

EXHIBIT A

Dr. Deas' Report Nov. 19, 2007 v. Dr. Deas' Report April 4, 2008

This document highlights the difference between the original Dr. Deas' Report provided to counsel during discovery, and a second Dr. Deas' Report e-mailed to counsel on Saturday, April 5, 2007, four months after the deadlines for Plaintiff's expert disclosures and five days after the close of discovery.

Dr. Deas' First Report is dated November 19, 2007. It is labeled as revision A4 on the first page, and is labeled revision A3 or A4 at the bottom of various pages, and it is 128 pages in length. Dr. Deas' Second Report is dated April 4, 2008. It is labeled revision B3. At 183 pages in length, it is more than 50 pages longer than the original report. Hereafter, they are referred to as the first draft (11/19/07) and the second draft (4/3/08).

A brief review of the two reports makes it clear that the second draft is anything but a revision or an update. The second draft does attempt to tend to matters that were deficient or incomplete in the first draft, but the second draft also introduces new matter completely absent from the first draft. The second draft also attempts to advance legal and technical arguments that not are not only absent from the first draft, but are completely separate and distinct from anything even suggested in the first draft.

The first page of the document reveals two large changes. First, it reveals that Dr. Vladimir Komarov is no longer given charge of Safety Assessment for the report, but remains as Quality Officer. There is no replacement named for Safety Assessment. Additionally, Plaintiff never disclosed Dr. Komarov as an expert. His qualifications are unknown to Ambient.

Second, there is an update given for the changes from draft B1 to B3. The changes from A4 to B1 are not provided, however, the following is the listed change from draft B1 to B3:

"Issue of report (not provisional), from the continued investigation. Additional data from VR3 investigation, repeat of computer mathematical modelling of dive, confirmation of opinion of Dr. D. Arthur. Careful review of entire investigation so far. B1 into proof reading and review (34th Dec 07). B2 following review and further verification testing in week 9 and week 11, on metabolism. B3 (4th April 2008), after rechecking inspiration and diver loop volumes, issue as interim report."

The amount of new information added is made obvious in the Table of contents. The following list includes items added to the second draft's table of contents not otherwise present in the table of contents from the first draft:

- Preface
- 1.1 The events
- 1.2 Root Cause Analysis
- 1.3 The design defects that caused this accident
- 1.4 Cause of the design defects
- 1.5 Failure of consumer protection provisions
- 1.6 Recommendations
- 6 Qualifications and Background (of Dr. Deas)
- 9.3.2 Handsets On or Off?

- 10.1 Dive profiles of the witnesses
- 10.2 When did the dive start?
- 10.3.1 Dive Profile Lost from Evidence
- 10.3.2 Recovery of profiles from VR3 images
- 10.5 Recovering data lost by the VR3 software bug
- 10.6 Concluded profile with one pixel, not two before ascent
- 10.7 The fatal ascent
- 12.1 Missing items of inventory
- 12.4 The recovered dive profile differs from the witness accounts
- 13.1 Root Cause Analysis and Regression Method
- 13.2.1 Gas volume in the rebreather
- 13.2.2 Volume of gas in a diver's respiratory system
- 13.2.3 Moving from the Cyclist to the Diver
- 13.2.4 Metabolic Rate
- 13.2.5 Summary of Loop Volume Parameters
- 13.3 Amount of Hypoxia needed for Loss of Consciousness
- 13.4 Other Primary Simulation Parameters
- 13.5 Dive Profile mapped to simulation time
- 13.6 Devil's Advocate rest: "was the rebreather definitely on?"
- 13.7 Case where rebreather is fully functioning
- 13.8 Cases of O2 failure where the Dead Volume is 10 litres
- 13.8.1 (describing conditions of a new simulation)
- 13.8.2 (describing conditions of a new simulation)
- 13.8.3 (describing conditions of a new simulation)
- 13.8.4 (describing conditions of a new simulation)
- 13.8.5 (describing conditions of a new simulation)
- 13.8.6 (describing conditions of a new simulation)
- 13.8.7 (describing conditions of a new simulation)
- 13.8.8 (describing conditions of a new simulation)
- 13.8.9 (describing conditions of a new simulation)
- 13.8.10 (describing conditions of a new simulation)
- 13.9 Cases of O2 failure where the Dead Volume in 8 litres
- 13.9.1 (describing conditions of a new simulation)
- 13.9.2 (describing conditions of a new simulation)
- 13.10 Comparison with calculations by Dr. Vann
- 15.1 The key known facts
- 15.2 Significance of the design faults identified here
- 15.3 How did the handsets come to be in a non-dive mode?
- 15.4 The timeline for the critical fault
- 15.5 How did these safety faults get to be in the Inspiration?
- 15.5.1 Lack of competent safety review
- 15.5.2 Completely inadequate FMECA
- 15.5.3 Failure to act after serial fatal accidents
- 15.5.4 Neglecting to act diligently after written warnings on safety
- 15.6 What does the CE mark mean and how is it applied to this case?
- 15.6.1 Personal Protective Equipment Directive 89/696/EEC
- 15.6.2 EN14143: Self-contained re-breathing diving apparatus
- 15.7 The ultimate root cause of this accident
- APPENDIX M: OPINION OF VICE ADMIRAL DR. DON ARTHUR, USN SURGEON GENERAL
- APPENDIX P: REPORT BY SECREAST ON WEBSITES
- APPENDIX Q: OPINION OF DR VANN

