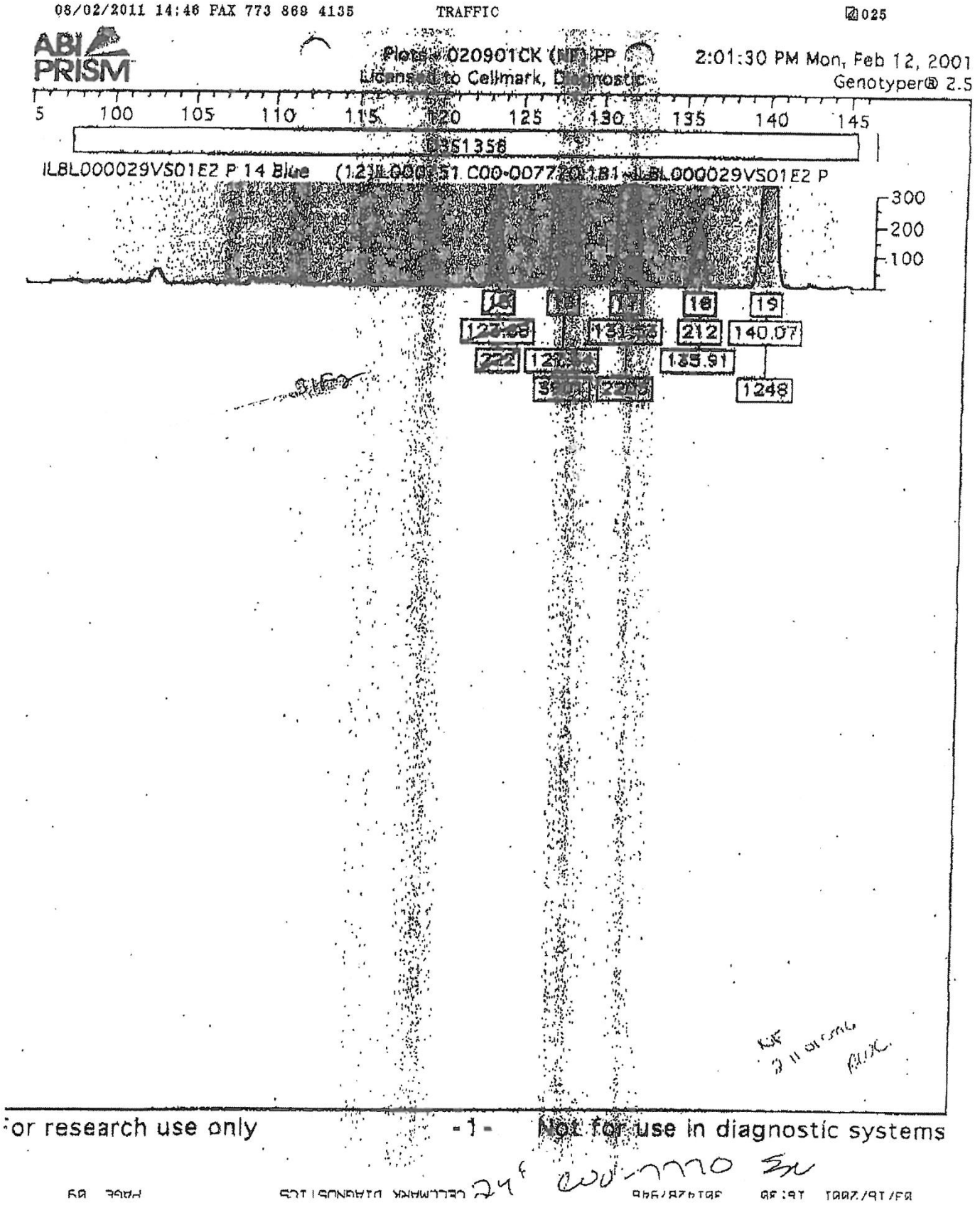
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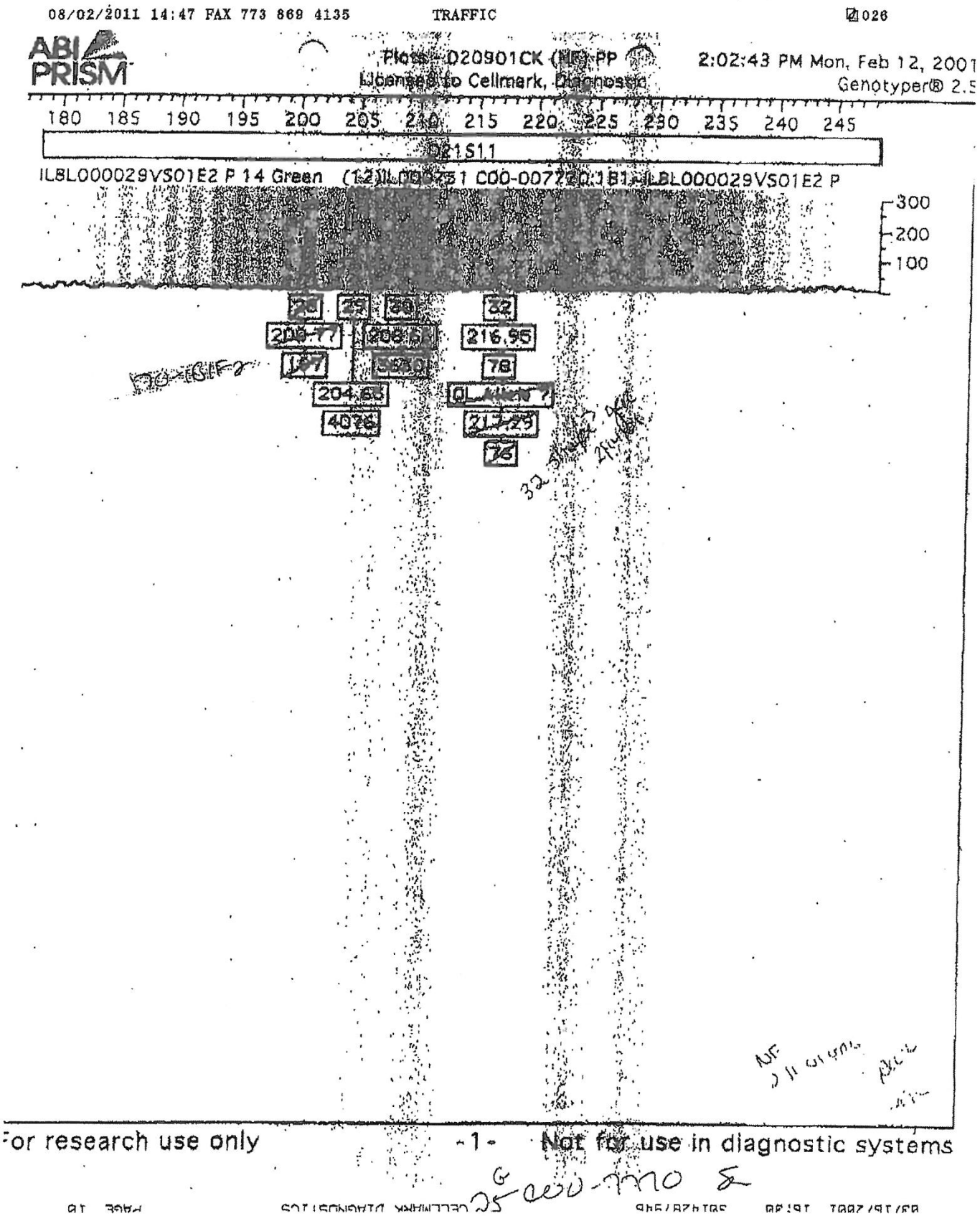
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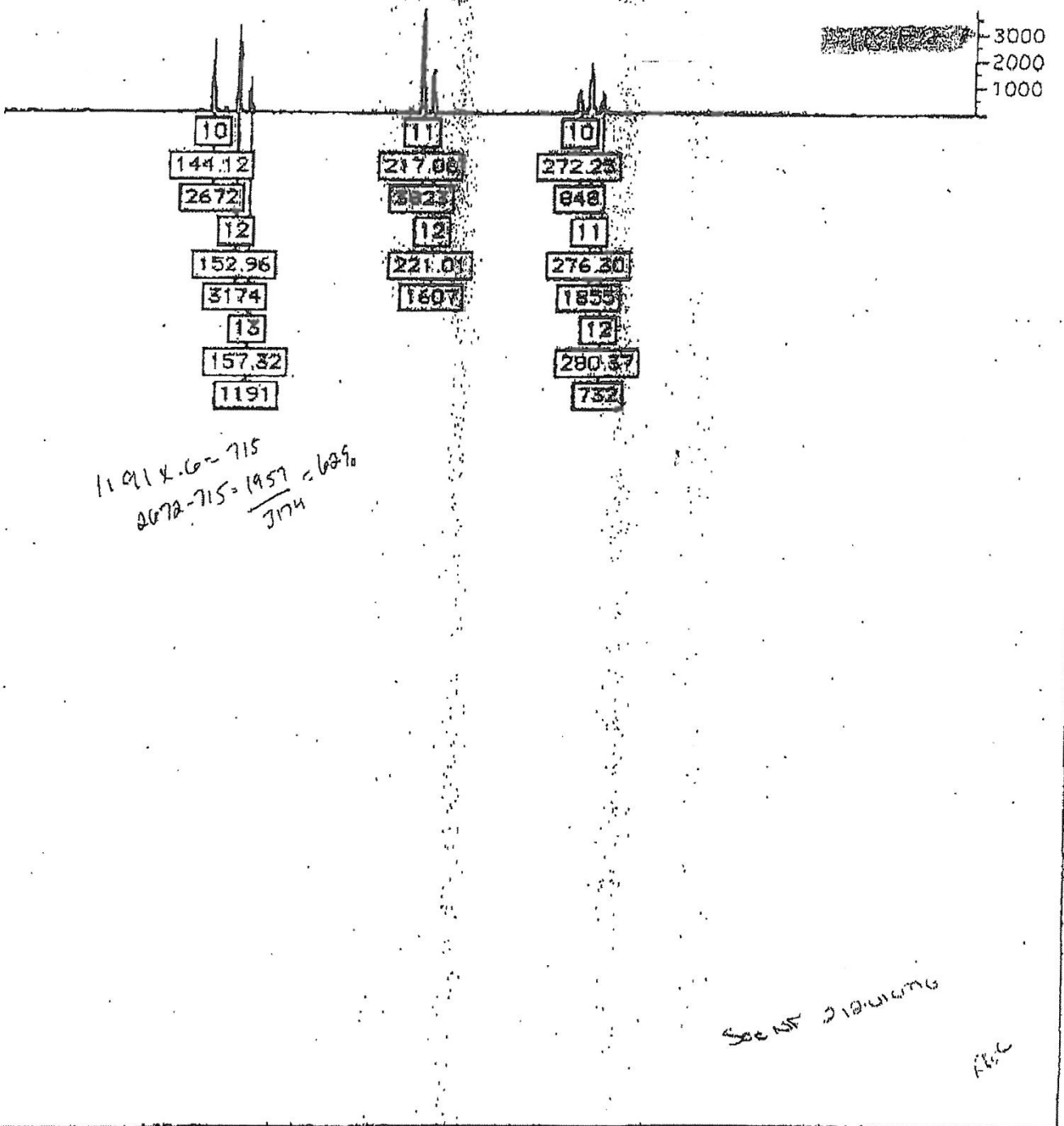

