ANNUAL REPORT TO STAKEHOLDERS ON HEALTH AND SAFETY FOR THE YEAR JUNE 2014 TO MAY 2015

Summary

- **OSHAS 18 001 re-certification audit completed during the year**
- **5 lost time accidents were reported during the year**
- **DIFR (Disabling Injury Frequency Rate) = 0.89**
- **Number of employees 505 - 9% reduction over 2014 levels**
- **Shifts worked 139336**
- **Shifts lost 233**
- **Man hours worked 1126891**
- **Operating machines 126**
- **DIFR from 1.27 in 2014 to 0.98 for 2015**

1. INTRODUCTION

The year under review represents the company's eleventh full year of operations. 126 machines produced an average of 156673 metres of core at the operations below.
This is an average of 1243metres per machine.

- **Harmony Gold:** Bambanani Mine, Tshepong Mine, Masimong Mine, Unisel Mine, Phakisa, Target Mine, Joel Mine.
- **Anglogold Ashanti**: Gt Noligwa Mine, Moab Khotsong, Kopanang and Tau Tona.
- **ARM:** Two Rivers Mine
- **Anglo Platinum:** Townlands Mine, Turffontein (Khuseleka and Siphumelele Mines), Bathopele, Thembelani, Union Mine
- **Petra Diamonds:** Koffiefontein, Finch Mine and Kimberley Mine

Commentary

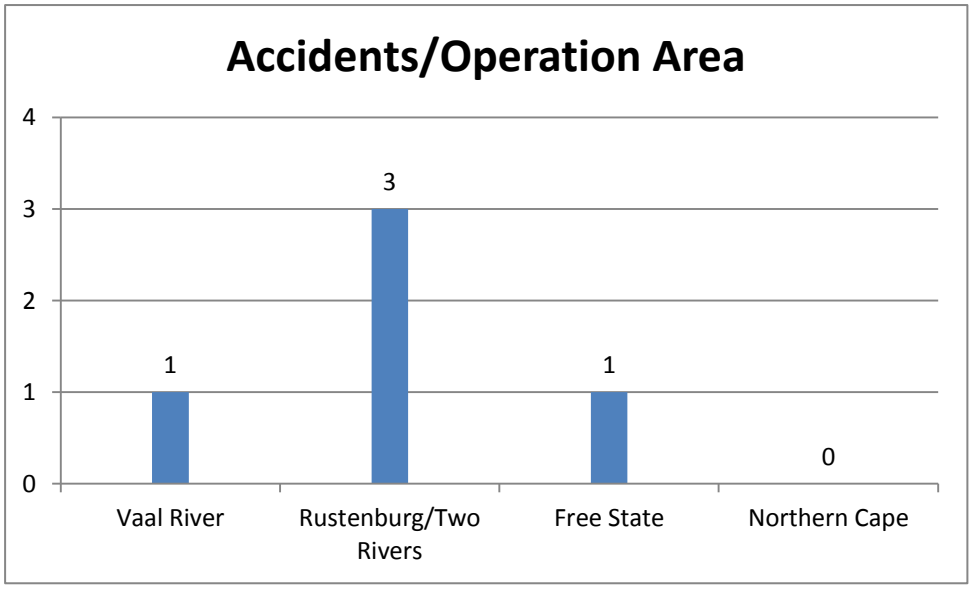
Although Lesedi lost several shafts were closed during the year, the inclusion of the Petra Diamond Mines and Tau Tona shafts stabilised the operation and resulted in the same production results obtained the previous year

The safety performance of the company show an improvement that were due to intensive analysing and communication of data.

Planned Task Observation and Deviations are logged in a central data base and this can then be used to determine trends regarding high risk behaviour.

Employees are linked in respect of safety performance and production and categorised in four safety quadrants. That is used to determine the development needed to further an employee's career and develop them into a safe and productive worker.

Year June 2014 – May 2015 trends in health and safety at Lesedi



Accidents during operational year: 2014-2015

The accident frequency over the previous year was improved from seven accidents to five for the current year.

Accident Date	Name	Mine	Lost Shifts	Circumstance
12/06/ 2014	PA Tatiri	Target Mine	12	Little finger caught between pipe wrench handle and bar
3/9/2014	WD Mandlazi	Two Rivers	78	Retrieving core without core stopper
18/12/2014	J Macucule	Siphumelele	54	Finger caught between machine and material car whilst offloading machine
02/02/2015	T Sitoe	Moab Khotsong	79	Slip and fall with core box Finger caught between core box and rails
10/02/2015	BJ Mucelina	Thembelani	10	Chuck spanner slipped whilst securing chuck Fingers caught between chuck spanner extension and machine

Table 1: Lost Shift Accidents 2014 – 2015

Free State

The Free State operations reported one accident in June 2014 (Rod Handling) this accident was that the employee secured the bottom of the string with a pipe wrench to enable the employee on the platform to disconnect the bottom rod from the rod string. Unfortunately the injured man fingers were caught between the pipe wrench handle and the bar. This resulted in 12 shifts lost.

Northwest

Orkney operation had one accident at Moab Khotsong in Feb 2015 (Slip and fall). Whilst carrying a core box to the station, this resulted in 79 lost shifts. The transport of core underground is problematic and several discussions with clients to transport core in core cars to surface were unsuccessful.

The logistics of lowering and pulling of extra cars in the shaft is currently the main factor.

Rustenburg

Rustenburg operations experienced two lost time injuries during the year. As a result safety was at an all-time low and several incidents were recorded with a serious material handling accident at Siphumelele.

i. In Dec 2014 a Lesedi employee on surface loaded a machine on top of a car already loaded with mine material. The reason for this was that Lesedi was allocated one material car but the car was not pulled from the station underground. On offloading the machine at the station one employee was standing on top of the car handing and controlling the machine to two employees on the floor waiting to receive the machine. The machine slipped out of the grip of the employee on the bottom and his fingers caught between the side of the material car and the machine. This resulted in a serious laceration and 54 shifts were lost.

ii. Two months later in Feb 2015 an employee sustained a contusion to his right finger nail

The Team Leader who was at the drill site used an Allen key spanner to loosen the chuck bolts on a Metre-Eater machine. The spanner was fitted with a piece of pipe to extend the handle, but due to the Allen key being worn it slipped in the bolt and the employee struck his finger between the machine and Allen key handle extension this resulted in 10 shifts being lost.

