Your Health & Safety
January 2015

Annual Reminders

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- Continuity color for FMMI is GREEN.
- Fire Extinguisher
- Crane inspections (usually by a third party).
- Man lift inspections (usually by a third party).
- Pressure vessel inspections.
- Fixed electrical equipment continuity / resistance (including semi mobile offices, sea containers, shops, crusher/conveyor motors).
- Training matrix updates due by January 30, 2015
- Update Contact information

Annual Refresher Reminders

- **Annual**
  - Confined Space
  - 600 Volt Switching
  - NFPA 70 E
  - Annual Refresher.
  - Hazard training at gate.
  - Pit drivers license.
- – **Every 2 years**
  - Rigging
  - Crane
  - Arial work platform
- **Every 3 years**
  - Mobile Cranes
  - Restricted Access
  - Forklift
- **Every 5 years**
  - Blue Stake

2014 By the numbers…What you Accomplished

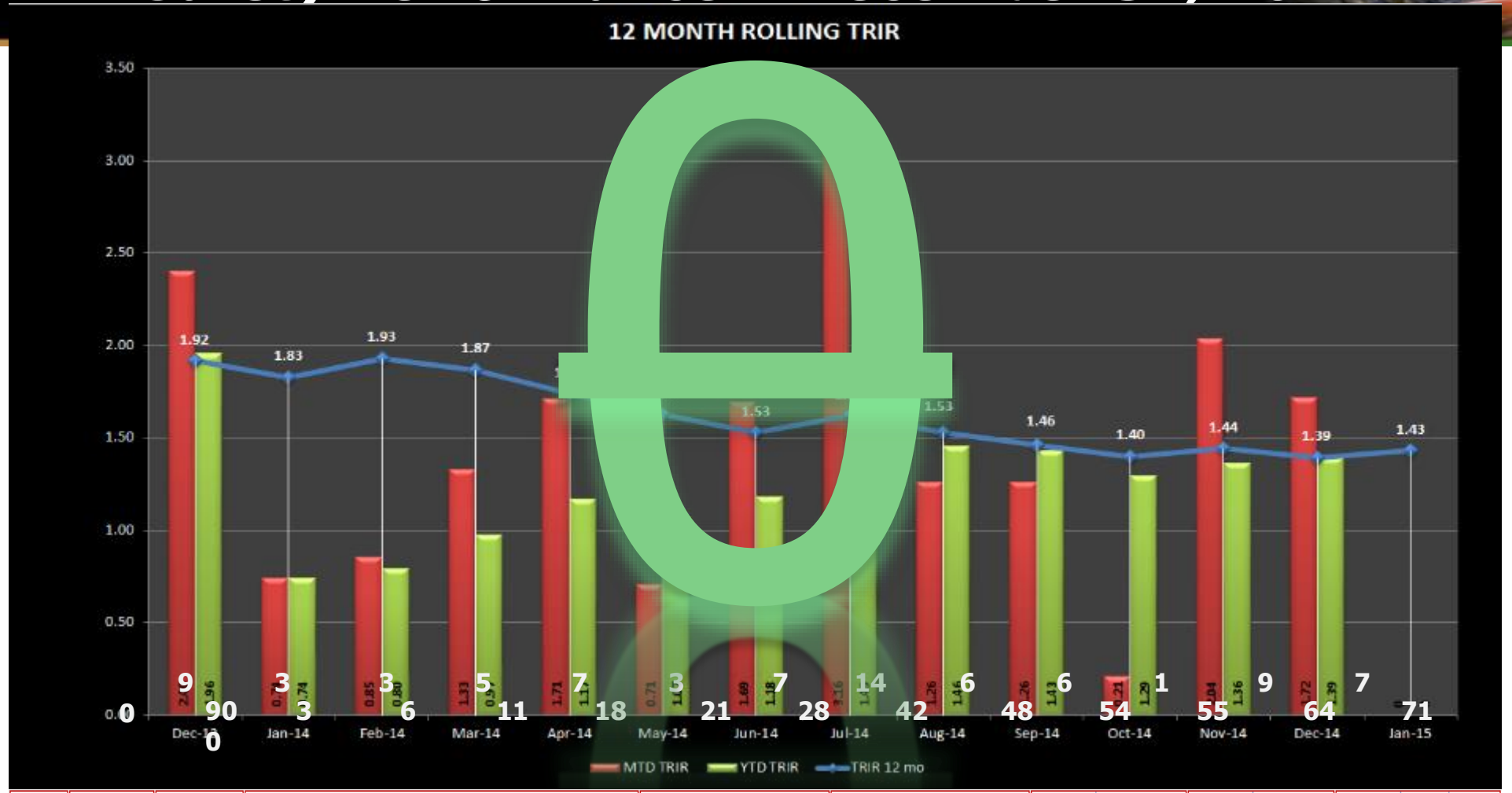
Fatal Injuries – None (θ)

