

Lion Dairy & Drinks Logistics



LION

Critical Success Factors Refrigerated Trailing Equipment





Who is Lion D&D, and what do we do.....

Lion Dairy & Drinks brings delicious natural goodness to every Australian, every day.

We produce, market and distribute some of Australia's most iconic brands in milk, dairy beverages, cheese, yoghurt, juice and soy. Every year we purchase around one billion litres of milk from over 550 Australian dairy farmers, and crush approx. 75,000 tonnes of fruit from orchards across the country.

Our brands are distributed through, retail, route and foodservice channels

We are a significant consignor of chilled freight from two national DC'S

Our chilled linehaul freight is predominantly full truckloads with much of that freight travelling across two levels within the trailer ie on bars.



What is this all about

***We want industry to
“build a better Esky”***

***Or put another way, raise the
bar around the quality and
specification of refrigerated
trailing equipment in Australia***

***And we are going to explain
why***



Even before they ordered their lattes, Larry sensed that Pastor Jim might have an agenda.



How this came about

1. We are increasingly being challenged to guarantee and extend shelf life by a broad spectrum of our customer base. Mechanisms to achieve this include heightened temperature compliance processes.
2. A number of deliveries in the Oct 2014/ May 15 period did not meet our internal temperature compliance standards and resulted in a number of service issues
3. Logistics was tasked with driving improvement in cold chain compliance through to the final mile
4. What follows are the highlights of our research.

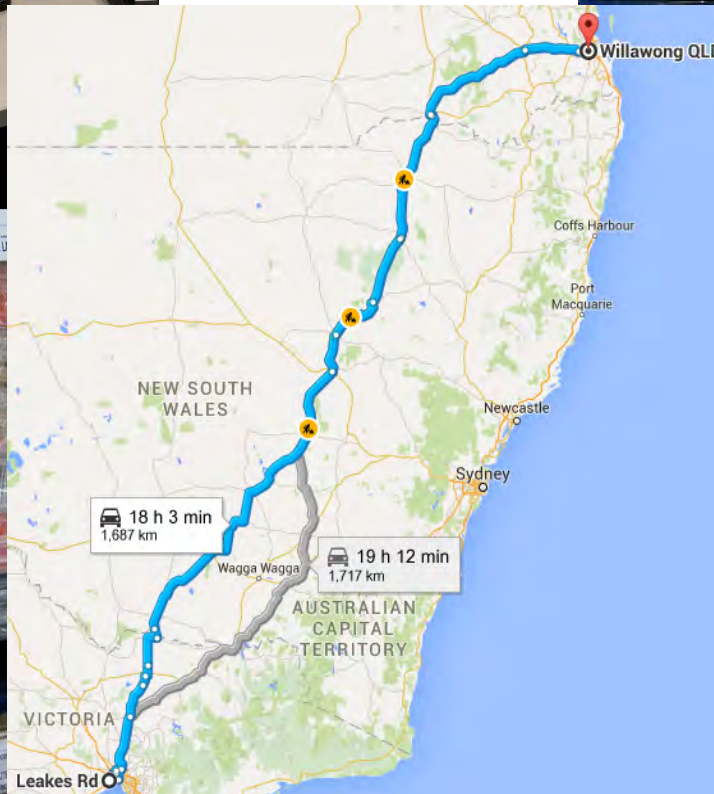
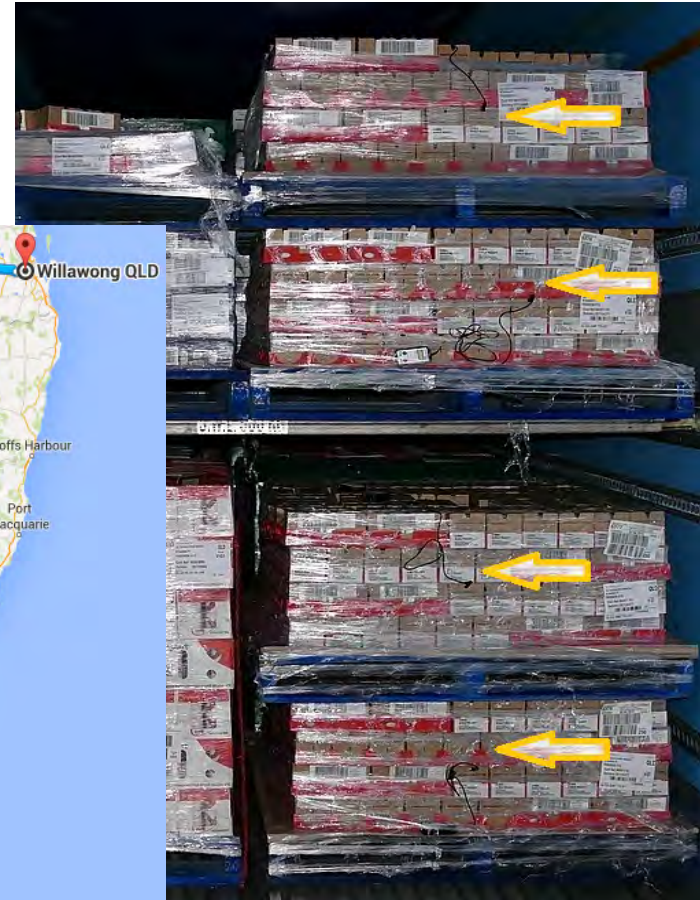
Single Logger Tales

