



# **KHUTHALA MINE PDS JOURNEY**

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**MAINTENANCE MANAGER**  
JUNE 2016



**Intro**

**Behavioural plan used**

**Section 44 CM operator incident**

**Analysis of data**

**Production performance**

## HazardAvert™

- establishes a magnetic marker field—or zone— around machinery
- Generators fitted onto machinery create fields, ‘WARNING ZONE’ and ‘DANGER ZONE’
- Personnel wear a Personal Alarm Device (PAD)
- Khutala make use of the 24V proximity Detection System



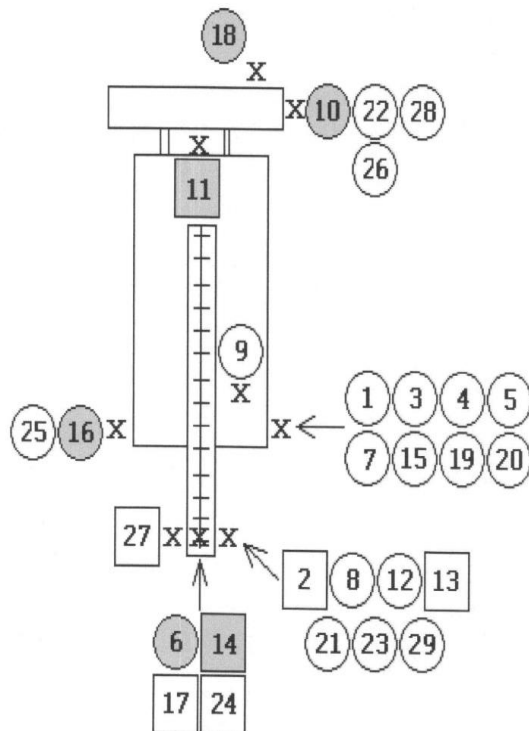
## Vision

Create an enabling environment for people to make safe decisions.



## MINIMIZE THE INTERACTION BETWEEN OPERATORS AND MACHINES IN THE **RED ZONE**

Location of Remote Control Victims With Respect to Machine



This is a depiction of the location of the fatal accidents around a Continuous Miner.

Circles indicate victim had possession of remote.

Gray indicates victim was performing maintenance.

Squares indicate victim was not the operator

## LEADERSHIP BEHAVIOR PLAN

### Guiding Principles

CSA Charter values

CSA Operating Model

EC Letter of Intent

### Enabling Environment Set by Leadership

Right people



Right tools and equipment .  
( Fit for Purpose)



Right procedures and systems



Sufficient time, support and leadership



Right choices by individuals and teams

### Key Focus Areas

#### Safety

Reduce Operator Exposures in Hazard Zones.

