

Compactor Hydraulic Pressure Block Failure Incident Investigation and Key Learnings

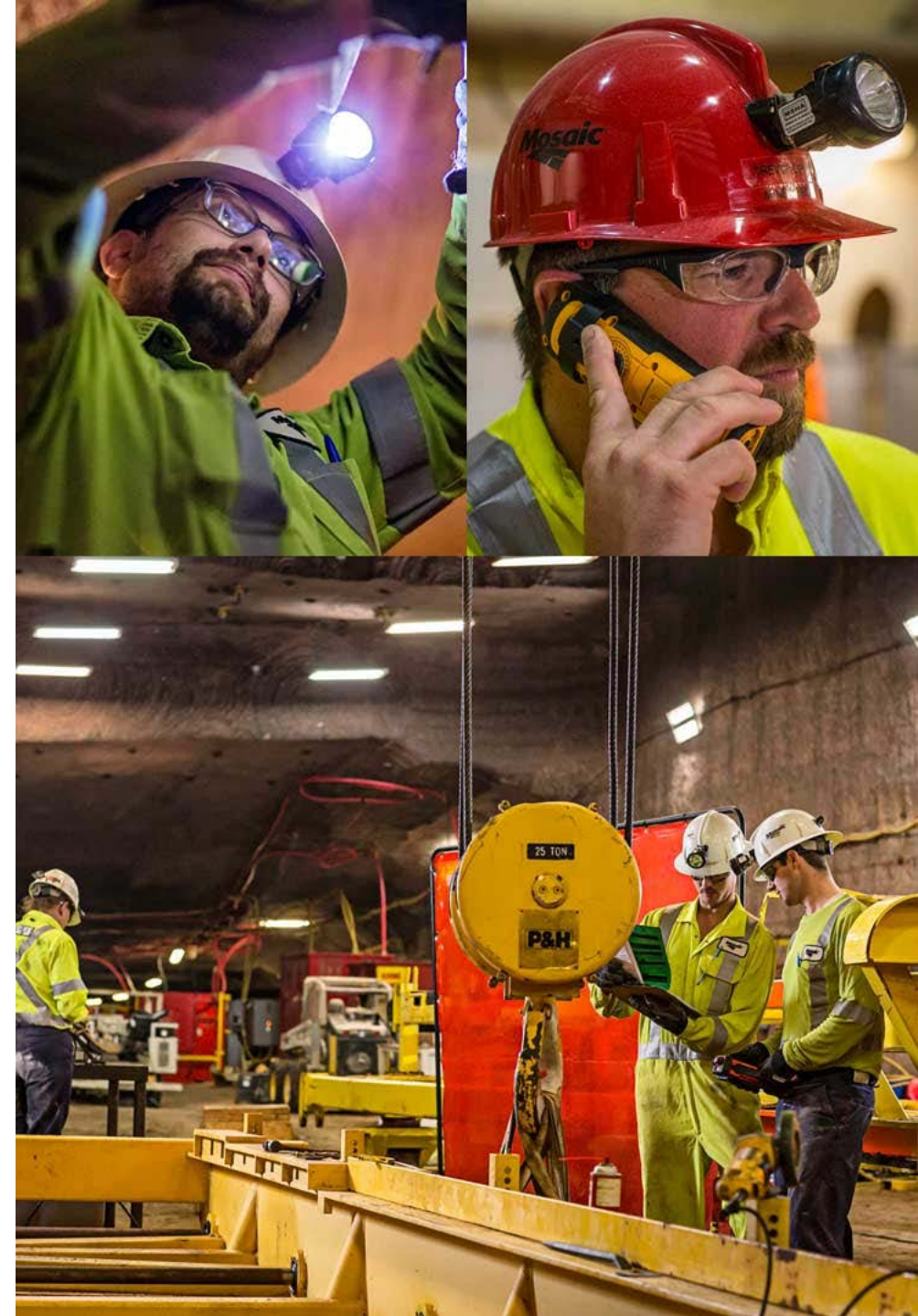
SMA Mine Safety Summit
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Agenda

- Background of the operating area and the Equipment
- Incident Review
 - Details of the incident
 - Compounding causes
- Incident findings
- Actions for future prevention

