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May 2016

Contractor Safety Meeting

05/09/2016

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Safety Share (Trevor Lewis)



Alert

All,

During a recent audit of high walls and slope stability, a high wall condition including rock fall hazard onto the access road was identified at the 4500 L/P access road. Personnel entering this area will now have to call the **Stargo SX Operation Control Room 928-865-6839** before entering the area. There will be a chain link fence restricting access. If you have any questions please contact **Sean** Maddock at the below numbers.

Sean Maddock
Senior Supervisor SX Maintenance
Mobile: 928-965-4210
Office: 928-865-7721
E-mail: **Sean** Maddock@fmi.com



Agenda

- TRIR
- PFEA
- Safety Plan
- Environmental



TRIR

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Safety Performance

Day of the Year	Employees working Safely (Reportable Injuries Only)			REPORTABLE INJURY RATE				LTIR			PROPERTY DAMAGE			MTD HEHI	YTD HEHI	YTD HEHI Rate	HEHI Target	DAYS W/O LTA	Hrs W/O LTA	Days W/O Rec.	Hrs W/O Rec.
129	TOTAL	MTD	YTD	MTD	YTD	QTD	Target	MTD	YTD	Target	MTD	YTD	Target								
Number	3104	3104	3076	0	34	12	1.70	0	9	0.45	14	210	11.70	1	11	0.70	0.54	32	787895	10	246112
Rate				0.00	2.15	2.57		0.00	0.57		14.22	13.29									
Forecast as of May 31	3104	3095	3059	9	45	27	1.70	2	10	0.45	53	265	11.70	3	15	0.80	0.54				
				2.36	2.41	2.41		0.52	0.54		13.89	14.22									

5/9/2016

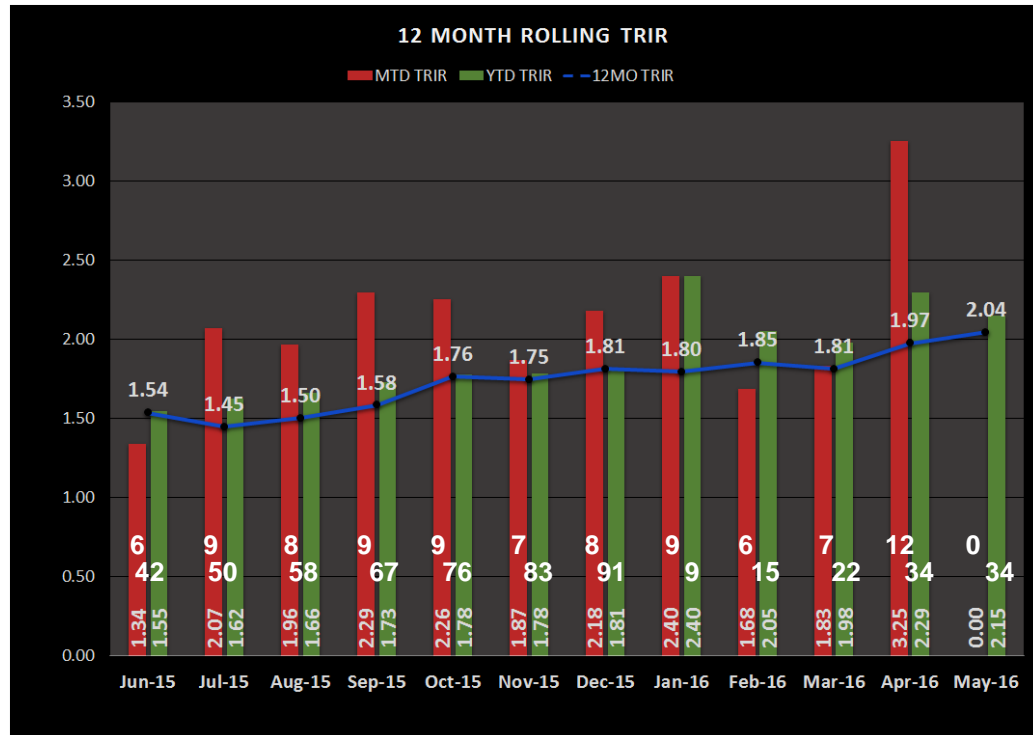
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Safety Dashboard 5/8/2016