Severity Rate – Reduced overall by 15%

Severity Measure – 70% lower than other MNM mines of same category

Incidence Rate – 31% lower than 2013

Safety Performance – December 31, 2014



Day of the Year	Incident Free Shifts		Employees working Safely (FMMO Only)		REPORTABLE INJURY RATE							LTIR			PROPERTY DAMAGE			DAYS W/O LTA	Hrs W/O LTA	Days W/O Rec.	Hrs W/O Rec.	YTD Total HEHI	HEHI Rate	HEHI Target
365	MTD	YTD	MTD	YTD	MTD	YTD	QTD	Q-1	Q-2	Q-3	Target	MTD	YTD	Target	MTD	YTD	Target							
Number	14	235	3111	3007	7	71	17	11	17	26	1.40	2	18	0.38	50	550	13.22	0	0	0	0	53	1.03	1.15
Rate					1.72	1.39	1.28	0.97	1.36	1.86		0.49	0.35		12.27	10.79								

2014 Division Results

Division	TOTAL REC	YTD TRIR	TRIR Target	YTD HR	YTD HEHI	HEHI Target
MAINTENANCE SERVICES	0	0.00	2.55	5	1.38	1.66
HYDROMET	6	2.36	1.09	2	0.79	2.27
LEACHING	7	2.45	1.66	3	1.05	1.53
CONCENTRATOR	11	1.73	3.32	4	0.63	0.64
CRUSH & CONVEY	4	1.34	1.81	5	1.67	1.27
TOTAL PROCESSING	***28***	***1.53***	**2.23**	**19**	***1.04***	**1.40**
MINE MAINTENANCE	15	2.09	1.77	3	0.42	2.09
FRAGMENTATION/LOADING/SUPPORT	1	0.24	0.15	7	1.71	1.96
HAULAGE	11	1.67	2.34	12	1.82	3.39
MINE TOTAL	***27***	***1.51***	**1.62**	**22**	***1.23***	**2.58**
RESOURCE MANAGEMENT	1	1.01	0.42	2	2.03	2.24
ADMINISTRATION	12	1.27	2.01	10	1.06	0.85
ADMINISTRATION TOTAL	***13***	***1.25***	**1.52**	**12**	***1.15***	**1.37**
MORENCI MERCANTILE	1	1.16	4.86	0	0.00	0.00
TOWNSITE CONTRACTORS	2	0.53	1.44	0	0.00	1.95
TOTAL MORENCI OPERATIONS	***71***	***1.39***	**1.40**	**53**	***1.03***	**1.15**

Our Three-point Plan…

- Fatality Prevention
- Reduce the Severity of Injuries and Illnesses
- Continual Improvement

Fatality Prevention

Fatality Prevention leads our ongoing Safety Focus. To that end, our Corporate Safety Leadership, with representatives of every branch developed new Fatality Prevention Training that every Freeport employee will receive…

- Morenci Leadership received the training in 2014
- All other employees will receive the training in 2015

Employee Involvement

- Employees are actively rotated each week to join the audit team; Operators, Electricians, Mechanics, and Laborers. This process is being utilized to mentor and train employees to identify hazards and how to mitigate the Risks.

  - Learning what to look for from other team members and sharing what they learn with other co-workers. What's going to hurt me and what am I going to do about it.

Employee's Tool Box For Safe Production

What tools do we own that can be used in the course of a day to prevent incidents and fatalities

Safe Production is the result of making the right decision at the right time for the right reason at every level of the organization

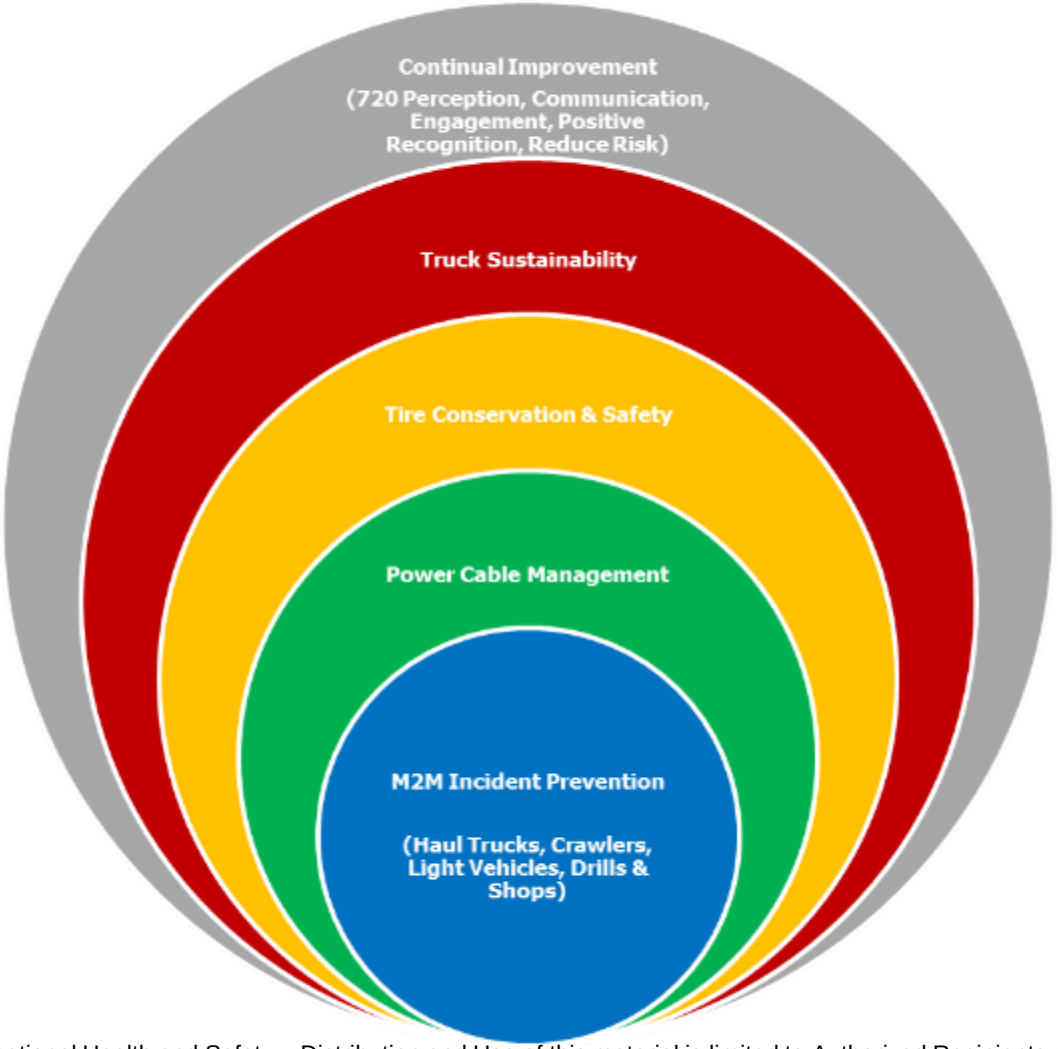
I can, you can, we can!