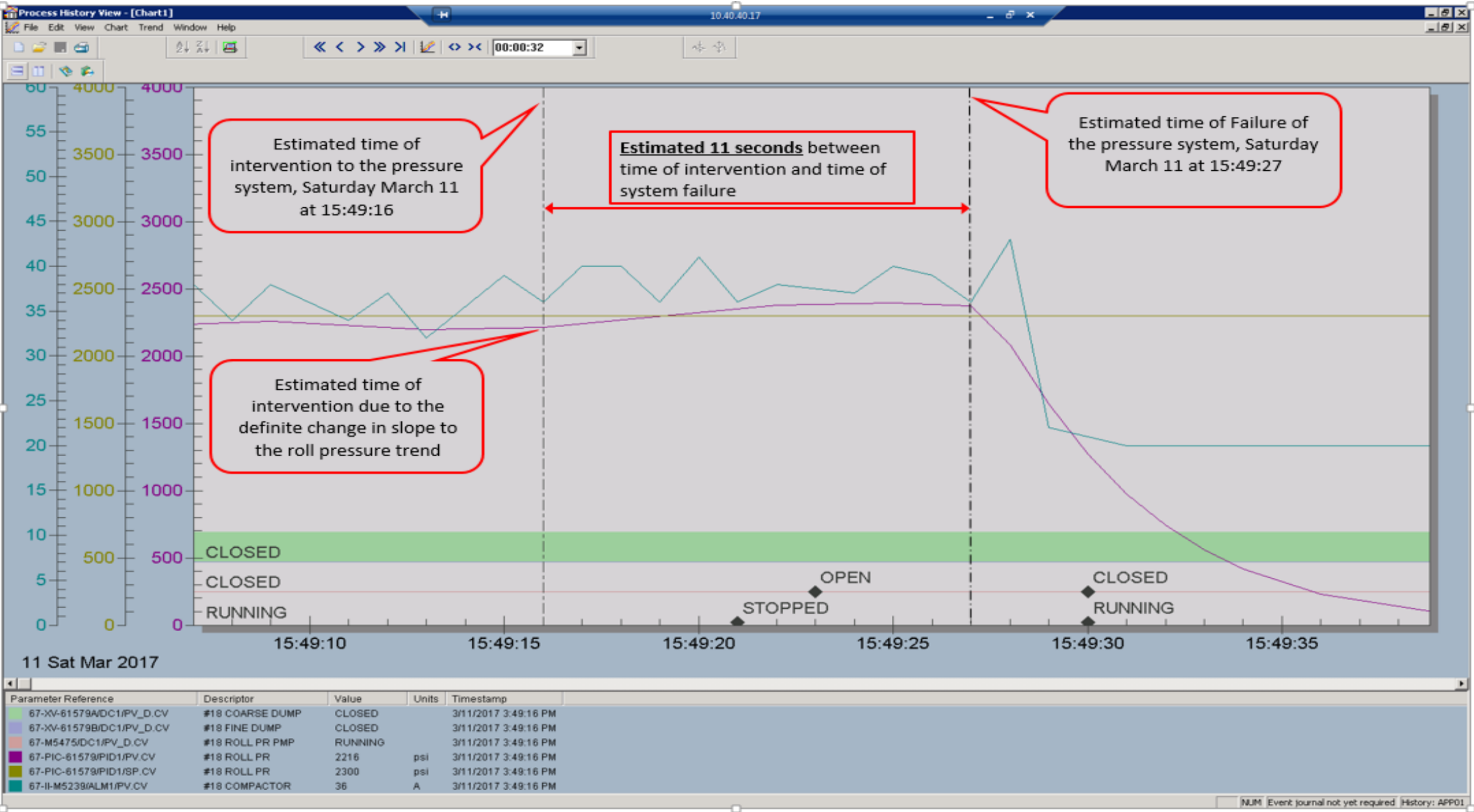


Description of the incident

- Occurred May 11, 2017 resulting in a lost time injury
- Compaction #3 Circuit, Commissioned in 2013
- Ludman Compactor, 24" rolls
- Compaction 3 area operator, was working to correct #18 compactor's pressure system issue which was preventing the machine from achieving target operating pressure of 2300 psi.