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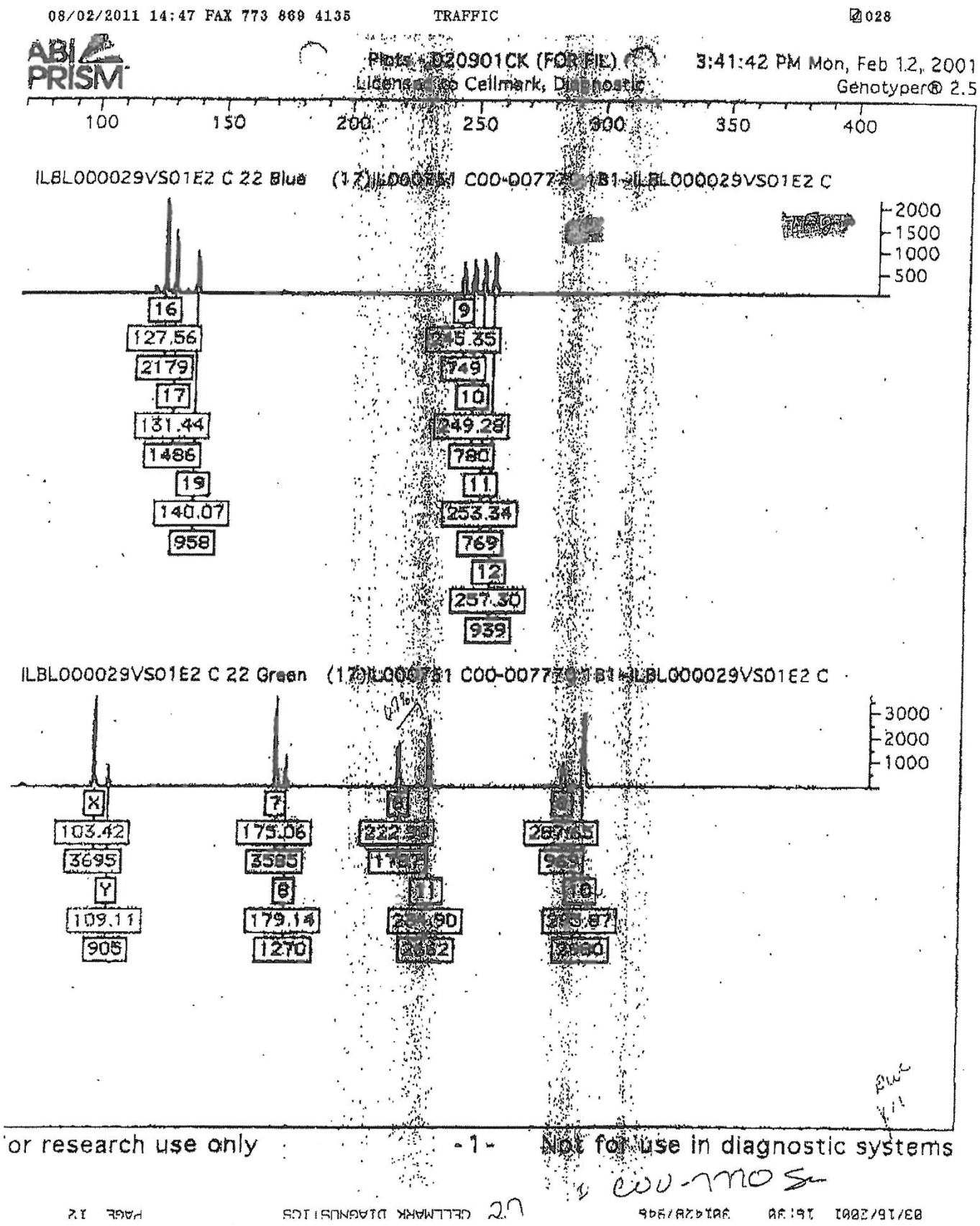
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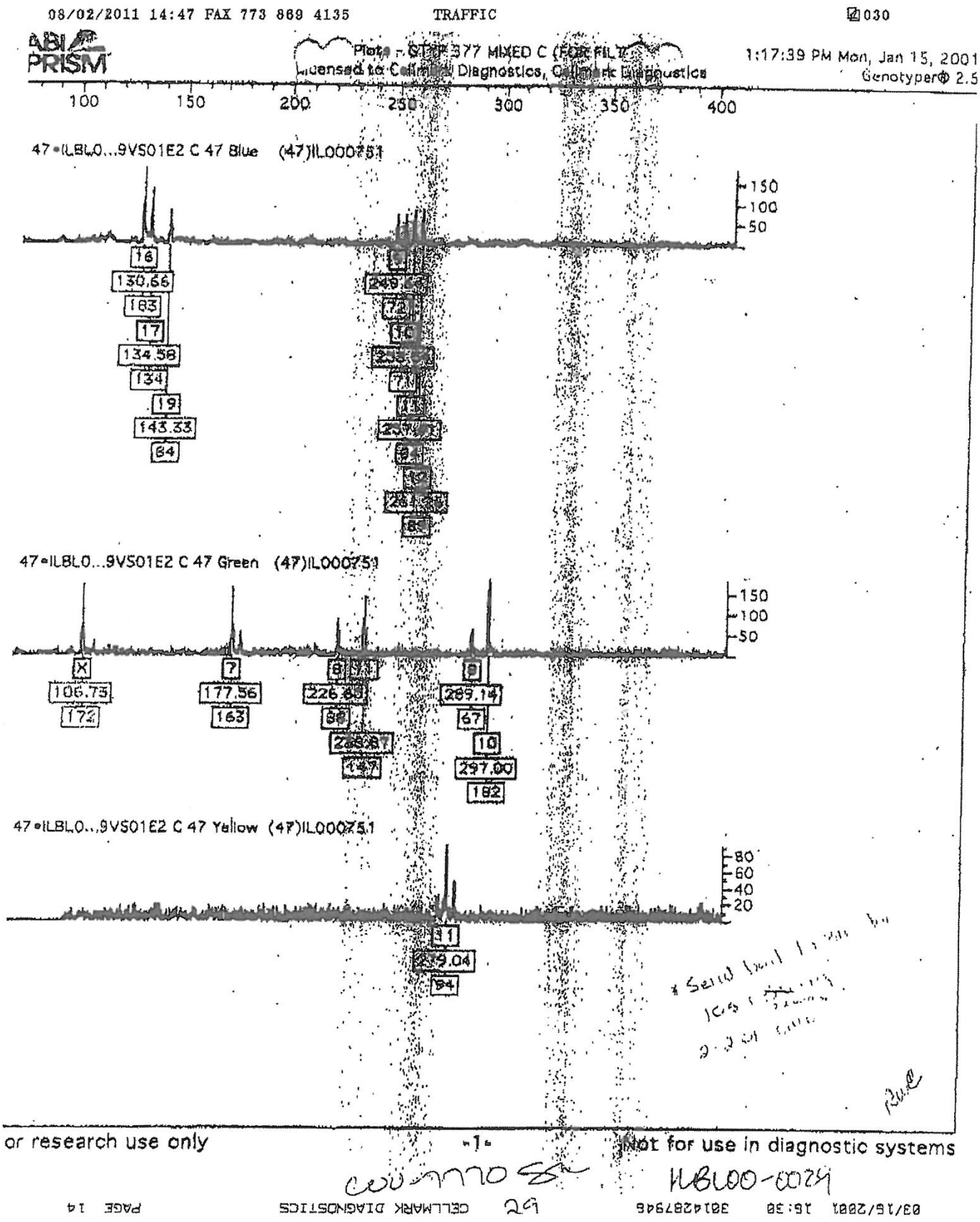
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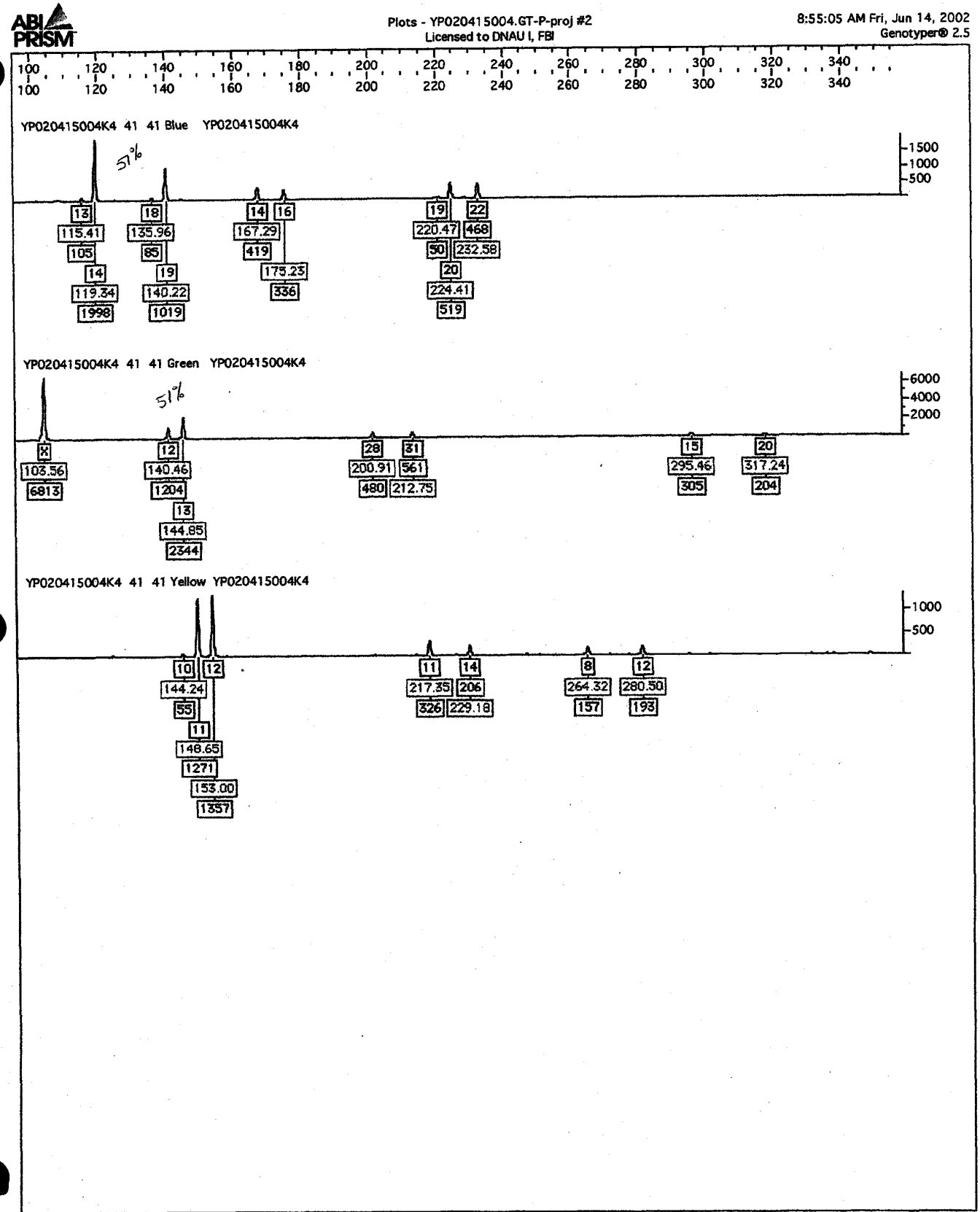
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15 295.46 305
20 317.24 204
YP020415004K4 41 41 Yellow YP020415004K4
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11 217.35 326 14 206 229.18
8 264.32 157
12 280.50 193