Property
Stopping un
Work Place Exams
Risk Assessment
Recognizing IMP Factors
Report Defects
ication
Feedback

Employee Expectations to Meet Objectives

1. Follow Procedures / Training / Effectively Communicate / Use Controls
2. Do not accept substandard practices & conditions (Accountability)
3. Look for opportunities to improve & bring up challenges/barriers
4. Remember why we do the things we do (fight complacency)
5. Focus Resources where they make the most sense

If we work on these 5 things we will prevent serious injuries & fatalities



Control what you own…

- Who owns responsibility of inspecting your equipment?
- Who owns responsibility of completing workplace exams and reporting defects?
- Who owns responsibility of reporting processes that put your hands in danger of a pinch point?
- Who owns responsibility of alerting coworkers when their behavior could lead to unexpected injury?
- Who owns the right to stop work when it is unsafe to move forward?
- Who owns responsibility to prevent fatalities, reduce severity of injuries, and ensure continual improvement?

Moving Forward…We will be even better!!

- Know your role
- Know your responsibilities
- Know your authority
- Use the tools you have been provided.
- Recognize the risk and ACT!

Simply stated…

I do, You do, We do!

Reducing the severity of Incidents

The right decision at the right level

- Additional training. Supervisors own this
- Design Upgrades. Management owns this
- Improved Auditing Practices. Everyone involved owns this
- Equipment Upgrades.. Management owns this

- **<u>Employee engagement at every level. You own this</u>**

- Accountability (I, You, WE!) You owe it to yourself to speak up.

Who Owns Your Work Area?

The risk of a serious injury / fatality was considered likely because:

- Oil present / slippery uneven surfaces
- Tools and parts in walking surface could cause a fall
- Eyes typically on work not on footing
- No fall arrest used – limited anchor points available.
- Complacency exists – employees accept exposure "do not think it will happen to me"

What tools could have been used?

- Going through each of the next few slides I want you to think about which tools you could use to ensure you have done everything you could have to prevent an incident.
- Work place exam.
- Risk assessment: (What could hurt me?) Falling, Slipping,
- Stop work authority.
- Who owns it…? (Who's going to get hurt?)

Unacceptable Risk

Common Practice to utilize a sling and a come along as a braking mechanism for the belt winder. Imp factor: We have always done it this way!

What can Hurt me?

Unacceptable Risk

Sling and come-along does not hold the belt back and it falls to the lower level.

What am I going to do about it?

