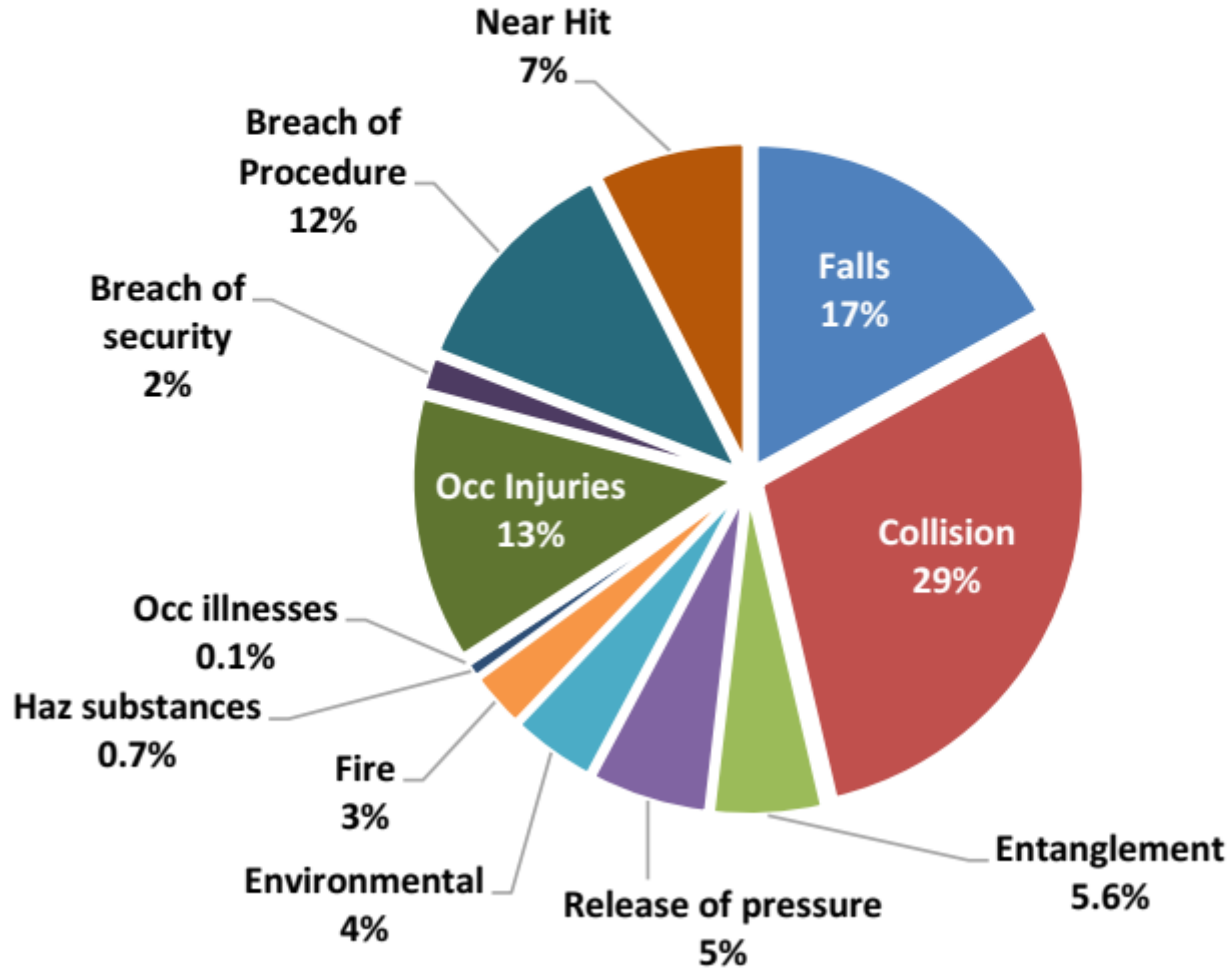


# Fall Hazards



# All categories Incidents July 2017 to Dec 2019



# Some facts

- **Of the 8 fatalities in the extractives sector between 2010 – 2018, 5 were the result of falls**
- **Falls are the second most common incident in mines and quarries in NZ**
- **Majority of fall events (175 in past two years) could have resulted in a fatality**
- **One incident in 2019 involved a worker falling over 4 metres**

# Falls

- **Fall of ground - 20%**
- **Fall of equipment - 30%**
- **Fall of person - 50%**







