

# WH&S Data Collection

WH&S Data Collection, Insights, and Innovation  
Program

Project Code  
2021-1066

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# 1.0 Executive Summary

## In achieving the vision:

- The plant has undergone an entire site wide development program to apply WH&S innovation.
- Worked toward reducing workplace minor and major injuries and incidents.
- Worked toward reducing Lost Time Injuries and enhancing rehabilitation and return-to-work programs.
- Changed the nature of the work instructions to identify risk and apply risk reduction protocols.
- Ensured that those resulting documents are designed in a way to be clear and concise to suit the varying cultural demographics within the labour pool.

## This project included:

- The purchase and installation of customised equipment on the slaughter floor.
- Upgraded technology and connectivity within the plant to enhance data capture.

This enabled them to leverage the new investment to place on-line data recording systems within the processing facility to an upgraded Quality Assurance and Work Health and Safety system. The insights gathered from this project have informed various ways to manage (and reduce) injuries and incidents across the site.

## Prior Situation

The processing plant previously did not capture digital data (at the required department level) that could access information on a continuous basis, and thus were not in a position to easily gather statistical data and optimise responses to WHS corrective actions.

## Outcome.

Development and improvement of the following services:

- WH&S data collection.
- Innovation & technology applications.
- Risk Assessment and Hazard Control by SWMS and JSA development.
- Strategic insight into WH&S performance.

This data has been provided to AMPC once a quarter for a period of three years. AMPC was to use this information to inform AMPC R&D activities and it was not to be provided to third parties without the written (email) permission.

# 2.0 Introduction

Operating at up to 15,000 small stock (ovine and goats) per week, this processing plant is one of Australian remotest red meat processing facilities. It provides employment to a large workforce of remote Australians, including a substantial employer of Indigenous Australians. It is also one of the few remaining small stock processors in QLD and the largest by far as depicted in the following table. The only other small stock plants in Qld are classified as micro (i.e. processing < 456 head/day or < 1cpm).

Ovine - State by State (Open plants)

	Total		Micro		Small		Medium		Large	
	Facilities	% Capacity	Facilities	% Plants	Facilities	% Plants	Facilities	% Plants	Facilities	% Plants
Qld	14	2%	13	57%		0%	1	7%		0%

As such, they understand the importance of continually innovating within their business to make sure that Queensland's last remaining substantial small stock processor remains commercially viable.

Through this project, they have implemented a range of tools throughout the business that has enabled the continuous recording and evaluation of WH&S statistical data to industry best practice. All data is now uploaded and stored into the plant's site wide business management system that will in turn enable a Business Intelligence Insights Tool to look for (and demonstration) improvements in services utilisation against agreed metrics.

The data has been made available to AMPC for internal use only. Data (de-identified) will be used to inform environmental performance reporting for the red meat processing sector as part of AMPC WH&S Data Collection, Insights, and Innovation Programs.

### 3.0 Project Objectives

The objective of the project has been for AMPC and the processing plant to understand the processing business model (and future growth), including the nature and location of the business within Australia. The plant identified and evaluated:

- Possible process changes.
- Required practice changes.
- Innovation and solution adoption.

### 4.0 Methodology

This project will also feed into the processing plant's core WH&S program target area with:

- Configuration of a data collection and reporting system.
- An intense review of the system for a 3-month period.
- Quarterly high-level data reviewing for the total project monitoring period of 3 years.

### 5.0 Project Outcomes

The project has progressed extremely well over the reporting period. However, the total expenditure has been way above and beyond the original budget, albeit to add value to the original vision and plan.

The following areas were identified to provide a systematic way to continuously improve the desired outcomes and to ensure that they remain complicit in achieving a system that has evolved into a systematic, explicit, and comprehensive process for managing safety risks at this establishment.

- Safety responsibilities of managers and middle management have been reviewed and strengthened to align with the safety management System.
- The WH&S team has been complimented by the addition of individuals with the skills and knowledge to develop a stronger and more robust Safety Management System, driven by key stakeholders.
- Policies and processes embedded into everyday production (SWMS, JSA's, SOP's, WI's) outlined the initial need to strengthen documented risk assessment, hazard identification and risk reduction.