Crush & Convey Brake Assembly

Engineered design

Medium Risk. Don't Stop There

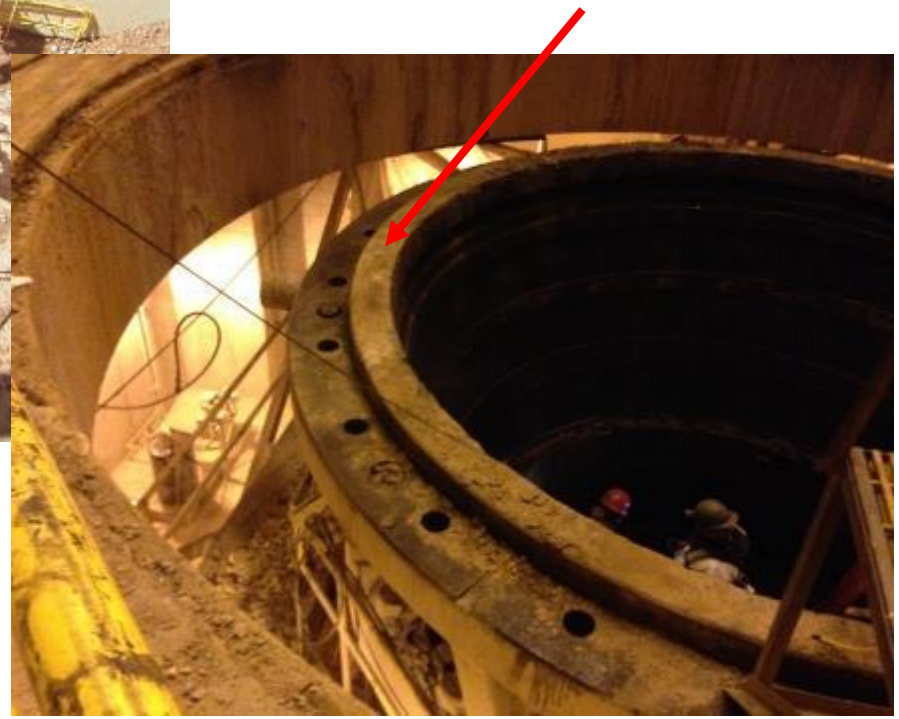
Manually laying and sleeving airline pipe on ROM Stockpile. What's going to hurt me?

Employee Input

Employees input to management led to a engineered system that practically eliminates walking across the dumps. (What am I, you, we, going to do about it)

Crusher 3 Concave Maintenance Work Platform

Employees tie off and stand on ring while performing maintenance. What's going to hurt me?

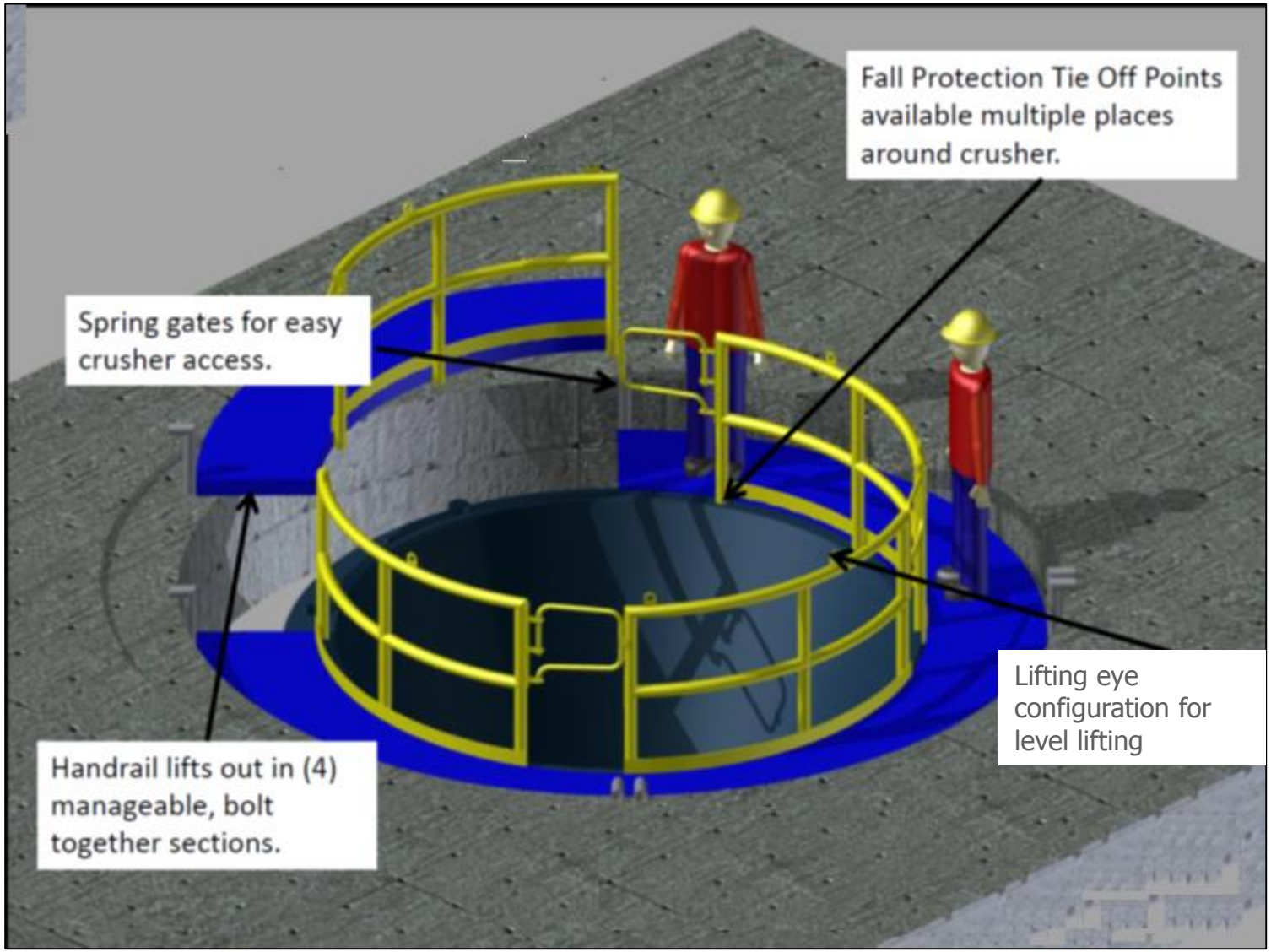


We implement Controls- Tie off points, training, Still left a lot of risk.