Training

#### Hardware

Reliable System

Accurate System

Effective System

#### Procedures

SOP's

Pre Use Check list

Maintenance Procedures

#### Leadership Support

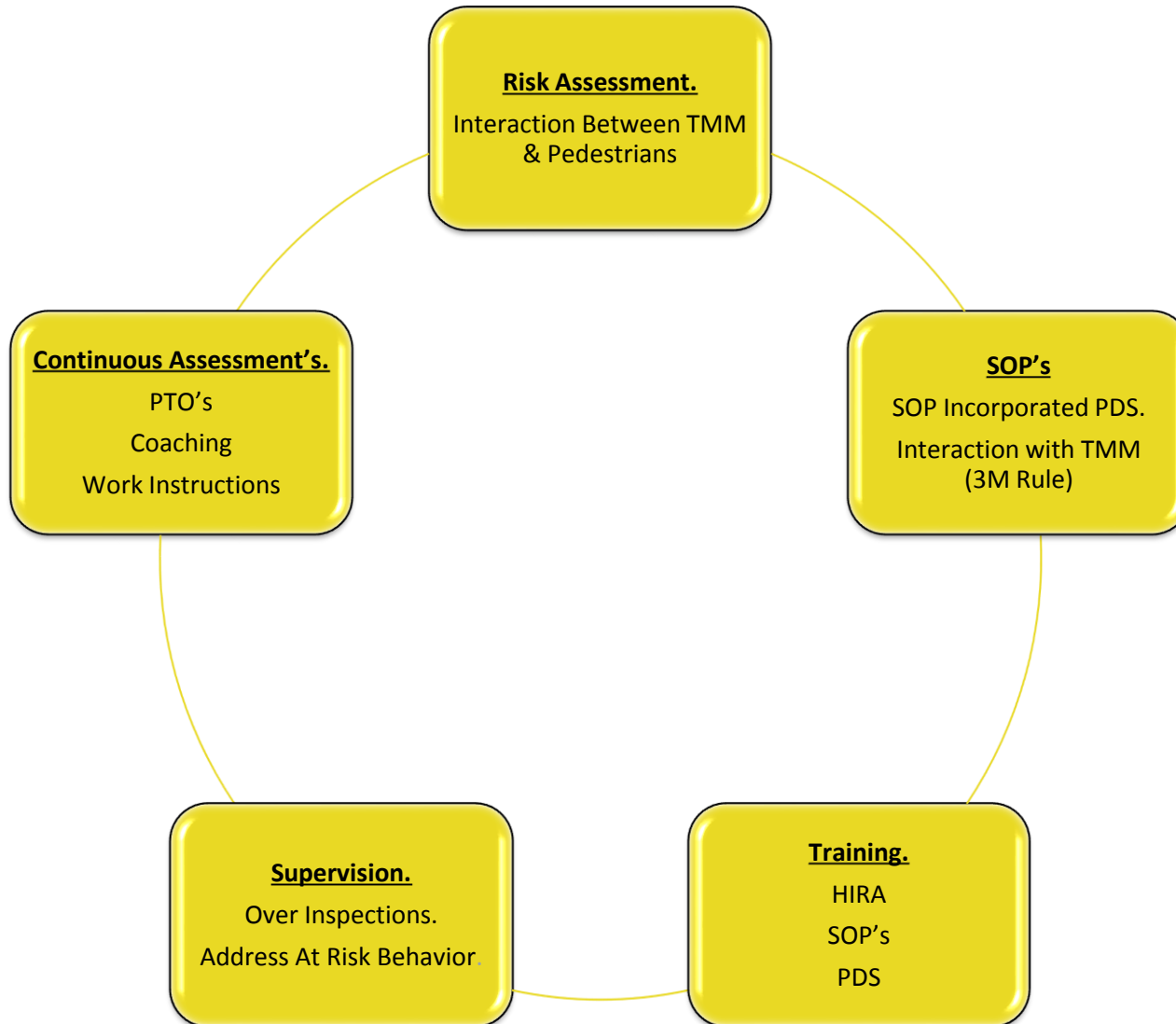
PDS System Support  
Coaching, Training & Interaction.  
Address At Risk Behaviour.  
Data Management