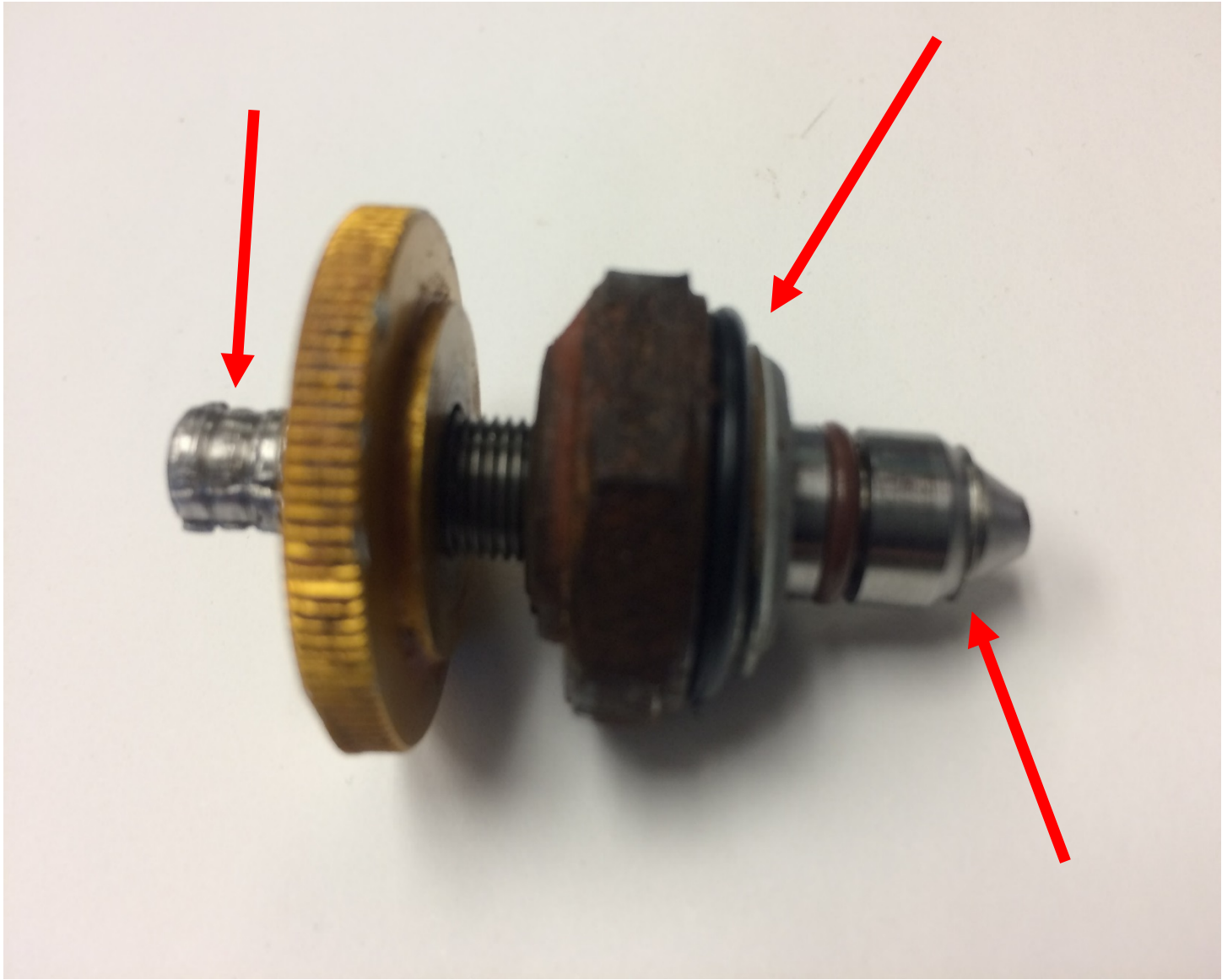




The Impact of the incident

- Fractured left orbital bone. (required implant surgery)
- Eye injury which resulted in a cataract from trauma.
- Lacerations on the eye lid, below the left eye and nose.
- Concussion
- 3 months away from work





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No.	Cause (select from drop down menu)	Cause Description	Detailed Corrective Action
1	Personal - Training or Skills	Operator was unaware of the hazard of over torquing a hydraulic valve	Communicate incident and corrective actions to all site. So all employees are aware of the risks.
2	Maintenance - Poor Preventative	There was no spare set screws or adjustment knobs readily available	Setup spare parts for block and valve assembly as required.
3	Behaviour - Line of Fire	Possibility for oil injection injury	Hydraulic risk training. Monthly C3 meeting topic. Include hydraulic pressure, oil injection, and over torquing.
4	Maintenance - Mechanical Failure	Oil was bypassing the system preventing compactor from reaching operating pressure	Check for proper operation of all similar valve assemblies and repair / replace as required.
5	Condition - Design or Engineering	Can not close compactor feed gate to easily isolate #18 compactor	Resolve all 6 feed gates in comp 3 so they can properly operate, allowing equipment to be isolated.
6	Procedures - Not Adequate or Missing	Operator tightened the valve	Create SOP for Ludmen compactor which details when operators can adjust valves while equipment operating.
7	Procedures - Not Adequate or Missing	Operator tightened the valve	Update Lockout procedure for Ludmen Compactors. Sequence in a procedural way.
8	Condition - Design or Engineering	Hydraulic valve located in a position that could hit employee	Determine if use of hydraulic valve block assembly is necessary or if it can be eliminated. If valve assembly can be eliminated initiate MOC prior to removal.

Key Takeaways

- The majority of our workers arrive at site determined to accomplish their assigned task – Define the boundaries provide the tools and equipment to make the right way the easiest way
- Stored energy – recognize it and understand the potential hazard
- Becoming too comfortable with our surroundings and equipment – Not aware of the risk or potential.
- Supervisors – take an interest and understand HOW the task was completed



