

In Memory of



Danizele Isaac Vula

7 February 1968 to 24 June 2005

Presented By: Jonas Nxangani

Outline

- Personal particulars
- The funeral
- Compensation
- Diary of events
- Description of accident
- Locality plan
- In-loco team
- Sequence of events
- Causation analysis
- Remedial measures
- Conclusion



Family Compensation

1	Tau Lekoa	Food Hamper	R 1,000.00
		Transition Aid	R 800.00
2	Rand Mutual	Lump sum	R 5,577.09
		Monthly Pension	R 1,673.13
		Funeral Benefit	R 8,880.00
3	Provident Fund	Lump sum now	R 26,316.32
		Lump sum in 12 months time	R 26,316.32
		Death Benefit	R 10,000.00
		Lump sum from Risk Benefit	R 9,441.43
		Trust Fund monthly @ 9% annual return	R 637.30
4	UIF	Lump sum	R 7,081.07
5	Total	Lump sum now	R 67,295.91
		Lump sum 1 years time	R 28,626.74
		Monthly sum	R 2,310.42

Diary of Events

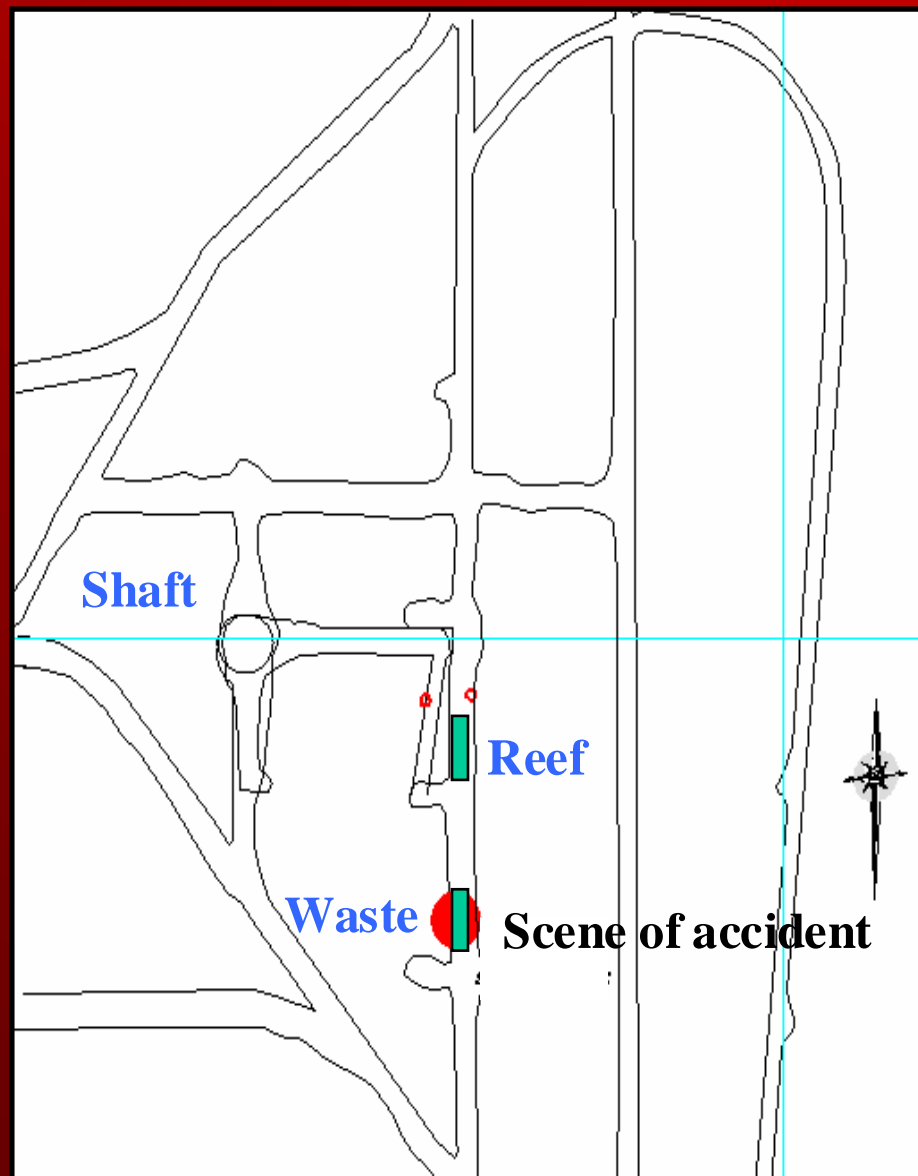
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|-----------|----------|-------|---------------------------------------|
| • 24 June | Friday | 08H30 | Death of Danizele |
| | | 10H00 | DME in-loco inspection
underground |
| • 1 July | Friday | | Memorial Service |
| • 2 July | Saturday | | Danizeles' funeral |
| • 19 July | Tuesday | | DME inquiry |