Continuing through the second draft, page by page, reveals that the report changes in content and direction well beyond the changes enumerated on the first page and in the table of contents of the second draft. The changes listed below are those that are not obvious from the

table of contents change. These are some of the more poignant changes; it is by no means an exhaustive list.

The Preface:

The preface, while a change in and of itself, is a page and a half summary of what Dr. Deas considers the “main changes” between this document and the one received November 19, 2007.

1. Executive Summary

The former executive summary was less than 2.5 pages long. The new executive summary consumes more than 7 pages. Dr. Deas changed his statement from the 1st draft: “the handsets had cracked” to the second draft: “the handsets may have cracked”. This “softening” of his position typifies many small changes made throughout the second draft. Also in the second draft Dr. Deas has added that the diver kitting area is shaded, contrasting statements from the first draft about the rebreather lying out in the sun.

1.3 The design defect that caused this accident (new section)

Dr. Deas for the first time elaborates on an alleged software error that the Inspiration suffers from. Dr. Deas also adds here for the first time the name Dr. Wray. Further, Dr. Deas adds comparisons to the Draeger Dolphin semi-closed rebreather, here and throughout the report. These comparisons were not present in the original draft.

1.5 Failure of consumer protection laws (new section)

Dr. Deas begins to talk about EN standards, EU standards, NASA standards and other standards that were not discussed in the original draft. These standards were presented to defendant’s counsel in an interrogatory that was received after the initial Dr. Deas report. Dr. Deas has added information to his report, and made corrections to his report, based on what has come from defendant’s response to interrogatories and from defendant’s expert reports. However, the Plaintiff has not supplemented her expert disclosures regarding Dr. Deas’ qualifications to state these new opinions, nor are any such qualifications obvious from the Plaintiff’s prior expert disclosures.

2. Purpose and Scope

Dr. Deas has added new purpose and scope to his second draft. The new material is labeled as 3 and 5 in section 2. “3. To identify what improvements in training, design or processes could prevent such an accident recurring.” “5. This report is an Interim Report, pending completion of all enquiries.” Indeed, it seems Dr. Deas intends to provide another draft of his report in the future.

3. Sources of Data

For his second report, Dr. Deas added nine new sources of data. They are labeled in the second draft as 18, 19, 20, 21, 23, 24, 35, 26 and 27. Interestingly, Dr. Deas also removed a former source of data, number 8 of the first draft is gone. Number 8 was: "Discussion with the USN Surgeon General on off-gassing anomaly in Postmortem report."

4. Applicable Standards

Added:

- Personal Protective Equipment Directive 89/686/EEC (the PPE Directive).
- Added guidelines developed by NASA and now managed by the American Association of Computing Machinery.

7. Method

Dr. Deas added an eighth line to his method to inform us he is giving information from our own experts back to us.

"8. Review of related documents and critical analysis of preliminary report by expert witnesses acting on behalf of either party....."

8. Declaration of Possible Conflicts of Interest

Five more paragraphs added to explain why Dr. Deas is not conflicted.

9.9. Coroner's Report

Dr. Deas removed a paragraph here which referenced Fowler's report, which stated the unit was switched off at the time of the accident, and contrasted that statement with Officer Englert's statement, who in his report recalls the unit beeping when he checked the unit into evidence at the police station later on the night of the incident.

Dr. Deas omits any reference to Lt. Englert's hand-written investigative notes, marked as an exhibit at his deposition, which revealed that Barrett's carbon dioxide scrubber material was "fully used" and dive buddy Adam Bress told Lt. Englert that Barrett's rebreather was switched off when Barrett and his equipment were retrieved from the water.

10. Robert Barrett's Dive Profile

As shown by the Table of Contents, this section has been changed a great deal. The changes made go well beyond the addition of new sections. The rewriting of this section is far too extensive to list all the changes here. This section used to be 10 pages, now it is 23 pages. More time is needed to analyze and respond to all the new changes.

Despite what the name of the sections implies no new data was downloaded or recovered from the Barrett's VR3s dive computers.

