

stains - 5 mil & 1 milometer. Five stains.

The other stocking has 10 milometer of heavy blood. Staining heavy enough to go to second layer - was worn by a person at the time. End of slides.

8x10 Photos now - mc jeans - brown stain of fecal (stool) material on back of jeans - inside.

Photo of her jeans. Back of jeans - dirt on cuffs & had a small blood stain on back pocket size of a dime on right one & a transfer stain on other pocket from being taken off & folded. (Left pocket) Looks washed out caused by jeans were wet or something wet touched it.

Rubberized logo on shirt had blood on them.

8x10 Photos - Left shoulder of T shirt (mc.)

Photo of towel - transfer stains ~~from~~ wash from being wet.

Ex # 95 - & 170 - 8x10 photo - blood positive on towel.

Blood & vomit on blue gray towel. Blood is underneath the vomit.

towel with name "Brian" on it - Stain was washed out from being wet (transfer stain)

Ex # 176 - Black floral comforter - Photo - Back of Comforter - all transfer stains.

Ex 78 - Photo of comforter - Heavy.

Ex 79 " " " Heavy & clotted look.

Ex 180 - Pair of men's jeans - cattle manure &

a lot of vomit

Ex 184 - men's jeans - additional cattle stains of manure.

Back of jeans - no blood stains -

Legs of jeans on back - no blood, possible vomit on left leg -

Ex 11 green sleeveless shirt - vomit on it. depicts bottom of shirt has blood stain.

Ex 38 Tan towel - Blood stains - none were heavy & not diluted. No vomit on this.

#172 - purple vomit stains on towel - Staining was vomit by transfer & some blood.

on other side of towel was much lighter stain

Ex. Socks - small impact spatters.

Ex 193 - Photo of #83 - Long Johns - outside had vomit & blood on groin area. Transfer stains.

Lunch - witness Dr. Martin Klatzo - employed Children's Hosp.

* ~~calling~~ Pediatric Health Care in Mpls ER - 10 1/2 years -

was on duty March 9 - Dr. DeSinha called him

for sexual abuse case on Mackenzie. at 8 PM

Examine for semen with fluorescence. Only area

seen semen was in vaginal area. Took samples

for sexual assault kit. Tests were negative

for semen. Physical exam given. Found tears

in hymen at 9 & 3 o'clock positions in hymen.

Results were that she was sexual abused.

Opinion was that non-clotting does not cause this

Fall down a stairs does not [✓] this injury
SUPPORT

Earl Gray Says she could have defects in hymen, such as notches - Other Doctors told you there had been bleeding earlier, but ~~the~~ ^{you} saw none, right?

Neil Mackenzie was being given transfusions to stop the bleeding.

* Back to Dr. Donahue, previous witness - Strawberry like stain on inside of back indicates it was from inside blood.

Ex 83 - and 187 - Long John's -

Left leg area outside - transfer stain on left thigh & heavier swipe stain -

Ex 198 - Close up stain on long John's - transfer stain or touched by another blood area.

8X10
Photos

Right leg of Long John's stained.

Cuff - small transfer stain & spatter caused by impact.

Ex Upper portion - groin area - Stain & swipes - Blood had to be a close source - within a very few feet. about a dozen stains or splatters of 1 mil.

Ex - Upward scene of Long John area

Ex 204 Cutting of long underwear.

Ex 205 Close up of stains - spatter type - 1 micrometer

Ex 206 Outside of Long John's -

#207 Two small blood stains on them. Shows impact force.

Ex. Lower Cuff - Stained by transfer of heavy blood.

Ex 210 - 8 X 10 - Back outside of underwear - Right leg
has transfer stain

8 X 10
Ex 211 - Light stain

Ex 212 - Lower left leg - light transfer stain.

Soaking type stain on his shirt from heavy amount of blood through both layers of shirt.

Ex 152 - Brian undershirt - indicates heavy stain on sleeve - cuff - area by neckline also.

Ex 151 -

* Tornado Drill - Court not interrupted Did not go to Basement - Judge says.

Blood shed & injury - with closed head injuries you do not see the blood -

Earl Gray

Events other than beatings can show blood stains, right. You can throw up or spitting to cause this? Right? Bloody nose?