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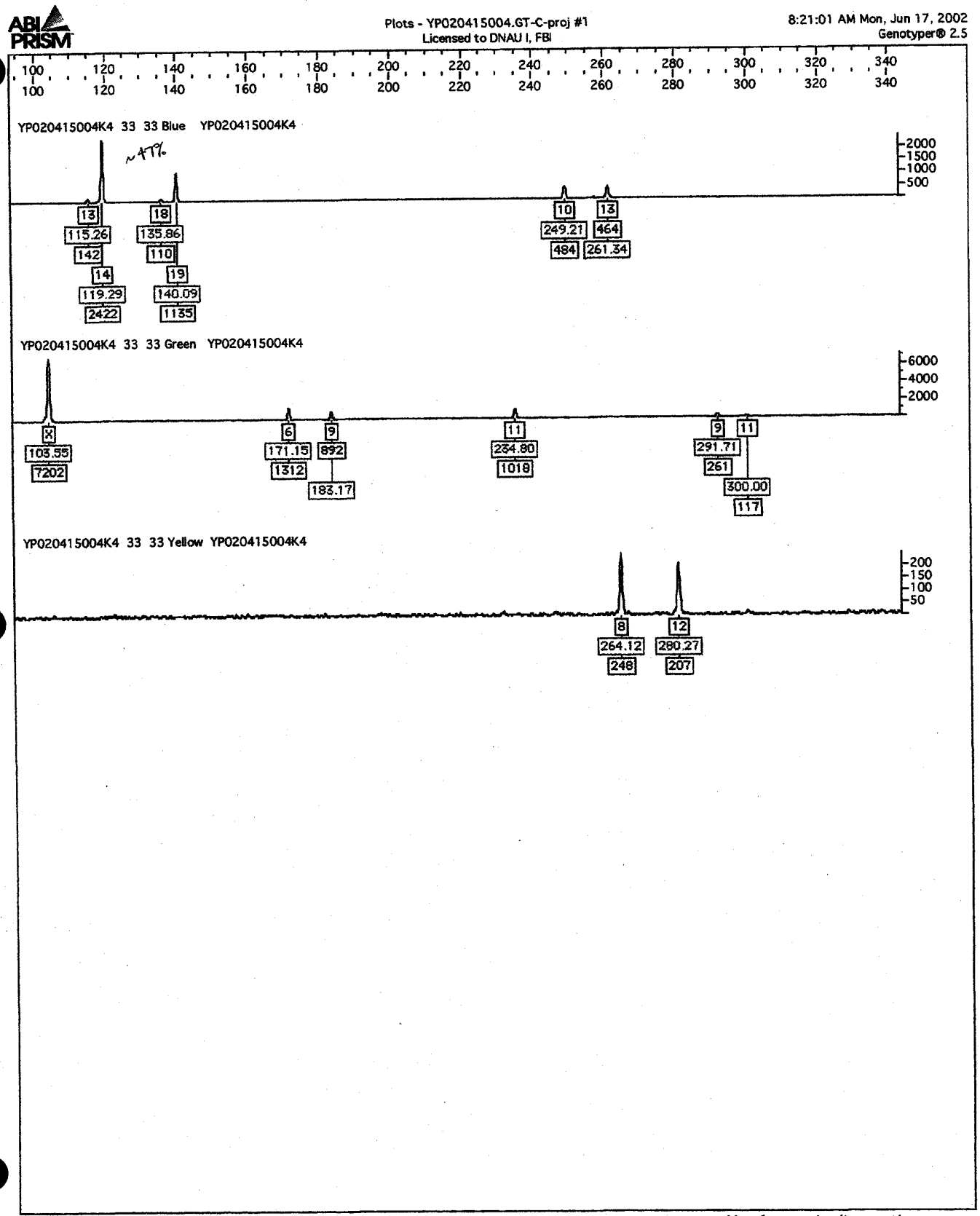