Description of Accident

Whilst crossing the tips with his locomotive on 1350 level at approximately 08h25, Danizele collided with a partially open farmgate barricade on the waste tip. The leading edge of the farmgate entered the locomotive cabin via a vacant light housing and penetrated Danizeles' pelvic area ejecting him from the cabin. Positioned on the footwall next to his locomotive, Danizele passed away as a result of his injuries at approximately 08h45.

Locality Plan

1350 LEVEL STATION AREA



In-Locho Inspection Team

C Moolman	:	Production Manager
SC Newberry	:	Section Manager
C v/d Westhuizen	:	Engineering Manager
I Stocks	:	Inspector of Mines
Z Mpanza	:	Production Engineer (Lower Levels)
HJ Nxangani	:	Production Engineer (Upper Levels)
A Nel	:	Mine Overseer
G Labuschagne	:	Shift Overseer
H Lombard	:	Miner
JL Kruger	:	Snr O-ESH Officer(Safety)
W Pieterse	:	O-ESH Officer Engineering
A Pilay	:	Surveyor
M Paeper	:	Mine Planner
Z Makalela	:	Union Representative
M Chakane	:	Full Time H & S Representative
M Mphumo	:	Tip Attendant (Eye Witness)

Sequence of Events

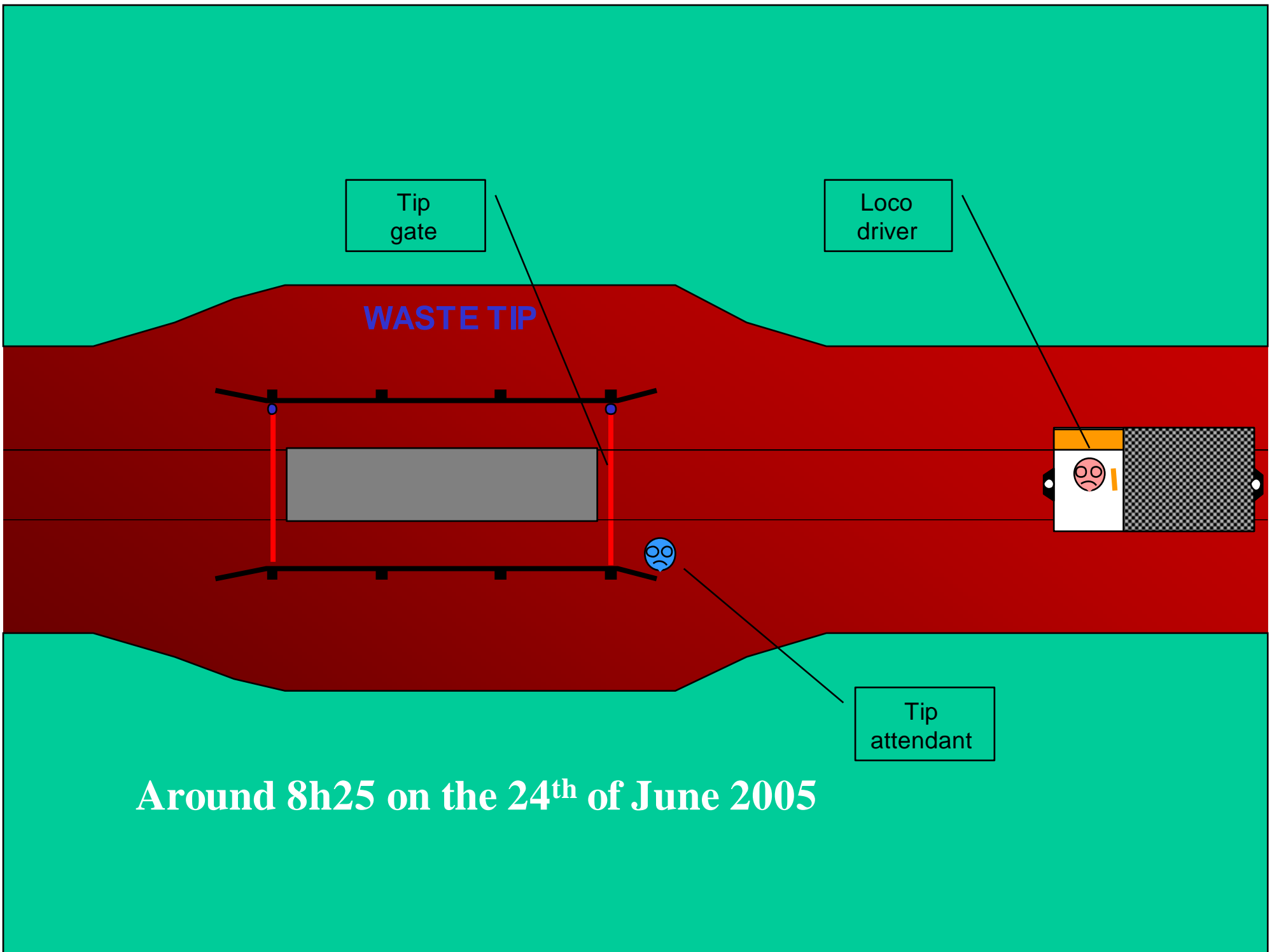
- On the morning of Friday the 24th of June, Danizele met his Shift Overseer Lappies at the station where he was instructed to go and change his locomotives' battery and then fetch the material cars from the station for the development on the North side of 1350 level and transport it into the workings.
- Danizele then went to the battery bay to exchange his battery and proceeded over both the waste and reef tips toward the boilermaker shop to fetch his loco shackles and pins where he leaves them for safe keeping. The direction of travel being away from the shaft area.