11.1. Equipment Used

In the second draft, and for the first time, Dr. Deas lists the equipment he used. This is not new information, it is old information that was omitted from the first report.

11.3. Configuration and General Condition

Dr. Deas deletes from the second draft a line that was in the first draft. Once present, but now missing: "The rebreather carried labels showing it had been imported by the official importer into the USA."

11.4. Modifications by User

Dr. Deas adds two new pieces of information that were never present in the first draft. Evidently, Dr. Deas overlooked these items during his "extensive" study of the rebreather. The added information was presented in the expert report of defendant's expert David Pence. The two pieces of information added are that Barrett had modified the valves on his high pressure cylinders against the manufacturer's warning and that Barrett was using the wrong scrubber chemical on the rebreather. Dr. Deas discusses why, in his opinion, these modifications were harmless. However, no new information was provided to demonstrate that Dr. Deas, a mathematician and microcomputer expert, is qualified to state his opinions.

13. Computer Mathematical Modeling of Accident

As can be seen by the Table of Contents, this section has been changed a great deal. The changes made go well beyond the addition of new sections. But the re-writing of this section is far too extensive to list the changes here. This section went from nine pages to 28 pages. As before, this testing was not conducted by Dr. Deas but by another person, who was never previously disclosed to Ambient by Plaintiff. The Plaintiff has never produced any information about this person or their qualifications.

13.11. Conclusions

Computer modeling is at the heart of the Dr. Deas opinion. Dr. Deas changed much of his modeling in this section. Dr. Deas also drastically changed his conclusions!

In the first draft there were five conclusions. Dr. Deas added five new conclusions to the second draft. The new conclusions are labeled as 4, 5, 6, 7 and 8. But Dr. Deas also removed three of his prior conclusions.

Most notably, and most interestingly, Dr. Deas removed the conclusion from the first draft that was in section 12.8 (now 13.11). Of the three removed conclusions (3, 4 & 5), here is number 4: "The hypoxia occurred because the dive started with air in the rebreather and there was no oxygen injection during the dive. There is no other plausible cause for this accident." This type of removal and replacement makes it clear that Dr. Deas is not elaborating on or

supplementing his original report, but is rewriting it with new tests and new conclusions.

15. Putting Together the Facts

In this section facts have been removed and facts have been added.

In the original draft, the fourth paragraph of the section was “When Barrett flipped onto his back, the Slave handset battery bounced and reset the slave.” This line is now missing. The facts have been changed. In its place, we see two new lines under 15.3. The new lines read: “Battery bounce occurred sometime between when the diver flipped onto his back and when he started descent” and “Battery bounce just after diver dives underwater.”

Dr. Deas has changed his opinion of when the alleged battery bounce occurred, saying now that it could have occurred any time within a three minute period, and he offers no explanations as to *why* the alleged battery bounce occurred. Not only did he remove his prior statement, he now offers two separate and new possibilities of when the alleged bounce occurred.

15.2. Significance of the Design Faults Identified Here (New Section)

This is not only a new section, this is entirely new material. The first two paragraphs of this new section present new information that was completely absent from the first version of Dr. Deas’ report. Here, Dr. Deas is speculating about the use of a wet switch or a pressure switch to activate the Inspiration. He also talks about an automatic solenoid. Dr. Deas is contending that technology present at the time should have been used in the Inspiration in 2002, and therefore the design is “incompetent” and defective. Not only is this opinion hollow conjecture, it is also based on material completely lacking from the earlier draft and is an attempt to interject new a legal and technical theory into the case after the close of discovery.

15.5.1. Lack of Competent Safety Review

Dr. Deas adds a list of standards, most of which were absent from the expert report dated November 19, 2007.

15.6.3. IEC and EN61508

Dr. Deas has added attacks on Ambient’s application of these standards.

16. Conclusions

Dr. Deas again changes one of his conclusions. In the paragraph numbered 3, Dr. Deas changed the time of the alleged fault occurring from: “during the surface swim” to “during the first three minutes of the dive.” This materially changes the Plaintiff’s theory of product liability – that is, whether a design defect existed and what caused the alleged design defect to manifest itself on this dive. Dr. Deas has not provided concrete facts to explain his opinions, only unsupported assumptions to support his hypotheticals.

17. Recommendations:

Added a new paragraph regarding actions to be taken against SGS Ltd.

Appendix A:

Robert Barrett gained two new dive certifications.

Appendix M:

Dr. Deas has removed his original Appendix M entitled "Test Plan for Equipment Examination." In the original report, the heading was there but the actual methodology Dr. Deas used for his testing of Robert Barrett's rebreather was omitted. After Dr. Deas failed to disclose his test plan in his original expert report, several months later, he either failed again to disclose it or he decided it was unnecessary to include and hoped nobody would notice.

End of document