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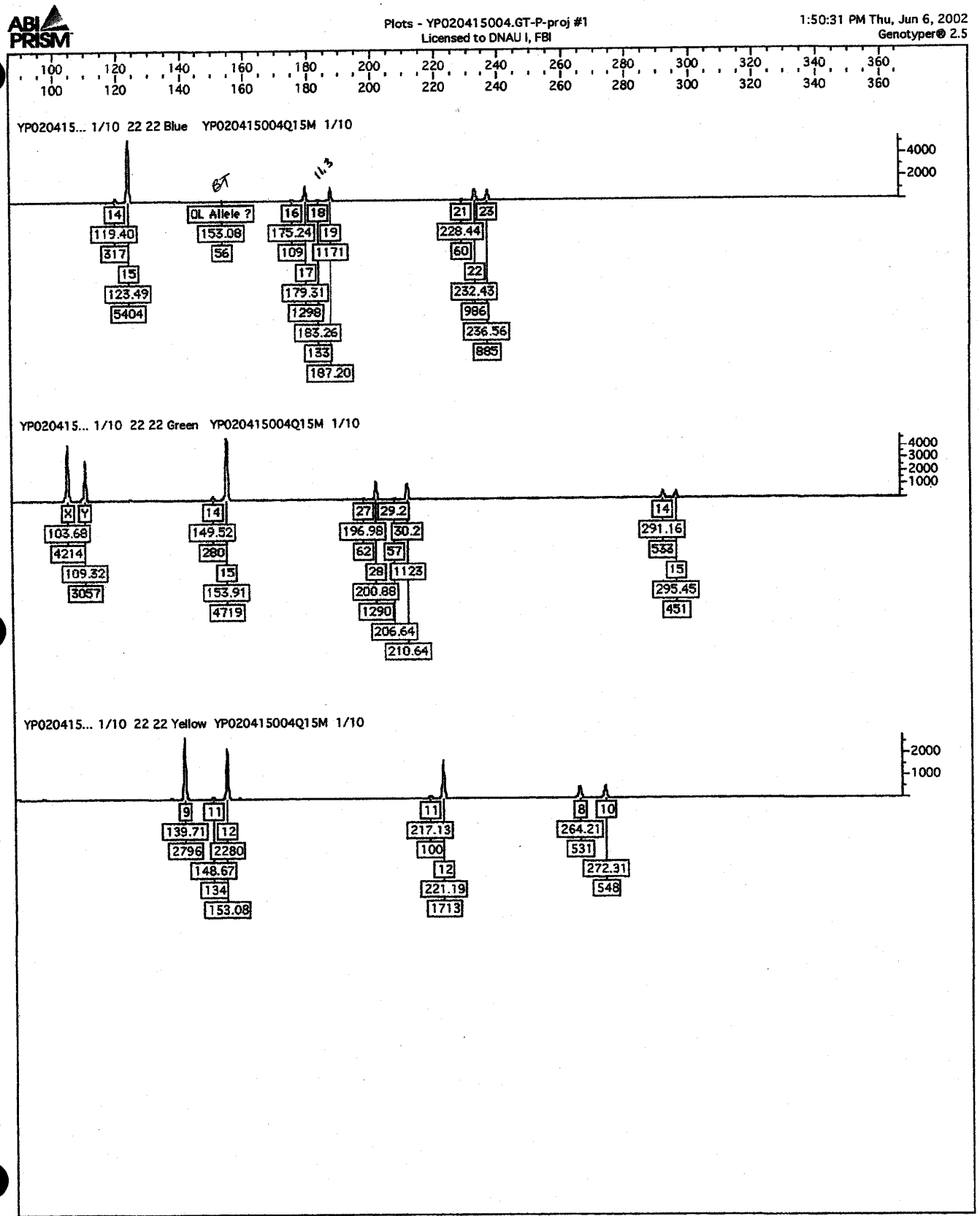
LLF

MBD



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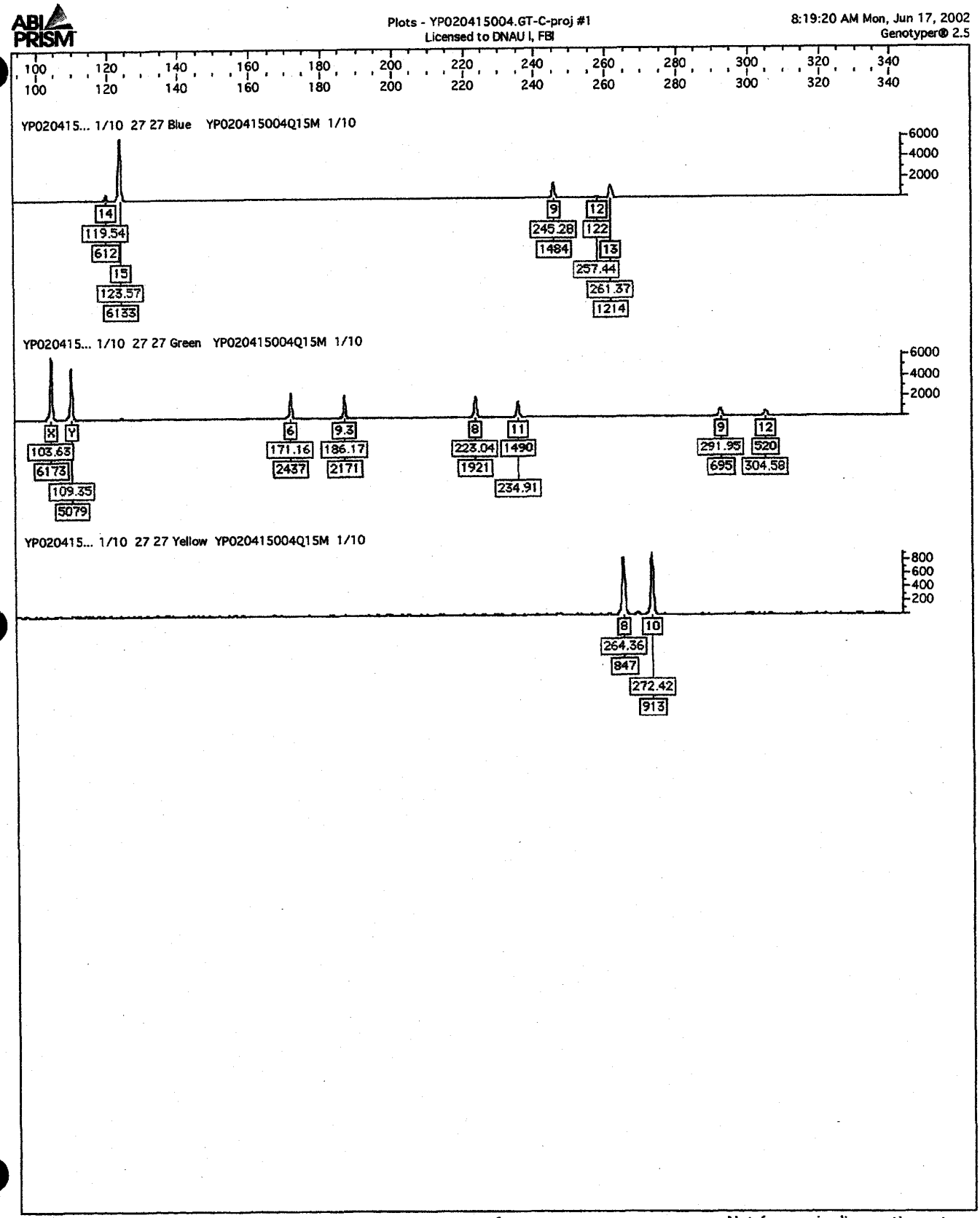