KEEP HANDS  
CLOSE

# Recent incidents

- **Nov 2017 – Worker fell 2.5 metres when step on clearlite roof panel**
- **Sept 2018 – A worker fell 5m through grid mesh flooring**
- **Nov 2018 – Worker fractures hip socket when he fell off dozer tracks**
- **Feb 2019 -Worker fell from a standing position cracking skull**
- **Sept 2019 – Worker fell 2m from conveyor while performing a screen change**



# Fall of people

- **Poor access & egress**
- **Maintenance**
- **Irregular tasks**
- **Climbing onto mobile equipment**

***It's the way we have always done it!!***



# Effective controls

- Fall hazards such as trip hazards and areas where workers can fall from height should be identified in ***effective risk assessments***.
- Suitable working platforms should be used to conduct work at heights.
- Regular ***workplace inspections*** should be conducted to identify work areas where there are fall hazards and what, if any, exposure workers have to these hazards.
- Ensure suitable ***fall prevention equipment*** is available and maintained.
- No-one should conduct work from a ladder. Ladders should be fixed and only used to climb up to and descend from a work area.





# Fall of equipment

- **Unstable plant**
- **Maintenance**
- **Lifting techniques**
- **Housekeeping**

***It's the way we have always done it!!***



# Effective controls

- All items of plant, including tools and leads etc. are ***fundamentally stable*** at all times. This means placing tools where they cannot fall, disconnecting power leads and rolling away leads and hoses.
- When lifting ensure that ***no-one is in the fall zone*** of the item being lifted.
- You regularly inspect all equipment used for lifting.
- Regular ***workplace inspections*** are conducted to identify housekeeping issues and set-up of work areas that could put workers at risk of harm.
- Operators are ***trained and assessed as competent*** to operate plant and equipment, including lifting equipment and insuring plant is fundamentally stable.

# Fall of ground

- **Weak rock, bedding, joints, structures**
- **Blast damage**
- **High faces or stockpiles**
- **Climatic conditions, water**

***It's the way we have always done it!!***





# Effective controls

- Regular ***workplace inspections*** to identify wall movement or instability.
- Remove overhangs, loose material and other face hazards by blasting, scaling or cleaning faces.
- Ensure ***bench and stockpile heights*** are no higher than the reach of your excavator or loader.
- Where possible, decrease bench heights and overall slope height and angle to reduce the chance of rockfall.
- Where instability is identified place an adequate ***catch bund*** near the toe and establish an adequate stand-off distance/***exclusion zone***.
- Establish procedures for safe entry to the pit following weather events or blasting.

# Often asked question

**Why is it that we continue to have the same incidents despite thorough investigation, safety alerts, sharing of learnings from incidents ?**

# Some of my observations:

- When we conduct investigations into incidents there is a tendency to **“jump to conclusions”** without recognising underlying root causes
- We move on too quickly from High Potential Incidents
- Investigation findings are not communicated effectively
- Remedial actions are not followed up
- Loss of corporate memory (staff turnover)
- **“Our people wouldn’t do that !!!”** (Denial that it applies to us)





*"There are three kinds of men. The one that learns by reading. The few who learn by observation. The rest of them have to pee on the electric fence for themselves."*

*Will Rogers*

# There is help!!

- **Falls checklist**
- **WorkSafe website**  
<https://worksafe.govt.nz/>
- **Minex website**  
<https://www.minex.org.nz/>

**Fall hazards in  
mines and quarries**



**MinEx**  
Health and Safety in NZ extractives

# Falls checklist

## Site inspection of:

- **Access for Maintenance**
- **Lifting techniques & equipment**
- **Housekeeping**

| Item/activity   | Comments/Observations |
|---|-----------------------|
| What areas have been identified where persons can fall from height or be affected by something falling from height (e.g. benches, off a piece of fixed plant, ladder ways, walkways, platforms, mobile equipment) |                       |
| What specific controls does the site have in place to manage these hazards/risks  |                       |
| What fall incidents have occurred in the last 12 months on site and what has been done to control or address these  |                       |
| How are personnel made aware generally of the existence of these hazards and associated controls (induction)  |                       |
| How are personnel made aware of the task specific controls necessary to prevent falls   |                       |
| How does the site ensure the effectiveness of these controls  |                       |
| How often are inspections and audits carried out  |                       |





***Questions ??***

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