DISCUSSION DOCUMENT: Roger Dixon's Section 212 Affidavit w.r.t. the Inge Lotz murder case

By Calvin and Thomas Mollett

Introduction

Roger Dixon is perhaps better known for his "performance" as a paid defence expert in the Oscar Pistorius trial. One just has to search for *#rogerdixon* in Twitter to get an idea of what the public thought of his conduct in court. For example: *"We should have a new scale for rating disasters. 1 to Dixon. Where 1 is fairly bad and #Dixon is earth-shatteringly abysmally dreadful."*

When State prosecutor Adv Gerrie Nel said that Roger Dixon was the worst witness that he had ever experienced in court he had good reason to say so. Roger Dixon thinks it is quite acceptable to testify under oath in areas that he admitted he is not qualified in, such as for example pathology and ballistics. He didn't produce any written documents and reports describing his studies, methodologies, assumptions, equipment, results, conclusions, limitations, etc. For example, Dixon was tasked to test the light conditions in Pistorius' house. Dixon did his tests on a night when the moon was full, while on the night of the shooting it was new moon and much darker. When asked what he used to test the light in Pistorius' home he responded, "The instruments I used were my eyes, My Lady." There is probably not a better sentence that so succinctly captures Dixon's *modus operandi*.

During a break in the proceedings Roger Dixon made a very insightful comment to a well-known journalist, Debora Patta. He said that he was instrumental in getting the accused in the Inge Lotz murder (i.e. Fred van der Vyver) acquitted.

One can probably read this statement in several ways. After reading the rest of this document please answer the following question for yourself. Did Roger Dixon conduct an honest and objective study, or was it his intention to, from the start, be instrumental in getting Fred van der Vyver acquitted?

In this document we will argue, present evidence and provide examples from case law to show that:

- Roger Dixon's Section 212 affidavit does not comply with the strict provisions of Section 212 of the Criminal Procedure Act and was it therefore inadmissible as *prima facie* evidence
- Roger Dixon's Section 212 affidavit contains calculated mistakes, omissions and lies
- The defence used Dixon's affidavit to challenge State witnesses under cross-examination and to support accusations of evidence fabrication and fraud
- Dixon's affidavit overall played a very important role during the court proceedings and it was instrumental in convincing the judge that Folien 1 was not from a DVD case
- The Court's acceptance of Dixon's affidavit as *prima facie* evidence must be seen as an "*error in law"* **which could be sufficient ground for a retrial** as if Fred has never been tried before – and such a retrial would therefore not compromise the *double jeopardy* provision of the Constitution.

Background

In the months leading up to the case of State vs Frederik Barend van der Vyver (SS 190/06), the State formally requested Senior Supt Roger Dixon, a Control Forensic Analyst at the Scientific Analysis Unit of the Forensic Science Laboratory in Pretoria to examine a fingerprint lift (aka Folien 1) in order to determine whether it was lifted from a DVD cover or from a drinking glass.

Folien 1 was one of eleven fingerprint lifts taken by the police in the flat where Inge Lotz, Fred van der Vyver's girlfriend, was murdered. According to the affidavits and court testimony of Constable Elton Swartz, the officer that did the fingerprint lifting, Folien 1 was lifted from a DVD holder that was found on a coffee table next to the couch on which the victim was killed. The DVD holder belonged to The Video Place – a video rental store close the victim's flat.

On 12 April 2005 a fingerprint on Folien 1 was matched to the left index fingerprint of Fred van der Vyver. That the police made a correct match in this instance has never been disputed by anyone, including internationally renowned fingerprint experts hired by the defence.

On 13 April 2005 the police found that the victim rented the DVD at 15:07 on 16 March 2005 – only a few hours before her murder. If Folien 1 was lifted from the DVD cover, as the police alleged, it means that Fred van der Vyver must have been with the victim, or at least in Stellenbosch, close to the time of

her death. Fred van der Vyver vehemently denies that he had been in Stellenbosch or with the victim that afternoon, and claims that he was at his work at Old Mutual in Pinelands, Cape Town about 45 km away.

On the basis of this fingerprint evidence and some other circumstantial evidence the police arrested Fred van der Vyver and charged him with the murder of Inge Lotz.

In late 2005 the defence hired a retired police officer and fingerprint expert, Daan Bekker, to investigate Folien 1 – not to dispute the fingerprint linked to Fred van Der Vyver but rather the surface (substrate) from which Folien 1 was lifted. Daan Bekker was the first expert to raise the possibility that Folien 1 was not lifted from a DVD cover but rather from a drinking glass. As Van Der Vyver had been in the victim's flat several times his fingerprint on a drinking glass would not implicate him in the same way as a print from the DVD cover did.

In response to the Bekker report the State and defence jointly decided to ask an independent police expert, with no knowledge of the case, to investigate Folien 1 in light of Daan Bekker's findings. They selected Director Ruben Botha from the LCRC in King William's Town to do this investigation. Botha's report concluded that the Folien 1 was in all likelihood lifted from a DVD cover.

Then the defence retained Pat Wertheim, an internationally renowned fingerprint expert from the United States to investigate Folien 1 in light of the findings of Daan Bekker and Director Botha. Wertheim also conducted several experiments with DVD covers and drinking glasses and came to the conclusion that Folien 1 was lifted from a drinking glass and not from a DVD cover. He went on to allege that the police purposefully mislabelled a lift from a drinking glass to be from a DVD cover; in order to frame Fred van der Vyver for the murder of Inge Lotz.

It was in response to the Wertheim report that the State requested Senior Supt Roger Dixon to investigate Folien 1 to determine of it came from a DVD cover or a drinking glass.

Dixon started his investigation on 5 December 2006 at the offices of the LCRC in Paarl, Western Cape. With the assistance of a Captain Van der Westhuizen he conducted tests on various DVD holders and a total of 11 drinking glasses. The various DVD holders, which included the actual holder purportedly

rented by Inge, and 11 drinking glasses, purportedly collected from the victim's flat, were provided to Dixon by Van der Westhuizen.

The tests basically involved planting fingerprints and marks on the DVD covers and certain drinking glasses and then dusting them with aluminum powder before using folien to take a lift from each object. For some objects the test was repeated after they were cleaned with ethanol (DVD holders) or soap and water (drinking glasses).

Then through a process that required skills in "image analysis and comparison" Dixon compared the different test lifts with Folien 1 and came to the ultimate conclusion that in his opinion Folien 1 was not lifted from a DVD cover but instead from one of four glasses found in the victim's flat.

