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Re: Bari *et al.* v. U.S. *et al.*  
Court No. 91-1057 CW  
Our File No. 01-790

### Report

#### Background

The following information was communicated to us by Erica Etelson, former counsel to Bari *et al.*: The Bari case is a civil rights lawsuit that arises out of a criminal case involving a bombing in Oakland, California. Judy Bari and Darryl Cherney were "Earth First!" environmental activists. On or about May 25, 1990, a homemade pipe type bomb exploded in an automobile occupied by Judy Bari and Darryl Cherney while this vehicle was in Oakland, California. In the months prior to this explosion Bari and Cherney had received a number of anonymous threatening letters. This bombing incident was investigated by several law enforcement agencies including the FBI. Within hours after this bombing Bari and Cherney were arrested for this incident.

- 2-2. Envelope addressed to "[REDACTED]" and postmarked "5 JUN 1991".

The following item of physical evidence was received from Erica Etelson, Attorney at Law from Oakland, CA, on February 2, 2001 via personal delivery:

3. Envelope addressed to "[REDACTED]" and postmarked "11 SEP 1989".

The following item of physical evidence was received from Darryl Cherney of Garberville, California on May 8, 2001 via United Parcel Service Next Day Air service:

4. Envelope addressed to "Ms. Betty Ball" and postmarked "07 FEB 1992" with return address label from "Toni Novak".

The following items of physical evidence were received from Gordon Thomas, Special Agent with the Federal Bureau of Investigation in San Francisco, California on June 6, 2001 via personal delivery:

5. Envelope addressed to "Judi Bari" and postmarked "10 APR 1990; North Bay, CA".
6. Envelope addressed to "Mr. Geniella" and postmarked "North Bay, CA", with the postmark date not discernible.

#### Evidence from Counsel for Bari et al.

#### Examination of Fork Allegedly Used by Irv Sutley [Item 2-1]

A fork allegedly used by Irv Sutley [Item 2-1] was submitted for examination. The packaging for this fork is illustrated in figure 1. The fork front and back surfaces are illustrated in figures 2 and 3. Oily debris is present on the fork tines and body. This material was swabbed from the fork surfaces

In the intervening years since this bombing Judy Bari has died. Her estate and Darryl Cherney have filed a civil rights lawsuit against the FBI and other police agencies claiming false arrest and violation of various Constitutional rights. These claims are based, in part, on the alleged failure of the government to properly investigate the threats made against Bari and her colleagues. Bari *et al.* believe that such an investigation would have led investigators to the bomber of the Bari vehicle.

Various documents in the form of envelopes are in the possession of law enforcement and counsel for Bari *et al.* that allegedly contribute to an understanding of the Bari bombing incident provided that the source or sources of these documents can be identified. It was requested that PCR based DNA typing be conducted on cells recovered from these documents to initially determine whether or not any of the submitted documents contain cellular material from a common source and, ultimately, to identify that source or sources.

#### **Items of Physical Evidence**

The following items of physical evidence were received from Robert Nishiyama, Commander with the California Department of Justice Mendocino Major Crimes Task Force located in Ukiah, CA, on February 2, 2001 via personal delivery:

#### **Item**

1. Sealed clear plastic envelope marked "MMCTF, MC98-0010; Judy Bari" containing an envelope and letter addressed to "Fred Keplinger, Chief of Police" and postmarked "6 JAN 1989".

The following items of physical evidence were received from Singing Salmon Music in Garberville, CA on January 29, 2001 via Federal Express:

2. Tape-sealed box containing a paper bag containing the following:
  - 2-1. Metal fork in plastic wrap.

and extracted. Microscopic examination of the cellular debris failed to reveal any epithelial cells. DNA was extracted from the particulate debris as described below.

**Examination of Envelope Addressed to [REDACTED] from Irv Sutley and Post Marked June 5, 1991 [Item 2-2]**

An envelope addressed to [REDACTED] from Irv Sutley and post marked June 5, 1991 [Item 2-2] was submitted for examination. The front surface of this envelope is illustrated in figure 4; the back surface is illustrated in figure 5. The envelope flap has been sealed with clear tape. Approximately half of the envelope stamp [A] was removed and extracted. The removed portion of this stamp is illustrated in figure 6. Microscopic examination of the cellular debris revealed a low level of epithelial cells. DNA was extracted from this specimen as described below.

**Examination of the Envelope Addressed to [REDACTED] from I. Sutley and Post Marked September 11, 1989 [Item 3]**

An envelope addressed to [REDACTED] from I. Sutley and post marked September 11, 1989 [Item 3] was submitted for examination. The front surface of this envelope is illustrated in figure 7; the back surface is illustrated in figure 8. The top edge of the envelope has been previously cut to remove the envelope contents. A section of the firmly glued envelope flap was removed and extracted from area A and extracted. Area A is illustrated in figure 9. Microscopic examination of the cellular debris revealed a moderate number of epithelial cells. DNA was extracted from this sample as described below.