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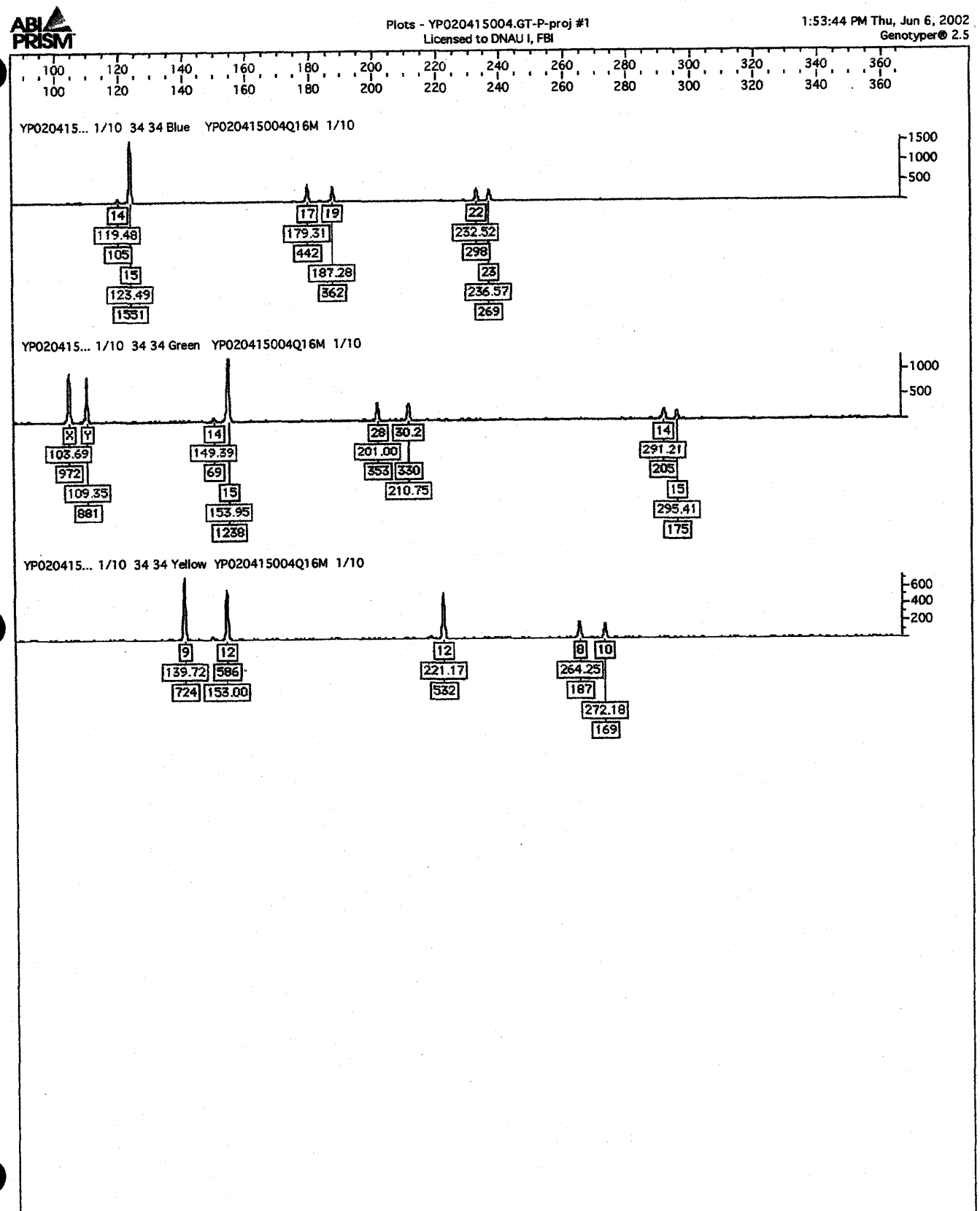
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Licensed to DNAU I, FBI
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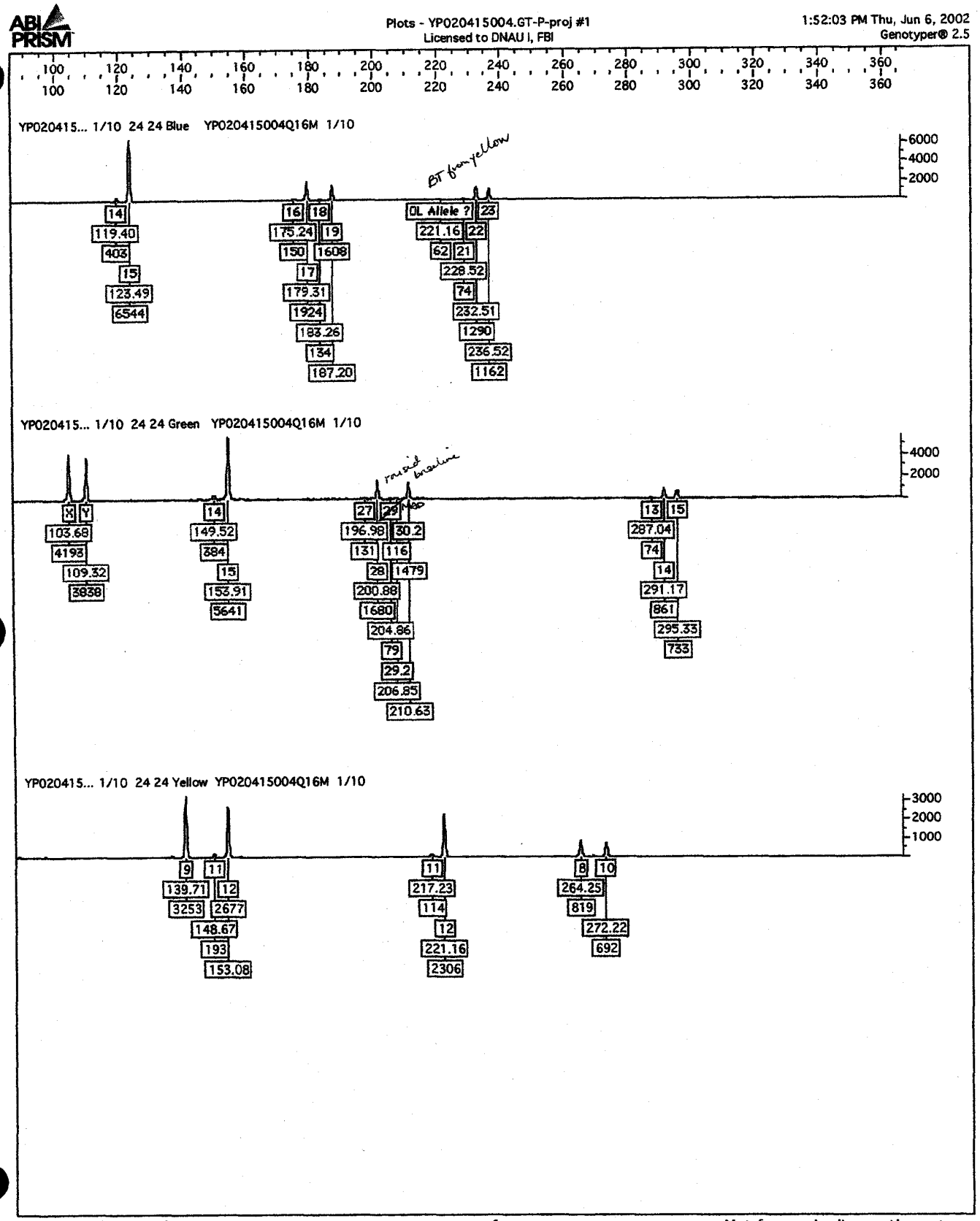
1500
1000
500
14 119.48 105 15 123.49 1551
17 19 179.31 442 187.28 362
22 232.52 298 23 236.57 269
YP020415... 1/10 34 34 Green YP020415004Q16M 1/10
1000
500
X Y 103.69 972 109.35 881
14 149.39 69 15 153.95 1238
28 30.2 201.00 353 330 210.75
14 291.21 205 15 295.41 175
YP020415... 1/10 34 34 Yellow YP020415004Q16M 1/10
600
400
200
9 12 139.72 724 586 153.00
12 221.17 532
8 10 264.25 187 272.18 169