Employees speak up. They ACT!

Work Platforms

A considerable amount of resources went into this control. Money is not a barrier to your safety



Remember, Protecting Others…Protecting ME

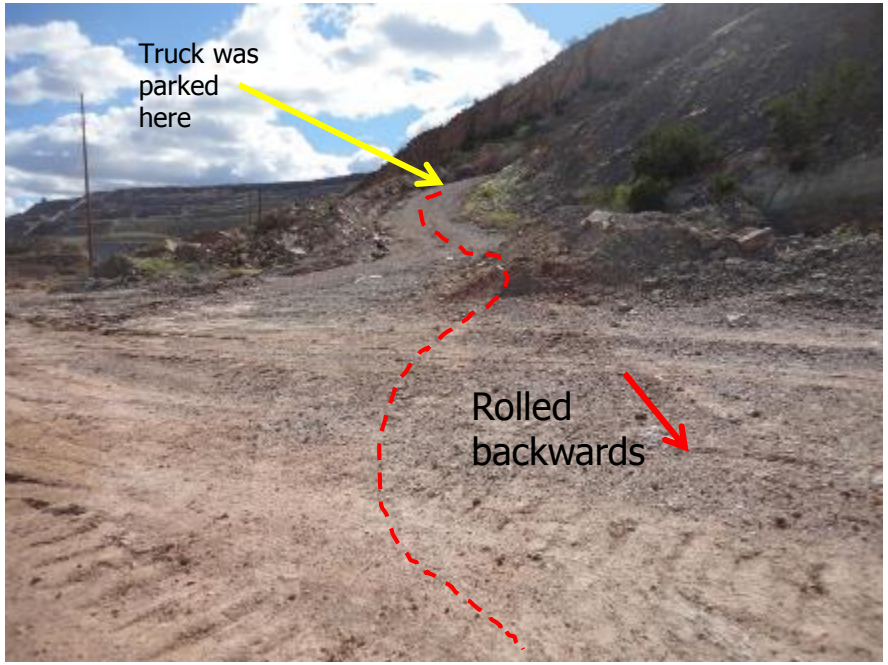
Compliance

Safety

Barricade placed for area control is effective for anyone outside perimeter, however there was a fall hazard for employees within perimeter

Fall hazard eliminated using handrails directly next to lube pit to eliminate open hole exposure

Unacceptable Risk

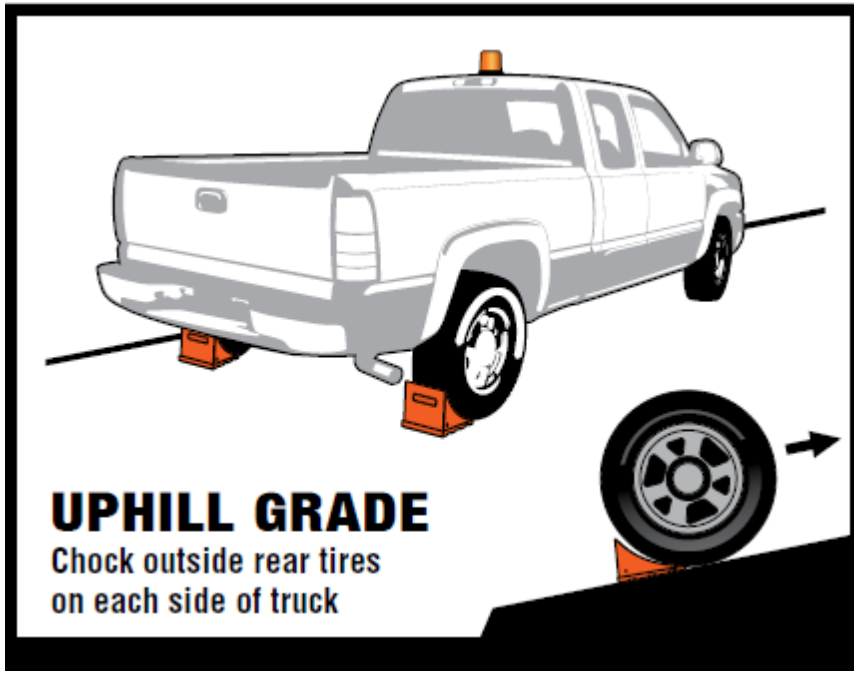


A light vehicle truck that had been parked on a 21% grade was discovered at the bottom of conveyor access ramp. The truck was unmanned when it moved.

What Hazard(s) do you see / could exist?

If an incident occurred what would the likely outcome be?