Eastern Bushveld

Two Rivers had a core retrieval accident on 3 Sept 2014

Whilst retrieving core from the rod string the core catcher was removed to allow the core to be pushed out with water pressure but the core got stuck in the rod string.
The employee did not follow the procedure to retrieve the stuck core by pulling the rods as they were running late and proceeded to retrieve the core by opening the water valve to push the core out.
The pressure eventually pushed the core out of the rods with high velocity and the employee`s hand was caught by the core, resulting in 78 shifts lost.

Northern Cape Operations

No lost time accidents were recorded at these operations of Lesedi Drilling.

REVIEW OF THE PERIOD: 2014 - 2015

It is important to classify the lost shift accidents. The table below documents the accidents between 29th May 2014 and 28th May 2015

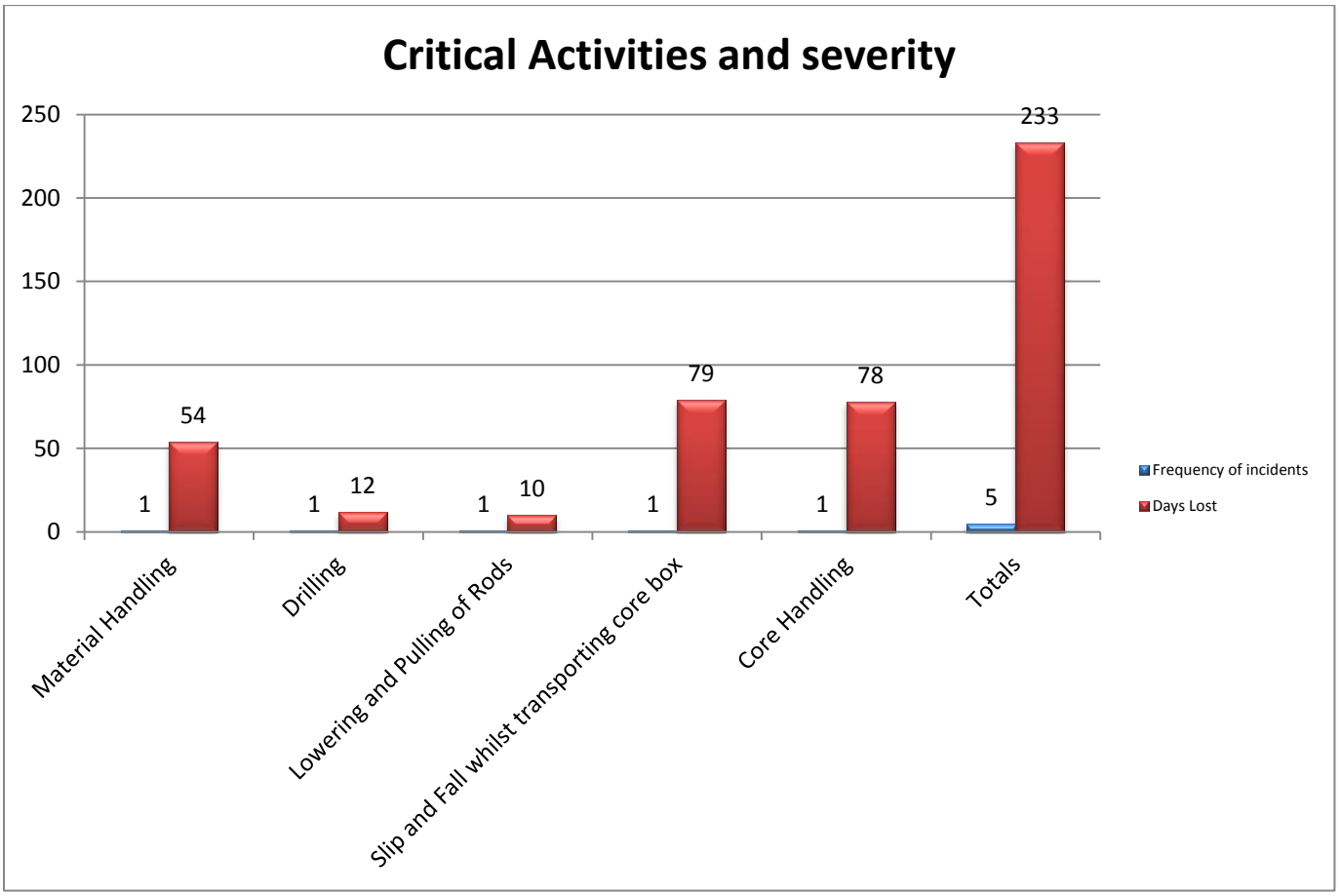


Table 2: Accidents between May 2014 - 2015

Transporting of Core Boxes

In the case of Thomas Sitoe, the Safe Operating Procedures were not adhered to during the transport of core boxes. The investigation revealed that the box was dismantled to load extra core into the box and instead of loading 5m of core a total of 10m of core was secured to the side of the core box.
This resulted in the core box not being able to fit into a core bag and had to be carried on the employees shoulder. When he tripped the core box slipped from his shoulder and his fingers were caught between the core box and the rails.
New core bags were ordered and broken core boxes removed from the operation
There was also a time constraint as the crew was late due to a fan failure prohibiting them from starting work early and they waited for the mine personnel to rectify the fan.
This caused them to stay on to drill the meters called for the day, which resulted in them missing the man carriage in which they normally transport the core boxes to the station.