Sequence of Events (Continued)

- After having collected his equipment, Danizele proceeded back in the direction of the shaft once again having to cross both tip arrangements.
- On reaching the reef tips, he disembarked his locomotive and opened and closed the tips' farmgate barricades himself in order to cross. The time was approximately 08h25. The tip attendant (Mothobi Phumo), was positioned at the waste tips some 25 meters away at this stage.
- Mothobi, who was also the only eye witness, noticed that Danizele was approaching the waste tip at what he recalls was at high speed and attempted to open the farmgate barricade from the latching point side but could not swing it into a fully open position before the locomotive had struck it.

Sequence of Events (Continued)

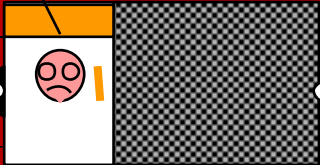
- On impact, the leading edge of the barricade then entered into the drivers cabin of the locomotive via a vacant light housing and this penetrated Danizeles' pelvic area ejecting him from the cabin and bringing the locomotive to an abrupt halt. Danizele was laying on the footwall alongside the locomotive after having been ejected.
- Mothobi immediately ran to the tip telephone and informed the control room of the accident who immediately alerted the paramedics.
- On returning to the scene Mothobi summoned the help of a Miner and Shift Overseer that where close to the station. The paramedics arrived shortly afterwards but unfortunately, Danizele had already passed away. The time was approximately 08h45.



Tip gate

Loco driver

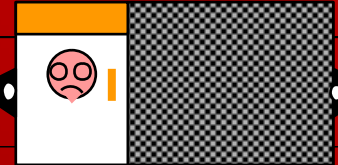
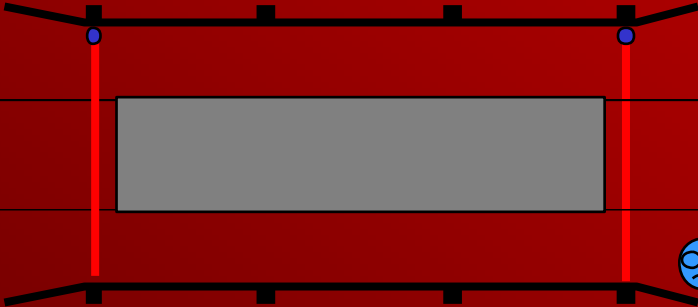
WASTE TIP