TRIR BREAKDOWN	MTD REP	MTD TRIR	YTD REP	YTD TRIR	2nd QTD REP	2nd QTD TRIR
FMMO	0	0.00 149822	28	2.33 2400891	10	2.81 711657
CONTRACTORS	0	0.00 47151	6	1.58 760314	2	1.79 223968
CURRENT TOTAL MORENCI ALL	0	0.00 196974	34	2.15 3161204	12	2.57 935625

Quarterly Reportable Injuries
12

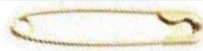


Incident Date	Incident Type	Organization/ Division	Short Description
5/4/2016	First Aid	Contractor Leaching	Southwest Irrigation employee slipped and sprained right wrist when breaking fall
5/5/2016	First Aid	Mine Haulage	Haul Truck was prematurely loaded and operator was taken for medical evaluation
5/5/2016	First Aid	Mine Haulage	The window on the 648HT shattered and the operator reacted by flinching away causing pain in his neck.



The road to success must be paved with optimism!



<i>Division</i>	<i>Date of Last Rep. Injury (FMMO)</i>	<i># of Days w/o Rep. Injury (FMMO)</i>	<i>Date of Last Rep. Injury (Contractors)</i>	<i># of Days w/o Rep. Injury (Contractors)</i>	<i>Date of Last HEHI Event</i>	<i># of Days w/o a HEHI Event</i>
MAINTENANCE SERVICES	4/6/2016	32	9/14/15	237	3/3/2016	66
HYDROMET & CLP	4/7/2016	31	3/27/15	408	6/10/2015	*321
LEACHING	11/17/2015	173	3/17/16	52	2/25/2015	*377
MORENCI CONCENTRATOR	11/18/2015	172	8/25/15	257	2/10/2015	*471
METCALF CONCENTRATOR	11/5/2015	185	8/8/15	274	3/12/2016	57
CRUSH & CONVEY	4/17/2016	21	11/10/15	180	4/14/2016	24
MINE MAINTENANCE	4/5/2016	33	4/18/16	20	3/19/2016	50
FRAGMENTATION/LOADING/SUPPORT	4/17/2016	21	4/19/12	1487	5/6/2016	2
HAULAGE	4/28/2016	10	8/1/2008	3049	1/24/2016	105
 RESOURCE MANAGEMENT	11/17/2014	538	2/17/16	81	1/5/2016	124
ADMINISTRATION	2/10/2015	471	9/15/15	236	1/1/2014	859
MERCANTILE	3/24/2016	45	3/3/15	432	1/1/2014	859
CONTRACTORS	4/18/2016	38	4/18/16	20	2/17/2016	81



Property Damage

Incident Detail			
Date	04.13.2016		
Organization	Processing		
Division	Leaching		
Potential Risk	3	2	6
	Consequence	Likelihood	Potential Risk
Brief Description	An Employee was driving the LV414A truck out of the leaching parking lot when he was proceeding to go down the Lone Star Haul Road. The employee attempted to gear down after going into a slide. The truck then was stuck between gears and he made contact with the haul truck tire in the center of the haul road causing damage to the right front headlight and fender.		

Best Practices

1. Perform a thorough pre-shift inspection on all vehicles/equipment prior to operation and report all defects.
2. When vehicles/equipment are defective, do not operate.
3. Operate to conditions of the roadway traveled.





Property Damage

Incident Detail			
Date	04.14.2016		
Organization	Processing		
Division	Crush & Convey		
Potential Risk	4	2	8
	Consequence	Likelihood	Potential Risk
Brief Description	Employees were tasked to conduct repairs on the #5 Short Head at the Metcalf Secondary Crusher. LOTOTO was performed on the #5 Short Head and lube pump. A Try Out was conducted and it didn't start. The #6 Short Head then needed to be started to slug the crusher. The operator called to say it wouldn't start and an Electrician was dispatched to troubleshoot and discovered it was locked out. Upon further investigation, it was found that the #5 Short Head was not locked. The interlock on the lump pump prevented the #5 from being started when employees called for a try out.		

Best Practices

1. Ensure a JSA/Risk Assessment is completed
2. Pre-Job Planning to ensure collaboration between involved personnel
3. Define roles and ensure all ECC's are the most qualified individuals
4. Develop written procedures for LOTOTO
5. Verify the correct equipment is locked out prior to starting work.