When you looked at the child's jeans, you state there was no blood stains, just dirty cuffs, Right? On her shirt - you say they were transfer stains. Stain was on inside.

Donahue says it could have been used to wipe blood off. Had to be off from her. Had to be crumpled when stain occurred. Could have been stepped on by a shoe or similar object or could be wiped.

Brian's clothes had mud & manure on them; Earl says

(100)
Witness

* Deputy ~~Honza~~ previously sworn - Showing him Ex. Newspaper under Blue Ben

Witness Patricia Wojtowicz

Employed by Mn. Crime Lab - in Biology Unit since 1980 Forensic Scientist -

Case worker analysis - Has done DNA testing

Neil

2 types - ~~genetic~~ PCR - Genetic testing

Identification of fluids - RFLP testing also, but she doesn't do this. These are techniques used.

PCR is smaller stain testing - RFLP - larger ones.

4/83 She did testing on Brian's clothes - Long Johns, 4/38 also - towel -

Blood samples from Brian, Tina, Nicole, Mackenzie
Brian Merkt - 7 types of DNA on this on cuff
of shirt - Brian jeans, Mc jeans, Towell,
all had - DNA testing

DNA - none on towel of any of the 4 involved.

After recess:

60 + 61 - Blood stains from.
Long Johns

Chart Contains DNA typing results

Items on left - Genes - Columns for results

ITEMS ↓	7 Genes =	DQA 1	LDLR	Gyps	HPPG	B-7.68	6 Gc	7 DIS80
Mackenzie's		3, 4.1	E	AB	AB	BE	AA	21, 24
Tina		3, 4.1				AB		
Vaginal - Mc	But NOT Brian, Tina or Nichole							
Blood on Mc Jeans	Mc but not Brian's, Tina's or Nicki's							
Shirt cuff	All matched Mc							
Comforter	All matched Mc							
Brian's Jeans	All matched Mc							
Long underwear	All matched Mc							

Neil - After you do a profile do you

yes - we do statistical eval to determine how freq. it would occur in the population. A test run on various members of the population to determine a test base. They determine how rare or common each type is in the population.

Multiply the probabilities together.

Determine a final number with respect to how common it would be.

Testing is done on evidence - How often would they expect to find that profile to occur on the given population.

Organization/Group was formed to look at forensic testing and made statistical formulas to use as a basis for results.

Stat. frequency on these items of evidence

1 in 14,000 for Caucasians on items 6 genes

1 in 609,000 for Caucasians on items 7 gene factors

* Do these items match Mc's blood? Yes, they match the profile.

28A + 28B BCB. Brian's Rxyz folxx. placement of stairs (crotch)

EG: Did you run tests on more items?

Did you receive items on 2/4/97? yes

Approach the bench.

(Tom Harbison's testify today. Doesn't want Courtroom door opening + shutting).

EG Q You did DNA testing on Exh. 38. - Tan Towel?

A Yes.

Q Did you do similar testing? Yes

Q After you did that testing you determined it was someone else's blood. A yes

Q you also have blood from people who have committed ~~test~~ sex crimes? Yes.

Q Did you test this blood against those? A No.

Neil Q In order to do testing on that small amt of blood you have to have a certain amt of blood, correct?

A. Yes.

Q In order to test that you need to use a locator? yes. but -

A If you couldn't see a stain you wouldn't have enough blood to test.

Dismissed.

Exh. 38 was the towel that showed up at the hospital St Frances Hosp. No one seemed to know where it came from.

The Judge spoke to the jury.

215 marked exhibits have been shown

89 witnesses have testified

A lot of evidence has been presented. Keep your thoughts to yourselves.

Finish evidence Mon or Tuesday. Go to jury next wk.

103

501

~~Friday~~ Friday
~~Monday~~ apr. 25

8:40 ^{Nial} Doug excused by Earl Gray this morning
so now he can attend the trial and doesn't
have to testify now.

Witness James Liberty. BCA Forensic Scientist - Biology

Analysis of biological fluids - blood semen.

Does ~~207pp~~ RFLP ~~copy~~ DNA (RFLP) Testing

Which takes longer and more work than PCR testing.