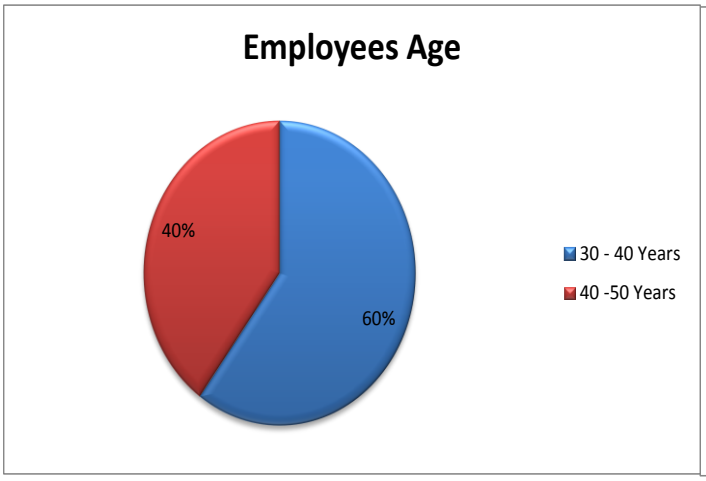
Core Handling

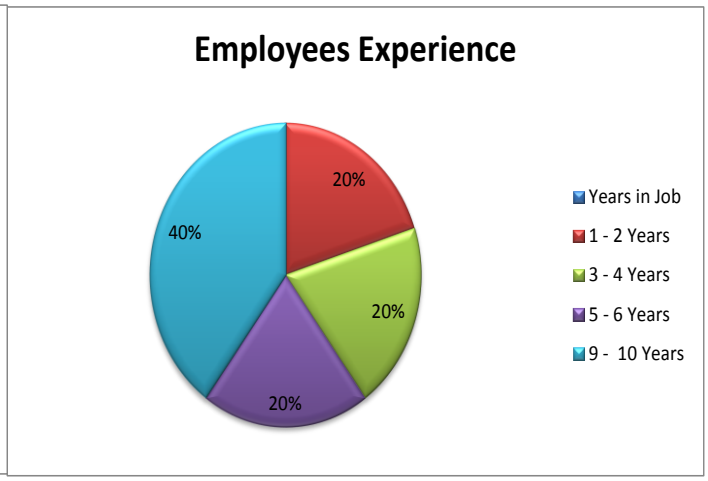
Core handling is a process used daily to retrieve the core drilled and is usually a risk free event if the Safe Operating Procedure is being adhered to:
Planned Task Observation from the Supervisor can identify deviations regarding the Safe Operating Procedure. These deviations then need to be addressed by the supervisors. This accident was caused by behaviour of the employee and showed a complete disregard for the Standard Operating Procedures.

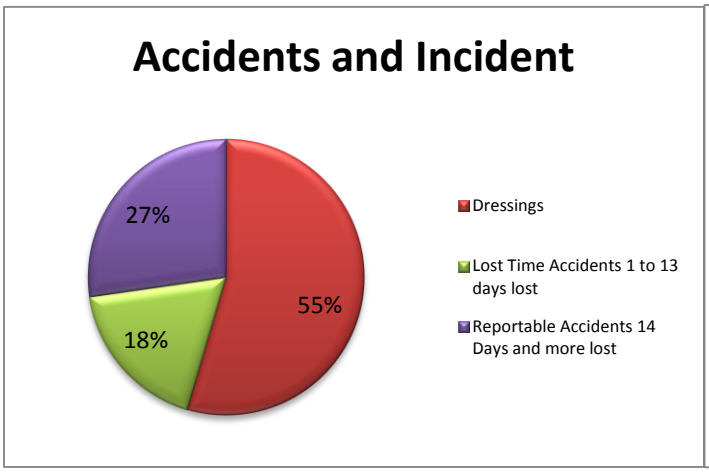
Material Handling

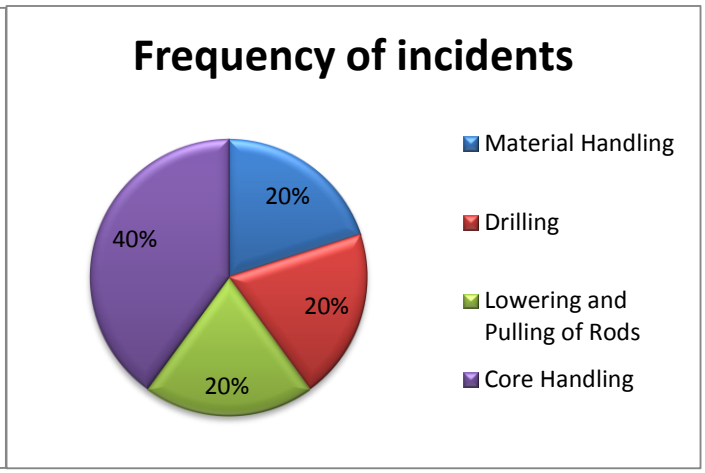
Material handling is one of Lesedi High Risk activities as material is heavy and difficult to handle
By loading material on top of mine material poses a risk as the material is then stacked higher than normal and this can result in heavy loads to be man handled at a height greater than hip height. This results in unstable handling conditions.
Supervisors to ensure that material is loaded on allocated cars, to prevent risks to employees.