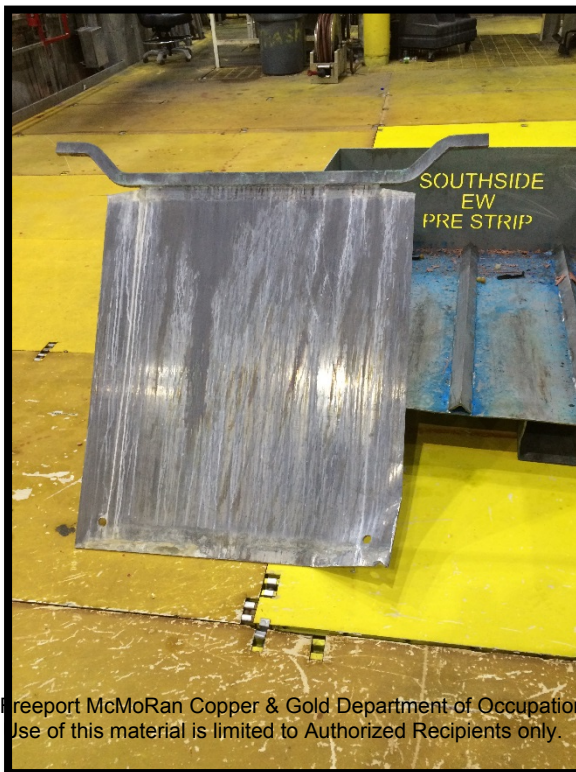


First Aid

Incident Detail			
Date	05.01.2016		
Organization	Processing		
Division	Hydromet		
Potential Risk	2	3	6
	Consequence	Likelihood	Potential Risk
Brief Description	An employee was using a single pull below the hook lifting device to pull anodes and install the insulator on the bottom of it. He lowered the anode to about 3 feet and began to install the insulator. While he was doing this the hook turned and the anode fell off , striking the employee in the elbow.		

Best Practices

1. Ensure that communications regarding critical control upgrades are communicated to all affected employees.
2. Conduct thorough equipment inspections prior to operation.
3. When controls are missing, or ineffective, stop and make it safe.



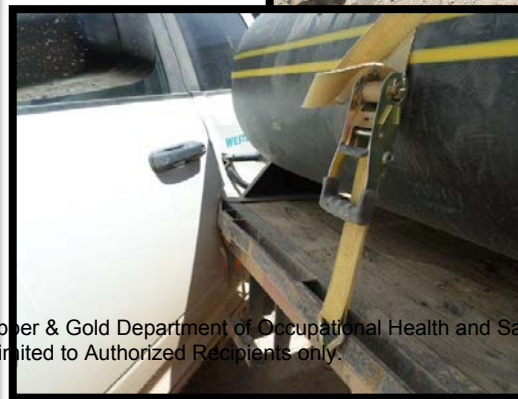


Property Damage

Incident Detail			
Date	05.06.2016		
Organization	Contractor		
Division	Resource Management		
Potential Risk	3	2	6
	Consequence	Likelihood	Potential Risk
Brief Description	A Western Industrial employee was tasked to transport HDPE pipe from MEH laydown yard to the engineering yard. Employee was traveling downhill (20% Grade) with a trailer transporting a load. The trailer had 4 sticks of 24 inch HDPE and weighed approximately 13,000 lbs. The trailer began to slide sideways making contact with the truck and pushing it into the berm. The trailer and truck will have components evaluated to ensure integrity of the equipment.		

Best Practices

1. Perform a thorough risk assessment prior to starting task
2. Understand the load capacity and equipment requirements
3. Be aware of grades being traveled
4. Ensure towing capacities are understood





Property Damage

Incident Detail			
Date	05.06.2016		
Organization	Mine		
Division	Fragmentation-Loading / Support		
Potential Risk	4	2	8
	Consequence	Likelihood	Potential Risk
Brief Description	The operator of the 648HT was going around the number 3 rock hammer when a fly rock struck his left side driver window breaking it. The glass hit the side of the drivers face causing minor scrapes to his cheek however when the driver moved away suddenly from the window due to the sound of rock hitting the glass he felt pain along his neck.		