**Evidence from the California Department of Justice**

**Examination of the Envelope Addressed to Fred Keplinger, Chief of Police, and Post Marked January 6, 1989 [Item 1]**

An envelope addressed to Fred Keplinger, Chief of Police, and post marked January 6, 1989 [Item 1] was submitted for examination. The packaging for this envelope is illustrated in figure 10. The envelope front surface is illustrated in figure 11; the envelope back surface is illustrated in figure 12. A section of the envelope flap was removed and extracted from Area A. Approximately half of the envelope stamp was removed and extracted from area B. Area A is illustrated in figure 13; area B is illustrated in figure 14. Microscopic examination of the cellular debris revealed a large quantity of epithelial cells from both areas [A and B]. DNA was extracted from these specimens as described below.

**Evidence from Darryl Cherney**

**Examination of the Envelope Addressed to Betty Ball from Toni Novak and Post Marked February 7, 1992 [Item 4]**

An envelope addressed to Betty Ball from Toni Novak and post marked February 7, 1992 [Item 4] was submitted for examination. The front surface of this envelope is illustrated in figure 15; the back surface is illustrated in figure 16. The top edge of this envelope has been previously ripped to remove the envelope contents. A section of the envelope flap was removed and extracted from area A. Approximately half of the envelope stamp was removed and extracted from area B. Approximately half of the envelope return label [Toni Novak] was removed and extracted from area C. Areas A, B, and C are illustrated in figures 17 and 18. Microscopic examination of the cellular debris revealed a low to moderate number of epithelial cells from each of the sampled areas [A, B, and C]. DNA was extracted from these specimens as described below.

**Evidence from the FBI**

**Examination of the Envelope Addressed to Judi Bari and Post Marked April 10, 1990 [Item 5]**

An envelope addressed to Judi Bari and post marked April 10, 1990 [Item 5] was submitted for examination. The front surface of this envelope is illustrated in figure 19; the back surface is illustrated in figure 20. A section of the envelope flap was removed and extracted from area A. Approximately half of the envelope stamp was removed and extracted from area B<sup>1</sup>. Areas A and B are illustrated in figures 21 and 22. Microscopic examination of the cellular debris revealed a large number of epithelial cells from both areas [A and B]. DNA was extracted from these specimens as described below.

**Examination of the Envelope Addressed to Mr. Geniella with Unclear Post Mark [Item 6]**

An envelope addressed to Mr. Geniella with unclear post mark [Item 6] was submitted for examination. The front surface of this envelope is illustrated in figure 23; the back surface is illustrated in figure 24. This envelope appears to have been developed for fingerprints using a silver staining procedure. A section of the envelope flap was removed and extracted from area A. Approximately half of the envelope stamp was removed and extracted from area B<sup>2</sup>. Areas A and B are illustrated in figures 25 and 26. Microscopic examination of the cellular debris revealed a low level of dermal cells from both areas [A and B]. DNA was extracted from these specimens as described below.

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<sup>1</sup> Areas A and B were removed in the presence of FBI Agent Gordon Thomas who retained possession of the envelope [Item 5] after these samples were removed.

<sup>2</sup> Areas A and B were removed in the presence of FBI Agent Gordon Thomas who retained possession of the envelope [Item 6] after these samples were removed.

### Genetic Analysis of DNA

Several genes were amplified using the polymerase chain reaction [PCR] and subsequently typed. These genes include the STR genes known as Profiler Plus [D3S1358, vWA, FGA, D8S1179, D21S11, D18S51, D5S818, D13S317, D7S820]; and amelogenin, a gene that allows sex determination.

D3S1358, vWA, FGA, D8S1179, D21S11, D18S51, D5S818, D13S317, and D7S820 are short tandem repeat [STR] genes. These genes are composed of tandemly repeated units of a core DNA segment where the difference between different alleles is determined by the number of core repeated units contained within the allele. The typical size of the core unit for an STR gene is on the order of four base pairs [bp]. The primers that recognize particular STR genes can be labeled with a fluorescent dye so that the alleles can be detected and quantitatively assessed after electrophoresis.

These STR genes can be grouped so that several gene systems can be typed simultaneously from one analysis. For example, nine STR genes [D3S1358, vWA, FGA, D8S1179, D21S11, D18S51, D5S818, D13S317, D7S820] and amelogenin] are grouped together in a typing system called Profiler Plus. For those genes which employ a D\_S\_ nomenclature, the number following the "D" designation indicates the human chromosomal location of the gene locus. Some of these genes employ a different nomenclature determined by their discoverers. For example, the following STR genes are in this category: The vWA gene is located on chromosome 12. The FGA gene is located on chromosome 4.