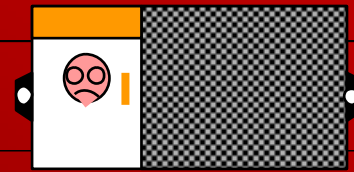
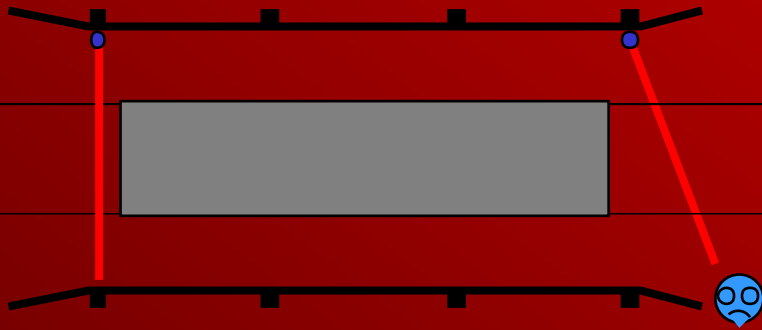
Tip attendant

Around 8h25 on the 24th of June 2005

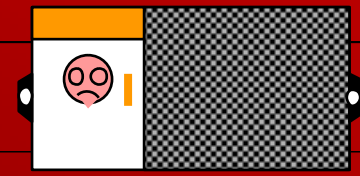
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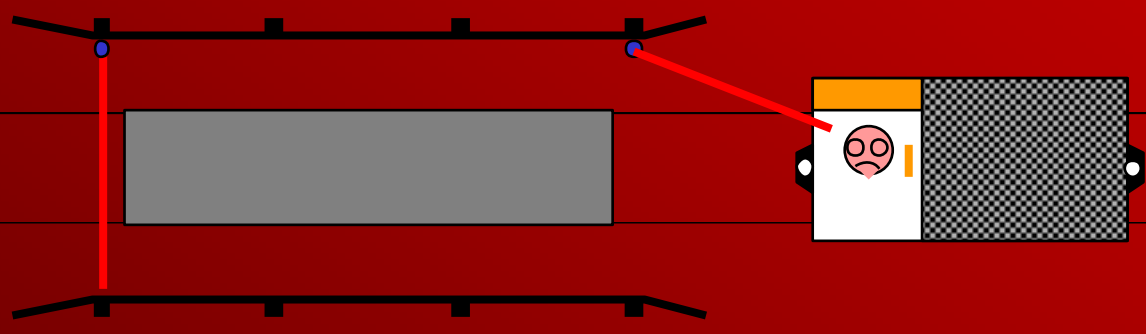
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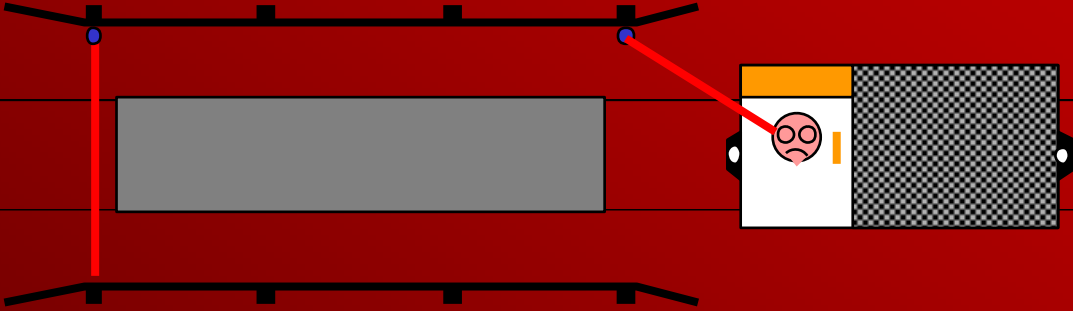
