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**Supplemental Forensic Case Report
 June 20, 2008**

To:
 Andy Horita
 Boulder District Attorney's Office
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BODE Case #: 2S07-101
Agency Case #: 96DA21871

List of Evidence Received on December 3, 2007 for possible DNA analysis:

<u>BODE Sample #</u>	<u>Agency Description</u>
2S07-101-05	Labeled as "White long underwear bottoms. BPD020TET, CBI# 6"
2S07-101-05A	exterior top right half of long johns
2S07-101-05B	exterior top left half of long johns
2S07-101-05C	interior top right half of long johns
2S07-101-05D	interior top left half of long johns

Table One contains Profiler Plus and Cofiler data submitted on March 12, 2008 for the following sample:

<u>BPD #</u>	<u>CBI</u>	<u>Description</u>
001BP	14B	Blood standard JonBenet-Victim

Table One also contains an "unknown male 1" profile deduced by the Denver PD and submitted to Bode by the Boulder County District Attorney's Office December 3, 2007 via a PowerPoint slide and June 19, 2008 via a Specimen Detail Report.

DNA PROCESSING, RESULTS, and CONCLUSIONS:

Evidence items 2S07-101-05A, -05B, -05C, and -05D were processed for DNA typing by analysis of the 13 CODIS Short Tandem Repeat loci, the D2S1338 locus, the D19S433 locus, and the gender determining locus Amelogenin using the AmpFLSTR® Identifiler® kit. 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 (SWGDM) and adopted as Federal Standards.

1. The DNA profile obtained from sample 2S07-101-05A contains a mixture of at least two individuals including the victim and at least one male contributor. The individual associated with the "unknown male 1" profile cannot be excluded as a possible contributor to the mixture DNA profile obtained from sample 2S07-101-05A.

The probability of randomly selecting an unrelated individual who would be included as a possible contributor to this mixture at the 13 CODIS loci excluding vWA, TPOX, D5S818, and FGA is:

- 1 in 6.2 Thousand in the US Caucasian population
- 1 in 12.0 Thousand in the US African American population
- 1 in 6.6 Thousand in the US Southwest Hispanic population
- 1 in 6.2 Thousand in the US Southeast Hispanic population

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DNA PROCESSING, RESULTS, and CONCLUSIONS (cont.):

2. The partial DNA profile obtained from sample 2S07-101-05B contains a mixture of at least two individuals including the victim and at least one male contributor. The individual associated with the "unknown male 1" profile cannot be included or excluded from the mixture DNA profile obtained from 2S07-101-05B.
3. The partial DNA profile obtained from sample 2S07-101-05C contains a mixture of at least two individuals including a major component victim profile and at least one additional minor contributor. The minor contributor is low level, contains allelic drop-out, and therefore is not suitable for comparison.
4. The DNA profile obtained from sample 2S07-101-05D contains a mixture of at least three individuals including the victim and at least one male contributor. Due to the complexity of this mixture it was deemed unsuitable for any further comparison purposes.

See **Table Two** for summary of alleles reported for these samples.

NOTES:

1. A supplemental report was issued due to a request by the client to compare the "unknown male 1" profile to the profiles obtained from item 2S07-101-05. Additional reports are dated March 24, 2008 and May 12, 2008.
2. The DNA extracts and submitted evidence will be returned to Andy Horita at the Boulder District Attorney's Office.

Report submitted by:



Amy Jeanguenat, MFS
DNA Analyst II

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Table One: Analysis of Short Tandem Repeat Loci provided to Bode.

Locus	JonBenet Ramsey	"unknown male 1"
D8S1179	12,13	13,14
D21S11	29,32.2	29,31.2
D7S820	8,10	12
CSF1PO	10,13	12
D3S1358	16,17	15,16
TH01	9.3,9.3	7,9
D13S317	11,12	11,13
D16S539	9,12	11
D2S1338	NOT TESTED	NOT TESTED
D19S433	NOT TESTED	NOT TESTED
vWA	16,16	18,19
TPOX	8,9	8
D18S51	14,14	11,16
Amel.	X,X	X,Y
D5S818	11,12	10,12
FGA	20,23	22,26

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Table Two: Analysis of Short Tandem Repeat Loci

Locus	2S07-101-05A1	2S07-101-05B1	2S07-101-05C1	2S07-101-05D1
D8S1179	(12),13,(14)	(12),13,(14)	12,13,(14)	(11),12,13,14
D21S11	29, (31.2),32.2	29,31.2,32.2	29*	(29),30,31.2,(32.2)
D7S820	8,10,(12)	12*	8,10	8,9,10,12
CSF1PO	10,12,13	10,12	NO RESULTS	10,(11),12
D3S1358	(15),16,17,(18)	(15),16,(17)	(15),16,17,(18)	(14),15,16,17,(18)
TH01	(6),(7),(9),9.3	7,9.3	9.3*	6,(7),9,9.3
D13S317	11,12,(13)	11,12,13	11,12	11,(12),(13)
D16S539	9,(11),12	9,12	9,12	9,10,11,12,13
D2S1338	19,25	25*	25*	18,25
D19S433	14,15	14,(15)	14,15	(12),14,(15)
vWA	16,(18)	16,(19)	16*	(14),16,(18)
TPOX	8,9	8,9	8*	8,(9)
D18S51	(11),14,(16)	14*	14*	14,15,16
Amel.	X,(Y)	X,(Y)	X*	X,(Y)
D5S818	(10),11,12	12*	11,12	10,11,(12)
FGA	20,23	NO RESULTS	NO RESULTS	20*

Key: () – Minor allele, * – Allele below threshold for homozygosity