Best Practices

1. Perform a risk assessment prior to starting task
2. Establish IFO safe distance procedures to identify a safe zone





PFEA



Safford Fatal Event



FATAL EVENT ADVISORY	
Safford EW Operator	FE # FATAL – 2016 - 2
	IMS #
	OPERATION: Safford
	INCIDENT DATE: 4/9/2016
	TIME: 2:03 PM
Issued By: Drew Borcharding, Health & Safety Manager	TYPE: Injury
	PFE Follow-Up:
Contact For Additional Details: drew_borcharding@fmi.com	

This Advisory is a NOTIFICATION of an event/condition, or potential event/condition which resulted in a fatality at a Freeport-McMoRan location. The information below is intended to be used for proactive preventative purposes.

DESCRIPTION / DETAILS OF ADVISORY

At approximately 2:00 p.m. on Saturday, April 9, an EW Operator was found unresponsive at the commercial and return pipeline trench adjacent to the Tankhouse. The employee was found in a semi-kneeling position with the left side of his face and shoulder leaning into the stainless steel flange of the return pipeline. First-aid treatment was provided at the scene until the employee was transported to the hospital. He passed away on Sunday, April 10.

An investigation is ongoing to determine the nature and cause of the employee's injuries. Hazards such as electrical current sources from the Tankhouse and tripping hazards that could have resulted in a fall are being evaluated as a potential causes.

GLOBAL SIGNIFICANT RISKS(if applicable)

Specific Electrical Policies	Choose an item.
Choose an item.	Choose an item.

OTHER SIGNIFICANT RISK (specific to site or task not categorized as global)

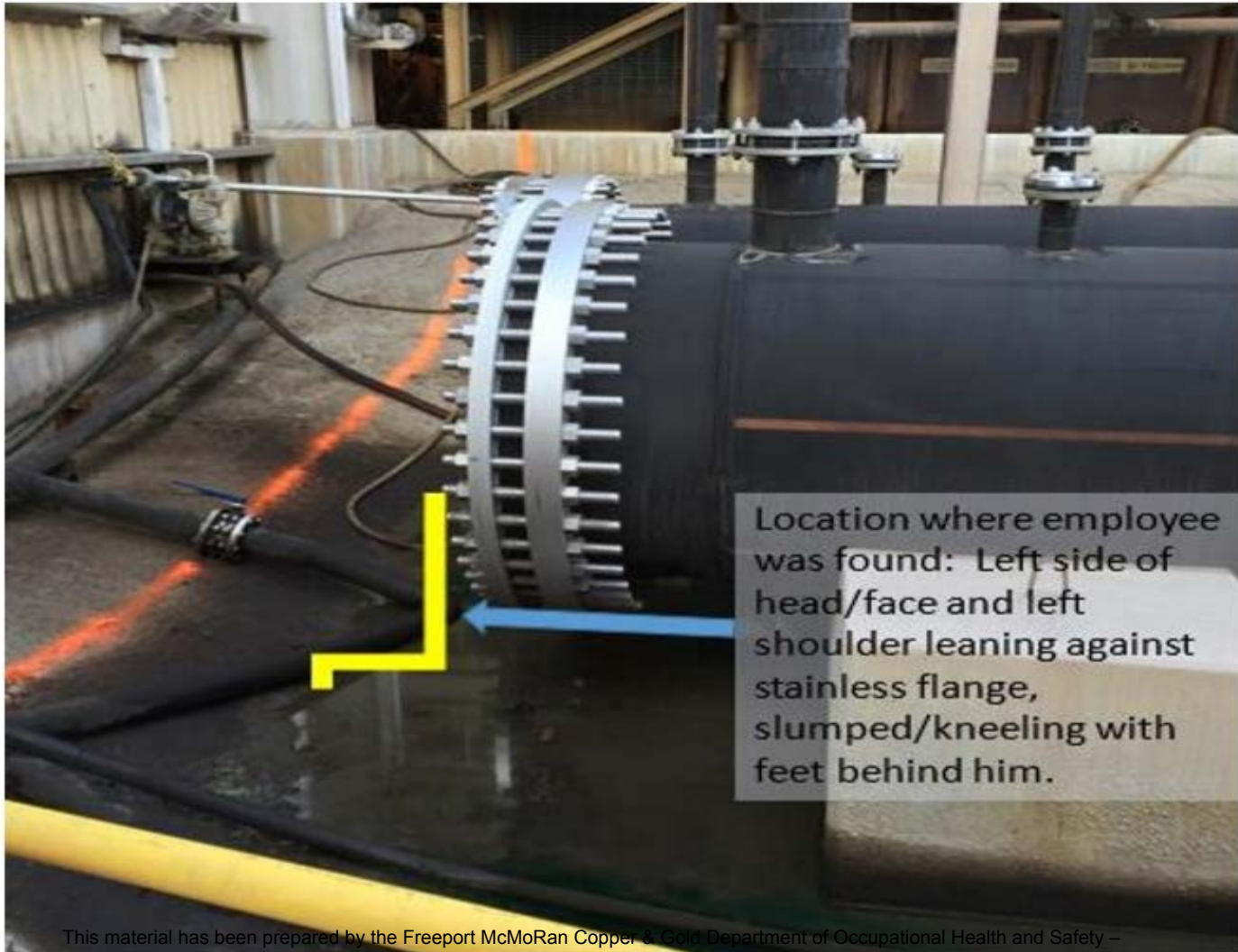
Housekeeping, Workplace Examination – piping, trip hazards on ground, ponding of electrolyte solution
Guarding – against contact to piping and flanges
Facility Design – pump and piping installation contributing to unsafe access issues