- * 3 Months of One way Tags
- * 768 Trailers Logged
- * 81% Returned & Analyzed



When in doubt, add more loggers

4 Loads logged in 100% of pallet spaces PLUS destructive probes





Industry Consultation – Brisbane Truck Show



Solid Citizens

REFRIGERATION AND EQUIPMENT SPECIALISTS WITH A BIT OF AS 4982 THROWN IN.....



Australian Standard 4982 (AS 4982)

Confirmed at the truck show this guiding principle was developed by 'Standards Australia with active input from the refrigerated transport industry to address the need for nationally recognised and endorsed performance based specifications for equipment used to road transport refrigerated food products in Australia'.



**If you are trying to
teach someone
and you honestly
want to be helpful,
then you need to
be thorough
because that is
what projects your
authority on the
subject.**

Independent Trailer and Product Testing.....

1. CSIRO Recognised Facility
2. Tested Product Behaviour
3. Tested Typical Load in Controlled Conditions

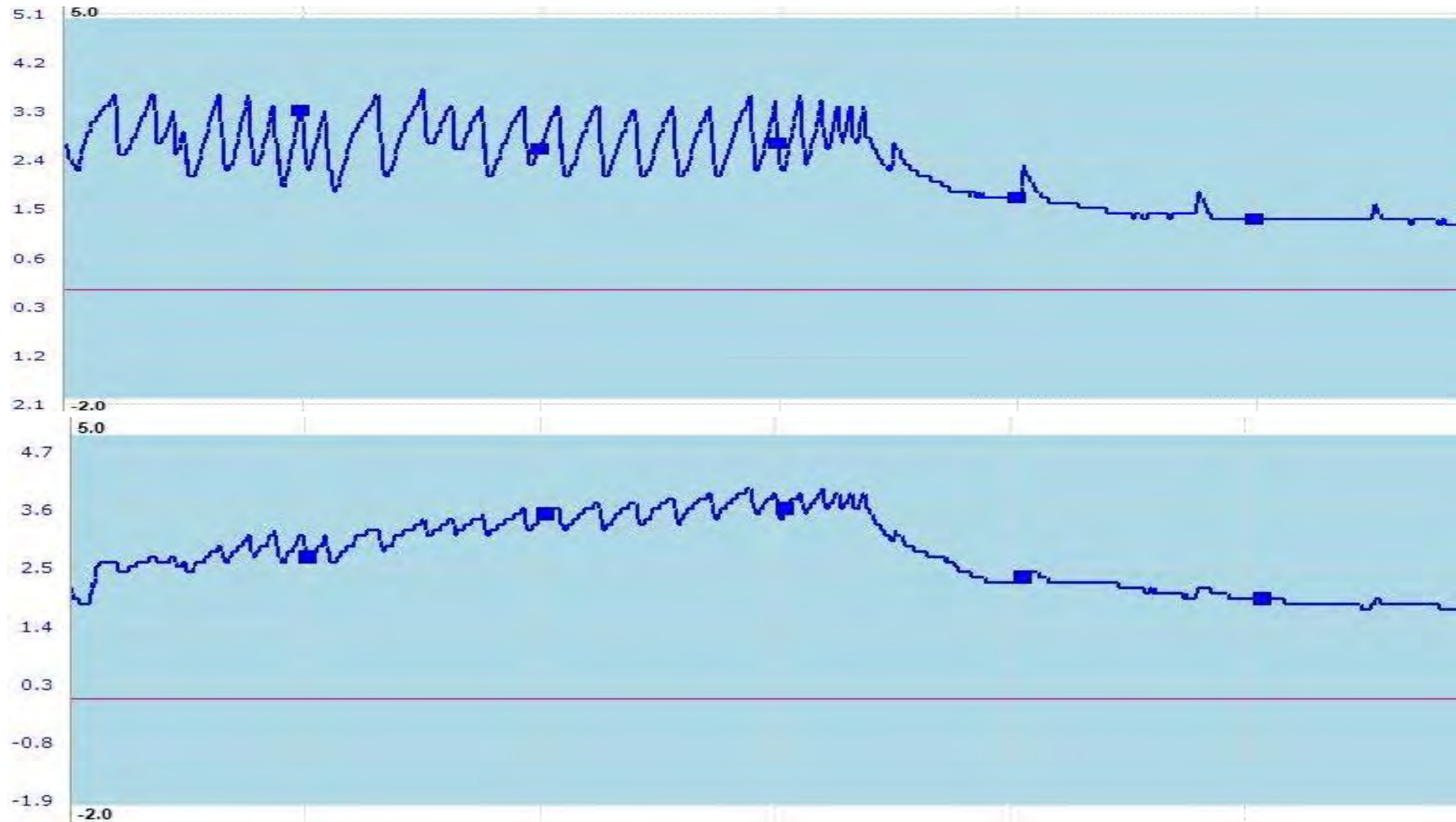
**FACT based, independent testing of both
product and equipment**