> Dixon's final conclusion verbatim:
>
> *In my opinion the back folien described in paragraph 3.2.1.1 was not "lifted from a DVD" but instead from one of the four glasses described in paragraph 6.4. The features observed on the folien match test lifts made from the glasses, and not those made from the DVD covers.*

Dixon reported his results in a signed affidavit, dated 12 December 2006, in terms of Section 212 of the Criminal Procedure Act 1977 (Act 51 of 1977).

This affidavit compelled Adv Rodney De Kock, the Director of Public Prosecutions to, on 13 December 2006, send a letter to the Adv Dup de Bruyn, Fred's lawyer, in which he said:

> *I hereby confirm that the State no longer intends to proceed with evidence concerning your client's alleged finger print on the DVD holder.*

This affidavit was accepted as *prima facie* evidence in Court. Dixon was not called to testify.

In terms of Veldhuizen 1982 (3) SA 413 (A), the Court was therefore compelled to accept that *prima facie* proof has been presented that Folien 1 was lifted from a drinking glass found in the victim's flat and not from a DVD holder.

> *The word 'prima facie evidence' cannot be brushed aside or minimized. As used in this section they mean that the judicial officer will accept the evidence as prima facie proof of the issue and, in absence of other credible evidence, that prima facie proof will become conclusive proof.* (416G)

On the first day of trial, 12 February 2007 Fred's plea explanation, in terms of Article 115(2), was read out in court. *Attachment 3* of the plea explanation was Dixon's Section 212 affidavit.

> The State has now, after Mr Wertheim's report was handed to the State, conceded that the fingerprint is not from a DVD holder, but from a glass alleged by my experts from the onset. In this regard I attach a letter from the Director of Public prosecutions dated 13 December 2006 (FVDV2). Attached to the letter is a report by Senior Superintendent Dixon from the SAPS dated 12 December 2006 that came to the same conclusion as my experts. It is attachment 3. I have been advised that the concession by the State does not prevent by legal advisors to still deal with the fingerprint issue during the trial. It is indeed my case that the evidence around the fingerprint was fabricated and fraudulent. Therefore respectfully, on my behalf it will be put forward that the fingerprint evidence taints the State case against me.(our emphasis)

Note at this point Dixon's affidavit was not referred to as a 'Section 212 affidavit' but rather as a report.

This compelled the State to put the fingerprint evidence before the Court for the Court to decide about the *bona fides* or *mal fides* of those involved.

> MNR VAN DER VIJVER: Now your Honour, the summary of facts that is in front of you in terms of Article 144 of the Criminal Procedure Act off-course refers to the alleged fingerprint of the accused that was found on the DVD holder that was rented earlier. It is indeed so that the State is not proceeding with this evidence anymore. It is a decision that was made for

> specific reasons by the prosecuting authority. If it seems during the trial, and I think we saw a glimpse of it this morning, it will form part if the trial, and will it be necessary for the State to present evidence around the lifting of the fingerprints in the deceased flat the evening of 16 March, or more specifically the morning of the 17 March in order to place the court in a position the judge for itself the bona fides or the mala fides of the people involved. It looks like it will become very relevant in the case and under those circumstances the State will present this evidence.

Folien 1 then became a key piece of evidence which compelled the defence to bring in two international fingerprints experts – Pat Wertheim and Arie Zeelenberg to testify. Dixon's affidavit was used extensively by the defence in cross-examination to challenge Constable Swartz, the fingerprint lifter, and his supervisor Captain Matheus, and to support accusations of evidence fabrication.

Judging from Judge Deon van Zyl's statement below, from his official judgment, **Dixon's affidavit was crucial to the outcome of the case**. It dealt the legitimacy of Folien 1 a severe blow.

> [140] It follows that the state in no way submitted sufficient evidence to affect the prima facie case, as contained in Senior Supt Dixon's affidavit in the least. This prima facie case was indeed strengthened considerably by the highly expert presentations of Mr Wertheim and Mr Zeelenberg….
> [141] In their comprehensive reports and impressive testimonies, did they affirm and expanded on Senior Superintendent Dixon's findings in his affidavit point by point.[…] They were both of the opinion that its (Folien 1) came from a conical drinking glass about 80 mm high. … (our emphasis)

Roger Dixon's affidavit does not comply with the statutory provisions of Section 212 of the Criminal Procedure Act, 1977 (Act No 51 of 1977).

Section 212(4)(a) of the Act reads as follows:

> *212 Proof of certain facts by affidavit or certificate*
>
> *(4)(a) Whenever any fact established by any examination or process requiring any skill-*
>
> *(i) in biology, chemistry, physics, astronomy, geography or geology;*
> *(ii) in mathematics, applied mathematics or mathematical statistics or in the analysis of statistics;*
> *(iii) in computer science or in any discipline of engineering;*
> *(iv) in anatomy or in human behavioural sciences;*
> *(v) in biochemistry, in metallurgy, in microscopy, in any branch of pathology or in toxicology; or*
> *(vi) in ballistics, in the identification of finger prints or palm-prints or in the examination of disputed documents,*
>
> *is or may become relevant to the issue at criminal proceedings, a document purporting to be an affidavit made by a person who in that affidavit alleges that he or she is in the service of the State or of a provincial administration or is in the service of or is attached to the South African Institute for Medical Research or any university in the Republic or any other body designated by the Minister for the purposes of this subsection by notice in the Gazette, and that he or she has established such fact by means of such an examination or process, shall, upon its mere production at such proceedings be prima facie proof of such fact: Provided that the person who may make such affidavit may, in any case in which skill is required in chemistry, anatomy or pathology, issue a certificate in lieu of such affidavit, in which event the provisions of this paragraph shall mutatis mutandis apply with reference to such certificate.* (our emphasis)

Dixon's investigation consisted of two processes:

Process 1: Devising, and then supervising, experiments that involved taking test lifts with folien from a number of DVD holders and drinking glasses.

Process 2: Using his skills in **image analysis and comparison** he analysed and then compared each test lift with Folien 1.

From Paragraph 5: *"…. I examined the exhibits, as described in paragraphs 3.1.1 and 3.2.1.1, the drinking glasses, other DVD covers and the lifts produced during the tests, through a process that requires skill in image analysis and comparison."* (our emphasis)

As the Act requires, Dixon's affidavit does not explicitly allege which skill(s) was/were required to establish the test lifts he then later analyzed using his skills in "image analysis and comparison".

Dixon only indicated which skills were required for Process 2 – where he compared Folien 1 with each test lift. He however did not indicate which skills were required for the first stage where he "produced" each lift.

When a scientist, for example, conducts a DNA analysis or determine the blood alcohol content of a blood sample he/she does so according specific laboratory protocols – according to well documented industry standards – using calibrated equipment and quality controlled processes. One would therefore expect that the same results would be obtained if different scientists were to analyze the same blood sample. The purpose of a Section 212 affidavit is then simply to present those results to the court as factual evidence.