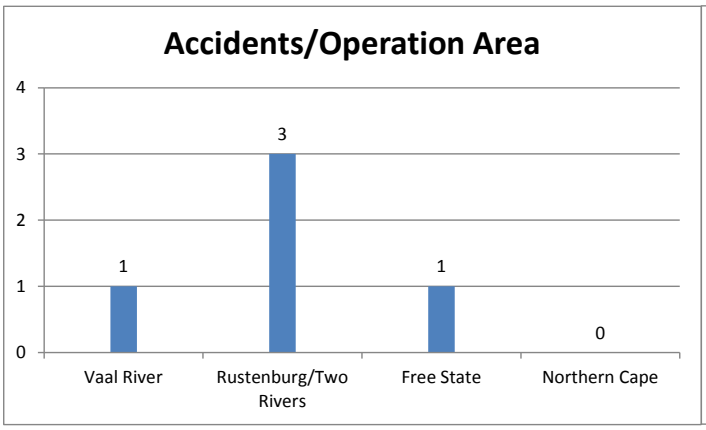
This year the Rod Handling accidents seem to be under control and the measures put into place working
The focus needs to be on Core Handling and Transport as the severity of these incidents was very high

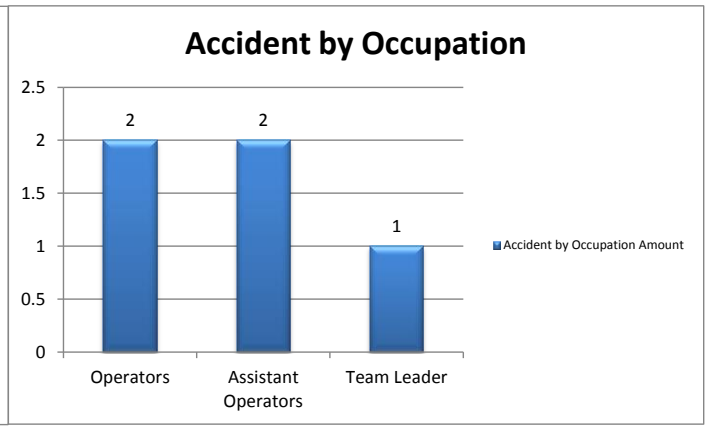

Employees Age
40%
60%
30 - 40 Years
40 -50 Years

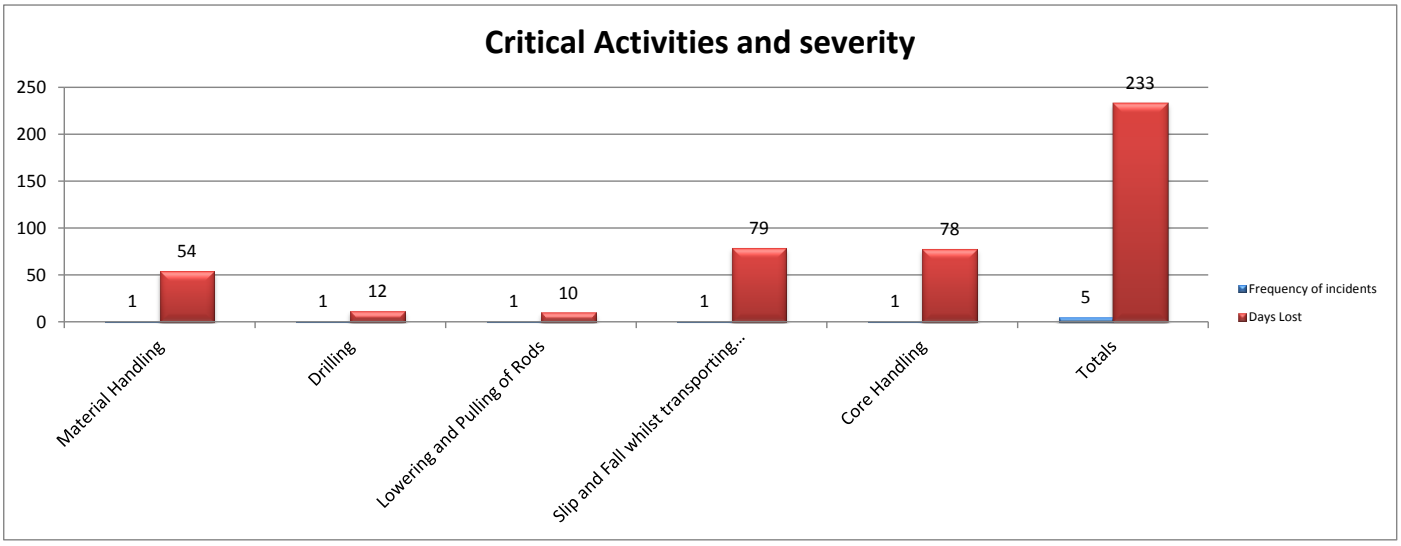

Employees Experience
20%
40%
20%
20%
Years in Job
1 - 2 Years
3 - 4 Years
5 - 6 Years
9 - 10 Years


Accidents and Incident
27%
55%
18%
Dressings
Lost Time Accidents 1 to 13 days lost
Reportable Accidents 14 Days and more lost


Frequency of incidents
20%
40%
20%
20%
Material Handling
Drilling
Lowering and Pulling of Rods
Core Handling


Accidents/Operation Area
4
3
2
1
0
1
3
1
0
Vaal River
Rustenburg/Two Rivers
Free State
Northern Cape


Accident by Occupation
2.5
2
1.5
1
0.5
0
2
2
1
Operators
Assistant Operators
Team Leader
Accident by Occupation Amount



Reviewing the above information, we learn that:

a) 60% of Lesedi accidents happen to workers who have been with the organisation for less than six years.
b) In terms of age, almost 60% of our accidents happen to workers who are less than 40 years old.
c) This may indicate that the accidents are behaviour related
d) Core Handling is responsible for 40% of the accidents.
e) The severity(actual days lost) in Core handling (157 days) 67% of total days lost and Material Handling was responsible for 54 days lost.
f) Rod Handling and Rigging accidents are under control and safety measures implemented seems to be effective. (And yet they were responsible for 20% of the incidents)

2. YEAR LOST SHIFT TRENDS (2010 – 2015)

The table below shows the trends in our safety failures over the last 5 years. The results in 2010 to 2011 showed seven accidents per year. However 2012 was the worst safety performance ever for Lesedi with 16 accidents. This coincided with a rapid expansion in the company and the need for a formal accredited Safety system was recognised. OHSAS 18001: 2007 was thus obtained during 2011 and has being retained since.