The amelogenin gene is located on the sex determining X and Y chromosomes. Amelogenin is a gene responsible for the synthesis of a protein associated with fetal tooth bud development. A portion of this gene on the X chromosome contains a 6 bp deleted DNA segment allowing this region of the X chromosome to be distinguished from the corresponding region of the Y chromosome by size. Since females possess two X chromosomes and males possess an X and a Y chromosome, the sex of a

specimen source can be determined by examining this DNA region using electrophoresis.

Genetic analysis of the specimens in this case involved the following essential steps:

1. Epithelial cells were digested with SDS and proteinase K.
2. DNA was extracted from sample digests with chloroform/phenol and concentrated using Centricon molecular filters.
3. The various genes described above were amplified using the Polymerase Chain Reaction [PCR].
4. The STR genes and amelogenin were typed using capillary electrophoresis.

The results of this analysis are summarized in Table 1. These findings revealed the following observed facts:

**Envelope Addressed to [REDACTED]**  
**Post Marked June 5, 1991**  
**Item 2-2**

1. The cells recovered from the envelope stamp addressed to [REDACTED] and post marked June 5, 1991 [Item 2-2] were determined to be D3S1358 type 15,18; vWA type 14,17; FGA type 24,25; D8S1179 type 10,12; D21S11 type 28,32; D18S51 type 14,16; D5S818 type 12,12; D13S317 type 11,11; and D7S820 type 10,10. This DNA was also determined to originate from a male by analysis of the amelogenin gene. This array of genotypes occurs in significantly less than one out of 100,000 members of the population. The calculated genotype frequencies indicate that it is unlikely that more than one human being has ever possessed this particular genotype array. The frequencies associated with individual genotypes are summarized in Appendix 1 below.



2. For the purposes of our reports in this case the source of the DNA from the envelope stamp addressed to ██████████ and post marked June 5, 1991 [Item 2-2] is characterized as Unknown Male #1.

Envelope Addressed to ██████████  
Post Marked September 11, 1989  
Item 3

3. The majority of the cells recovered from the envelope flap addressed to ██████████ and post marked September 11, 1989 [Item 3] were determined to be D3S1358 type 15,18; vWA type 14,17; FGA type 24,25; D8S1179 type 10,12; D21S11 type 28,32; D18S51 type 14,16; D5S818 type 12,12; D13S317 type 11,11; and D7S820 type 10,10. This DNA was also determined to originate from a male by analysis of the amelogenin gene.
4. The source of the cells recovered from the envelope flap addressed to ██████████ and post marked September 11, 1989 [Item 3] is Unknown Male #1 described above.
5. This envelope flap also contains DNA from a minor DNA source.

Envelope Addressed to Fred Keplinger, Chief of Police.  
Post Marked January 6, 1989  
Item 1

6. The cells recovered from the flap [A] and stamp [B] of the envelope addressed to Fred Keplinger, Chief of Police and post marked January 6, 1989 [Item 1] were determined to be D3S1358 type 15,16; vWA type 14,17; FGA type 23,25; D8S1179 type 10,11; D21S11 type 28,29; D18S51 type 13,16; D5S818 type 9,12; D13S317 type 11,12; and D7S820 type 10,11. This DNA was also determined to originate from a male by analysis of the amelogenin gene. This array of genotypes occurs in significantly less than one out of 100,000 members of the population. The calculated genotype frequencies indicate that it is unlikely that more than one

human being has ever possessed this particular genotype array. The frequencies associated with individual genotypes are summarized in Appendix 1 below.

7. Unknown Male #1 is eliminated as the source of the cells from the flap [A] and stamp [B] of the envelope addressed to Fred Keplinger, Chief of Police and post marked January 6, 1989 [Item 1].
8. For the purposes of our reports in this case the source of the DNA from the envelope addressed to Fred Keplinger, Chief of Police and post marked January 6, 1989 [Items 1A and 1B] is characterized as Unknown Male #2.
9. It is noteworthy that Unknown Male #1 and Unknown Male #2 share at least one allele at each tested genetic marker locus. This unusual genetic situation could occur by chance; or it could occur as a consequence of these males being related by lineal decent. That is, Unknown Male #1 and Unknown Male #2 could be genetically related in a father/son relationship.

Envelope Addressed to Betty Ball  
Post Marked February 7, 1992  
Item 4

10. The cells recovered from the flap [A], stamp [B], and return label [C] on the envelope addressed to Betty Ball and post marked February 7, 1992 [Item 4] were determined to be D3S1358 type 18,18; vWA type 16,17; FGA type 21,22; D8S1179 type 13,14; D21S11 type 28,32.2; D18S51 type 13,17; D5S818 type 12,13; D13S317 type 11,12; and D7S820 type 11,11. This DNA was also determined to originate from a female by analysis of the amelogenin gene. This array of genotypes occurs in significantly less than one out of 100,000 members of the population. The calculated genotype frequencies indicate that it is unlikely that more than one human being has ever possessed this particular genotype array. The

frequencies associated with individual genotypes are summarized in Appendix 1 below.