So what did we find.....

**INVESTIGATION
RESULTS**

Return Air, measured alone, is NOT Enough



Roof chutes make a difference

Trailers fitted with Roof Chutes show evidence of greater ability to subject the whole load to better airflow and as a result improved temperatures



Chute v No Chute By Destination



AS 4982 *Is part of the answer*

1. K Value = Thermal efficiency rating applied to the insulating ability of refrigerated trailing equipment. *How good is my esky?*

2. Frequency of Testing.
 - A) Before equipment is put into service (certificate for a 6 year period is issued) **RATE the esky**

 - B) In service test of equipment previously certified: *Is it still a good esky?*
 - i) At the expiry of the initial certificate, every three years thereafter
 - ii) After major modifications or substantial repair

3. Solid return air bulkheads are more effective in reducing 'short circuiting' of the airflow in the trailer than open mesh bulkheads. *Building a better esky*



A recap of the key findings

- 1. Continuous refrigeration cycles deliver much more stable product temps on delivery**
- 2. Return air readings at the front of trailers are not representative of product or air temps at other points in the trailer**
- 3 Roof chutes greatly assist airflow within trailers**
- 4 As 4982 is a perfectly valid yet underutilised comparative mechanism**
- 5. Solid return air bulkheads are much more effective than mesh bulkheads in maintaining stable temperatures throughout the trailer**
- 6. The amount, and placement of dunnage greatly impacts airflow within trailers and poor placement can contribute to creating “hot spots”**

LION D&D`s response

- 1. Standardised refrigeration settings mandated across the business**
- 2. Preloading requirements standardised and reinforced**
- 3. Dunnage placement standard**

But...

But

This still isn't enough



Industry Challenge

***How to offer a higher, and more transparent level of
Temperature Security and Certainty***

Be Leaders for Change





Industry Response

Lion D&D Will.....

1. Actively encourage and define a minimum improved standard for equipment that will be used to transport Lion chilled product – *Be Leaders for Change*

- > Min K Value of .8 or less**
- > Multi Release Point Roof Chutes**
- > Multi Point Temperature Monitoring and Logging**
- > Multi Point Refrigeration Control inputs**
- > Solid Return Air Headboards**
- > Tamper proof Refrigeration Control Panels**

2. Sponsor development of Lion product specific refrigeration settings for use within industry



The Way Forward

Lion D&D will be service leaders with its customer base

Lion D&D Logistics is focussed on working with committed partners

Raising the standard of Refrigerated Trailing Equipment wont happen overnight, but Lion D&D will take a leadership position, requiring a minimum, preferred standard of equipment used to distribute our products

We only get what we believe that we deserve. Raise the bar, raise your standards and you will receive a better outcome.

— *Joel Brown* —