ABSENT / INSUFFICIENT CONTROLS CONTRIBUTING TO THE EVENT

- Lack of wide-spread, institutional knowledge for potential electrical current sources from the electrowinning tankhouse in the field and how to protect from electrical shock
- Modifications made to the tankhouse piping and electrical system not fully documented or communicated



Safford Fatal Event



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Cerro Verde Slope Failure

POTENTIAL FATAL EVENT ADVISORY		FREEPORT-McMoRAN	
Cerro Verde Slope Failure		PFE #	PFE – 2016 - 13
		IMS #	68005
		OPERATION:	Cerro Verde
		INCIDENT DATE:	4/24/2016
		TIME:	03:05 AM
		TYPE:	Property Damage
Issued By: McKay Pugmire		PFE Follow-Up:	
		Contact For Additional Details: McKay_Pugmire@FML.com; 283-2303	

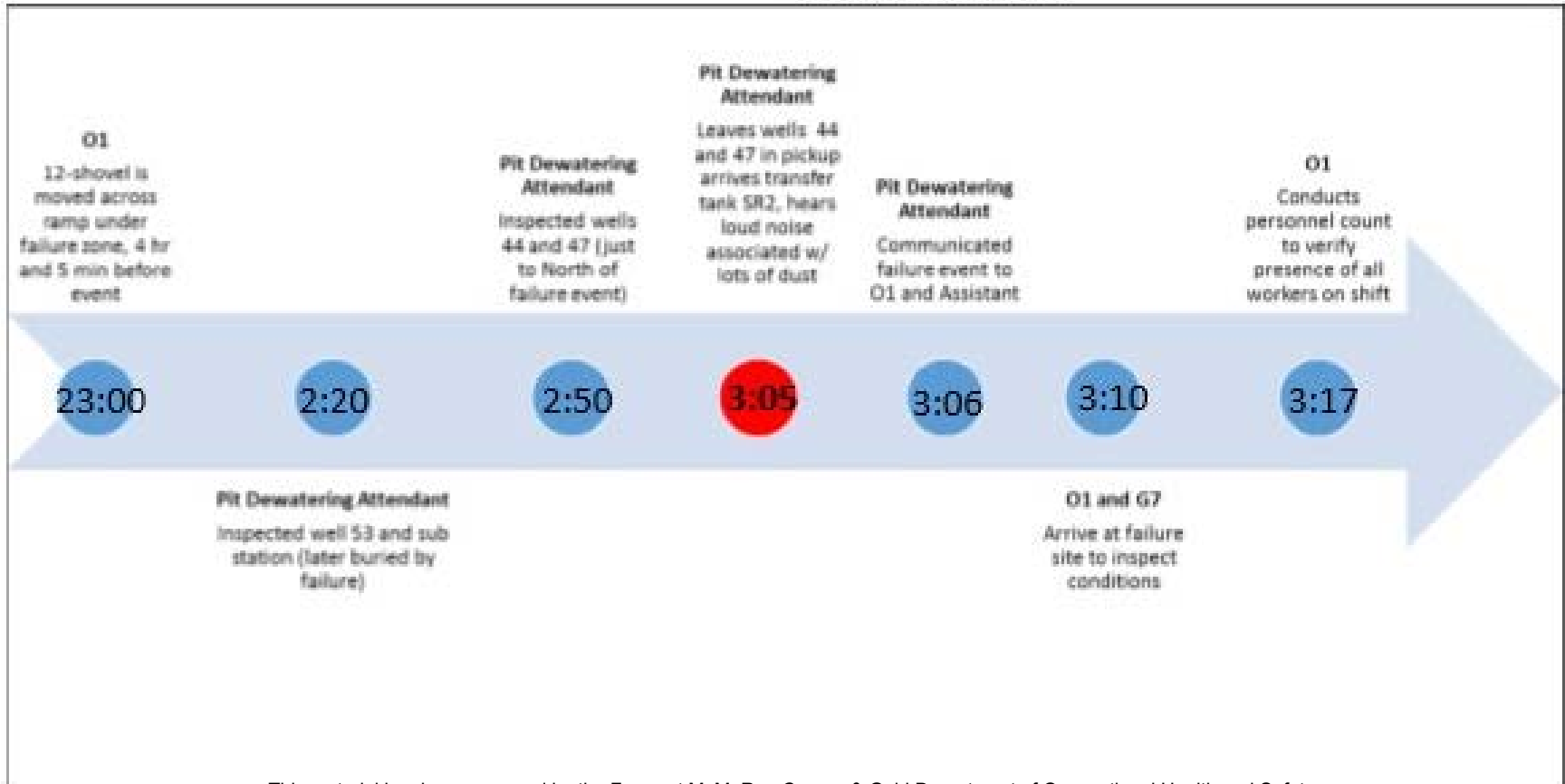
This Advisory is a NOTIFICATION of an event/condition, or potential which may have resulted in a fatality at a Freeport-McMoRan location. The information below is intended to be used for proactive preventative purposes.