Changing the Culture…

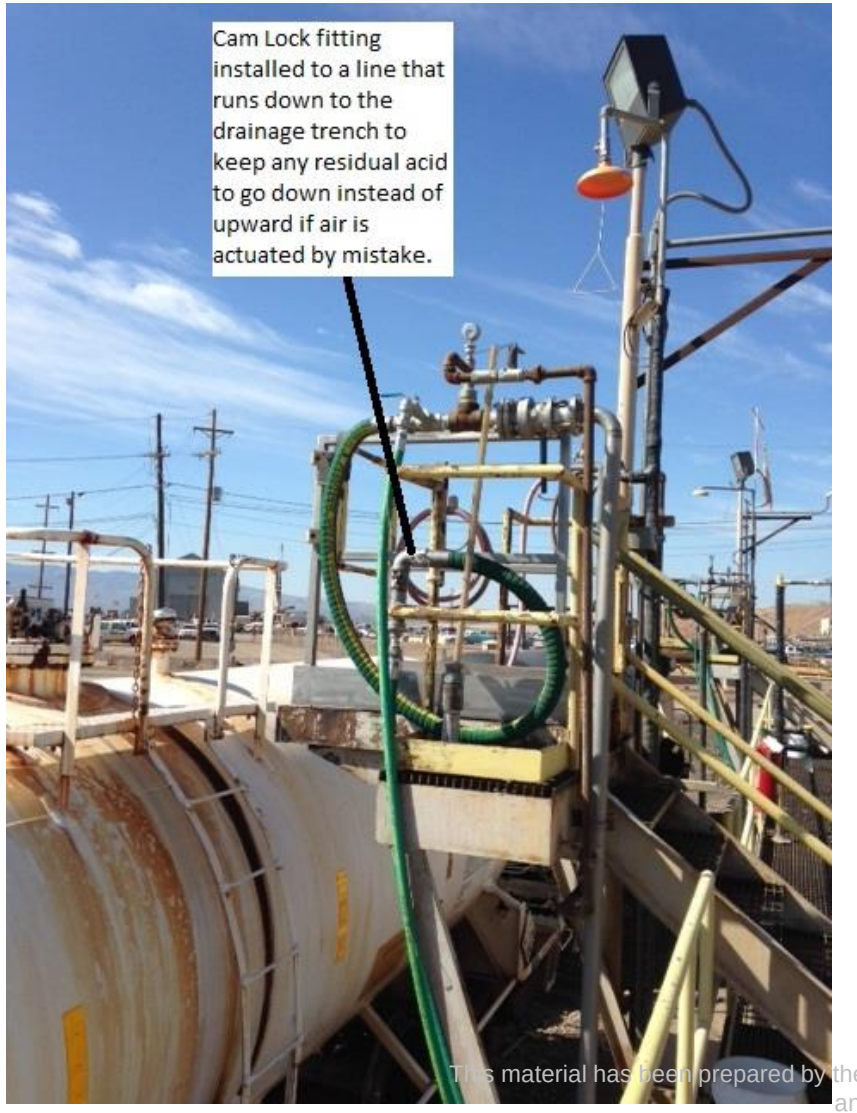


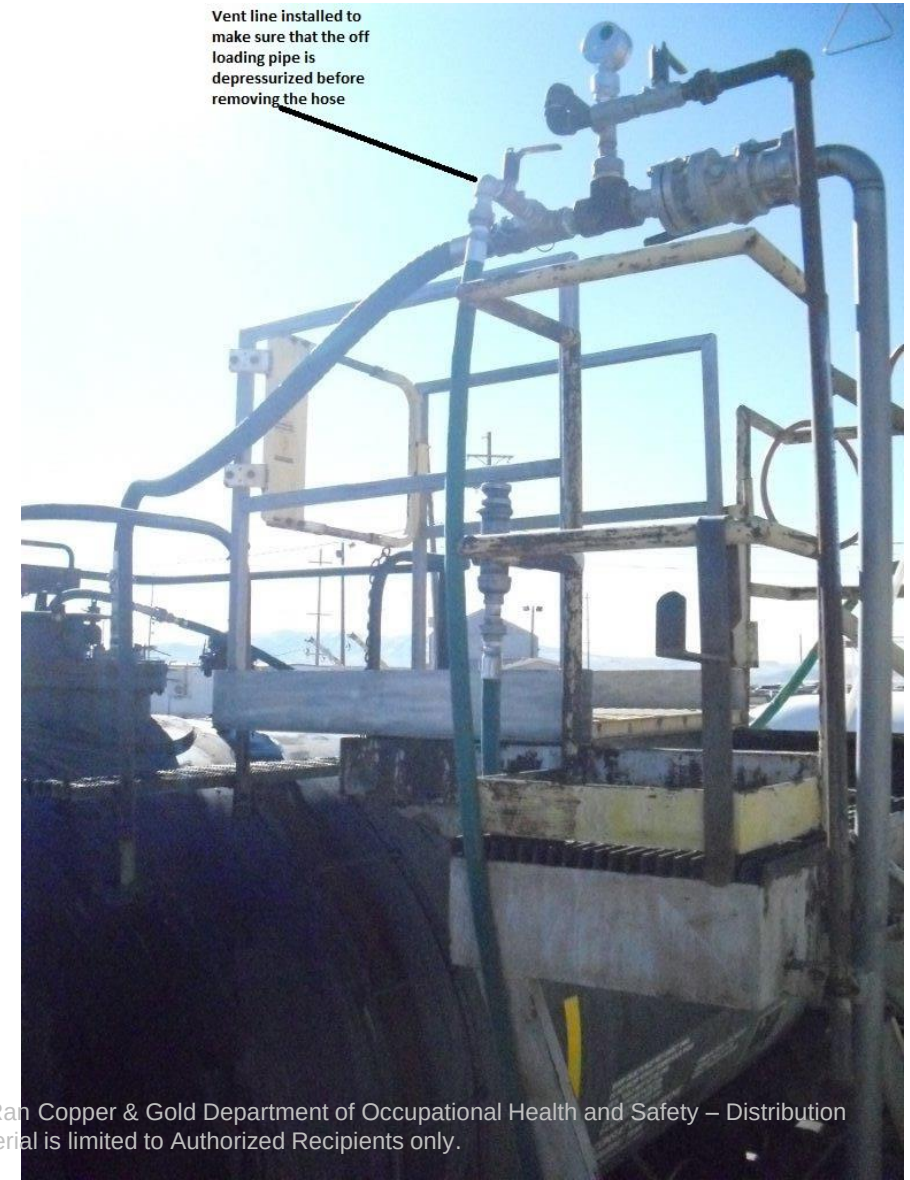
- Implementing undercarriage washing
- Mandating chocking guidelines for parking on ramps
- Personnel participating in special communications on use of wheel chocks
- Morenci Info4U Communication – Wheel chock User Guide / size /models/ proper use
- Who owns this…? We all Do!