Devising an experiment is not a "hard science". In this particular case if the task was assigned to a different expert he/she would likely have devised a different experiment/s which likely would have led to different results and perhaps different conclusions than Dixon's experiment.

There are many variables involved in taking a folien lift from a DVD cover. In addition to the characteristics of the cover itself, there are the technique of the duster, the technique of the lifter, the method of the lifting process, the quality of aluminum powder – to name but a few. When designing an experiment one of the objectives would be to control for as many of these variables to the extent possible.

Another expert would likely have involved the duster, Inspector Mariaan Booysens, and the lifter Constable Swartz in an attempt to control for the differences in dusting and lifting techniques, but he chose to use only Captain van Der Westhuizen to perform the dusting and the lifting. Some experts could have used Captain van der Westhuizen and others, in addition to Booysens and Swartz, as a control.

In addition, it is highly likely that another expert would have followed the exact process that Swartz followed when he handled the DVD at the crime scene. After Swartz received the dusted DVD cover from Booysens he applied a folien to the front bottom half of the DVD cover. After removing this lift he observed that there were no useable fingerprints on it and he decided to discard this lift. At this stage the powder over the bottom half has been removed. He then applied a second lift to the top half of the DVD such that the bottom edge of this second lift overlapped onto the area cleaned by the first lift. This second lift was labelled "Folien 1".

From Par 6.1 it is clear that Dixon did not follow this procedure:

> *6.1 Lifts were made of DVD cover #1 as described in paragraph 3.1.1 on the top half of the front of the cover as demonstrated to me by Constable Swartz.* (our emphasis)

It appears that Dixon placed both the 1st and 2nd lifts over the top half of the DVD holder – not the way that Swartz would have demonstrated it to him. This happened because in truth **Constable Swartz has to this day never met Roger Dixon**, and has never done any demonstrations to him. Dixon committed **perjury**.

In conclusion: There is no industry accepted and documented standards, protocols and methods to determine if a specific folien came from a DVD cover or a drinking glass. The methodology selected by Dixon is just one of many he could have chosen and it is possible that different methodologies could have led to different conclusions. In addition it seems that there are several very questionable aspects about Dixon's methodology and skills in devising valid experiments – most critically his failure to consult with, and to utilize Swartz in his experiments.

The skill Dixon used to analyze the test lifts 'Image analysis and comparison' is not a recognised skill area as per Par 212(4)(a) of the Act.

From Paragraph 5: *"... I examined the exhibits, as described in paragraphs 3.1.1 and 3.2.1.1, the drinking glasses, other DVD covers and the lifts produced during the tests, through a process that requires skill in image analysis and comparison."* (our emphasis)

'Image analysis and comparison' is not a recognized skill area listed in Section 212 (4)(a). To argue that is perhaps a sub-skill or species of one of the mentioned sciences, is pure speculation. For example, it would not be accurate to argue that *'image analysis and comparison'* is a combination of the recognised skill areas e.g. *'mathematics'* and *'identification of finger or palm-print'*.

Dixon's work with Folien 1 and drinking glasses did not require skills in *'identification of finger or palm-prints*'. It has already been determined conclusively that the print on Folien 1 belonged to Fred van der Vyver. He was thus not required to identify who the print belonged to.

When investigating whether a certain drinking glass could have made the curves on Folien 1 there are three parameters to consider:

1. Is the distance between the lines the same?
2. Are the radii of the top curves the same?
3. Are the radii of the bottom curves the same?

This comparison can be done mathematically – the distance, top radius and bottom radius can be mathematically calculated for a drinking glass of any dimension using basic trigonometry. Then there are various scientific and mathematical techniques to estimate the radii of the existing curves on a Folien. It is then possible to scientifically compare the parameters (distance, top radius, bottom radius) as they are on the test lifts with the parameters as they are on Folien 1.

From Dixon's affidavit it is evident the only 'mathematics' skill he applied was to measure[1] the distance between the curved lines.

> *6.4 The distance between the two parallel curved lines which are visible on Folien 1, as described in paragraph 3.2.1.1, was measured and compared to the heights of the eleven (11) drinking glasses collected from 21 Shiraz flats. Four matching glasses of the eleven were found to have the same height as the distance between the lines ...*

There is no evidence that Dixon mathematically analyzed Folien 1 and the experimental lifts to determine if the curves were concentric and circular (as they should be if they were made by a drinking glass) and also what the radii of the curves are. There is also no evidence that he subjected the dimensions of the different drinking glasses to a mathematical analysis to calculate the radii of the curves each glass would have left on a lift.

It appears that the results of Dixon's comparisons and conclusions are based on a very limited and incomplete mathematical comparison of the key parameters (he measured and compared distance between lines only). It can therefore not be said that he applied his skills in 'mathematics'.
It appears that Dixon relied extensively on a visual comparison and interpretation.

The Act doesn't permit Opinion Evidence

In 1998 the Legislature amended Section 212 of the Act to outlaw statements containing opinions. Dixon's final conclusion which is clearly expressed as his opinion therefore does not comply with the provisions of the Act.

> ***In my opinion*** *the black Folien described in paragraph 3.2.1.1 was not "lifted from a DVD" but instead lifted from one of four glasses described in Paragraph 6.4. The features observed on the Folien match test lifts made from glasses and not those made from DVD covers*. (our emphasis)

[1] Dixon's affidavit does not specify what measuring instrument he used.

In Nkhumeleni 1986 (3) SA 102 (VSC) and Lange 1969 (3) SA 40 (N) he High Courts, with reference to the pre-amended section 212(4), clearly indicated that opinion evidence cannot be adduced via a section 212(4) statement.

The dusting and lifting of prints from the drinking glasses were not performed by Roger Dixon himself but by Captain Danie van der Westhuizen – the Act doesn't permit such hearsay evidence.

In Paulsen 1995 (1) SACR 518 (C) the deponent failed to indicate that he analyzed the blood sample himself. The court ruled that the section does not allow the deponent to state what factual finding was made by another person – to do so would amount to double hearsay and that is not allowed by the section. The court stressed that in order to be admissible, section 212(4) statements (affidavits) should strictly comply with the requirements of the section. The conviction was set aside on Appeal.

The drinking glasses Roger Dixon used in his experiments, and which he claimed, were collected from the victim's flat, does not meet the chain evidence requirements of the Act as per Section 212(8)(a).

Dixon's final conclusion:

> *In my opinion the black Folien described in paragraph 3.2.1.1 was not "lifted from a DVD" but instead lifted from one of four glasses described in Paragraph 6.4. The features observed on the Folien match test lifts made from glasses and not those made from DVD covers.* (our emphasis)

The four glasses described in Paragraph 6.4 are a set of identical glasses and were part of the eleven (11) glasses Dixon claimed was collected from 21 Shiraz, the victim's flat.