DESCRIPTION / DETAILS OF ADVISORY	
<p>At 3:05 AM on April 24, a significant slope failure occurred undetected in the South East face of the Santa Rosa pit, between levels 2633 and 2483. The area that fell (about 1,250,000 tonnes) was last mined about 15 years ago. Slope radars, which cover about 70-75% of the pit surfaces were not targeting this area. Nearby prisms did not detect any significant movement prior to failure nor did an individual, who was working nearby, hear any raveling.</p> <p>There were no injuries but just moments before the collapse on C shift, an electric shovel was moved through the area. The shovel was specifically moved to this area to perform planned maintenance (approx. two weeks) because it was out of the way from normal operations. In addition, a technician was performing routine inspection of the pit dewatering system underneath the failure only a short time earlier. The vertical pit dewatering well and substation were destroyed.</p> <p>A timeline showing the sequence of events is included below</p> <p><u>Immediate Actions:</u></p> <ul style="list-style-type: none"> • The area was inspected and access was blocked. • The mine performed a physical presence count of all personnel on shift to make certain no one was missing. 	
GLOBAL SIGNIFICANT RISKS(if applicable)	
Slope Stability and Ground Control	
OTHER SIGNIFICANT RISK (specific to site or task not categorized as global)	
Falling Material	
ABSENT / INSUFFICIENT CONTROLS CONTRIBUTING TO THE EVENT	
Slope monitoring radars employed elsewhere in the Cerro Verde pits did not cover this area of the Santa Rosa pit. As such the rapid development of the failure was not detected.	
APPLICABLE STANDARDS / POLICIES / PROCEDURES	
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Slope control and monitoring.	



Cerro Verde Slope Failure

EVENT TIMELINE





Cerro Verde Slope Failure



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Rio Tinto Fatality

- Handout



2016 Safety Plan



Prevent Fatalities

1

Improve Fatality Prevention through employee engagement at every level of the organization.

Establish employee review teams in each division

Define and communicate roles and responsibilities for each team

Employee review teams monitor Morenci Fatality Prevention efforts

Employee review teams provide feedback and recommendations to Management

Verify teams have been established

Verify roles and responsibilities have been defined and communicated

Evaluate whether intended outcomes are being produced

Evaluate feedback and implement action items

2

Leaders observe the use of Critical Safety Controls and take action where necessary to Prevent Fatalities and/or improve upon existing controls

Leaders will define which high risk tasks need to be audited by Managers, Superintendents, and Supervisors through utilization of the "category" feature in the HIRA Matrix.

Perform monthly Fatal Risk audits
Managers - 1
Superintendents - 2
Supervisors - 1

The OHSMS Leadership Team Coordinators track audit completion.