- Internal mechanisms driven by the WH&S system have improved safety performance and reduced lost time injury statistics.
- Constructive change and improvements to workplace consultative strategies have greatly improved input and feedback from all departments and workplace personnel. “Positive in, Positive out”.
- Improvements made to systems, processes, training, communication, equipment and assets during this project have allowed workplace personnel to physically see the strengthening the vision of a positive safety culture.
- WH&S data collection over the project period was inclusive of all workplace incidents no matter how minor. Accumulating 100% data provided us with the information to view and review statistics and react accordingly to improve systems and processes.
- The plant has implemented a risk assessment tool which calculates hazards/risks on a series of actions undertaken within tasks. The risk score is then assessed against a pre-set risk analysis chart to which the hierarchy of control measures can be applied to reduce identified hazards and risks. This innovative tool has helped improve and simplify health and safety processes.
- With the ongoing review of current, and implementation of new Safe Work Method Statements (SWMS), the plant has identified additional potential hazards and strengthened risk reduction by inclusive workplace consultative processes. By including workplace teams and groups in hazard identification and risk reduction, participation in the overall wellbeing and health and safety of personnel has definitely improved.
- From the SWMS documents, the plant has continued to improve workplace safety by also implementing Job Safety Analysis (JSA) documents for higher-risk occasional maintenance tasks. In implementing JSA's, we have improved safety awareness within reactive or planned maintenance and remind individuals of actual and potential hazards while preparing for and undertaking these particular tasks.
- SWMS and JSA documents are now referenced in relevant Work Instructions (WI's), and in some instances, responsibility and understanding is underpinned by a knowledge assessment prior to individuals being signed off in these WI's.
- Strategically, over the period of the WH&S Data Collection, Insights and Innovation project, the plant has developed the tools to identify, control and manage workplace hazards and risk, to provide a healthier and safer working environment both experienced and new industry workers.
- The WH&S outcomes within this project have provided the plant with a positive view to continuing to improve on standards already implemented.
- Work performance has also been improved in a manner where the perspective from workplace Supervisors, Leading Hands and department personnel has provided positive feedback with the knowledge that the company takes personal wellbeing and WH&S seriously.

Continual Improvement has been the key to the ongoing development and control of Work Health and Safety and WH&S systems.

## 6.0 Discussion

### In Summary

Data gathered during the project timeline has allowed the plant to interpret results holistically and historically, allowing us to conclude that over the period of time, we have developed and improved our previous WH&S system from a very ordinary one to one that meets our current expectations and the regulatory compliance standards in regard to injury and hazard management with real beneficial outcomes.

One of the major benefits of the program has been the ability to analyse and compare the trends month-to-month, quarter-to-quarter and then annually, providing an insight into the progression we had been making into improving overall work health and safety and systems development.

Over the period of the project, the plant has been able to target and capitalise on hazard reporting and injury data to evaluate areas of most concern. For example, we have made noticeable improvements on Lost Time Injuries to the hands and fingers. The data below is from our QLD WorkCover statistics.

Period	Total costs	Total injuries	Ongoing claims
19/20	\$28,850.70	5	3
20/21	\$27,298.08	6	4
21/22	\$14,847.69	3	0
22/23	\$7,723.00	3	0

## 7.0 Conclusions / Recommendations

With the plant improving WH&S outcomes, statistical data has been used to:

- Implement WH&S strategic performance reporting for the site.
- Provide current and accurate WH&S performance per department and labour groups.
- Identify and implement corrective action measures in a timely manner.
- Enhance and improve WH&S procedural documents (including SWMS, JSA's WI's).
- Inform WH&S performance reporting for the red meat processing sector as part of AMPC WH&S Data Collection, Insights and Innovation frameworks.

Throughout the program, the plant identified additional sub-projects that were evaluated, discussed and approved for implementation. For example:

- A new, larger training room facility to compliment a growing workforce.
- A custom-made pelt remover to replace older, aging equipment which eliminated some manual handling.

WH&S recommendations brought to management were always considered, and where improvements and/or benefits to worker health and safety were identified, prioritised for implementation.

Although expenses surpassed budget, additional investment on additional equipment and systems will compliment a reduction in WH&S risk, risk reduction, incidents, injuries, rehabilitation and associated ongoing costs with improved plant outcomes ensuring that money has been well spent.

## 8.0 Bibliography

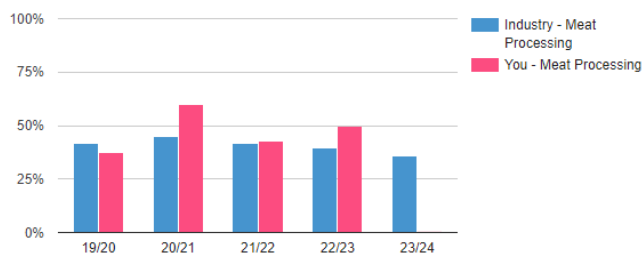
## 9.0 Appendices

### 9.1 Appendix 1

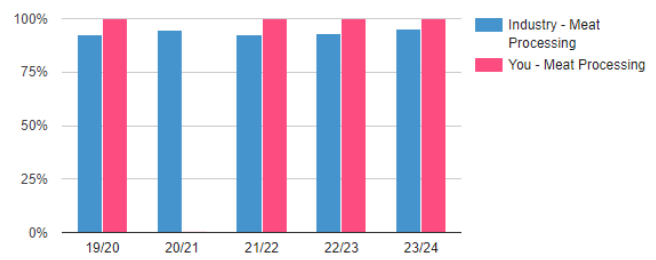
*Figures 1a) Accumulative data from WME's WorkCover 2021 -2023 LTI claim history.*

## Final Report

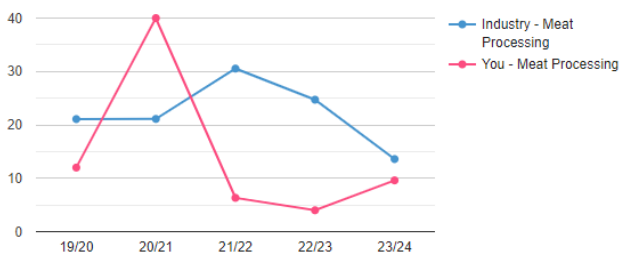
Stay at work % (statutory)