During the year under review the rod handling and production drilling accidents decreased but Core Handling resulted increased in two accidents

The severity of the injuries sustained is high and is a concern.

The accidents during 2014-2015 year were mainly in the Rustenburg Operations as a result a change in Management was made for the area. Supervision was also changed in certain cases.

Consulting and training company “Goalgetters” services were introduced to train and coach all supervision staff in the area on Planning, Leading, Organising and Controlling. The aim is to produce more core safely.

Critical Activities	2010-2011		2011-2012		2012-2013		2013-2014		2014-2015	
	Freq	Severity	Freq	Severity	Freq	Severity	Freq	Severity	Freq	Severity
		(Lost shifts)		(Lost shifts)		(Lost shifts)		(Lost shifts)		(Lost Shifts)
Gas Measuring							0	0	0	0
Start of Shift Procedure							1	165	0	0
Transport of equipment			1	30	3	101	0	0	1	54
Rigging of equipment					1	31				
Beginning of hole operations					1	7				
Drilling operations			1	1	4	30	2	40	1	10
Pulling and Low ering of rods	3	71	4	12	4	261	2	60	1	12
End of shift procedure							1	64		
Core Handling			1	23					1	78
Core Transport							1	9	1	79
Slip and fall										
Housekeeping	1	5								
Other	3	87			3	37				
Total	7	163	7	66	16	467	7	338	5	233

Table 3: Lost Shift Trends 2010 – 2015

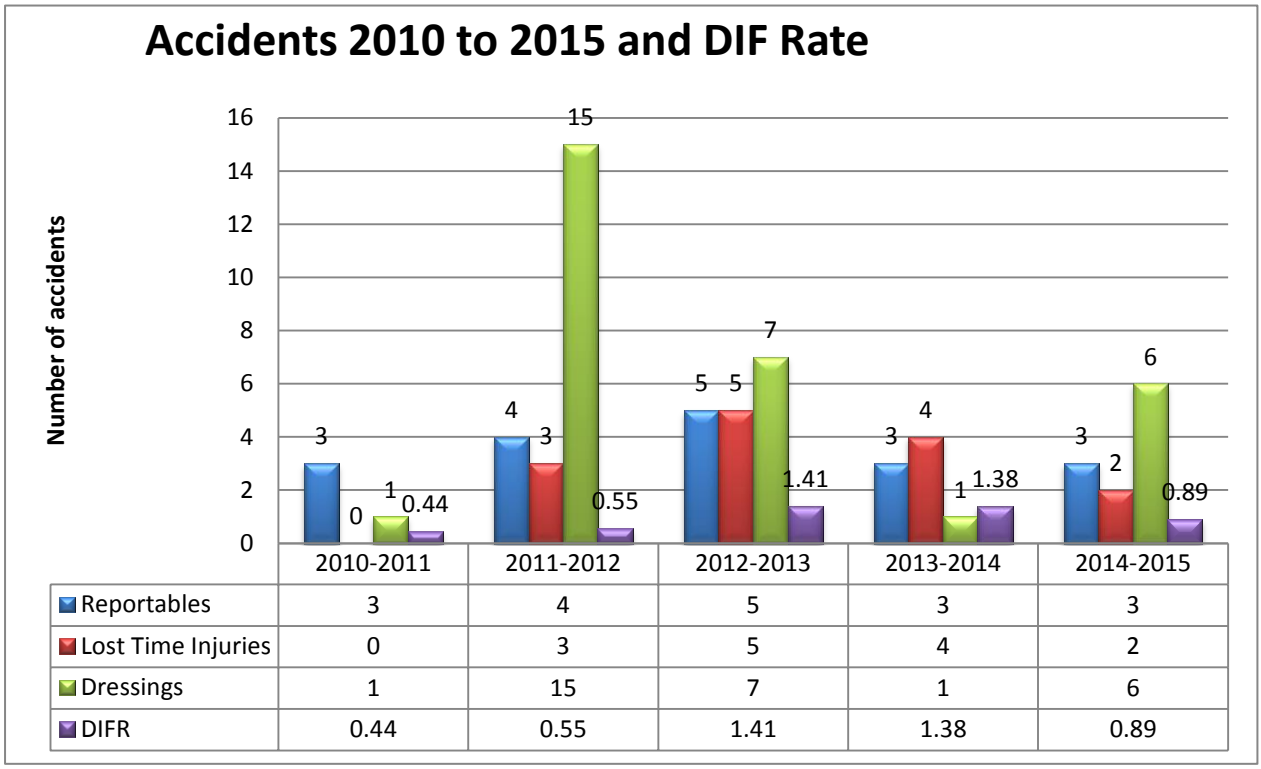


Table 3: DIFR Trends 2010 – 2015

If we review the trends evident in the information above, we could deduce that we have managed to bring the DIFR down over the last two years. Whilst this is encouraging it is still not acceptable as we strive to have no lost time accidents and have a DIFR of 0.0.

3. ANALYSIS OF CRITICAL PLANNED TASK OBSERVATIONS 2014-2015

Activity Observed	Actual	Deviations	% Deviation
Lamp Room- Gas Detection Instrument (inspection & calibration)	322	13	4.0%
Flammable Gas Testing	267	22	8.2%
Start of Shift / Drill Site Inspection	338	38	11.2%
Material Handling (Loading & Offloading)	304	36	11.8%
Machine Rigging (Conventional)	273	9	3.3%
Machine Rigging (Mamba - Up hole)	17	0	0.0%
Machine Rigging (Mamba - Down hole)	23	0	0.0%
Casing Installation	250	3	1.2%
Drilling and Chucking	210	8	3.8%
Rod Handling (pulling and lowering of rods and using the rod puller)	325	28	8.6%
Re-chucking Procedure	176	4	2.3%
Installing Wedge Bolts, Eye Bolts and Face Clamps	148	8	5.4%
End of Shift Procedure	202	5	2.5%
Core Handling(Underground)	258	25	9.7%
Rigging Down	164	13	7.9%
Total	3277	212	6.5%

In line with the Company's Occupational Health and Safety Management System, compliance with Standard Operating Procedures is monitored through a Planned Task Observation (PTO). The results of the P.T.O`s conducted are analysed and stored in a data base in the IMS System. This give management the tool to measure the knowledge of the employee, the trend of the employees training and the training needs.