LLF MAD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YP020415... 1/10 24 24 Blue YP020415004Q16M 1/10
BT from yellow
OL Allele ?
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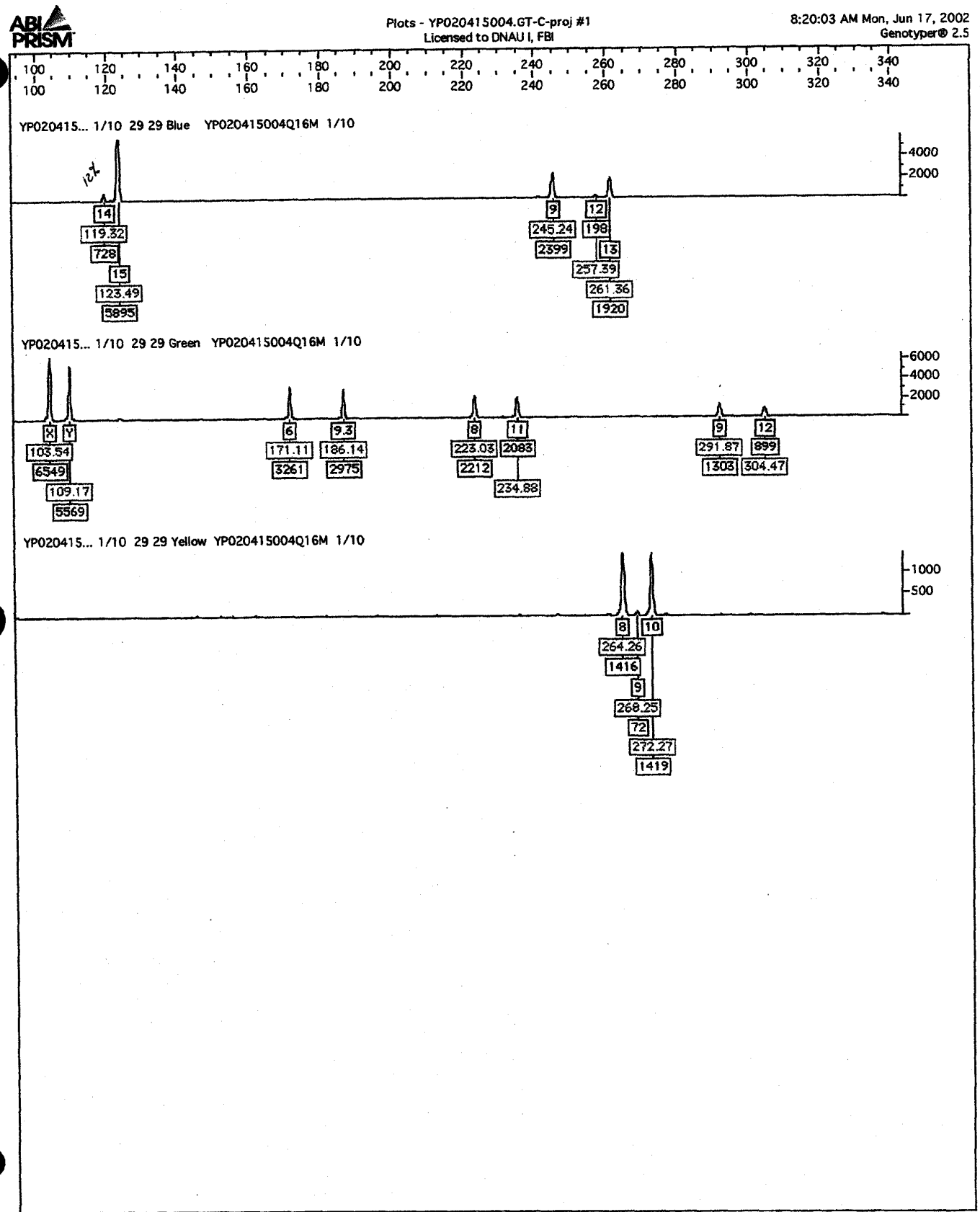
LF MAD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4000
2000
127
14
119.32
728
15
123.49
5895
9
245.24
2399
12
198
13
257.39
261.36
1920
YP020415... 1/10 29 29 Green YP020415004Q16M 1/10
6000
4000
2000
X
Y
103.54
6549
109.17
5569
6
171.11
3261
9.3
186.14
2975
8
223.03
2212
11
208.3
234.88
9
291.87
1303
12
899
304.47
YP020415... 1/10 29 29 Yellow YP020415004Q16M 1/10
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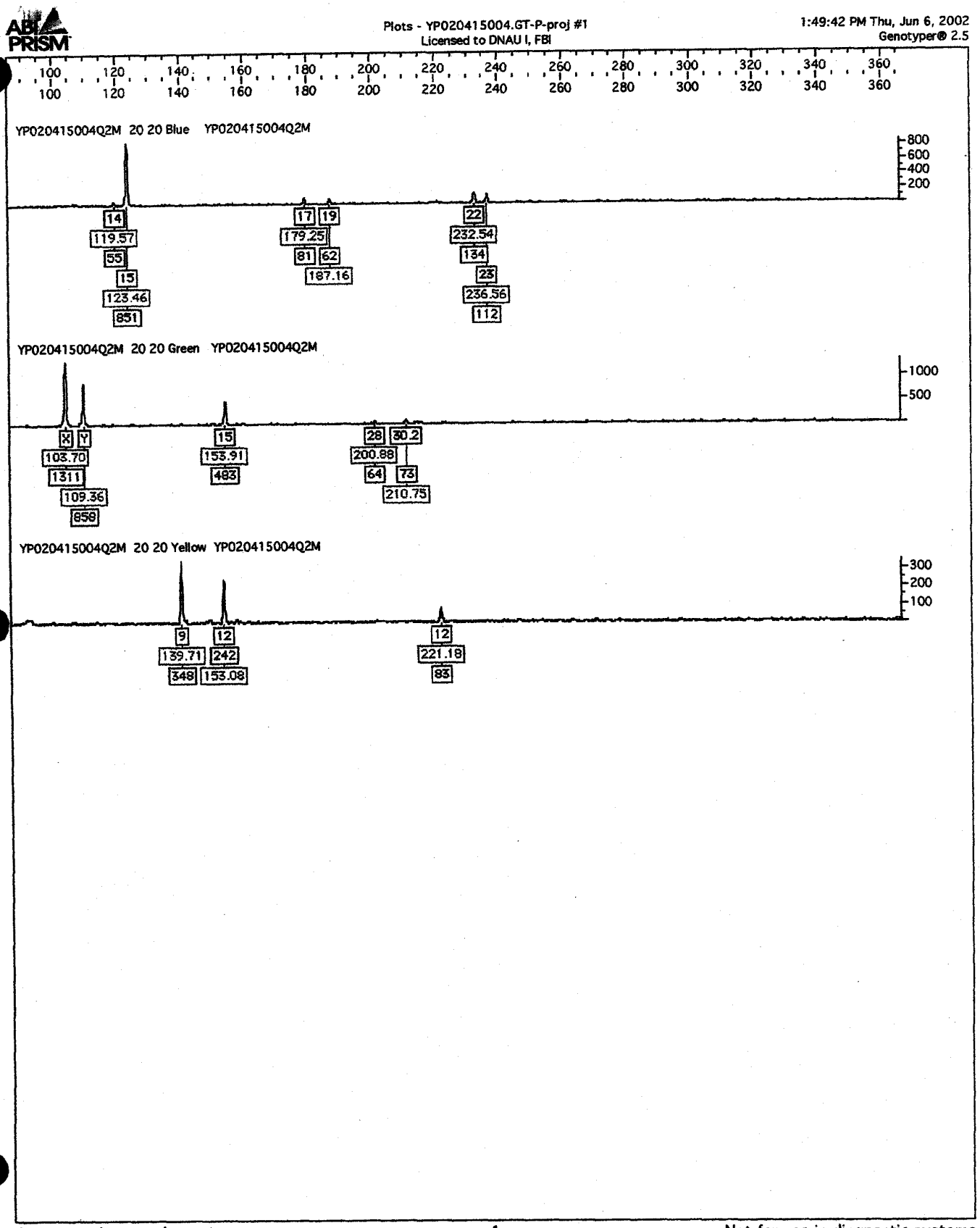
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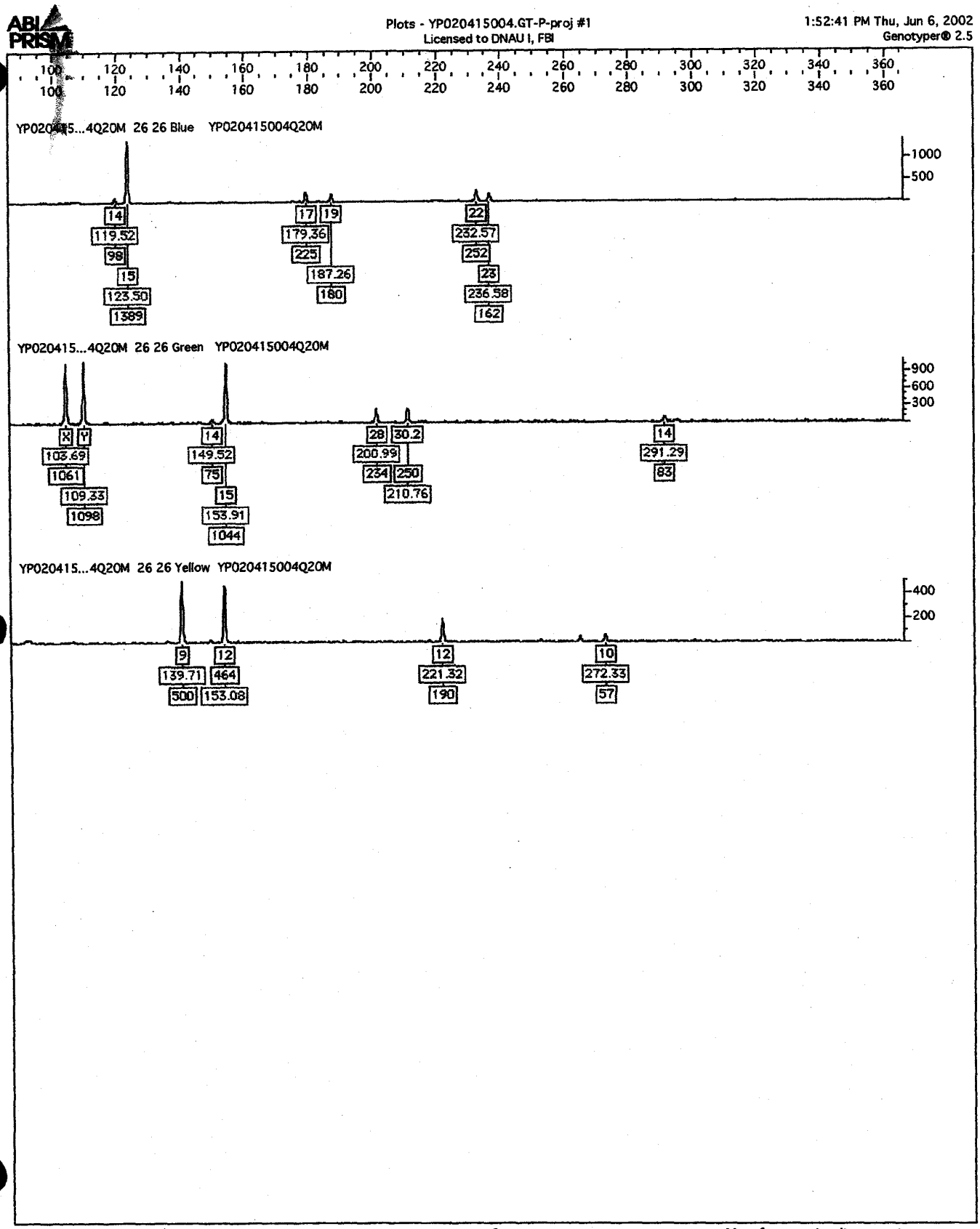
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500
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15 123.50 1389
17 19 179.36 225
187.26 180
22 232.57 252
23 236.58 162
YP020415...4Q20M 26 26 Green YP020415004Q20M
900
600
300
X Y 103.69 1061
109.33 1098
14 149.52 75
15 153.91 1044
28 30.2 200.99 234 250
210.76
14 291.29 83
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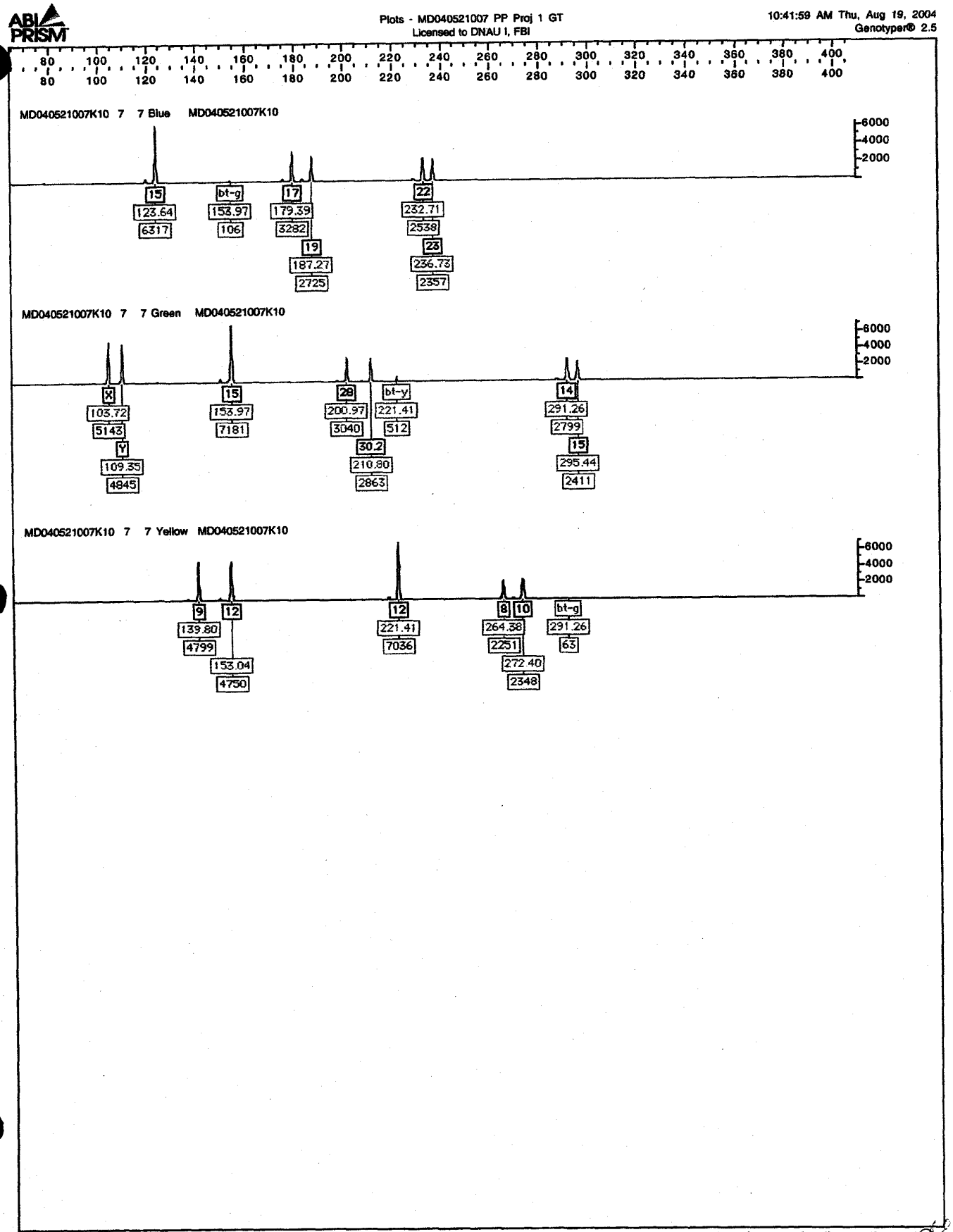
400
200
9 139.71 500
12 464 153.08
12 221.32 190
10 272.33 57