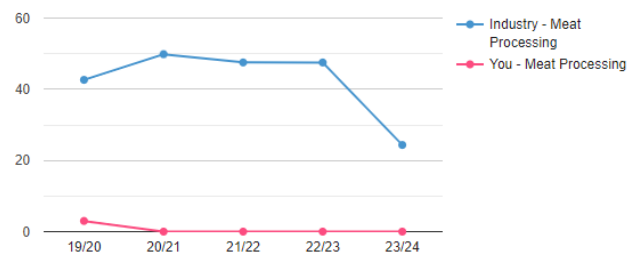
Final return to work % (statutory)



Average total incapacity paid days (statutory)

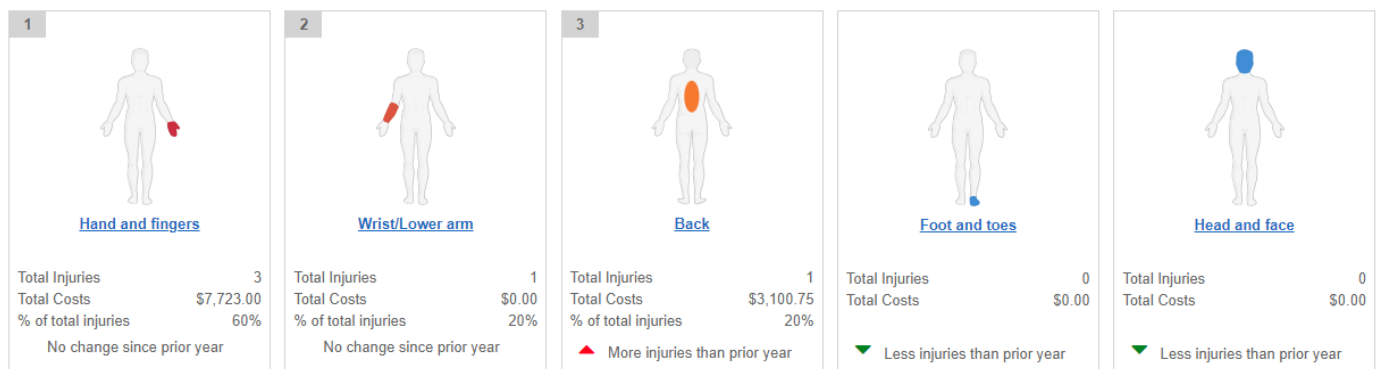


Average partial incapacity paid days (statutory)



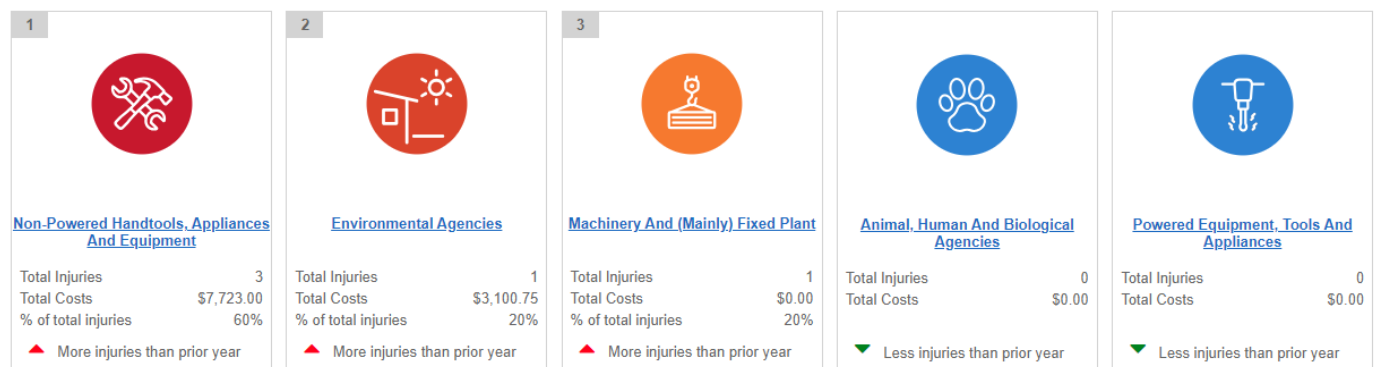
## Your top injury locations

Ordered by total injuries for last financial year

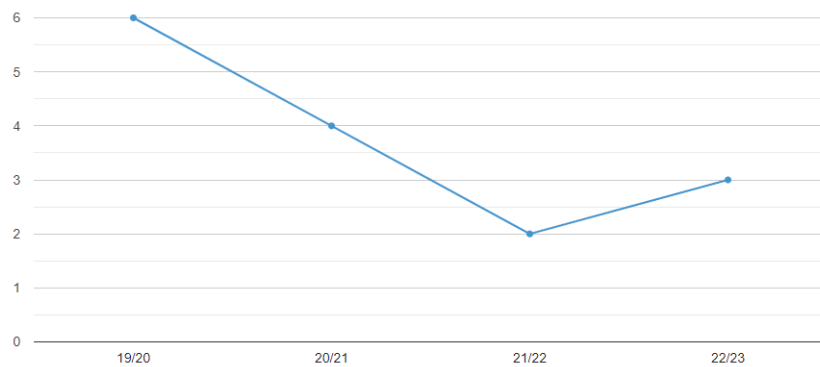
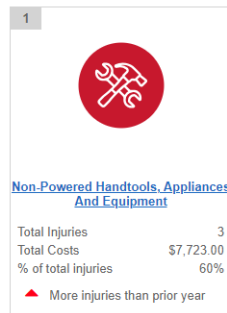