Dixon's affidavit makes no mention of chain of custody evidence for the 11 glasses purportedly collected from 21 Shiraz by the police and delivered to Dixon by Captain Van der Westhuizen.

Judging by the court testimony of Mrs Juanita Lotz, the victim's mother, it is highly unlikely that all 11 glasses were from Inge flat, and even if they were, there is no chain of custody evidence that Dixon could have relied on.

Even Pat Wertheim, a fingerprint expert that testified for the defence had this to say during his court testimony (Page 3046 Lines 3 to 9): "*M'Lord, I was advised that the drinking glasses in Inge Lotz' flat, many of them had been retrieved by her family, rather than collecting at the scene, the police had recovered them from her family at a later date. Again there's no continuity, there's no chain of custody, there's no provenance to a drinking glass received from the Lotz family that might have come from Inge's flat*." (our emphasis)

Some time after her daughter's death Mrs Juantia Lotz, with the assistance of a friend, Eliana Prinsloo, cleared away all of the victim's belongings in the flat and took them to her home in Welgemoed. Drinking glasses included. Below is a translated extract of Mrs Lotz's cross-examination by Adv Dup de Bruyn:

> De Bruyn: Yes, madam, the contents of Inge's flat was at some stage taken to your house, in that correct?
> Ms Lotz: That is correct
> De Bruyn: Do you remember glasses that were taken back to your house? That came from the flat?
> Ms Lotz: Everything that was in her flat came home.
> De Bruyn: Everything
> Ms Lotz: Including glasses.
> De Bruyn: Including glasses. Now did the glasses ever leave the house again?
> Ms Lotz: I gave some of the glasses to the police for tests
> De Bruyn: When was that, can you remember?
> Ms Lotz: I can't remember at all.
> De Bruyn: It is important to us. Was it this year, or was it last year or was it in the same year, 2005?
> Ms Lotz: I cannot remember
> De Bruyn: Can you not ... did the police ever came to you and looked at the glasses at your home and took measurements at your home or can't you remember?

Ms Lotz: I can't remember. The glasses that came from the flat, I kept just like that in boxes, so when they enquired I took the glasses from the boxes and gave them to the police.

De Bruyn: I see

Court: Just a sample, just single ones?

Ms Lotz: Yes, a prototype of each type that was in her flat.

De Bruyn: Excuse me, madam, it is important, I did hear what you just said?

Court: A prototype

De Bruyn: A prototype?

Court: ... of each that was in her flat

De Bruyn: Sorry, do I understand your testimony correctly, the glasses arrived at you packed in boxes

Ms Lotz: As we packed it in her flat

De Bruyn: I understand

Ms Lotz: We had to clear her flat

De Bruyn: And then the police came and said they wanted to do tests?

Ms Lotz: I did, let me rather say, that is what I assumed

De Bruyn: Yes

Ms Lotz: They asked if I can show them a similar glass of each type that she had in her flat.

De Bruyn: I understand that madam. Can you remember if it was Director Trollip?

Ms Lotz: It might have been. I can't precisely remember.

De Bruyn: So then you removed an example of each glass and gave it to the police

Ms Lotz: Yes

De Bruyn: Did you ever get the glasses back?

Ms Lotz: That I can't remember either.

On 19 December 2005 Supt Ruben Botha signed a sworn statement that stated amongst others:

On 2005-12-14 we went together with Director Trollip to the house of the deceased mother, in Welgemoed. We measured glasses which she apparently removed from the deceased flat and departed for Port Elizabeth thereafter.

Isn't it suspicious that amongst the 11 glasses Dixon worked with there were four identical glasses (all part of a set) – when the police would have collected only a single prototype from Mrs Lotz? Why have 4 identical glasses in the experiments – when only one would have been sufficient? Where did these four glasses come from?

Roger Dixon made a definitive and far reaching statement in a Section 212 affidavit, and which the court had to accept as *prima facie* evidence, that Folien 1 came from one of 4 glasses that were removed from the scene at the victim's flat, in spite of the fact that there is no evidence that police remove these glasses directly from the victim's flat, and in spite of the fact that these glasses had no chain of custody evidence.

The importance that a Section 212 must prove the chain of evidence was emphasised by the Court of Appeal in Sithole vs State (2012) – Case Number: A1051/11

During the criminal trial the accused (Sithole) was found guilty of raping a 14 year old girl and sentenced to 18 years in prison. The State's case rested on a Section 212 affidavit which stated that the accused's DNA matched the DNA of a child the victim gave birth to after the rape. During the criminal trial the defence challenged the chain of custody of the blood sample that was taken from the accused, claiming that it was "tampered" with. The defendant's lawyer, however, was unable to prevent the Court from accepting the Section 212 affidavit and accepting the contents thereof as *prima facie* evidence. The sentence was appealed (Sithole vs State (2012) – Case Number: A1051/11). The High Court that heard the appeal found that the Section 212 affidavit was inadmissible because it contained insufficient evidence to prove the chain of custody.

3.1 During the course of my official duties on 2010-08-10, I received the case file and thereafter interpreted the DNA results of the crime scene and reference sample pertaining to SASELAMANI CAS 31/09/09 (LAB No 178134/09 [2009110485]) by process requiring competency in Biology.

This paragraph does not say from whom he received the case file containing the reference sample and the results of the DNA analysis. This is what the judge thought of it:

> *14. Regarding the receipt of the exhibits at the laboratory, <u>the statement lacks any reference from whom the samples were received.</u> Section 212(8)(a)(ii)(aa) clearly requires that the "person, institute, State department or body" from whom the exhibits were received, has to be specified. The mere reference to a "case file" and "SASELAMANI CAS 3109/09", although it has the appearance of a police docket reference, is in my view insufficient proof of the identity of the entity or person who packed, marked or dispatched the exhibits to the laboratory. The statement, in my view, does therefore not comply with the requirements of the said subsection and does accordingly not constitute prima facie proof in that regard.* (our emphasis)

This omission was a serious one. It led to the High Court finding the affidavit "irrelevant and inadmissible". And without the affidavit the State only had the testimony of the victim, which the High Court didn't find credible. Consequently the appeal was upheld and the conviction and sentence was set aside.

> *33. Pertaining to the chain evidence regarding the gathering of the samples and the marking and safekeeping thereof before it was dispatched to the laboratory whilst not dealt with in the section 212 statement, it follows that the chain evidence regarding those issues was not proved. Accordingly, in view of the lacking of the said linking chain evidence, the section 212 statement in any event became irrelevant and inadmissible evidence. It should therefore have been disregarded by the trial court.*

This case illustrates how important it is that the evidence used to establish the facts(s) in a Section 212 affidavit have a proven chain of custody.