Employee drives off without lifting Platform
By show of hands – Please choose the proper tool

Unacceptable Behavior

Hydromet Improvements





By how you handle it. Please choose the proper tool

Unsafe access. Fall from heights. Backing off the front of the truck while concentrating on the work I'm doing

- Training or procedures
- Risk Assessment

Open holes are not only in walkways

- Workplace or equipment inspection
- Communication
- Stop work authority

What tools am I going to use?

- Risk assessment: what's going to hurt me or my co-worker?
- Work Place exam: Reporting the defects
- Communication to supervisor
- Watching out for my coworker
- Speaking up! This is unacceptable risk.

What I did about it in the field!

What We did about it in the shop!
But Wait. The control was a hazard.

Review of Controls Led to Final Resolve.

HIGH RISK: Cleaning Out Chutes

Employees removed table idlers causing the belt to droop so they could use hand tools to clear the material. This was the R1B discharge chute and because they did this no one had to enter the chute to unplug it which eliminated the risk.

Cuts/Lacerations Incident

4/13/14- Employee was replacing cutting edges on the VT-1, using an Allen tool on one end of the bolt and an impact on the nut when the tool slipped resulting in a deep cut to his left index finger.

34% of all injuries in 2014 were to the hand. Reduced from 52% in 2013

Continual Improvement

What barriers exist which increase risk to the employees?

What controls could be used to better manage these risks?

- **Barriers**: The pipe crew were needed due to recent weather, the shovel was in mill ore which was viewed as a critical Safe Production need at the time.
- **Continual Improvement Ideas**: Stop traffic while the pump is set or take the shovel one sided to the left - keeping trucks further away from the ground personnel; use equipment as barrier and require employees to stay away from haul road side, use of hand held radio for ground personnel, training to improve awareness (apply 150ft shovel move rule)

Ultimately truck traffic was stopped for 15 minutes while the ground personnel finished the install.

PFE|Safety Alert

INCIDENT DESCRIPTION:	**Mechanics lifted the right rear side of a 33,000 GVW Ford fuel truck with a 25 ton jack and placed a 12 ton jack stand under the right side frame in front of the axel. The jack was lowered placing the weight on the 12 ton jack stand. The mechanics walked away to get their tools when they heard a noise. When they returned to the truck they found that the 12 ton jack stand had broken in half and the truck was resting on the 25 ton jack.**