## Your top injury agencies

Ordered by total injuries for last financial year



Agencies



This data indicates a massive reduction over time in knife related LTI (lacerations). 2022/23 could be due to a large unskilled workforce entering the system after COVID. Additional knife safety training should continue to see improvements.

## 9.2 Appendix 2

From early 2023, the processing plant's management team has made the commitment to and encouraged 100% reporting & recording and data capture of all incident types. Yes, this has led to an increase in statistics, however, this data allows us to identify current repeating and potential risks.

Also, we need to take into account, COVID type restrictions, reduced kills and a reduced workforce. We did not see a turn-around from low production until 2022 when unskilled labour started to re-enter the workforce. In the 2023 production year, the plant had a huge increase in processing through-put and another large number of unskilled labour entering the system.

Figure a) shows the plant's statistical data for 2021. A total of 75 incidents or injuries have been reported over this period. Data shows statistics with the top 5 incident/injury types described by percentage.

- Laceration or puncture type wounds (39) at 52.0% (mostly all minor)
- Contusions / bruising type wounds (14) at 18.66%
- Foreign Objects (hair, wool, dust, etc) (10) at 13.33%
- Soft Tissue type injuries (4) at 5.33%
- Joint & Tendon injuries (3) at 4.0%
- Superficial Wounds (3) at 4.0%

Figure 2a)



Incident/Injury Type data 2021 - Total 75 reports

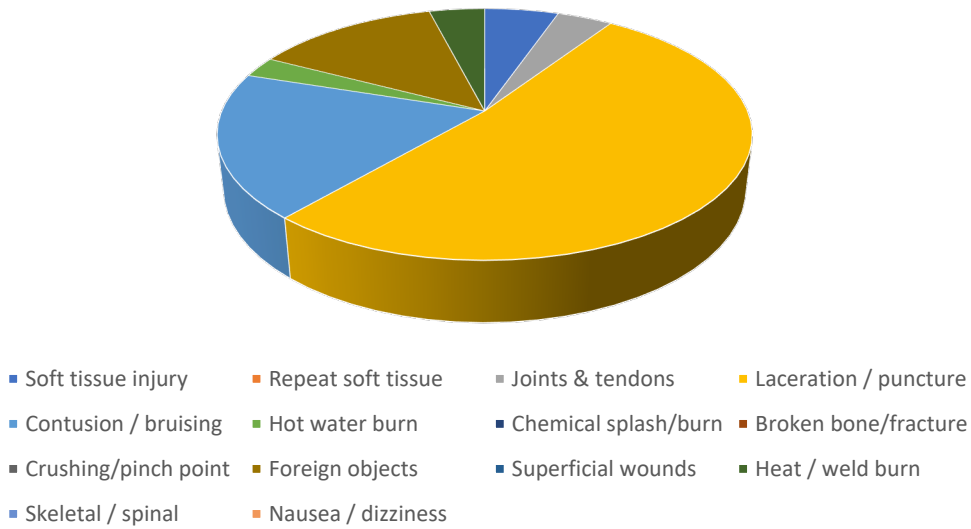


Figure b) shows the plant's statistical data for 2022. A total of 157 incidents or injuries have been reported over this period. Data shows statistics with the top 5 incident/injury types described by percentage.

- Laceration or puncture type wounds (69) at 43.94% (mostly all minor)
- Contusions / bruising type wounds (27) at 17.19%
- Soft Tissue type injuries (15) at 9.55%
- Superficial Wounds (11) at 7.0%
- Foreign Objects (hair, wool, dust, etc) (10) at 6.36%

Figure 2b)