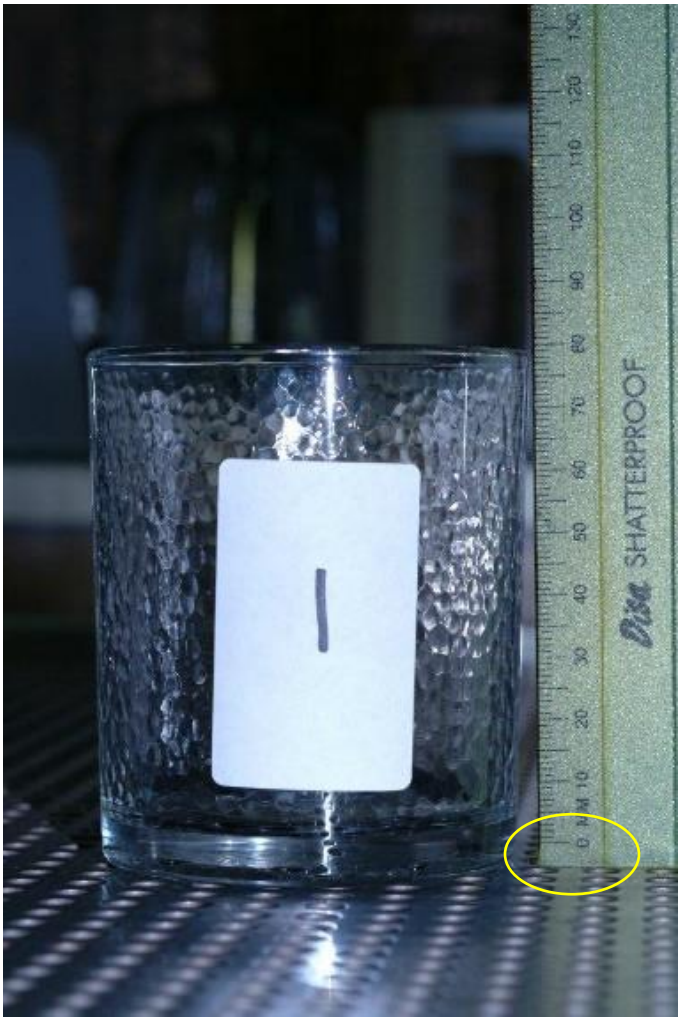
It is clear that Dixon conducted experiments and drew definitive conclusions from drinking glasses for which chain of custody evidence wasn't and couldn't be proven. As such, based on Sithole vs State (2012), the trial judge should have disregarded Dixon's Section 212 affidavit.

Roger Dixon gave false evidence when he said the distance between the lines on Folien 1 is the same as the height of the glass that he claimed Folien 1 was lifted from

We managed to obtain photographs of the glasses used by Roger Dixon and which were purportedly collected by the police from 21 Shiraz.

Below is an image of Glass # 1. This glass was one of the set of 4 identical glasses – which he referred to in his final conclusion. Thus according to Dixon Folien 1 was lifted from this glass or one of the other three (#'s 6, 7 and 8) which are all identical. Therefore the height of this glass according to Dixon should be the same as the distance between the lines on Folien 1. (See Par 6.4)

The height of Glass #1 is **83 mm** and the height between the lines on Folien 1 is **80 mm**.



Thus Dixon had no scientific basis to make this statement:

> *6.4 The distance between the two parallel curved lines which are visible on Folien 1, as described in paragraph 3.2.1.1, was measured and compared to the heights of the eleven (11) drinking glasses collected from 21 Shiraz flats. Four matching glasses of the eleven were found to have the same height as the distance between the lines.* (our emphasis)

It should be noted that Dixon's affidavit does not contain the dimensions of the 11 glasses that he used to make tests lifts with.

Roger Dixon lied when he stated that Constable Swartz demonstrated to him how he lifted Folien 1 from the DVD cover.

In Paragraph 6.1 of his affidavit Roger Dixon stated:

> *6.1 Lifts were made of DVD cover #1 as described in paragraph 3.1.1 on the top half of the front of the cover as demonstrated to me by Constable Swartz.* (our emphasis)

According to Constable Swartz he has never personally met or communicated with Roger Dixon and he has never demonstrated to Roger Dixon how he lifted Folien 1; and he will testify as such in a court of law (and/or provide a sworn statement in this regard). It turns out that Dixon's "double lift" action was different than what Constable Swartz testified to – further proof that Swartz never did a demonstration to Dixon.

It is evident from Par 122 of the judgment that the judge took a very positive view of Dixon consulting with Swartz, and one can only imagine that this lie by Dixon played a significant role in increasing the credibility of his investigation.

> [122] …. He furthermore arranged for Constable Swartz to demonstrate to him how he lifted the fingerprint appearing on folien #1, from the DVD cover in question.

It is possible that Roger Dixon lied because he was colluding with the defence.

Why did Roger Dixon tell this lie? There must have been a good reason to take such an incredible risk.

It could be that Roger Dixon told this lie to pin a specific "double lift" sequence to Constable Swartz that would "contradict" his official version – and which could then later be used by the defence to discredit Swartz.

The official version is that Swartz first applied a folien to the bottom half, and then applied a second folien to the top half of the DVD holder. The version that Dixon was trying to pin on Swartz was that both lifts were taken over the top half of the DVD holder.

Where did this notion that Swartz applied both folien to the top half come from?

After Director Ruben Botha was asked to conduct an independent investigation into Folien 1 he interviewed Swartz who described to him how fingerprints were lifted from the DVD holder. Botha recorded Swartz's method in Par 4.2 of his report:

> *4.2 Top mark is caused by the top end of the DVD cover while the bottom mark was caused from a first lift. The distance 78–80 mm was the distance from the top of cover to the <u>bottom</u> of the first piece of folien used for 1st lift. The area could have been cleaned below the folien during the rubbing process in the 1st lift. The overhang at the top of the DVD holder during the second lift is less therefore causing the folien to be lower than the first lift therefore the clean surface came into contact.* (our emphasis)

The defence, and apparently Roger Dixon, understood this to mean that Swartz applied both foliens to the top of the DVD holder. This is also the sequence that Dixon used in his experiments.

(The word that is causing the confusion is "bottom" – replace it with "top" and nothing about the paragraph materially contradicts Swartz's official version – it could be that to Botha whichever side of a folien was closest to a short edge of the DVD was considered the "top" and the side towards the middle of the DVD the "bottom", or it was simply a mistake.)