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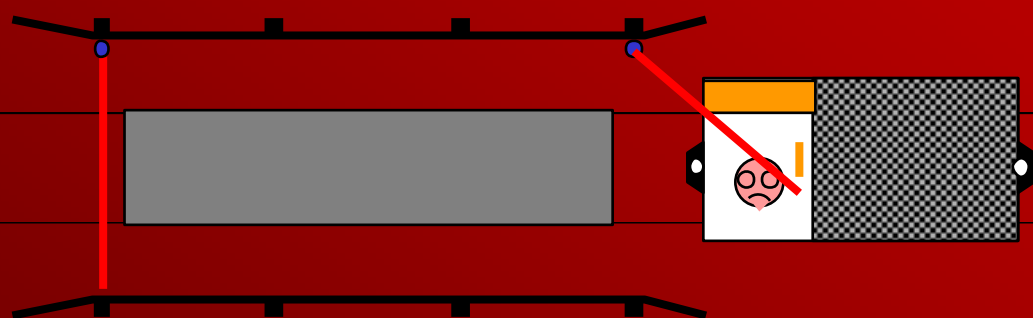
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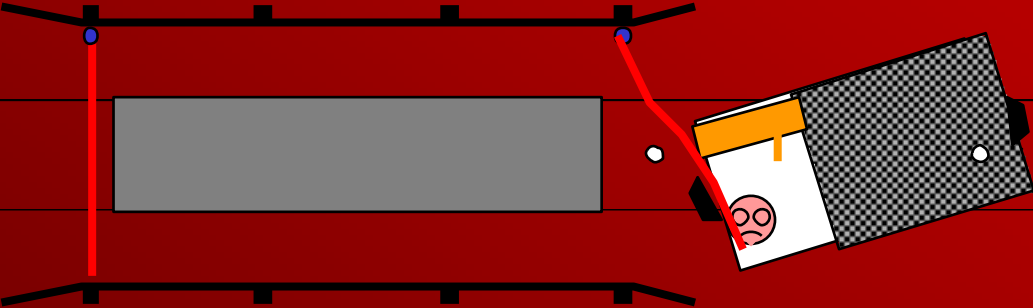
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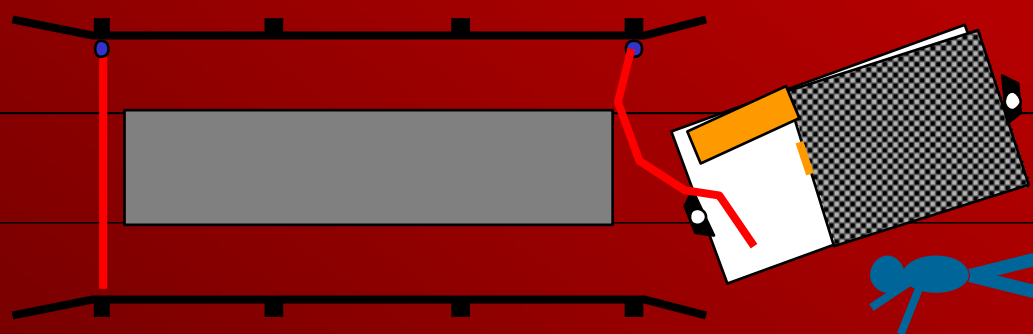
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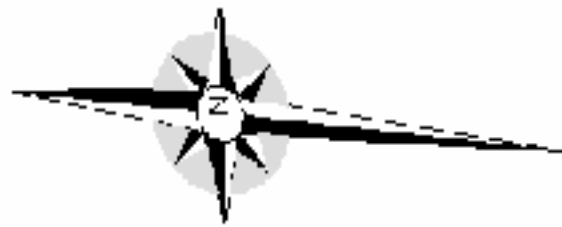