Incident/Injury Type data 2022 - Total 157 reports

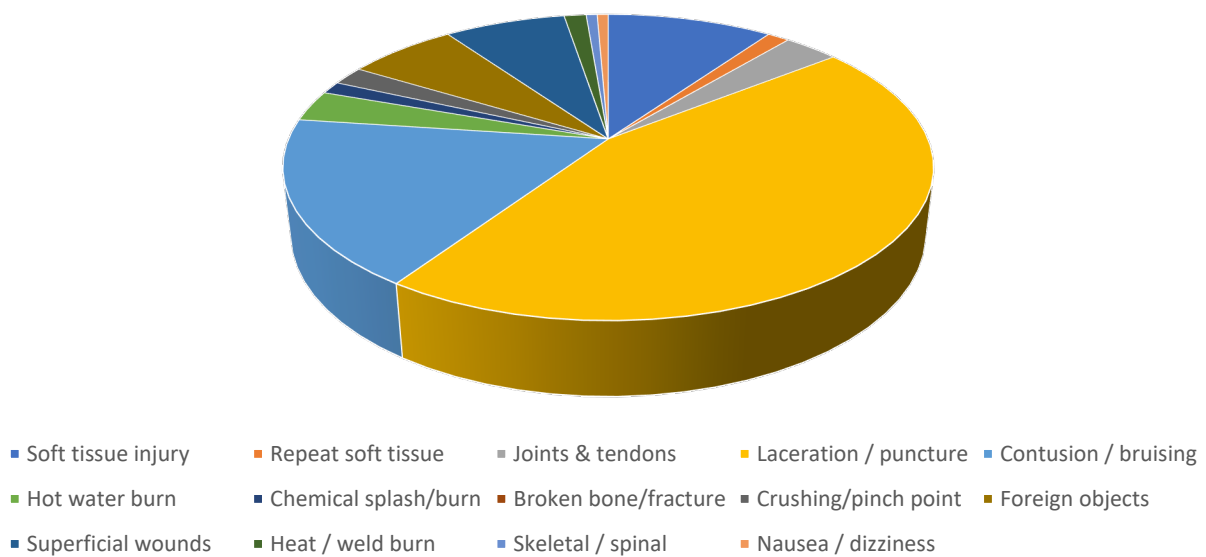


Figure c) shows WME statistical data for 2023. A total of 283 incidents or injuries (100%) have been reported over this period. Data shows statistics with the top 5 incident/injury types described by percentage.

- Laceration or puncture type wounds (119) at 42.04% (mostly all minor)

- *Contusions / bruising type wounds (51) at 18.02%*
- *Soft Tissue type injuries (42) at 14.84%*
- *Foreign Objects (hair, wool, dust, etc) (15) at 5.30%*
- *Hot water (splash/scald) (15) at 5.30%*
- *Superficial Wounds (11) at 3.88%*

Figure 2c)

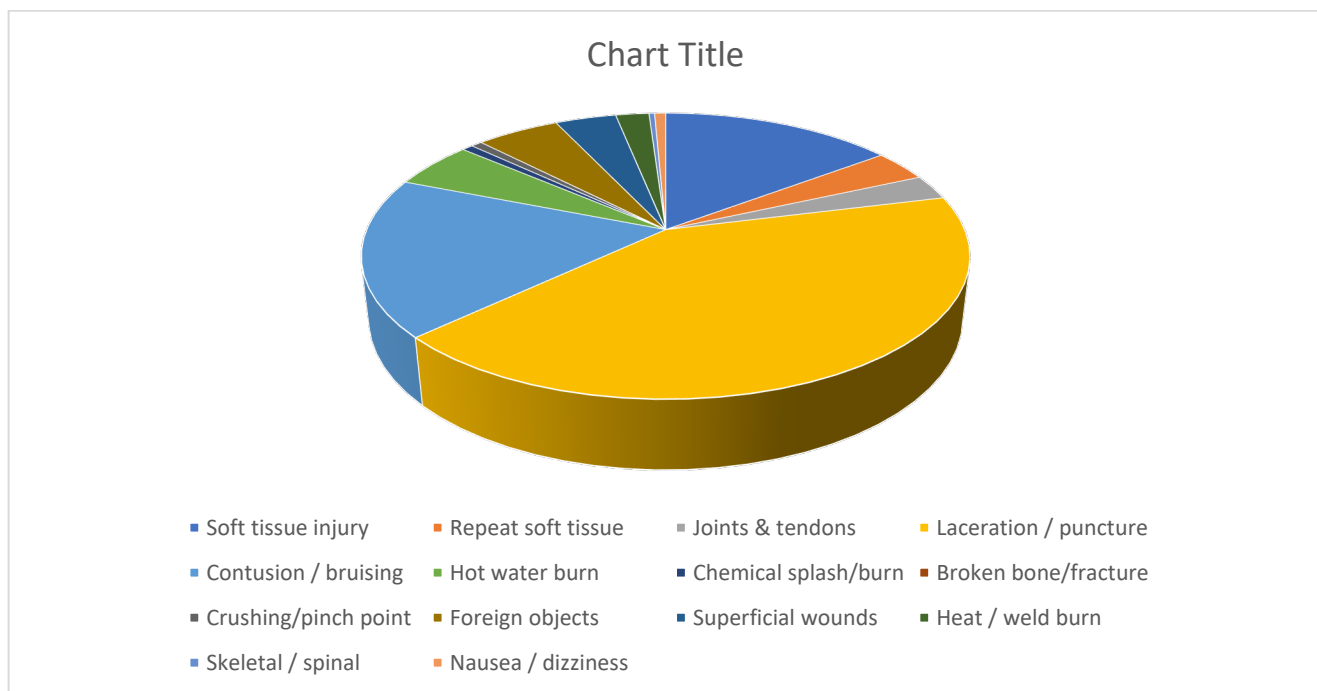
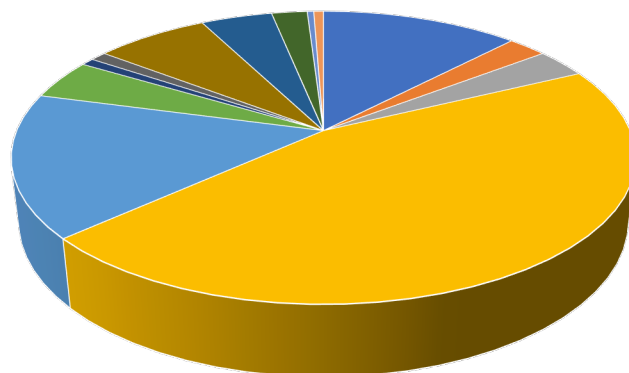