It is impossible to produce a lift that looks like Folien 1 by applying both lifts to the top half. Botha's attempt must be viewed from the perspective that he was trying to describe a 'double lift' sequence that would produce Folien 1 – and the only 'double lift' sequence that can produce something like Folien 1 is Swartz's official version.

When one study the proceedings of the Discharge Application it becomes clear how Dixon's lie fitted into the defence's strategy to put Swartz's reliability into question.

Here is Adv Dup de Bruyn addressing the judge during the Discharge Application:

> Mr Botha said in his report very clearly that the bottom line was made by the first lift over the top part of the DVD holder, a little higher, and made the bottom line when it was powered. And then came the second lift, and it is a bit lower, also at the top of the DVD and it came across the bottom line. Mr Swartz comes to testify under oath that he lifted the first folien from the bottom side of the DVD. There can be no doubt about it, and also quoted the record to you. And the second lift was taken from the top side. This is completely contradictory to what he told Director Botha. If you then look at Mr Dixon's affidavit that is in front of you – I am not relying on it a lot – I am just referring to it – Mr Dixon's affidavit says the same. If you just give me one moment – not Dixon – yes it is Dixon. Your Honour if you just give me one moment. Just my …You honour, as I page through I will get to it, but it is clear that Mr Dixon also understood it that way. (our emphasis)
>
> And:
>
> Mr Swartz he comes and says under oath that he first took the bottom lift and then the top lift. We respectfully argue that you cannot accept what Mr Swartz said in light of everything we told you. As opposed to the *prima facie* evidence of Senior Supt Dixon, and that is why we say there aren't sufficient evidence. On this specific point it is only Swartz testimony that can challenge the prima facie evidence of Mr Dixon. (our emphasis)

It is interesting to note that the defence did not challenge Swartz on the double lift version that he explained to Botha and Dixon. Instead they chose to present Botha's hearsay evidence and to back it up by invoking Dixon's *prima facie* evidence. Challenging Swartz directly could have exposed Dixon's lie.

On another note: Pat Wertheim was very critical of Botha's report and disagreed with the double lifting explanation in Botha's report – not because two lifts both at the top of the DVD holder could not possibly have created a lift like Folien 1, but on the basis that the bottom looked to him like it came from the edge of an object and not like the edge of a previous lift. It appears that Pat Wertheim in his report understood the double lift to have taken place in the same manner as Swartz's official version.

From Wertheim's report:

> In section 4.2 of the Botha report, it is stated that the width of the lift on the folien, approximately 80 mm, is because there was a first lift from the DVD cover that narrowed the width from which powder could be measured in the second lift. That second lift, according to the Botha report, is lift #1 in this case. If this is so, what happened to the lift taken first, before lift #1? If a lift was, in fact, taken before lift #1, why is there no reference to it in the notes and, more importantly, why was it not saved? Perhaps it had no fingerprints in it, but then why was it lifted? Even if this theoretical lift had no fingerprints of value for comparison in it, other lifts were saved that also lack fingerprints of value for comparison. There is no record of this theoretical first lift, much less the lift itself to show that it ever existed.

Roger Dixon did not describe in sufficient detail how the drinking glasses were handled during his experiments.

> *6.4 ….With glass 8, while holding it in the <u>right hand</u>, a drinking action was performed in order to replicate the lipmark on Folien 1.*
> *7.3 The positions of the fingers and the right thumb, as seen on folien 1, is consistent with the lift having been taken from one of the four drinking glasses described in paragraph 6.4. In addition,*

the lip mark drinking from glass 8 is in the same position as that observed on Folien 1, <u>above the left fingers</u>. (our emphasis)

In Par 6.4 Dixon performed a drinking action holding the glass in his right hand. Then in Par 7.3 he talks about the left fingers' and right thumb's prints on Folien 1 that are consistent with the fingerprints he took from Glass 8 (one of the set of 4 drinking glasses). But where did the left finger print on Glass 8 come from if he only performed a drinking action with the right hand? If at some point he handled the glass with his left hand – why did he not describe the action he used? Was it because he used an unusual and unnatural drinking action in order to 'force' a result – just like Wertheim did?

If Dixon did use Wertheim's undeclared and therfore 'secret' method to get the thumb print above the left fingers how did he know about it? What type of communication was there between Wertheim and Dixon prior to Dixon's study? If Dixon only had access to Wertheim's report and he followed the drinking action described therein precisely he would not have been able to place his lip print above the left fingers.

Roger Dixon's made statements about the dry water drop marks that had no basis in science, and that are contradictory to what one would reasonably expect of a person with a Master's degree in Geology.

Roger Dixon holds a Master's degree in Geology from the University of Cape Town. One would therefore imagine that he should have a reasonable understanding of fluid properties and dynamics, ot at least he should be able to some basic research into the topic. That is why it is so hard to understand how Dixon in good conscience could have made the following statement:

7.4 The water droplets observed on folien 1 are consistent with water droplets having dried on a vertical surafce. They are oval in shape with their longitudenal axis parallel to the bottom of a glass.

This statement has absolutely no scientific merit. When a water drop hits a horizontal surface at an angle it forms an oval drop – the sharper the angle the longer and thinner the drop. And it is quite possible for the longetudinal axes of such oval drops to end up parallell to the edge of a flat object –

such as for example a DVD cover. Futhermore, there is no rule in fluid dynamics that drops on a vertical surface will always be oval and with the long axis parallell to the horizontal.

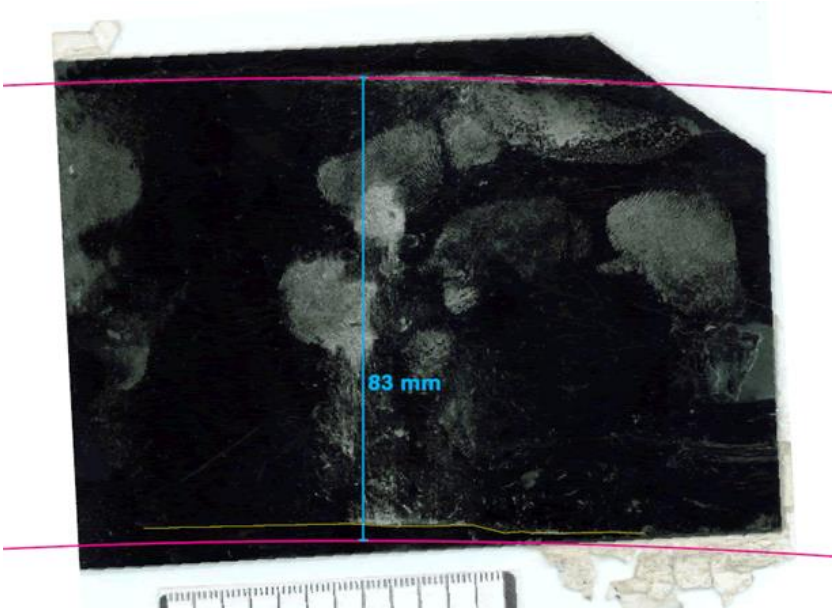
Dixon was dishonest in his comparison of the test lifts with Folien 1.