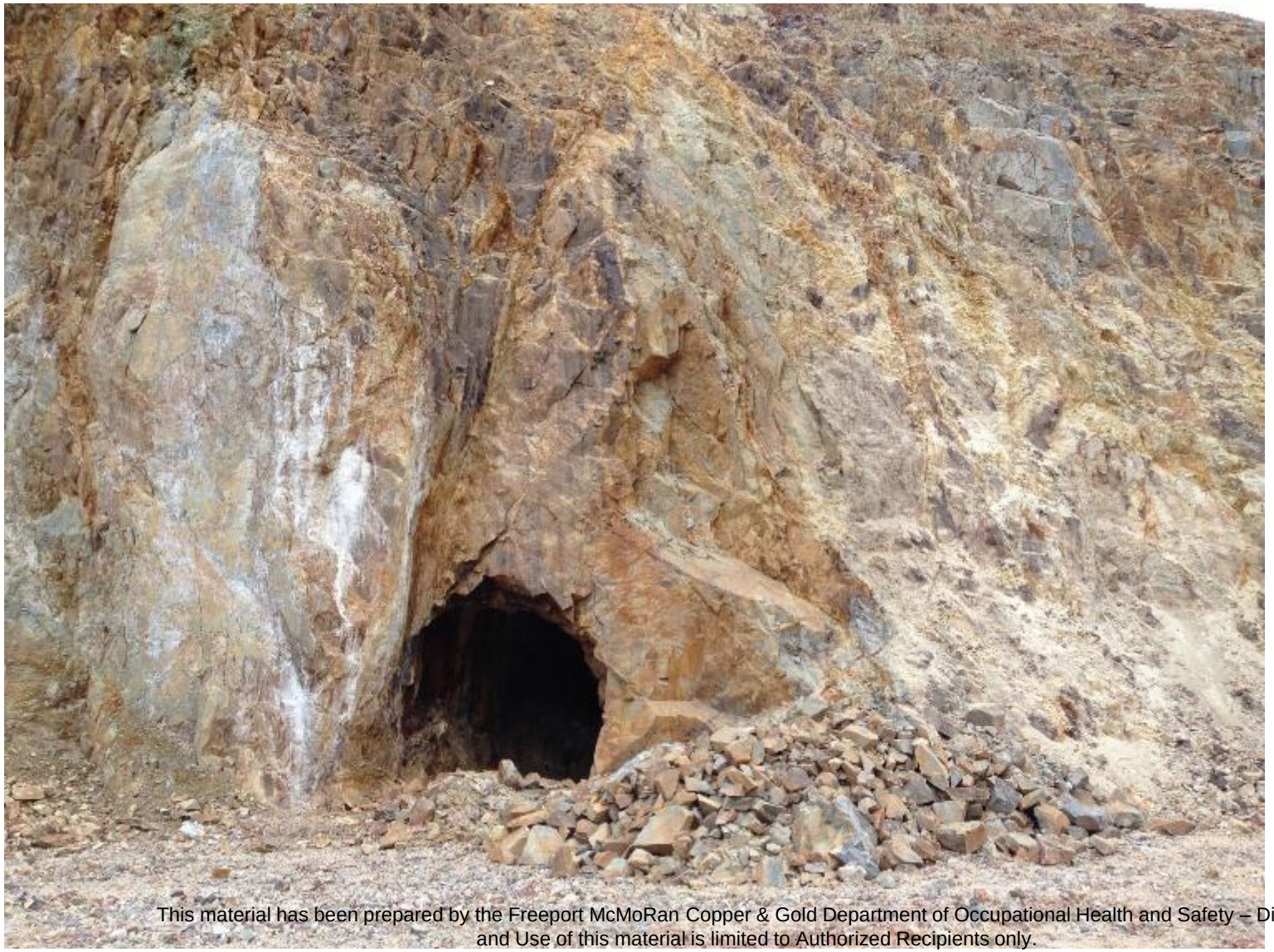
As these are distributed ask yourself "Could that happen to me?"

What We Learned

Critical Controls:	1) Inspection of jack stands
	2) Load rating for stands
	3) Proper placing of stands on equipemt
	4) Weight of equipment empty and loaded
	5)
	6)
	7)
	8)

Were the Controls in Place and Effective? (Circle)	Yes	No

A Success Story



What tools did the employees utilize.

- Training on the inspection of high walls
- Workplace examination
- Communication to supervision
- Stop work authority and subject matter experts collective minds.

- The outcome was that we removed all exposure to the face by backfilling with fine material as we continued to dump out on the stockpile. As we covered it we then over lined it.
- The real outcome is that a safer way to do the job. There is always a safe way to complete a task if we stop and ask.

Safety Success

Tire Replacement

- Exposed to Suspended Tire Handler during lock ring installation & removal
- What did Employees come up with? **Positioning of tire handler on ground and against tire (in the event of system failure / inadvertent movement the component is already blocked)**

2014 Improvements

- Action Tracking System. Hold people to task completion
- Involving our employees in the audit process. You make the workable improvements
- Changing the behavior in our employees. Recognize the IMP Factors
- Tooling upgrades and inventory control
- Closing the loop on all action items
- Follow up audits to evaluate the controls that were put in place and measuring the effectiveness of those controls. Are they doing what we thought it would?

- Sum it up: Everyone at every level actively cares.

Mill audits

Process that should have prevented citation: Shop inspection, MSHA mock audits, housekeeping audits

Plan to prevent re-occurrence: Mill floor Supervisor daily inspection, Add to Senior Supervisor HK audit. Employees involved.

Description: On the mezzanine of the West Repair Bay material had accumulated which did not allow for Safe Access.

Regulation Cited: 56.11001

Gravity: S/S

Responsibility

- Issued: Manager
- Superintendent
- Sr. Supervisor
- Supervisor
- Employees

In Conclusion

I own it, You own it, We own it!

- What's going to hurt you or your co-worker and what are we going to do about it?
- You have the tools to do something about it
- Make recommendations for improvement to make it better
- I Can, You Can, We can!
  - Prevent Fatalities
  - Reduce the severity of incidents
  - Make Continual improvements