### Objective

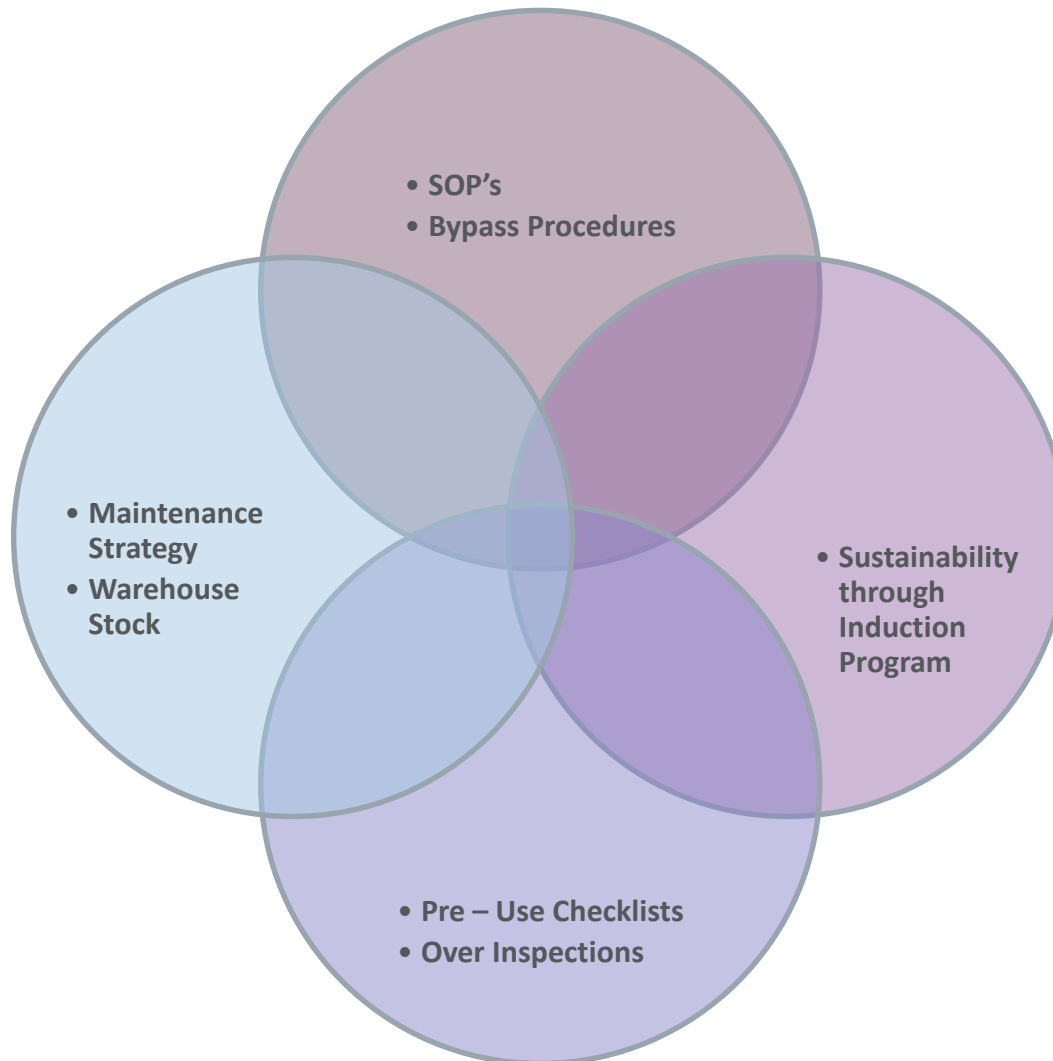
ZERO HARM &

SUSTAINABILITY

## RIGHT PEOPLE

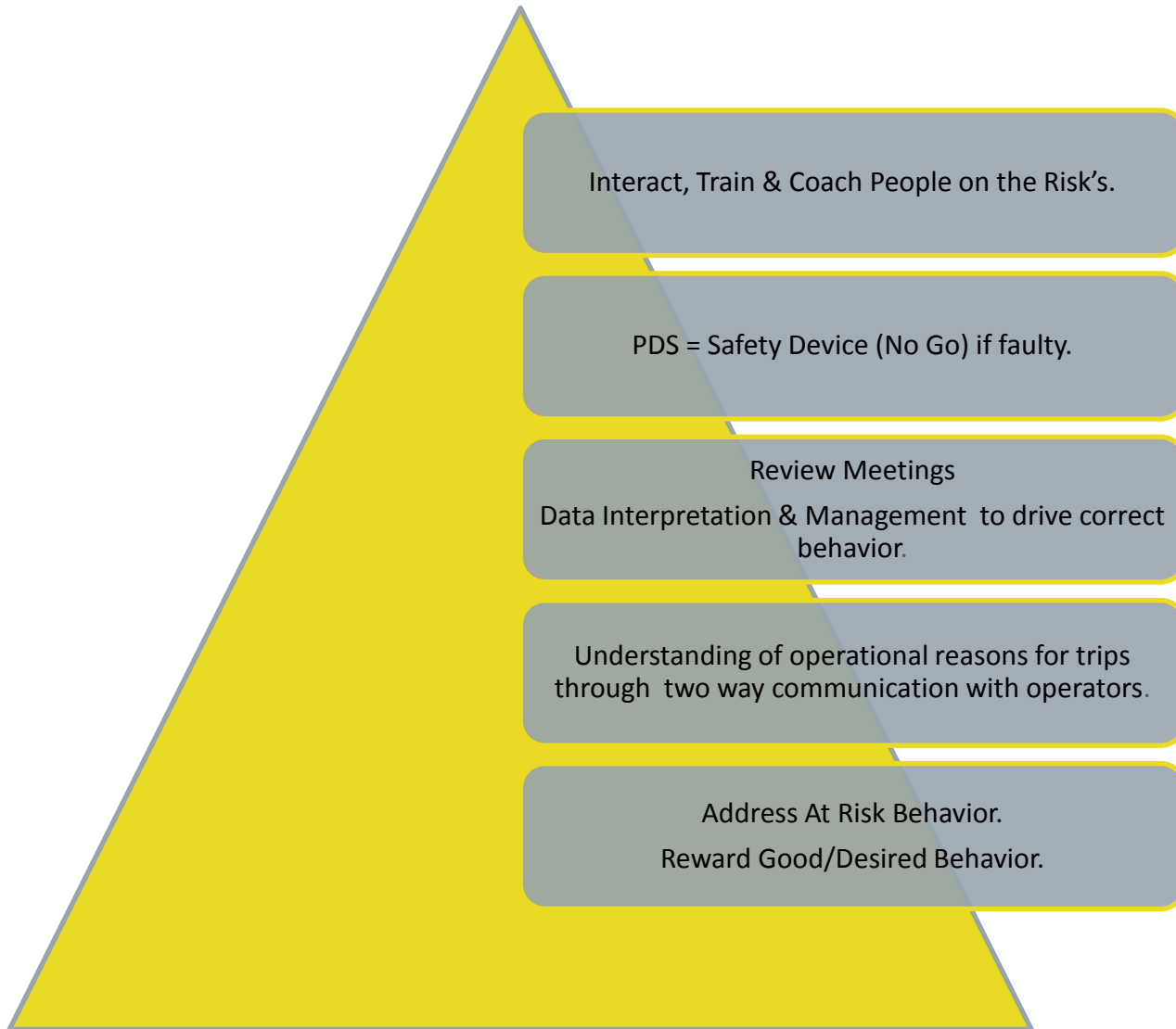


## RIGHT PROCEDURES





## LEADERSHIP SUPPORT FOR PDS



## Review Meetings (non production shifts)

The following is discussed: -

- Subordinates performance.
- PDS.
- Coaching.
- Training.
- Reports of malfunctioning equipment.
- Concerns.



## Participation Management

Engage in dialogue with workers regarding the PDS.

On the job training and coaching of how the system works.

Practice make perfect!



# SECTION 44 CM OPERATOR INCIDENT

- On 10 August 2013 MR. Fusi Moranamela Continuous Miner operator went underground at 22H00
- At approximately 01H30 he felt dizzy and collapsed in the traveling way of the Shuttle car towards the CM.
- The Shuttle car came to a stop approximately 2 meters from the CM operator
- Shuttle car failed to move, the operator then saw that his machine has stopped due to the Hazard zone that was activated.
- The Shuttle car operator exit and on investigation he found the CM operator lying on the ground in front of the Shuttle car.