Dixon got Captain Danie van der Westhuizen to make folien lifts from Glass #1. When he compared these test lifts to Folien 1 a number of differences would have been immediately obvious – differences so significant that it could not possibly support an honest conclusion that Folien 1 was lifted from Glass #1.

The image below superimposes on Folien 1 the lines that Glass #1 would have made on a folien. These lines were calculated from the scale dimension of Glass 1 using basic trigonometry.

Apart from the differences in the height of the glass (83 mm) and the distance between the lines – the shape and appearance of the bottom line in particular would have been significantly different.

It must remembered that Dixon claimed that he was skilled in 'image analysis and comparison'.



When the Court accepted Dixon's non-compliant Section 212 affidavit it committed an "error-in-law" which could be sufficient grounds for a retrial.

On the basis of the arguments and irrefutable evidence presented thus far the conclusion is that the court made an "error in law" when it accepted as *prima facie* evidence the 'inadmissible' affidavit prepared by Dixon and adduced by the Defence.

According to **Article 319** of the Criminal Procedure Act of 1977 the State can only appeal the decisions of the trial court if that court came to the wrong decision as a result of an error in law. According to **Article 324**, read with **Article 322(4)** of the Criminal Procure Act, in the case where an 'error in law' can be proven before the Supreme Court of Appeals then the court has the discretion to command that a new trial be brought against the accused on the original charges as if the accused has never been charged before, provided that the original judge or assessors don't partake in the new trial. On the question on whether in the light of article 35(3)(m) of the Constitution (the 'double jeopardy rule') it would be unconstitutional to retry someone that that has already been found innocent of the same charges, the Supreme Court of Appeal in **State vs Wouter Basson** (404/2002 and 293/2002) did not consider that a retrial on the same charges, should they find in favour of the State, would be unconstitutional. Nor was it an argument that was brought forward by the defendant.

To determine if an 'error on law' occurred, the 'fact-base' upon which the court made its decision needs to be considered. An 'error in law' occurs if the facts upon which the court based its decision could lead to different verdict than that of the trial court. Not every error would necessarily be grounds for a successful appeal by the State. The Appeals Court must find that there is a reasonable likelihood that the accused would have been found guilty without the error.

The question at the heart of the matter is – what would the Court's decision have been if it never accepted Dixon's affidavit?

Consider the factual basis for trial court's decision. The Court accepted Fred's alibi as 'possibly reasonably true' and that the weight of the State's circumstantial evidence could not prove otherwise, beyond a reasonable doubt. There was one key piece of evidence that had the potential to bust Fred's alibi and to render it null and void – and that is Folien 1 – the fingerprint lift with Fred's fingerprint on.

The judge admitted: "*If indeed it was the accused fingerprint on it [the DVD], it would have meant that he was in her flat after 15:07 and not at this work. It would destroy his alibi*." Whereas several police officers testified that Folien 1 came from a DVD that Inge rented at 15:07, Roger Dixon with the help of Pat Wertheim and Arie Zeelenberg convinced the Court that Folien 1 did not come from a DVD but from a drinking glass.

Roger Dixon's affidavit played a critical role in the court proceedings and on the Court's decision to find the accused not guilty.

During the cross-examination of Swartz the defence relied extensively on Dixon's affidavit to challenge him on the shape of the lines, the so called 'lip mark' on the position of the prints. Dixon's affidavit featured more prominently than Wertheim's report during Swartz's cross-examination.

Below is an example of Adv Dup de Bruyn using Dixon's affidavit to challenge Swartz during his cross-examination:

> Can you just look there Mr Swartz. You see it there. Now Mr Dixon said: "The curved parallel lines on foline 1, are not consistent with having come from a DVD cover."
> Those top and the bottom lines. There we show you in red. Just look there and below. He says that they could not be from a DVD holder. Do you have any? ---- Well it may be Mr Dixon opinion, but …
> Your opinion is? --- My opinion is, I lifted the fingerprint from the DVD cover
> Excuse me? --- I lifted the fingerprint from the specific DVD cover.
> Perhaps in all fairness I must say to you. We don't know on what was lifted. It may be that what you lifted was replaced, but if you just forget what you lifted for a moment I ask you now as an expert. <u>Mr Dixon said these two lines are curved.</u> The bottom one runs a bit below the levels. <u>The expert said it is curved</u>. Do you as an expert have anything to say about that? If it is curved how could it be from a DVD cover? --- It may because of the pressure I applied to the DVD-cover. (our emphasis)

Similarly Dixon's report was also used against Captain Matheus. Wertheim's report did not feature at all in the cross-examination of Matheus.

> Captain, that is a farfetched explanation that and will tell you why, you know exactly what we are talking about and Superintendent Dixon also tested it. A DVD is made of plastic and there is… (Page 940, Lines 3 to 6)
>
> And:
>
> You will see that mark at the top of folien 1, as on the screen, the top one. ----I see it your Honour
> Superintendent Dixon described it as a lip... (Page 940, Lines 22 to 25)
>
> And:
>
> Senior superintendent Dixon described it in his report, paragraph 7.1 as "curved parallel lines."--- I understand you Honour. I would like to know why he is not in the stand to say it for himself,
> COURT: He will perhaps get the chance. ---I will appreciate it your honour.
> (our emphasis throughout)

Discharge Application

It has been discussed before how the defence used the *prima facie* status Roger Dixon's affidavit to pin an incorrect 'double lift' action on Swartz in order to discredit his court testimony.

Adv Dup de Bruyn addressing the judge:

> With respect I submit that these affidavits are before you. They are in terms of article 212 of the Criminal Procedure Act and are thus as *prima facie* evidence before you. And the *prima facie* evidence before you is that the fingerprint evidence is from a glass. This is at least Mr Dixon's statement.

…

Mr Swartz he comes and says under oath that he first took the bottom lift and then the top lift. We respectfully argue that you cannot accept what Mr Swartz said in light of everything we told you. As opposed to the *prima facie* evidence of Senior Supt Dixon, and that is why we say there aren't sufficient evidence. On this specific point it is only Swartz testimony that can challenge the prima facie evidence of Mr Dickson.