The Safety Steering Committee verifies the audits performed.

Review audit records to determine whether categories were used to prioritize

General Managers address performance within their organization.

Communicate critical control upgrades



Prevent Fatalities

3	All levels of the organization use the HIRA Matrix for Fatality Prevention activities.	Differentiate between controls and critical controls	Employees participate in HIRA work sessions		
		Use HIRA Matrix to plan for Critical Control audits	Employees implement field version of HIRA Matrix	Review of Divisional HIRA for documentation of critical controls and upgrades. (Cross divisional reviews)	TBD based on results of Check processes
		Plan HIRA Work sessions	Use in-field evaluations to update HIRA Matrix		
		Schedule cross divisional reviews	Use HIRA for audit criteria		

4	Improved collaboration to make Fatality Prevention live through cross divisional interaction		Employees participate in cross-divisional/ departmental audits, safety meetings, tailgate meetings, and OHSMS meetings	Monitor participation and solicit feedback.	TBD based on feedback.
		Schedule cross divisional meetings			



Continual Improvement

1	Regulatory compliance is improved with focus on the Workplace Examination process.	The Health & Safety Department will analyze and disseminate past noncompliance trends to site leaders.	The Training Department in cooperation with the Health & Safety Department will provide training and mentoring to those with responsibility for workplace examinations.	Internal & Regulatory Compliance Audits	Health & Safety Department will conduct periodic internal audits to determine the effectiveness of examinations.	TBD based on performance results.
		Divisions will identify Workplace Examiners.				
		Divisions will identify areas to be examined each shift.				

2	Employee noise and respirable dust over exposures are reduced.	Establish 2015 baselines for noise and dust.	Employee working in high risk exposure areas will be targeted for full shift sampling. Employees will be trained on hearing conservation and dust exposure prevention	Health & Safety Department will analyze sampling results. Compare results to established OEL's and/or PEL's	TBD based on results monitoring progress
		Set 2016 targets based on 5% reduction from the 2015 baseline			



Quarterly Updates are due



Contact Sheet

Contractor Contact Information Sheet (Provide to Safety Department)						
Company Name/ MSHA ID						
Street			City		State	Zip Code
Corporate Physical Address:						
Corporate Mailing Address:						
Project #	Contract #	Type of Work		Area Working	FMI Contact	
Company MSHA TNG Plan	Yes <input type="checkbox"/> No <input type="checkbox"/>	Approved instructor Name(s)/Organization		Instructor's	MIN. Number	
Corporate Contacts						
Title	Name (First, MI, Last)	Phone #	Cell Phone#	E-mail Address		
Owner/President						
Safety Contact						
Office Contact						
On Site Management						
Local Office Location(s)						
Title	Name (First, MI, Last)	Phone #	Cell Phone#	E-mail Address		
Expected number of Employees Working on Site						



Updated Training Matrix

Contractor Task Training Inventory UPDATE Quarterly																	
Activities requiring completion of FMMO delivered training																	
Please enter the dates task training is completed. MSHA columns are for dates when new MSHA compliance training is completed.																	
Company :																	
	Employee		FMMO Delivered					MSHA				Other training completed by Contractor					
	Last name	First Name	LOTO	Restricted Area Access	Confined space	Fall Protection/open hole	Blue stake	New Miner	Annual Refresher	Experienced Miner	Hazard Recognition Compliance						
1																	
2																	
3																	
4																	
5																	
6																	
7																	
8																	



TRIR

- Just a reminder that TRIR reports are due by the 5th to
BOTH:
 - Amy_Sammito@fmi.com
 - Sophia_jinbo-doran@fmi.com



Environmental

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Environmental Air Topics

10 May 2016

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BMP 114 – Abrasive Blasting

BMP 312 – Spent Blast Media

- Must be approved first
- Emissions from abrasive blasting (20%)
- Controls:
 - Wet blasting
 - Enclosures
- Blast media in 'hazardous waste' container →
- Environmental Yard →
- Sample and disposal



BMP 100 – Spray Painting Activities

- Must be approved first
- Emissions from spray painting (20%)
- Controls:
 - HVLP sprayers
 - Airless spray techniques
- Photochemically reactive solvents (various %)
- Product approval
- Brushed or rolled is preferable



**Environmental Department
928-865-6000**

**Cynthia Christenson
928-965-1030**