Figure d) shows accumulative statistical data 2021 / 2022 / 2023. A total of 515 incidents or injuries have been reported over this period. Data shows statistics with the top 6 incident/injury types described by percentage.

- *Laceration or puncture type wounds (227) at 44.07% (mostly all minor)*
- *Contusions / bruising type wounds (79) at 15.33%*
- *Soft Tissue type injuries (61) at 11.84%*
- *Foreign Objects (hair, wool, dust, etc) (35) at 6.79%*
- *Hot water (splash/scald) (22) at 4.27%*
- *Superficial Wounds (22) at 4.27%*

Figure 2d)

Incident/Injury Type Data 2021 /2022 / 2023 - Total 515 Reports



- Soft tissue injury      ■ Repeat soft tissue      ■ Joints & tendons      ■ Laceration / puncture      ■ Contusion / bruising
- Hot water burn      ■ Chemical splash/burn      ■ Broken bone/fracture      ■ Crushing/pinch point      ■ Foreign objects
- Superficial wounds      ■ Heat / weld burn      ■ Skeletal / spinal      ■ Nausea / dizziness

### Data Summary

- Production from 2021 through to 2023 has increased by over 100%. Additional kill days implemented.
- 2023 Workforce personnel have doubled from 2021 levels (Almost 100% of these are unskilled labour).
- New workforce personnel not familiar with workplace hazards and/or risks.

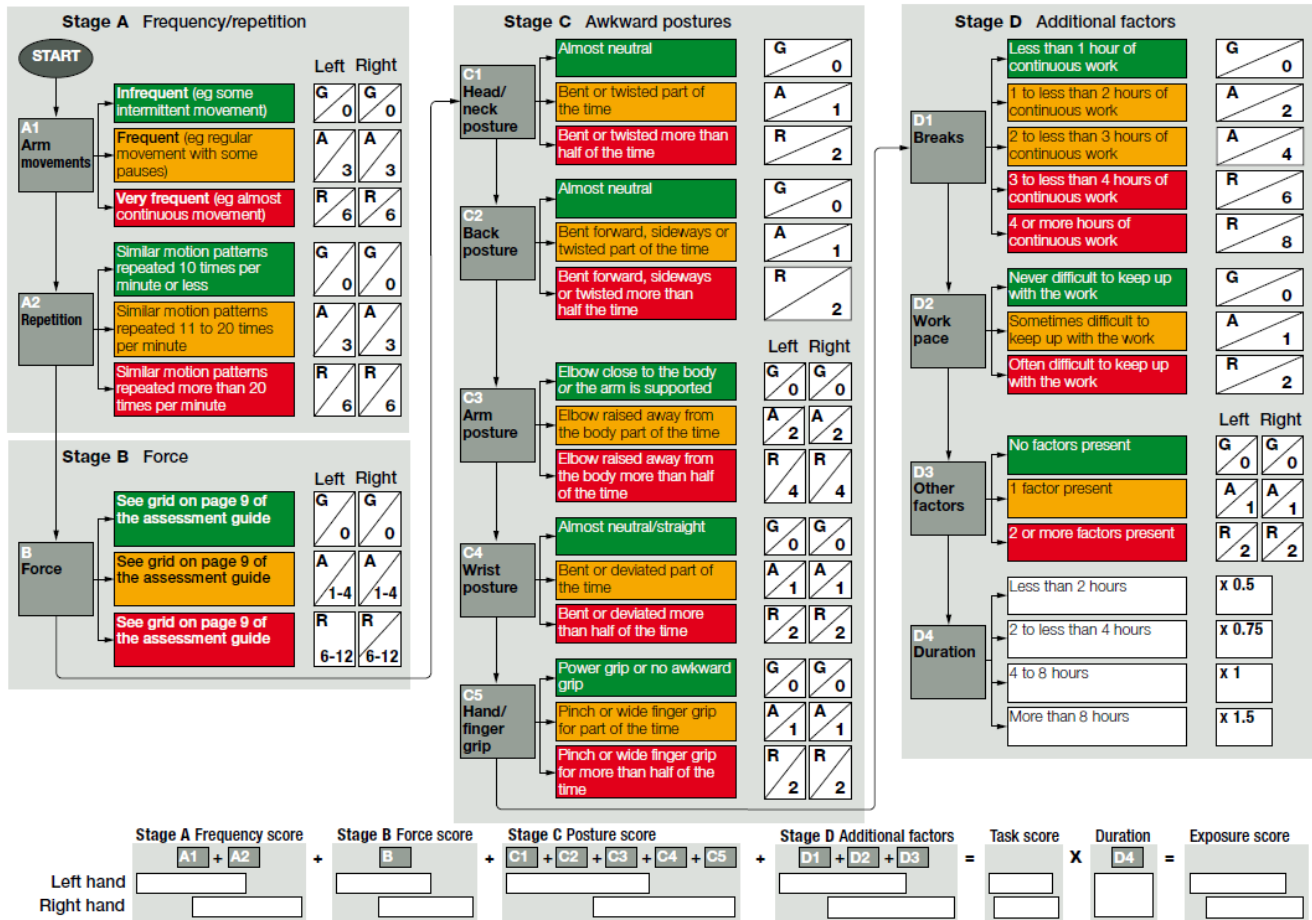
	2021	2022	2023	Ranking	Reduction / Increase	Comment
Lacerations/punctures	52.0%	43.94%	42.04%	1	Continued Reduction	Additional Knife Safety Training Implemented
Contusions/bruising	18.66%	17.19%	18.02%	2	No Improvement	New to workforce
Soft Tissue Injuries	5.33%	9.55%	14.84%	3	Increase	New to workforce
Foreign Objects	13.33%	6.36%	5.3%	4	Continued Reduction	Additional PPE applied
Hot Water splash			5.3%	5	Increase	New to workforce
Superficial Wounds	4.0%	7.0%	3.88%	6	Continued Reduction	Additional PPE applied