The Judgment

The Judgment talks about the Dixon affidavit and the subsequent events:

> [122] Eventually the matter was referred to Senior Superintendent Roger David Dixon, a Control Forensic Analyst attached to the Scientific Analysis Unit of the Forensic Science Laboratory. In a sworn affidavit, dated 12 December 2006, which he made in terms of section 212 of Act 51 of 1977, Senior Superintendent Dixon referred to detailed tests he did, using all the relevant materials, including folien #1. In the process he performed tests on various DVD covers and glasses that were obtained from the deceased's apartment, four of which had the same height as the distance between the two curved lines visible on folien #1. With one of the glasses (glass 8) he performed a drinking action with a view to replicate the apparent lip mark, which appears towards the top of the folien. He furthermore arranged for Constable Swartz to demonstrate to him how he lifted the fingerprint appearing on folien #1, from the DVD cover in question. (our emphasis)

It appears that the Court was impressed by the fact that Dixon arranged for Constable Swartz to do a demonstration. We now know that this is a lie. It never happened.

> [124] This statement and the conclusions at which Senior Superintendent Dixon arrived, compelled the Director of Public Prosecutions of Cape Town

to forward it to Adv de Bruyn, covered by a letter dated 13 December 2006. The first paragraph reads:

I confirm herewith that the state no longer intends to proceed with the evidence of your client's alleged fingerprint on the DVD cover.

[125] That should have been the end of the controversial fingerprint, but the defence adopted the attitude that this yield by the state did not prevent them from presenting evidence about the alleged fabrication to the court. In this regard the accused said in his plea explanation that "the fingerprint fraud taints the state's case against me". Elsewhere he also referred to the report of Director Botha and Superintendent Meyer as "a blatant and dishonest attempt... to provide support to the obviously misleading attitude of the SAPS that the fingerprint on folien 1 originates from a DVD cover instead of a glass."

[126] In light of this attitude Adv van der Vijver indicated in his opening submission that the state indeed would not continue with the fingerprint evidence, except in as much as may be necessary to refute the defence's allegations of fraud. Unfortunately this lead to the state presenting a significant amount of testimony about it. That, in turn, led to protracted cross-examination and, furthermore, to the testimony of two foreign experts, Mr Pat Wertheim of the USA and Mr Arie Zeelenberg from the Netherlands, being presented. In essence these witnesses affirmed the findings of Senior Superintendent Dixon and suggested that somewhere in the procedure followed by the investigating team, a serious flaw had slipped in. While these experts considered it an intentional fabrication, it cannot be excluded that it could maybe be attributed to negligence or utter incompetence. However, it is for present purposes irrelevant, because the merits of the case can be decided without having to make a finding on this. (our emphasis)

It appears that Dixon's findings stood central and that the court evaluated Wertheim and Zeelenberg's testimonies in relation to how they supported Dixon's findings.

[127] It is of course true that in my judgement on the accused's discharge application in terms of section 174 of Act 51 of 1977, I was of the opinion that, while the state indicated that it would not rely on the fingerprint evidence, the testimony and evidence was before the court and had to be judged on its own merits. This does not mean that the affidavit of Senior Superintendent Dixon may simply be ignored, even though it has not been confirmed by verbal testimony. According to section 212(4)(a) and (8)(a) of Act 51 of 1977 his affidavit serves before this court as prima facie proof of the contents thereof. It could only be dispelled by acceptable evidence to the contrary.

And:

[140] From this it follows that the state did not in any way present sufficient evidence to affect, in the least, the prima facie case as contained in Senior Superintendent Dixon's affidavit. This prima facie case was indeed strengthened considerably by the highly expert presentations of Messrs Wertheim and Zeelenberg. Their intensive knowledge and expertise, as well as their wide ranging experience which has brought them international acclaim, came to the fore very strongly in their testimony.

[141] In both their comprehensive reports as well as their impressive testimony, they underscored point-for-point the findings of Senior Superintendent Dixon's statement, and expanded further on it. For present purposes it is unnecessary to deal with it in great detail, except to indicate that both put it plainly that it was impossible for the fingerprint on folien #1 to have originated from a DVD cover. They were both of the opinion that it came from a conical glass approximately eighty millimetres in height. This meant that the description on the back of folien #1 was wrong. (our emphasis)

Again it is evident that Dixon's *prima facie* evidence was of prime importance and that Wertheim and Zeelenberg's testimonies were evaluated to the extent that they supported this *prima facie* evidence.

The question is how the Court would have evaluated Wertheim and Zeelenberg's evidence without Dixon's *prima facie* evidence?

It is clear that Dixon's affidavit featured very prominently in the Court's evaluation of the evidence and on the eventual outcome of the case.

During the trial the judge heard various testimonies that indirectly challenged the legality and admissibility of Dixon's affidavit.

Dixon's *prima facie* evidence was:

- Folien 1 did not come from a DVD holder, AND
- Folien 1 came from a drinking glass found in the victim's flat.

For Dixon's affidavit to be legal both these statements have to withstand scrutiny.

1. Mrs Lotz testified that she removed all drinking glasses from Inge's flat and kept them in boxes at her home. She testified that at some stage the police visited her home to inspect the glasses and she gave then a prototype of each type of glass Inge had. If the police did take a prototype of each type of glass how did they end up with 4 identical glasses? Even if police did collect all 11 glasses from Mrs Lotz – there is still no proven and acceptable chain evidence
2. Director Ruben Botha's statements make reference to him and Director Trollip visiting the Lotz home to inspect the drinking glasses.
3. Pat Wertheim pointed out problems associated the chain of custody of the glasses

M'Lord, I was advised that the drinking glasses in Inge Lotz' flat, many of them had been retrieved by her family, rather than collecting at the scene, the police had recovered them from her family at a later date. Again there's no continuity, there's no chain of custody, there's no provenance to a drinking glass received from the Lotz family that might have come from Inge's flat.

In terms of Section 212(12) the judge had the authority to call Dixon as a witness, or to put written questions to him.

Considering the very obvious questions there must have been surrounding the chain evidence and Dixon's statement that Folien 1 was lifted from a drinking glass found in Inge flat, the judge did not exercise his right to call Dixon to clarify these inconsistencies.

The judge's decision in this regard must be evaluated against how the defence used the affidavit to "attack" defence experts and to make serious accusations of evidence fabrication and fraud against them. This use of Dixon's affidavit compelled a defence witness, Captain Matheus to ask why Dixon is not on the stand to testify.

> De Bruyn: Senior superintendent Dixon described it in his report, paragraph 7.1 as "curved parallel lines."
> Matheus: I understand you Honour. I would like to know why he is not in the stand to say it for himself
> Court: He will perhaps get the chance
> Matheus: I will appreciate it your honour. (our emphasis)

Read more about Roger Dixon on **Truth4Inge.com**