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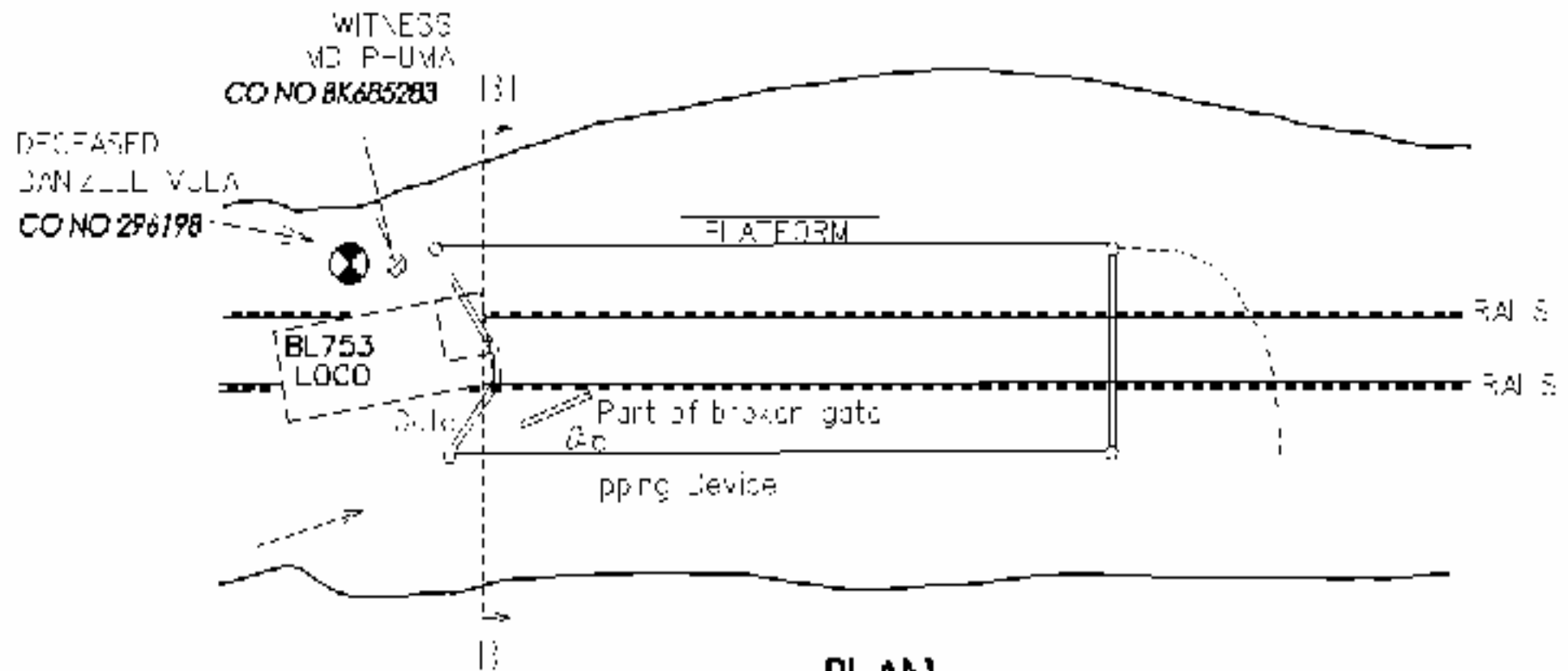
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1350 STATION TIP