Gas Testing: Testing for the presence of methane gas is a vital aspect of a diamond driller's responsibilities and an accident here produces the highest level of loss possible. 267 PTO`s had been conducted with a failure rate of 8.2% Methane procedure vigilance is a crucial aspect of what we measure in our safety system.

Transport of Material: One accident occurred whilst transporting material. Total numbers of observations were 304 with a failed rate of 11.8%. Focus on this area remains a priority.

Rod Handling: Given that pulling rods also has a very high accident potential it is lamentable that one accident were recorded. A total number of 325 PTO`s were recorded with a failure rate of 8.6%. This is a very high failure rate for an activity already identified as dangerous and training in this area has been increased.

Production Drilling: One accident was recorded in the actual drilling process. A Total of 210 PTO`s were conducted with a 3.8% failure rate. The main reason for the accidents has been due to workers taking shortcuts.

Core Handling: Two accidents were recorded in both cases a disregard of the SOP and time factor contributed. Emphasis on core transport and handling by conducting late shifts to ensure the SOP is being adhered to.

**Total PTO`s conducted:** The PTO`s conducted is not fully in line with the Inspection and Maintenance register. Hydraulic PTO`s need more attention.

Action plan

1) The PTO`s are logged and analysed on a monthly bases and is used with the deviations logged to determine the performance level of the employees in the Performance Management Matrix.
2) The results of the analysis are communicated to the respective Managers, Foreman and Supervisors.
3) Depending where the employee are situated in the four quadrants an action plan is implemented to rectify and behaviour or training needs.
4) A Monthly Safety topic is issued and communicated in line with the results obtained from the analysis. These topics are to be communicated during the weekly safety meetings and at the daily toolbox meetings.
5) Managers to determine the employee`s knowledge regarding the safety topics issued during their visits to respective drill sites. This will serve as visible felt leadership and assist in coaching the employee`s.
6) In the Performance Measurement Matrix the employees are measured and rated according to the quadrants. The employees weaknesses are highlighted and can then be addressed.
7) During the performance review the Manager, Foreman and Supervisor will determine what type of action is required to rectify the weaknesses of the employees. If a training need is identified the Training instructor will conduct an assessment with the employee to determine what training in regard with the Safe Operating Procedure needs to be conducted.
8) The results of the assessment will be discussed with Management and then a plan of action will implemented
9) When retraining is completed the employee will be re-assessed and the outcome discussed with the employee and his supervisors.
10) Follow-up have to be conducted through regular visits and by conducting PTO`s on the task performed to measure the employees performance.
11) PTO`s conducted on the employees must be discussed with the employee and the document have to be signed by the employee and the person conducting the PTO.
12) Foreman will ensure that a final assessment is conducted and the results have to be discussed with the employee and signed off by the Manager.
13) Any actions implemented during the assessments must be logged on the RATS and have to be signed off by the person logging the action and by the employee involved in the actions implemented.
14) Frequency of PTO`s to be increased on the areas where the deviation rate are high and to be logged in the Supervisors or Foreman logbook.
15) Analysis of the PTO`s conducted are to be recorded under section 10 in the Monthly report with the actions implemented.
16) PTO and Deviation Tracker document to be completed and used in the weekly safety meetings.

4. RISK MAP: PNEUMATIC DIAMOND DRILLING

A risk map has been included (below) so that an interested reader can gauge the severity of the risk for any given work activity.