### 9.3 Appendix 3

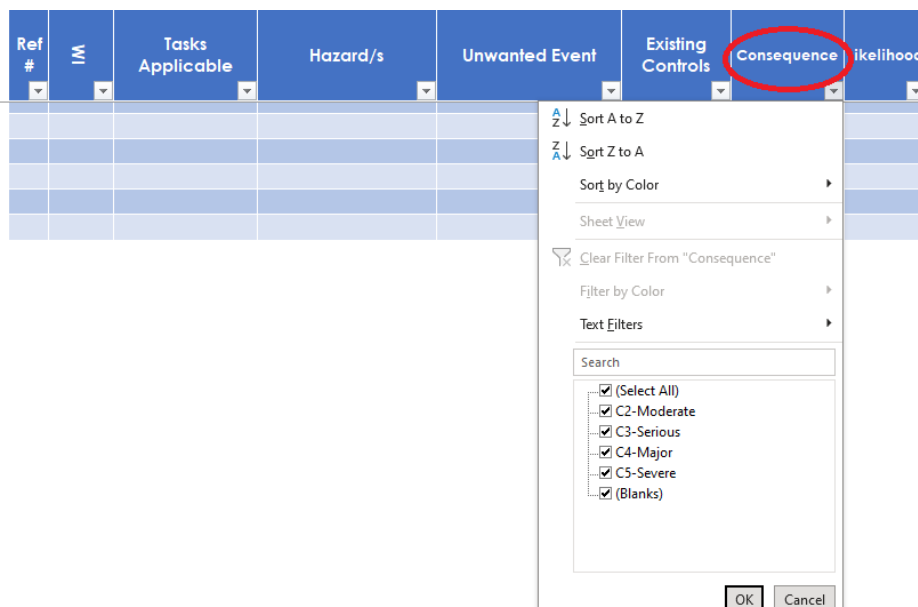
Figure 3a)

An example of the innovative assessment tool for repetitive tasks of the upper limbs, which has aided in the identification of risk levels within job tasks.

# Flow chart



Figures 3c) Results are input into the calculator for an exposure score via Consequence and Likelihood criteria.



Existing Controls	Consequences	Likelihood	Level	Rank	Additional Controls Required
			#N/A	#N/A	
			#N/A	#N/A	
			#N/A	#N/A	
			#N/A	#N/A	
			#N/A	#N/A	

Sort A to Z  
Sort Z to A  
Sort by Color  
Sheet View  
Clear Filter From "Likelihood"  
Filter by Color  
Text Filters  
Search  
 (Select All)  
 L1-Rare  
 L2-Unlikely  
 L3-Possible  
 L4-Likely  
 (Blanks)  
OK Cancel

Figure 3d) Consequence and Likelihood scores are measured in the Risk Matrix for a final result. For example, a result of C3L3 has a risk score of Medium 13.