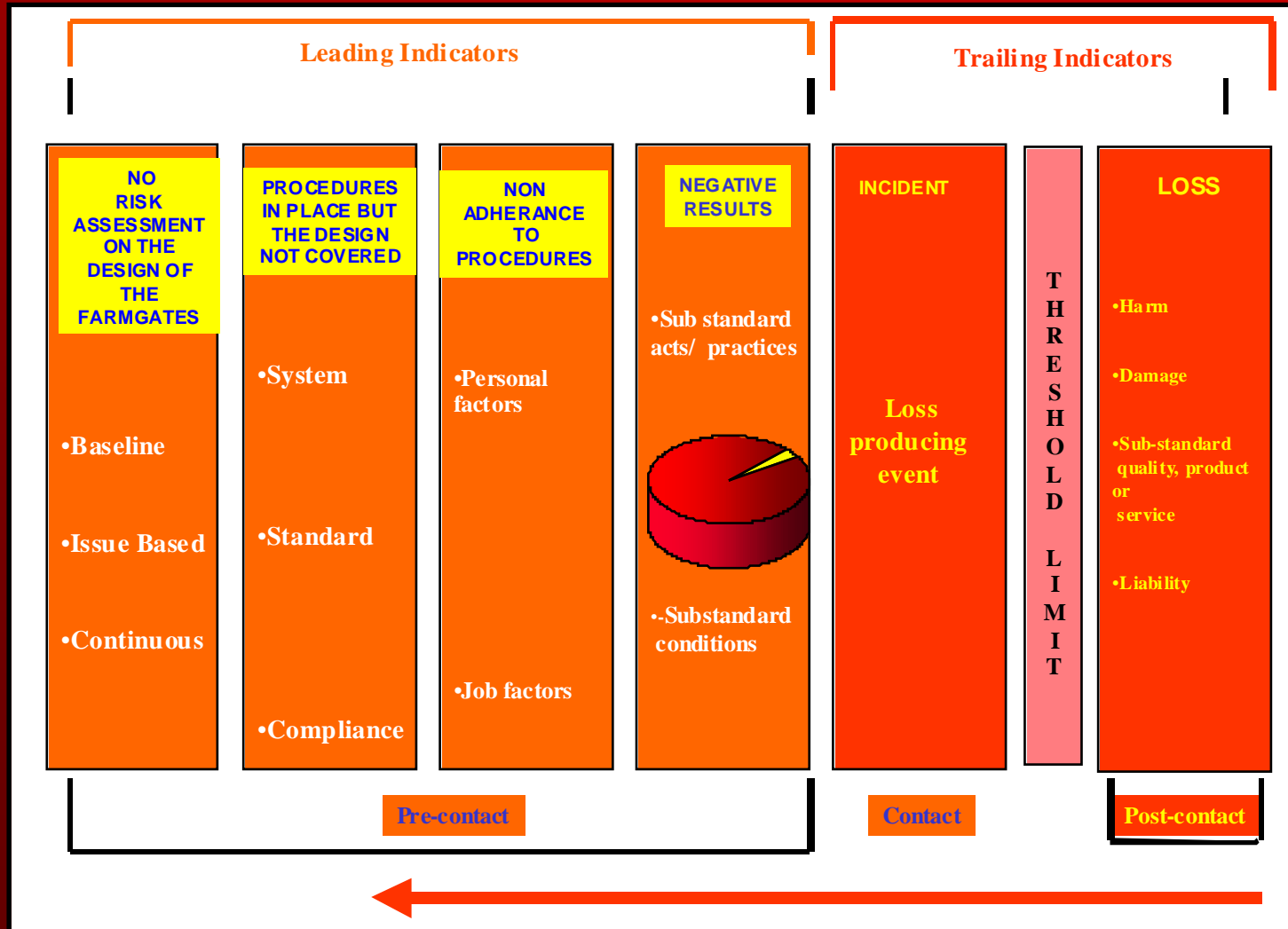
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Causation Analysis and Remedial Action

Causation Analysis



Failure to Assess and Respond to Risk

Risk Assessment

- *Failure to conduct an issue based risk assessment on the farmgate tip barricade installations.*
- *Failure in the continuous risk assessment process in that neither the vacant light housing nor the farmgate were identified as potential hazards.*

Why the Failure to Assess and Respond to Risk?

- *The gates were never intended for the purposes of stopping a locomotive but instead for preventing people from inadvertently walking over the tips.*
- *All tips are fitted with sliding tip covers that are kept closed at all times except when tipping takes place.*

The Way Forward



The Way Forward





Operational Control Failures

Operational Controls

- *Failure in supervisory control in conducting Planned Task Observations with regard to “casual” tramming practices over tip areas.*
- *Failure in the application of the continuous risk assessment process in that no person identified the possible danger of the barricade with relation to the vacant light housing.*

Why did the Operational Controls Fail?

- *Poor judgement in that “casual” tramming over the tips was not perceived as a significant risk because sliding tip doors are in place on all tips.*
- *By design our tip installations require locomotives to come to a halt before entering the tipping area.*

Operational Controls

The Way Forward

- *Planned Task Observations with regard to tramming operations over tips will include “casual” tramming into the future.*

"At Risk" Behaviour

"At Risk" Behaviour

The Primary Cause

- *Danizele did not stop his locomotive 5 meters before the waste tip barricade and wait for the tip attendant to open the gate as stated in the procedure.*

"At Risk" Behaviour The Way Forward

- *Behavioural based safety auditing will continue. This accident was all about an unsafe act and about mindset.*
- *All tramming personnel have been re-informed of the tramming procedures so as to refresh their memories of the correct practices.*
- *Planned task observations have been conducted on all tramming personnel with regard to both tipping of broken rock and "casual tramming" over tips to ensure knowledge transfer and compliance.*

"At Risk" Behaviour The Way Forward

IN PROGRESS

- *Once the "new" tip design risk assessment has been completed, all identified risks will be amended in the tip procedures and all employees will be re-educated on the changes.*

Sub Standard Conditions

Sub Std Conditions

- *Farmgate constructed with a leading edge at a height that could enter the locomotive cabin via a light socket.*