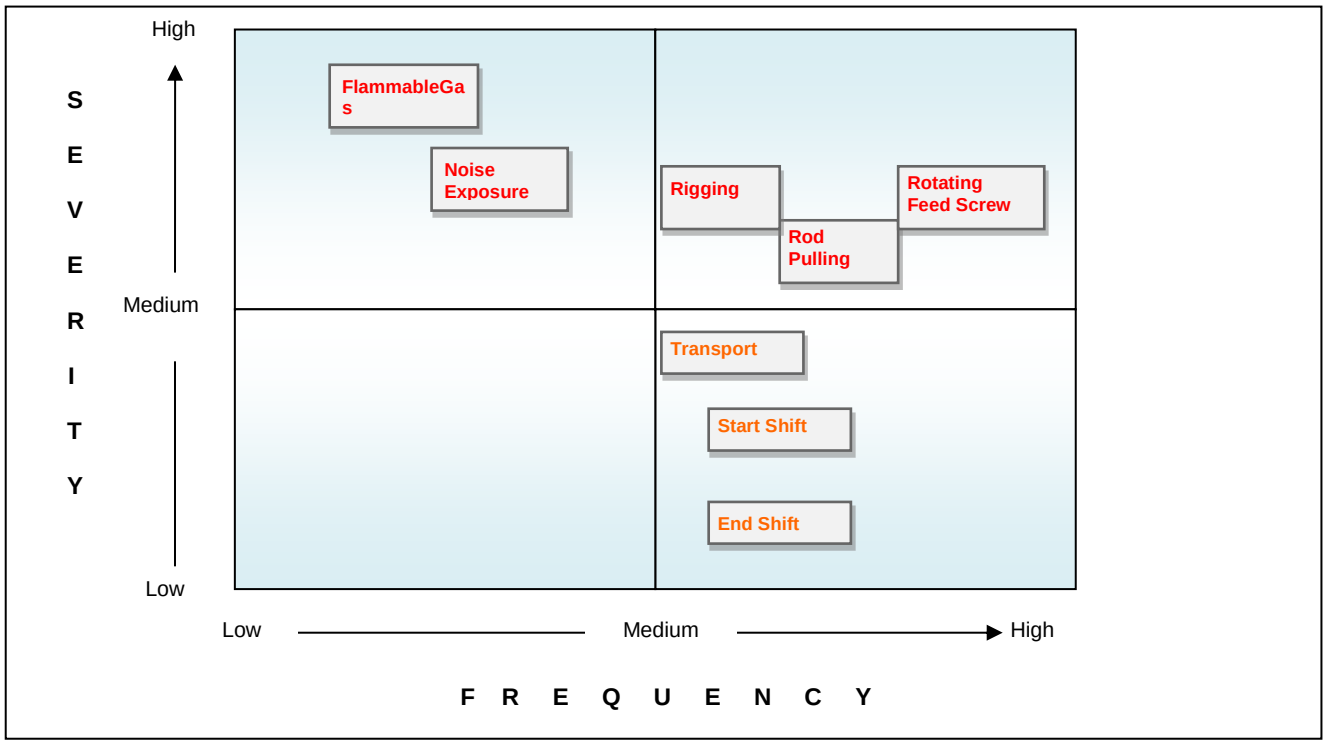


Figure 3: Risk Map

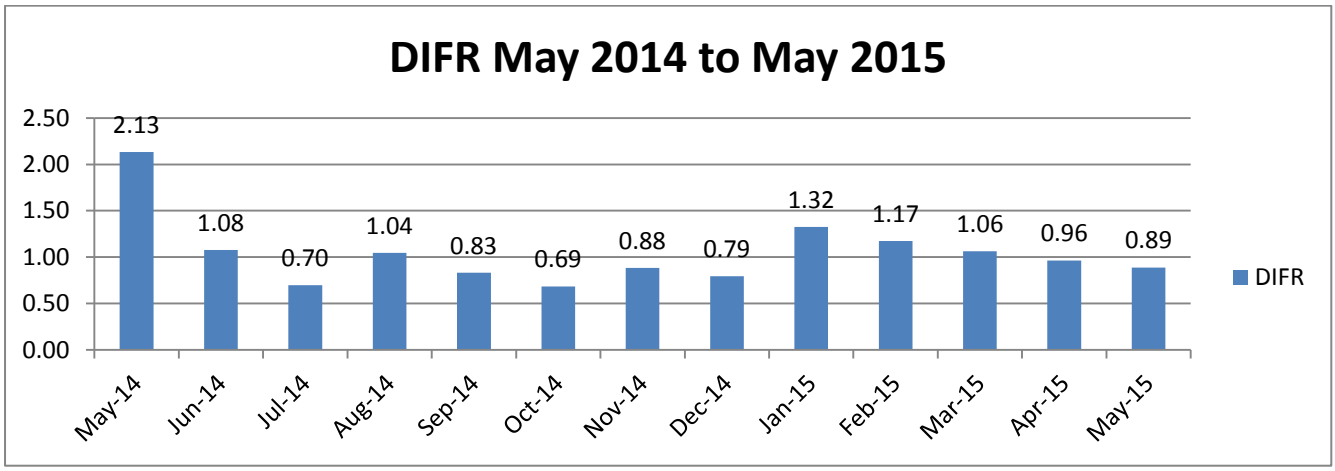
5. DIFR

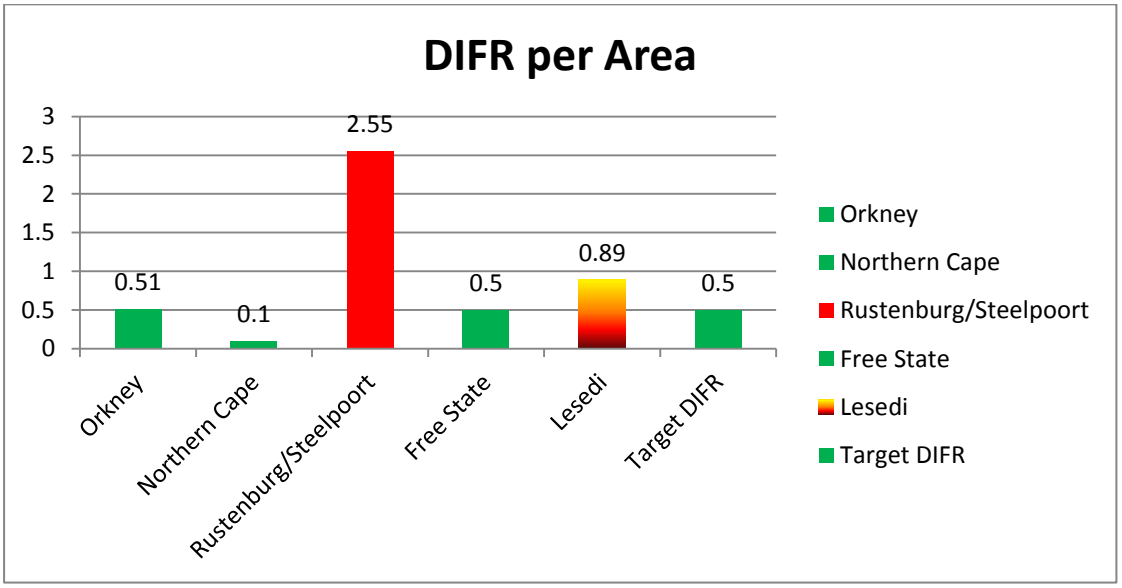
The ***DIFR*** (disabling injury frequency rate) for 2014 – 2015 is: 0.89

The calculation is performed thus: LTI X 200 000/Total Man hours

5 x 200000 / 1126891

= 0.89





Not achieving our goal regarding on safety targets is very disappointing and show that a lot more must be done to achieve our set goals.