Add [video link](#)

# ANALYSIS OF DATA



## Daily/Shift Automated Interactions Report - 2016-05-25 - 2016-06-01 - Section 29

Date: 2016-05-25 - 2016-06-01

### Interactions Per Machine

Equipment	ID	Warnings			Hazards			Remote stops		
		Day	Afternoon	Night	Day	Afternoon	Night	Day	Afternoon	Night
SC 36	6597	36	60	66	51	27	10	2	2	0
SC 30	36783	136	119	127	54	43	31	0	0	0
RB 43	30012	509	415	551	565	302	521	2	0	0
FB 42	6575	38	25	46	5	6	13	2	0	0
CM44	36682	150	143	202	29	80	33	0	0	0
<b>Total</b>		<b>329</b>	<b>762</b>	<b>992</b>	<b>714</b>	<b>408</b>	<b>608</b>	<b>6</b>	<b>2</b>	<b>0</b>

<b>Total Warnings</b>	2683	<b>Total Hazards</b>	1730	<b>Total Remote Stops</b>	8
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<b>Total Interactions - Day</b>	1649
<b>Total Interactions - Afternoon</b>	1172
<b>Total Interactions - Night</b>	1600
<b>Total Interaction For The Day</b>	4421

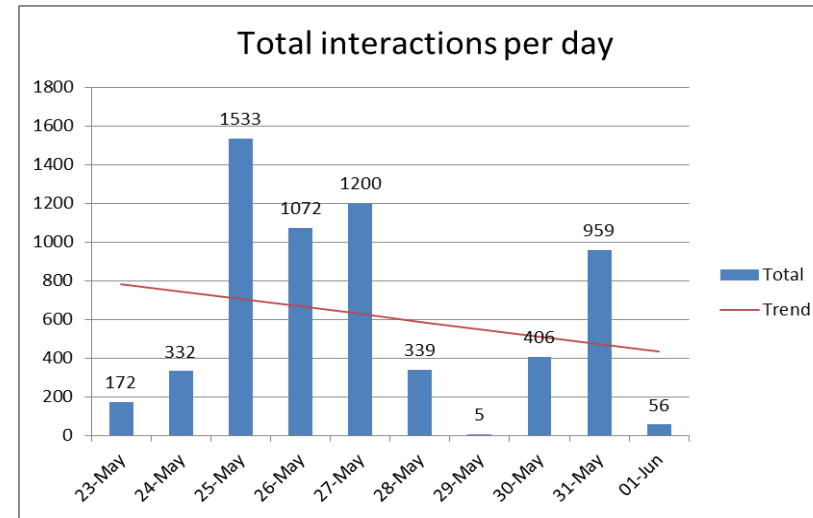
### Top 10 Employee Interactions

Day						
Employee ID	First Name	Last Name	Warnings	Hazards	Remote stops	Total
9515			69	106	0	175
24215			56	67	3	126
9392			51	53	0	104
24734			26	52	0	78
14565			41	47	0	88
23707			65	44	0	109
23460			45	44	0	89
23553			25	36	0	61
7876			53	31	0	84
10824			32	30	0	62