LLF MAD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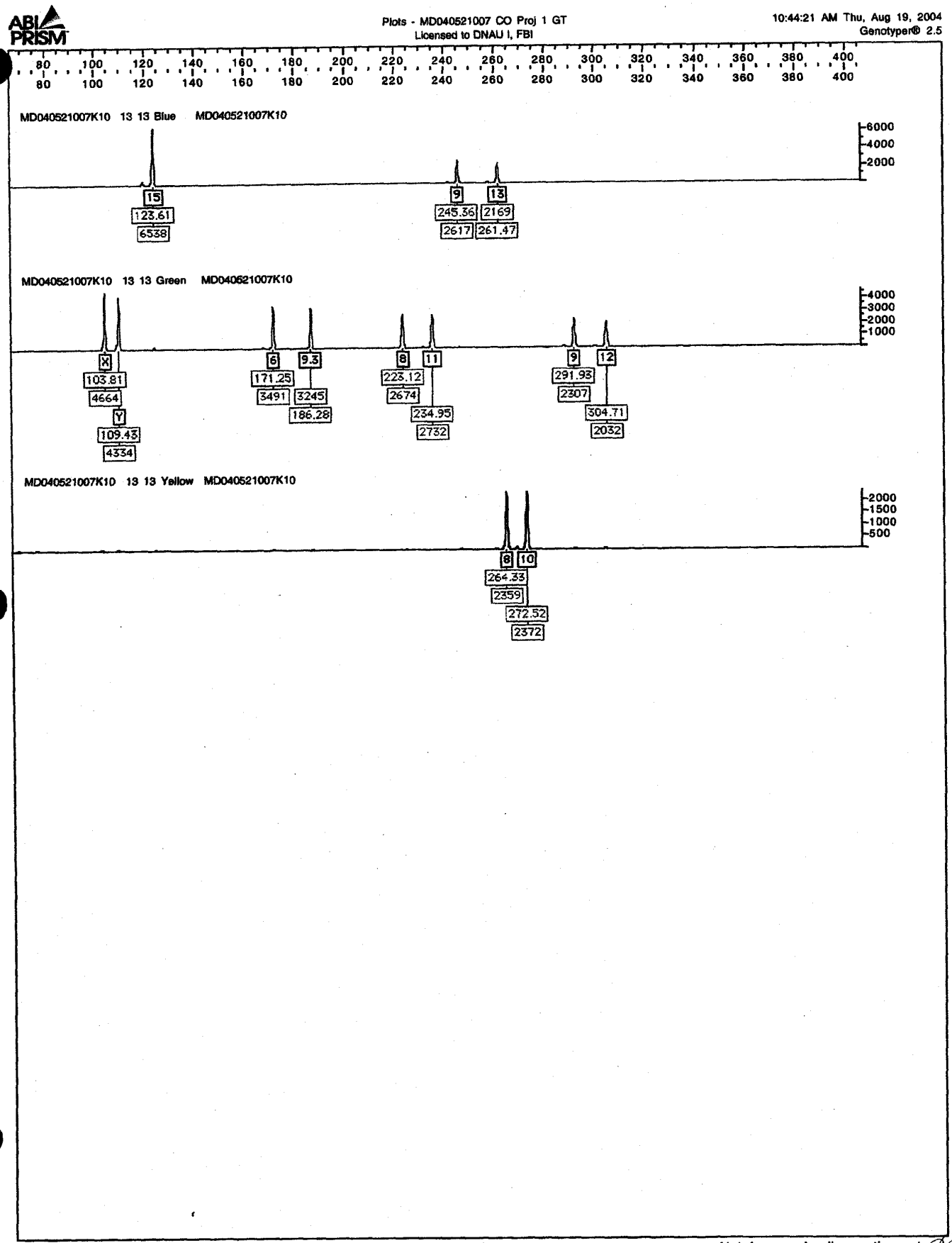
For research use only
-1-
Not for use in diagnostic systems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4000
2000
15
123.61
6538
9
245.36
2617
13
2169
261.47
MD040521007K10 13 13 Green MD040521007K10
4000
3000
2000
1000
X
103.81
4664
Y
109.43
4334
6
171.25
3491
9.3
3245
186.28
8
223.12
2674
11
234.95
2732
9
291.93
2307
12
304.71
2032
MD040521007K10 13 13 Yellow MD040521007K10
2000
1500
1000
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8
264.33
2359
10
272.52
2372

7-115 (Rev. 10-25-83)