Exh 90 ADEFG + H. 90 B known blood of Brian Patrick Merkt.

90 D fingernail scrapings. - no blood

90 E Pubic Hair - no blood in Brian's

90 F Perineal Swabs - no blood or cellular material

90 A

90 H Pubic Hair

Exh 97 - 5 of those were received 5/2/96.

Swabs from Mr. Merkt. No Cellular material.

Exh 88 - 89 Received on 5/2/96.

Blood from Nicki + Tina. + mackenzie

Exh 20 Vaginal + rectal swabs from Mr. Merkt.

Exh. 11 Ex 110. Brian's shirt (701A Hennepin Co #)

Witness marks item numbers on the huge photo of
Brian's shirt. The photo has been made into a poster

and is covered in plastic. At the top it says 96-631C

HCSO # 7

Exh 78

(104)

11B2

R rear pocket of Kenzie's jeans

93A Comforter - rec'd on 5/2/96

Earl G. makes quite a racket getting some pills out of a plastic bottle - Excedrin Headache? He's been snorting badly today.

92 bathroom drain trap. Tested for blood.

Chemical test. If blood is present there is a positive color test phenyl - ^{phalene} ~~barrey~~ (3). Other materials could also cause a change in color so additional testing is done. - Confirmatory test. Could it confirm there was human blood ~~test~~. This was done by testing swabs from the drain trap.

After they do presumptive test

No semen was detected.

Item 20 also checked. Cutting from Brian's shirt. No blood / semen.

Exh. 82 A. rec'd 5-2-96. Brian's Socks.

RFLP testing was done.

Exh. 216 + 217 enlargement of ~~admission~~ auto rad which they do for DNA testing.

RFLP. DNA is the blueprint of the cells of the body.

Tells us what we are + human beings.

Barring identical twins we all have different DNA.

so no 2 DNA's are alike.

Step 1: Body fluid - what it is

Recover the DNA

Purify

Form some processed which allows them to

see the areas of differences - called an auto rad.

Once the samples are seen

Ex. 830 DNA comes from our parents. $\frac{1}{2}$ from mom $\frac{1}{2}$ from Dad.

Once they got the profile

Mackenzie's DNA

830 - Socks. - Not Tina's or Nicki's. Not Mc. It was Brian's blood.

Profile matched Brian's profile

Exh. 158,000 chance it matched Brian's

Exh. 91 Brian's jeans with a plastic bag attached.

Exh. 79 Mc T-Shirt Tested with RFLP

Attached Item 16, 1B-1 is a cutting from the T-shirt.

Blood on T-shirt wasn't Nicki's, Tina's, Brian

Blood was Mc. (probability was 1 in 1.1 million)

Exh. 830. Long underwear. Yes he received it from LaVonne Beck.

Yes he did some testing on it

Yes he then placed it in the Vault at the BCA

No - he didn't alter it - in any way.

He marked where he had taken the cutting from on a

poster made of a photo of Brian's long underwear.

Blood on long underwear wasn't Pines

The DNA profile did not match the DNA profile of the —

and therefore he couldn't be a source

Mc blood ^{matched}

Probability was 1 in 1.1 million that it was Mc blood.

— Defendant stipulates to chain of evidence.

EG. re: June 13, 1996 report. you received evidence in BEA lab.

Public hair of B - ϕ blood

Fingernails of B - ϕ blood

Perineal of B - no cellular material

Oral - not tested

Penis - no cellular substance

L. thigh - no cellular substance

R. thigh - no cellular substance

Mc Vaginal no semen

Mc Rectal no semen

Blood on T shirt was Mc

long underwear - Mc blood

Sock - in toe area - was Brian's

Tested B. shirt - no semen

Drain Trap - no human blood.

Neil. You couldn't locate anything to test.

EG. you looked in the whole dang drain trap - correct?

"Yes".

The state rests its case.

Members of the jury

Probable final arguments next Wednesday.

Then sequestered. If unable to make a determination

you will be sequestered. In the event that we finish Mon

it will still go to the jury on Wednesday.

4th week

April 28 - Monday - 9AM -

* witness Brian Merkt

23 - single - one child, he believes.