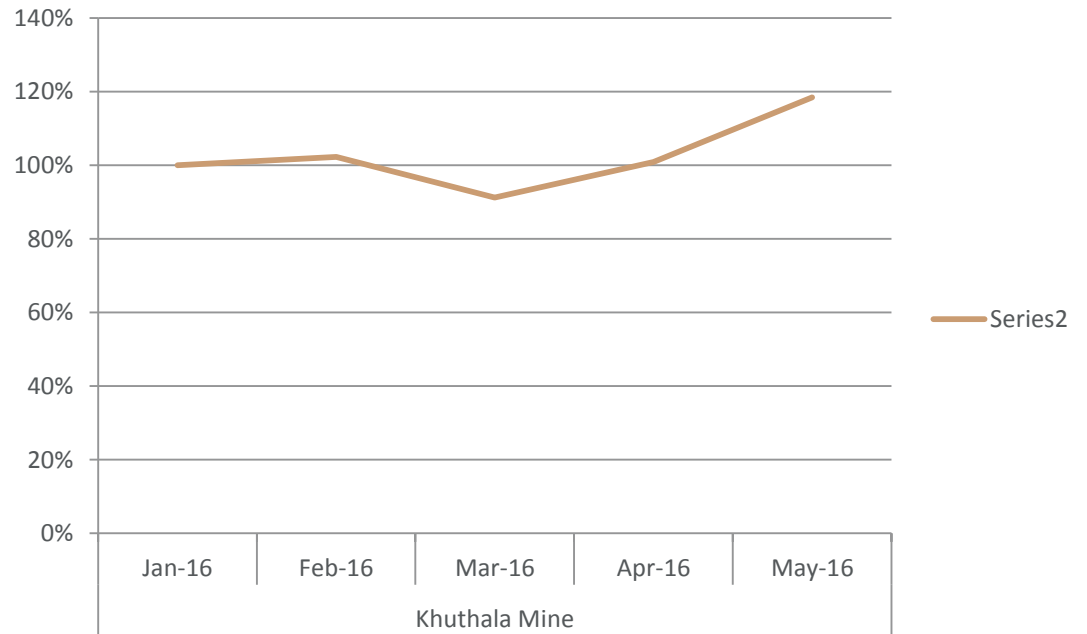
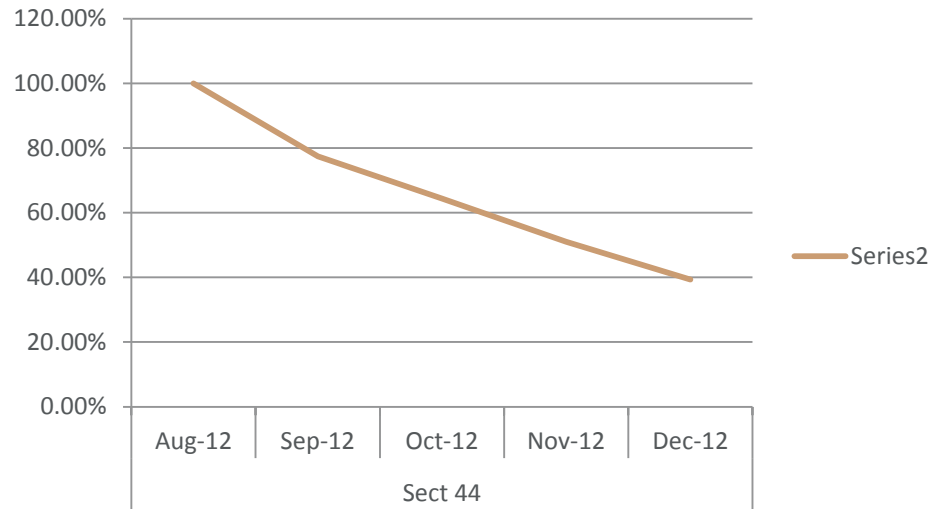
Afternoon						
Employee ID	First Name	Last Name	Warnings	Hazards	Remote stops	Total
13414			323	39	0	362
24734			9	36	0	45
24469			39	31	0	70
22837			48	29	0	77
8646			21	26	0	47
9515			14	24	0	38
24101			9	24	0	33
24215			23	21	0	44
24730			14	21	0	35
8989			3	13	0	16

Night						
Employee ID	First Name	Last Name	Warnings	Hazards	Remote stops	Total
9515			17	39	0	56
11165			47	43	0	90
13083			36	60	0	96
13414			198	31	0	229
13562			29	34	0	63
14565			69	80	0	149
22485			38	40	0	78
22837			47	30	0	77
23553			48	59	0	107
26816			47	53	0	100

### Trend Of Interactions Over a Period



# PRODUCTION PERFORMANCE



# QUESTIONS?

**Please ask questions!**

The objective is that all must fully understand the PDS