Lab No.
41213043 QQ VN
Contributor
SO, LaPlata, Md
Date
22nd February 1985

SEMEN EXAMINATION

K+ B- αPA #8402

Specimen	Acid Phos.	Florence Crystals	Sperm Cells	Anti-PA	Groupings Inh.	Enzymes	Remarks
Q1	→	→	→	→	→	→	No Examination
Q2 genital swabbing 1	C – / +	+	1 cell	X	½ WC, ½ Su	PGm PGm₂	H. yellow stained dsg. -0
Q3(A) Dried secretion 1	C ÷ / ÷	–	–	½ wc –	X	X	" " " " "
Q3(B) Dried secretion 1	C – / –	–	–	X	X	X	" " " " "
Q4 Pubic hair combing	→	→	→	→	→	→	No hairs / Nothing of Value Noted
Q5 - Q6	→	→	→	→	→	→	No Examination
Q7 Oral smear	/	–	–	X	X	X	Stained c̄ florence, -0
Q8 Oral smear	/	–	–	X	X	X	" " " "
Q9 Oral swab 1	½ Su –	–	–	X	X	X	Tip of swab cut, -0
Q10 Oral swab 1	½ Su –	–	–	X	X	X	" " " " "
Q11 Oral swab 1	½ Su –	–	–	X	X	X	" " " " "
Q12 Oral swab 1	½ Su –	–	–	X	X	X	" " " " "
Q13 Vaginal smear	/	/	many cells	X	2/Su	QNS	Unstained, -0
Q14 Vaginal smear	/	/	many cells	X	2/Su	QNS	" "
Q15 Vaginal swab 1	½ Su +	+	III cells	X	2/Su	PGm PGm₂	Tip of swab cut, -0
Q16 Vaginal swab 1	½ Su +	+	II cells	X	2/Su	↓	" " " " "
Q17 Anal smear	/	–	III cells	X	X	X	Stained c̄ florence, -0
Q18 Anal smear	/	–	II cells	X	X	X	" " " "
Q19 Anal swab 1	½ Su +	+	II cells	X	2/Su	PGm PGm₂	Tip of swab cut, -0
Q20 Anal swab 1	½ Su +	+	–	½ Su +	2/Su	↓	" " " " "

185A

FBI/DOJ

Bode Technology
10430 Furnace Road
Lorton, VA 22079
Phone 703-644-1200

Forensic DNA Case Report
September 28, 2006

To:
Laura Pawlowski
Baltimore County Police Department
Forensic Services
700 East Joppa Road
Towson, MD 21286

BODE Case #: 2S06-062
Agency Case#: 06-188-1852 / 06-4567

List of Evidence Received on August 29, 2006 for DNA analysis:

BODE #	Agency ID	Description
2S06-062-01	3521-001.1	Labeled as "buccal swab from suspect Harold Norton"
2S06-062-02	4257-010.1	Labeled as "cutting from ski mask (+amylase phadebas dark blue)"

CASE REVIEW AND RESULTS:

The items listed above were processed for DNA typing by analysis of the 13 CODIS Short Tandem Repeat (STR) loci and the gender determination locus, Amelogenin. Appropriate positive and negative controls were used concurrently throughout the analysis. The results of the analysis are summarized in **Table 1.**

1. A mixed DNA profile was obtained from evidence item 2S06-062-02.

2. A complete DNA profile was obtained from reference item 2S06-062-01.

The DNA profiles reported in this case were determined by procedures that have been validated according to standards established by the Scientific Working Group on DNA Analysis Methods (SWGDAM) and adopted as Federal Standards.

STATE'S EXHIBIT 10 A

BODE Case #: 2S06-062 **Date: September 28, 2006**
Agency Case#: 06-188-1852 / 06-4567

CONCLUSIONS AND STATISTICS:

1. The DNA profile that was obtained from evidence item 2S06-062-02 is a mixture that includes a major component male DNA profile. The major component male DNA profile matches the DNA profile obtained from the reference item from Harold Norton (2S06-062-01).

The probability of randomly selecting an unrelated individual with this DNA profile is:

1 in 900 Quintillion (1 in 9.0×10^{20}) from the Caucasian population;
1 in 1.5 Quintillion (1 in 1.5×10^{18}) from the African American population;
1 in 18 Quintillion (1 in 1.8×10^{19}) from the SW Hispanic population;
1 in 27 Quintillion (1 in 2.7×10^{19}) from the SE Hispanic population.

Therefore, within a reasonable degree of scientific certainty, Harold Norton (2S06-062-01) is the major source of the biological material obtained from evidence item 2S06-062-02.

The evidence and extracts will be returned to the Baltimore County Police Department.

Report submitted by:

Rachel E. Cline, MFS
DNA Analyst III

Susan Bach, MFS
Forensic Casework Manager

BODE Case #: 2S06-062
Agency Case#: 06-188-1852 / 06-4567

Date: September 28, 2006

Table 1: Summary of Short Tandem Repeat Results

Locus	2S06-062-01A1 (Reference sample from Harold Norton)	2S06-062-02A1 (Cutting from ski mask)
D3S1358	15,15	15,(17)
vWA	16,18	16,18
FGA	19,25	19,(22),25
Amel	X,Y	X,Y
D8S1179	14,15	14,15
D21S11	29,35	29,(30),35
D18S51	15,18	(12),15,18
D5S818	11,11	11,11
D13S317	10,11	10,11
D7S820	10,10	10,(11)
D16S539	8,11	8,11
TH01	7,8	7,8
TPOX	10,12	(9),10,12
CSF1PO	8,12	8,12

( ) = minor component alleles

The Bode Technology Group, Inc.

7364 Steel Mill Dr.
Springfield, VA 22150
Phone 703-644-1200

Forensic Case Report
May 22, 2006

To:
Baltimore Police Department
601 E. Fayette Street
Baltimore, MD 21202

BODE Case #: MDB0603-0193
BCPD Case #: 06-8B-07346

Victim: [redacted]

List of Evidence Received on March 2, 2006 for possible DNA analysis:
(Evidence received and evaluated, but not isolated for possible DNA analysis is listed on the inventory worksheet.)

Bode Sample Name	Agency ID	Agency Description
MDB0603-0193-E01	06010130	1st vaginal swab
MDB0603-0193-E02	06010130	Anal swabs
MDB0603-0193-E03	06010130	Peri vaginal swabs
MDB0603-0193-E04	06010130	Stains from tissues
MDB0603-0193-R1	06010130	Portion of victim's blood card

Presumptive testing has not been performed on any sample labeled as 'blood'; therefore, any reference to 'blood' is based on the written description of the sample by the submitting agency. The DNA extracts and submitted evidence will be retained temporarily by BODE until review of the data is completed by the Baltimore Police Department Crime Laboratory, at which time the evidence and extracts will be returned to the Baltimore Police Department Crime Laboratory.

75

BODE Case #: MDB0603-0193 **Date:** May 22, 2006
BCPD Case #: 06-8B-07346

RESULTS:

The evidence was processed for DNA typing by analysis of the 13 CODIS Short Tandem Repeat loci and Amelogenin using the Applied Biosystems AmpFlSTR Profiler Plus and AmpFlSTR COfiler kits. Appropriate positive and negative controls were used concurrently throughout the analysis. The DNA profiles reported in this case were determined by procedures that have been validated according to standards established by the Scientific Working Group on DNA Analysis Methods (SWGDAM) and adopted as Federal Standards.

1. The sperm fraction (SF) for sample MDB0603-0193-E01 contains a mixture of the victim and a male profile (Male 1).

2. The epithelial fraction (EF) for sample MDB0603-0193-E01 contains the victim's profile.

3. The sperm fraction (SF) for sample MDB0603-0193-E02 contains a mixture of the victim and Male 1.

4. The epithelial fraction (EF) for sample MDB0603-0193-E02 contains the victim's profile.

5. The sperm fraction (SF) for sample MDB0603-0193-E03 contains a mixture of Male 1 and alleles consistent with the victim.

6. The epithelial fraction (EF) for sample MDB0603-0193-E03 contains the victim's profile.

7. The sperm fraction (SF) for sample MDB0603-0193-E04 contains a male profile (Male 2) and an additional allele at the D3S1358 locus.

8. The epithelial fraction (EF) for sample MDB0603-0193-E04 contains a mixture of the victim and alleles consistent with Male 2.

9. The following reference sample produced a complete profile:

   MDB0603-0193-R1

See **Table 1** for a summary of alleles reported for each sample.

JAMES MATTHEW LEIDIG,	IN THE
Petitioner,	COURT OF APPEALS
v.	OF MARYLAND
STATE OF MARYLAND,	September Term, 2020
Respondent.	No. 19

CERTIFICATE OF SERVICE

In accordance with Md. Rule 20-201(g), I certify that on this day, November 2, 2020, I electronically filed the foregoing "Brief and Appendix of Respondent" using the MDEC System, which sent electronic notification of filing to all persons entitled to service, including Brian L. Zavin, Assistant Public Defender, Appellate Division, William Donald Schaefer Tower, 6 Saint Paul Street, Suite 1302, Baltimore, Maryland 21202.

/s/ Jer Welter
JER WELTER
Assistant Attorney General
CPF. No. 0712120395

Counsel for Respondent