Worked on a farm - Dairy Herd mgt school -
in '92 & '93. Ran into Tina at Boardmans ^{meisters}
near N.R. 3 1/2 miles - grew up there. He
knew Tina since H.S.

Started dated, living in apt. bldg - with
Angie, a friend. Tina lived by Parnida
store in N.R. Met her children 2 or 3 days
~~after~~ after - Tina & Brian became engaged
just before Xmas - Planned for August
marriage. Went to live with Audrey,
in a Mobile Home - 12x60 - also her
father, Morris Anderson, girls on floor, Morris
his own room, shared ^{they} Audrey's room with
Audrey. Spanked Mackenzie because she
peed her pants. Tina was at work &
when she came, they discussed the spanking
& agreed to not spank anymore.

He loved Tina & the girls. He worked on a
farm 30 miles away, so decided to quit
that & started work near Shakopee for
John O'Laughlin. In N.R. ^{week end} Mackenzie had
broken her finger & they took her to E.R. as
They put cast on. Tina was gone when finger
was broken. They moved to Shakopee in

(108)

early Feb.?. Brian worked 4:30 A.M. to 8:30 P.M. with a few breaks for meals etc. He got hurt in elevator accident. Got 2 days a month off.

March 9 - Tina went with Robin Fellers to shop. He ~~of~~ slept naked or with underwear. He got up at 3:30, dressed & went to work. He wore socks with stripes on top. They found blood on the toe of Brian's. He had injured his thumb previously, so had blood there previously. They went over to Robin Fellers that morning. Mackenzie ate blueberry Pancakes. Brian went straight to the barn & other hired hand, Mr Fetter came out.

Mackenzie & Nicole were naughty and so they went home. Mackenzie wanted to go ~~home~~ along shopping. She went to upstairs to put Kenzie down for a nap. She planned to take Nicole along, but didn't take either one along. Tina ~~left~~ was getting Mackenzie to sleep on her bed. Robin came & Tina went with her, alone. Left the children. Mackenzie was asleep. Brian was working with his farm set. He looked in at Mackenzie and saw her sleeping. He turned on TV and went in his bedroom to watch it. He didn't intend to sleep.

Earl
Gray

He heard Mackenzie crying and ran out & saw Mackenzie at bottom of stairs. He looked over the railing to see her there. She was crying. He picked her up. She was wearing only underpants. Her face was real red. He picked her up and seen she had pooped in her pants. I set her back down & went into the bathroom & got washcloths to clean her up. Shaves Brian the underpants. She was all smeared up. She was crying. She was on her back as he cleaned her up. She kept crying. He doesn't think he harmed her in any way. He wasn't mad at her. He brought her into Living Room and she threw up on him. Brian had his jeans zipper, could have been partially open. He took off his jeans because they had puke on them. He used his t shirt to clean blood off her nose & mouth. He wrapped her in the floral comforter. She was "out of it". He doesn't have a 100% clear memory of it. He then sat on couch & watched TV. Kenzie was bleeding & vomiting. She threw up about 3 or 4 times. He was watching TV. He set her up. He was dozing off & then awake to find her not

breathing. Her jaws were clenched.
He opened her mouth forcibly and gave
her CPR. It seemed forever. He couldn't
get her to breathe so he called 911.

Earl
Gray

Playing 911 tape again. ~~Give~~ him instructions
how to give CPR. He feels heartbeats, but
no breathing. Nicole comes down & says "What's
happening to Kenzie"? Brian says "Go upstairs."
"He says No - I didn't hit her or harm her that
day", when Earl Gray asks him.

Break -

Tom

* "Merk - you have heard all the witnesses
in this case - Tina was gone, correct?

Tom

Harbinem
cross
exam.
on
Brian

Relationship with Tina. Tina don't beat
the kids, he says. He never treated the
girls badly. He took showers at night.
He didn't usually sleep in his farm pants
but sometimes he did for naps. He was
concerned about the stairs for fear of accidents.
He told Mackenzie to go up & down carefully.
He didn't buy a gate for the stairs as he
couldn't afford it. He didn't think Tina
disciplined enough so he started in.