On a positive note is the reduction in rod handling accidents although most drilling is still conducted with the older feedscrew type machines

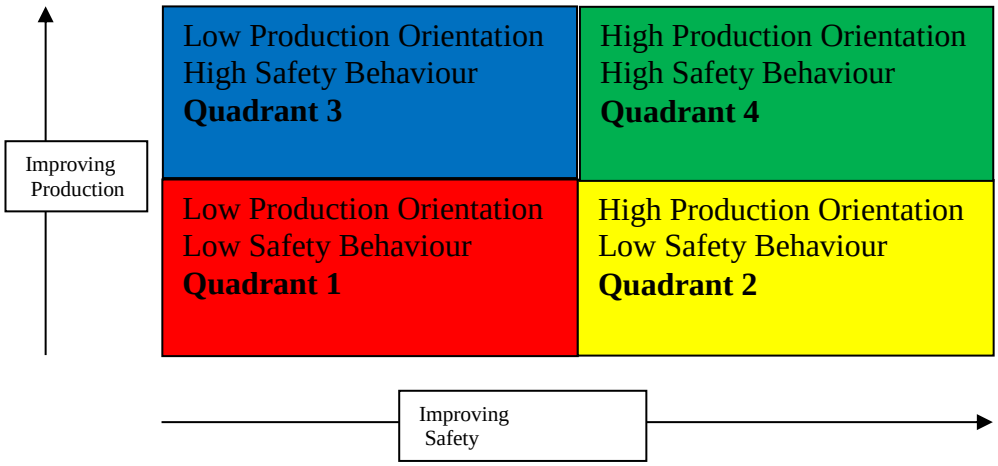
With the extra emphasis in Rustenburg on Supervision and training a positive impact can be achieved

The Company response to accidents and incidents during the year.

1. An attitude of zero tolerance had been adopted by all Lesedi Management and all Incidents/Accidents are investigated fully to ensure the root cause of all incidents are exposed and rectified.

2. Supervision in some areas have been restructured to ensure better and more supervision

3. Implementation of a new method for determining the employee's performance on safety and production.



Strategy:

Quadrant 1. These drillers are a tremendous drain on the Lesedi organisation.
They do not contribute economically and their safety approach endangers Lesedi`s contracts and their own lives.

QUAD 1 ⟶ QUAD 3 ⟶ QUAD 4 ⟶

The strategy must first be to improve the safety behaviour – move to quadrant 3 and then get to an improved drilling performance.(Red to Yellow to Green)

Quadrant 2. These are the most difficult drillers to manage.
They are deceptively valuable because they produce good meters but their safety attitude carries the seeds of the company.

QUAD 2 ⟶ QUAD 4

The strategy is to work hard on the driller's attitude towards safety. (Yellow to Green)

Quadrant 3. These drillers have a good attitude towards safety but unfortunately are not really interested drilling good meters.

<u>Action Implemented</u>

1. Performance review to be conducted by the Managers on production and safety with Foreman and Supervisors.
2. Foreman and Supervisors to conduct performance reviews with all the operators and assistant operators.
3. They must determine if a lack in training, coaching exist and if behaviour is a problem
4. Close supervision and constant Planned Task Observations to be conducted on the employee. (PTO to be used to determine the progress of the employee)
5. Supervisors and safety Leaders to conduct coaching with the employee
6. Training Instructors will re-train employees if the need is identified.(Training evaluation to be

conducted through assessments on training material)

7. Planned Task Observation must be send and reviewed by the Foreman on a weekly base
8. Foreman to have weekly sessions with the employee to measure progress and assist in his development.
9. Performance management is measured and employees graded in quadrants to identify the needs of each individual (Training , discipline and coaching)
10. This process will also enable Lesedi to pre determine employees suitable for supervision positions and thus can conducted training before the need arises.

6. HEALTH

i. Exposure to Noise

As indicated in Figure 3: Risk Map, noise exposure is a high risk in the underground drilling industry. The company has had three employees with hearing loss issues. However hearing loss has started before the company employed them; claims were submitted to RMA for compensation. The company has operated its 230 air drills with silencers since its start of operations in 2002.

ii. HIV

The company has a training module on HIV incorporated in the induction programme and employees are urged to check their status to ensure their health**.**

7. ACHIEVEMENT OF OBJECTIVES FOR THE 2014-2015 YEAR

1. OSHAS 18 001 Surveillance audits were conducted at the Orkney (Moab Khotsong) operation, Rustenburg (Thembelani) and two minor non-conformances were recorded. These will be closed out during June 2015.
2. Performance reviews are conducted on the Operators, supervisors, foreman on a monthly basis to determine the safety performance of each individual according to the Performance Management Matrix
3. All non-conformances and “A” Hazards recorded are fully investigated to determine the root cause and then the action plan are implemented according to the needs specified.
4. Production and safety results are measured on a weekly basis in order to determine shortcomings and they are addressed accordingly.

8. PLANNING & OBJECTIVES 2014 – 2015

Our strategic objectives for the next year are:

1) **Obtain a DIFR below 0.0.**
   - **1.1) Measure safety performance of all employees and evaluate.**
   - **1.2) Design the bonus scheme to include safety performance (Penalties and rewards)**
2) **We must improve the employee skills and competence in respect of drilling operations and OH& S management.**
   - **2.1) Improve the Supervisory staff competent levels (Planning, Organising, leading and controlling)**
   - **2.2) Ensuring that all operators and assistants are "Competent A" to enable cross transfers without delay.**
   - **2.3) All Supervisors and Foreman to conduct Risk Assessment and Incident Investigation training.**
3) **Improve Communication skills at all levels:**
   - **3.1) Automate the analysing of deviations to send report weekly to all relevant persons highlighting the deviations not closed out.**
   - **3.2) Implement suggestion system to improve safety awareness in each area.**
4)
5) **Maintain OH&S 18001 certificate in all areas.**
   - **4.1) Ensure compliance in all operations (Contracts file and Machine files)**
   - **4.2) Have system of all client requirements in place for each shaft.**
   - **4.3) Ensure system when up dated is available to all areas**
   - **4.4) System to be saved in accessible on line site (Drop box, Head office Web Site)**
   - **4.5) Change over to ISO 45001 within 3 years**

S Malema
Chief Executive Officer

May 2015