11. Unknown Male #1 and Unknown Male #2 are eliminated as sources of the DNA from the flap [A], stamp [B], and return label [C] on the envelope addressed to Betty Ball and post marked February 7, 1992 [Item 4] because this DNA originates from a female.
12. For the purposes of our reports in this case the source of the DNA from the envelope addressed to Betty Ball and post marked February 7, 1992 [Item 4] is characterized as Unknown Female #1.

Envelope Addressed to Judi Bari,  
Post Marked April 10, 1990  
Item 5

13. The cells recovered from the flap [A] and stamp [B] on the envelope addressed to Judi Bari and post marked April 10, 1990 [Item 5] was determined to be D3S1358 type 15,16; vWA type 14,17; FGA type 23,25; D8S1179 type 10,11; D21S11 type 28,29; D18S51 type 13,16; D5S818 type 9,12; D13S317 type 11,12; and D7S820 type 10,11. This DNA was also determined to originate from a male by analysis of the amelogenin gene.
14. Unknown Male #1 and Unknown Female #1 are eliminated as sources of the DNA recovered from the flap [A] and stamp [B] on the envelope addressed to Judi Bari and post marked April 10, 1990 [Item 5].
15. The cells recovered from the flap [A] and stamp [B] on the envelope addressed to Judi Bari and post marked April 10, 1990 [Item 5] originates from Unknown Male #2.
16. This envelope flap [Item 5A] also contains DNA from a minor DNA source.


**Envelope Addressed to Mr. Geniella.**  
**Post Mark Not Clear**  
**Item 6**


17. The cells recovered from the flap [A] of the envelope addressed to Mr. Geniella with unclear post mark [Item 6] contained an unbalanced mixture of DNA from a female and from a male. The major DNA source was determined to be D3S1358 type 14,17; vWA type 17,19; FGA type 20,21; D8S1179 type 10,11; D21S11 type 30,31,2; D18S51 type 16,17; D5S818 type 11,13; D13S317 type 8,12; and D7S820 type 10,10. This DNA was also determined to originate from a female by analysis of the amelogenin gene. This array of genotypes occurs in significantly less than one out of 100,000 members of the population. The calculated genotype frequencies indicate that it is unlikely that more than one human being has ever possessed this particular genotype array. The frequencies associated with individual genotypes are summarized in Appendix 1 below.
  
18. Unknown Male #1, Unknown Male #2, and Unknown Female #1 are eliminated as sources of the DNA recovered from the flap [A] on the envelope addressed to Mr. Geniella with unclear post mark [Item 6].
  
19. For the purposes of our reports the DNA source from the female cells on the envelope addressed to Mr. Geniella with unclear post mark [Item 6] is characterized as Unknown Female #2.
  
20. Assuming one major female DNA source and one minor male DNA source, the minor male DNA source from the flap [A] of the envelope addressed to Mr. Geniella with unclear post mark [Item 6] was determined to possess D3S1358 allele 15; vWA type 14,16; FGA allele 19; D8S1179 type 13,15; D21S11 allele 28; D18S51 allele 15; D5S818 allele 10; D13S317 allele 11; and D7S820 allele ?. This DNA was also determined to originate from a male by analysis of the amelogenin gene.

21. Unknown Male #1 and Unknown Male #2 are eliminated as the minor male DNA source from the flap [A] of the envelope addressed to Mr. Geniella with unclear post mark [Item 6].
22. The genes described above could not be amplified or typed from material recovered from the stamp [B] on the envelope addressed to Mr. Geniella with unclear post mark [Item 6].
23. Highly discriminating genetic profiles have been developed for the source of the cells on each of the submitted documents. The envelopes addressed to [redacted] [Item 2-2] and to [redacted] is [Item 3] contain cells from Unknown Male #1. These envelopes also contain the return address of I. Sutley. The envelopes addressed to Fred Keplinger, Chief of Police [Item 1] and to Judi Bari [Item 5] contain cells from Unknown Male #2. The envelope addressed to Betty Ball [Item 4] contains cells from Unknown Female #1. The return address label for this document is Toni Novak. The last envelope addressed to Mr. Geniella [Item 6] contains cells from Unknown Female #2.
24. It is now appropriate to obtain reference samples in the form of dried oral swabs from relevant players who might be the source of cells from Unknown Male #1, Unknown Male #2, Unknown Female #1, and/or Unknown Female #2.

Should you have any questions concerning this work, please contact

us.

Sincerely,  
  
Edward T. Blake, D.Crim.

  
Alan Keel, Criminalist