He had spanked Mackenzie in front of Andrea.
He patted them, not take her over his knee.
Could Mackenzie walk when you found her.
She could sit up by herself. She sat & then

(III)

laid back down.

Left
with
his
mother

Told Det. Bisek she just flapped down, but Brian says he doesn't recall that.

He told Bisek she had bruises from playing. Looking at photo - can't see the bruises from the wobbly ~~photo~~ chair.

He was alone with the girls when Tina left. Told his mother he had left bruises on Mc & was scared or concerned, really. He said to his mother - "you spanked us." His mother talked to him about the bruises, on Mackenzie's butt. He was angry with Mc in Rochester when she peed her pants one time & left the bruises. He did spank the girls after that, only pats he says and so did Tina. He says he didn't spank her because she peed on him. She started peeing in the chair and it made him angry. When she pooped her pants at Shakopee, did you get angry.

When she cried uncontrollably when her mother was gone, she tried to discipline her.

He asked Bisek if he was in "Trouble" at the scene. He asked if she ^{me} was going to be o.k.? Didn't Nicole ask about Mc? Yes. He had used her t-shirt to wipe blood off her.

He placed the soiled clothes on the garbage,
also his vomit covered jeans.

He never touched her jeans that day.

Tom shows him the picture of his jeans.

Brian says there is always a pile there.

Tom questioning his response about it.

Torn legament in Army so she was
discharged. Tom says that is not true,
is it Brian? "Brian says no, I wasn't!"

You told Bisek that, but it wasn't
true, Tom says - Brian says, No.

How come me was naked - Brian said
she tore off her clothes in her sleep
when she gets too warm. Did you tell
Bisek she didn't have clothes on when
you found her, you said -

He says me told him she was cold.

Brian says she was in rough shape.
She was shivering, eyes swollen. He
wiped her off with a wet washcloth.

He says he put on other jeans after the
police arrived. The blood was ~~Brian's~~ ^{me} blood
on your ~~the~~ long jeans, right - yes, he says.

He says he didn't wash his hands after cleaning
up Mackenzie. She wasn't bleeding in her rectum
or vagina at the house, Brian says. Tom shows
him the comforter, & says, did all this blood come

from her mouth, nose, ear or chest.

Yes, that's true, Brian says. "I didn't know her rectum or vagina was bleeding," Brian says.

He thought she was fine, just scraped up. I didn't think she was seriously hurt. She was crying & said she didn't hurt.

Bisiek had asked if she was crying. He says he laid her down & started vomiting.

He says Mackenzie lied about having to go to the bathroom. Tom says kids do have potty accidents, right. He says he harmed her when he was cleaning her up in the vagina.

He turned the TV off so he could call 911 downstairs.

When he brought Mackenzie in the living room she was kinda out of it. You didn't call 911 right away, did you? No. She was talking through her teeth, which were clenched. She kept going back to sleep, he says. You told Bisiek you sat her up & she wanted to lay back down. He laid down on the couch and didn't intend to go to sleep then. How come you didn't call 911 right away? Says the 5 year old was upstairs and not aware of anything.

He told all the cops Kenzie fell downstairs. You wanted all these people to think that, right.

Kenzie didn't say she fell downstairs.
I assumed she did. Your first statement
says the scrapes, she didn't have them
this morning. I don't know how she
got them. I never noticed anything before.

Earl
Gray

She didn't act like she hurt before.

Detective Bick was told by him that
they were from falling downstairs.

He didn't cause any on her before or
that day - after he forced her, he was
tired & ^{was} hectic. I didn't beat her up or rape
~~him~~ Brian is saying. I never touched those girls' ^{her} private
parts.

Noon till 2:30.

Earl
Gray

* Witness - John Plunkett - U of M 1972 grad.

Pathologist - Coroner since 1980 Scott Cty.

~~Coroner~~ - several counties also.

A coroner investigates sudden unexpected
deaths. Head injuries investigator 20 years.
Children's head are larger - no experimental
models to go by. Was called to Mackenzie's
death. Reviewed all reports, X rays & home.
He concluded that the head injury was on
the back side. Her head was in motion
and stopped suddenly. Bleeding on both
sides of brain. It could have been caused
by a fall down the stairs. It could not
have been caused by a blow to the head.