Sub Standard Conditions The Way Forward

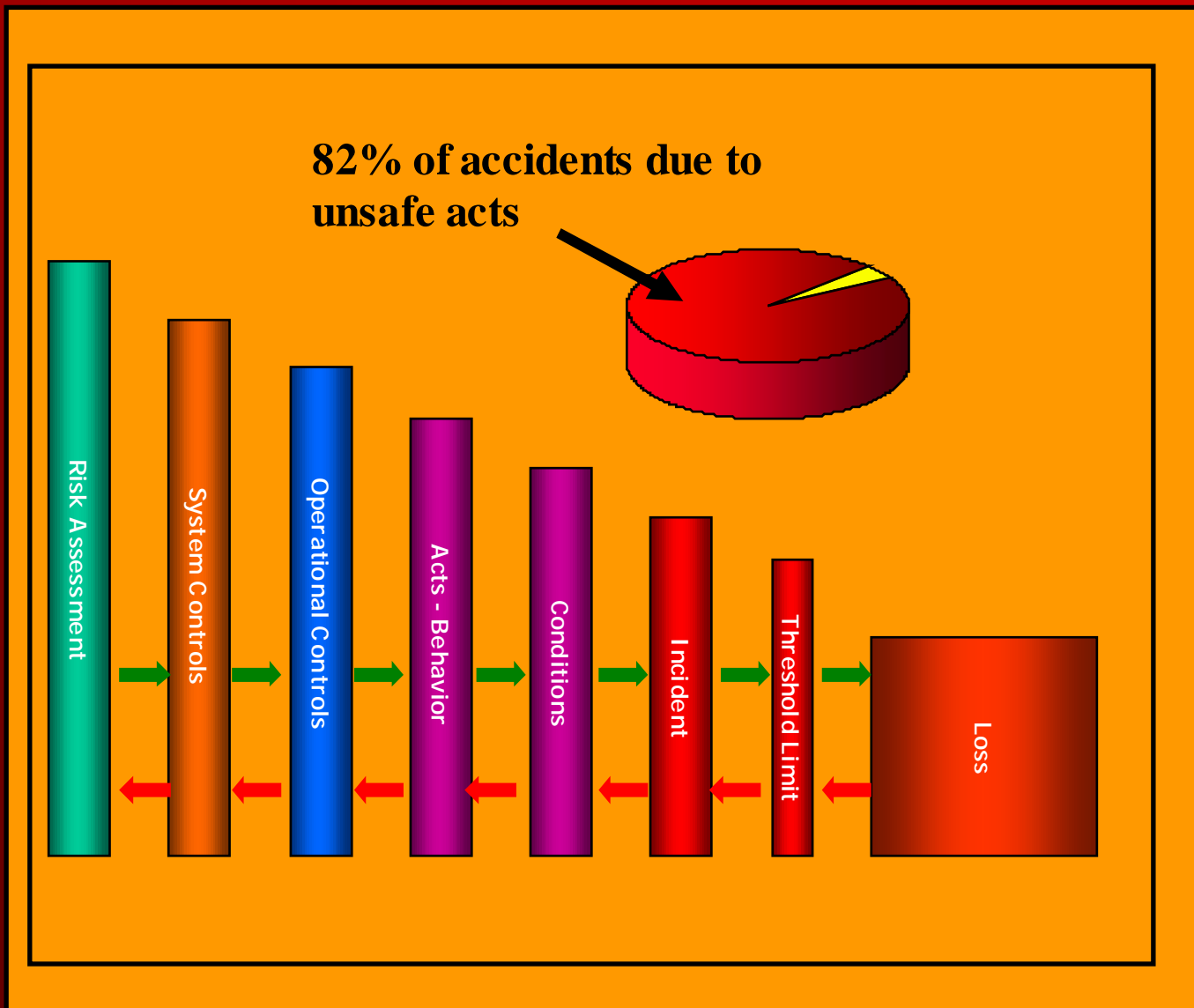
IN PROGRESS

- All farmgate barricades to be altered to the “new” design using PVC until the ‘new” tip barricades are completed.
- 1350 level under construction and the new PVC barricade is in place.

Sub Standard Conditions The Way Forward



Conclusion



Epilogue

Tau Lekoa Mine regrets the death of Danizele Vula. It remains our mission to implement and maintain such means that make our mine a safe and productive environment through the collective consciousness and dedicated effort of all our employees.