RISK RANKING		CONTROLS							
<b>Likelihood</b>		Eliminate							
L5-Almost Certain		Substitute							
L4-Likely		Isolate							
L3-Possible		Engineering							
L2-Unlikely		Admin							
L1-Rare		PPE							
<b>Consequences</b>		N/A							
C5-Severe									
C4-Major									
C3-Serious									
C2-Moderate									
C1-Minor									
Concatenate	Consequences	Likelihood	Risk Level	Risk Rank	Risk Scores	ART Scores			
C5-SevereL5-Almost Certain	C5-Severe	L5-Almost Certain	Extreme	25	L1	0	Low		
C5-SevereL4-Likely	C5-Severe	L4-Likely	Extreme	24	L2	1	Medium		
C5-SevereL3-Possible	C5-Severe	L3-Possible	Extreme	22	L3	2	High		
C5-SevereL2-Unlikely	C5-Severe	L2-Unlikely	High	19	L4	3	Extreme		
C5-SevereL1-Rare	C5-Severe	L1-Rare	Medium	15	L5	4			
C4-MajorL5-Almost Certain	C4-Major	L5-Almost Certain	Extreme	23	L6	5			
C4-MajorL4-Likely	C4-Major	L4-Likely	Extreme	21	L7	6			
C4-MajorL3-Possible	C4-Major	L3-Possible	High	18	L8	7			
C4-MajorL2-Unlikely	C4-Major	L2-Unlikely	Medium	14	M9	8			
C4-MajorL1-Rare	C4-Major	L1-Rare	Low	8	M10	9			
C3-SeriousL5-Almost Certain	C3-Serious	L5-Almost Certain	Extreme	20	M11	10			
C3-SeriousL4-Likely	C3-Serious	L4-Likely	High	17	M12	11			
C3-SeriousL3-Possible	C3-Serious	L3-Possible	Medium	13	M13	12			
C3-SeriousL2-Unlikely	C3-Serious	L2-Unlikely	Medium	10	M14	13			
C3-SeriousL1-Rare	C3-Serious	L1-Rare	Low	6	M15	14			
C2-ModerateL5-Almost Certain	C2-Moderate	L5-Almost Certain	High	16	H16	15			
C2-ModerateL4-Likely	C2-Moderate	L4-Likely	Medium	12	H17	16			
C2-ModerateL3-Possible	C2-Moderate	L3-Possible	Medium	9	H18	17			
C2-ModerateL2-Unlikely	C2-Moderate	L2-Unlikely	Low	5	H19	18			
C2-ModerateL1-Rare	C2-Moderate	L1-Rare	Low	3	E20	19			
C1-MinorL5-Almost Certain	C1-Minor	L5-Almost Certain	Medium	11	E21	20			
C1-MinorL4-Likely	C1-Minor	L4-Likely	Low	7	E22	21			
C1-MinorL3-Possible	C1-Minor	L3-Possible	Low	4	E23	22			
C1-MinorL2-Unlikely	C1-Minor	L2-Unlikely	Low	2	E24	23			
C1-MinorL1-Rare	C1-Minor	L1-Rare	Low	1	E25	24+			

Figure 3e) Using a standard risk assessment chart embedded within SWMS and JSA documents, the identification of the level of risk prior to and after hazard / potential hazard assessment were the relevant control measures are put in place.

TABLE 1: FREQUENCY OR LIKELIHOOD TABLE

<b>Frequency</b>	
<b>Frequent</b>	Is expected to occur on a regular basis- most weeks or months
<b>Likely</b>	Is likely to occur several times a year
<b>Possible</b>	Will possibly occur again (may happen every one to two years)
<b>Unlikely</b>	Unlikely to recur (could occur again at some time in two to five years)
<b>Rare</b>	Unlikely to recur- may occur in exceptional circumstances (may happen every five to twenty years)

TABLE 2: IDENTIFY CONSEQUENCES

Consequence	Injury	Impact
<b>Minimal</b>	Report only – no injury	Minor impact
<b>Minor</b>	First aid	Events with no adverse effects
<b>Moderate</b>	Medical treatment required. Lost time or claim	Events with temporary adverse effect
<b>Major</b>	Extensive injury or permanent partial disability	Events with long term effects – attracts authorities, detrimental environmental effects.
<b>Serious</b>	Fatality or permanent serious disability	Event with major impact – revoking of licence, mass media attention

TABLE 3: Determine the RISK by using Tables 1 and 2 in the matrix below

CONSEQUENCE →		Minimum	Minor	Moderate	Major	Serious
LIKELIHOOD ↓						
<b>A</b>	<b>Frequent</b>	3	3	4	4	4
<b>B</b>	<b>Likely</b>	2	2	3	4	4
<b>C</b>	<b>Possible</b>	1	2	3	4	4
<b>D</b>	<b>Unlikely</b>	1	1	2	3	4
<b>E</b>	<b>Rare</b>	1	1	2	3	3

TABLE 4: Risk Score

Risk Matrix Rating		Action
4	<b>Extreme Risk</b>	Immediate action to remove / reduce / isolate risk
3	<b>High Risk</b>	Remove / reduce / isolate risk in 1 – 7 days
2	<b>Medium Risk</b>	Remove / reduce / isolate risk in 8 -14 days
1	<b>Low Risk</b>	Need to monitor to ensure risk doesn't escalate

LEVEL	HIERACHY OF CONTROLS
1	Elimination
2	Substitution / Isolation / Engineering controls
3	Administration controls includes training) / Personal protective Equipment (PPE)

**RISK MATRIX RATING: Example**  
(Likely + Major = 4)

Each step in the task is assessed for hazards & safety controls are implemented to reduce risk

CRITICAL STEPS FOR THIS TASK	POTENTIAL HAZARDS	SAFETY CONTROLS
		•
<b>Risk Assessment Rating</b>	<b>Prior to Assessment:</b> - Likelihood – - Consequence –	<b>After Risk Assessment:</b> - Likelihood – - Consequence –