

MEETING MINUTES

KHUMANI ENVIRONMENTAL FORUM



VENUE: NAMAKWARI LODGE
 MEETING REFERENCE: ENVIRONMENTAL FORUM
 DATE: 6 FEBRUARY 2020
 START TIME: 09:00
 END TIME: 15:35
 MEETING CHAIRPERSON: ANDRE JOHNSON

NO	ITEM	FACILITATOR
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1 WELCOMING ADDRESS

ANDRÉ JOHNSON

ANDRE JOHNSON WELCOMES ALL ATTENDEES.

APOLOGIES

MARK OOSTHUIZEN DUE TO OPERATIONAL RESPONSIBILITIES.

PREVIOUS MINUTES:

MINUTES APPROVED AS TRUE REFLECTION OF PREVIOUS MEETING

2 STATE OF AFFAIRS (SAFETY, PRODUCTION, IRON ORE PRICE)

ANDRÉ JOHNSON

AS PER OPERATIONAL PRESENTATION

KEY FEATURES – Financial Year to December 2019

ACTUAL VS BUSINESS PLAN

	↑ 2%	↑ 2%	→ 0%	↑ 6%	↑ 3%	↓ -7%	↓ -4%	↓ -10%	↑ 100%	↑ 3%
	Ex Pit Waste Mt	Ex Pit Ore Mt	Stripping Ratio	Production Mt	Plant Yield	Lumpy Ratio	Railings Mt	Sales Mt	LTIFR	Cost per Ton
Actual	23 937	10 449	2.29	7 297	71.0%	54.5%	6 560	6 391	0.00	253
Target	23 357	10 227	2.28	6 894	68.8%	56.0%	6 838	6 670	0.20	261

- Ex Pit Waste 580kt higher than plan.
- Ex Pit Ore 222kt higher than plan.
- Stripping Ratio higher than plan at 2.29 actual vs 2.28 planned.
- Plant Production of 403kt higher than plan
- Better than plan Plant Yield at 71%.
- Lower than plan Lumpy Product Ratio at 54.5% achieved vs 56% planned.
- Railings 278kt lower than plan.
- Lower than plan sales at 679kt (Saldanha Bulk Terminal maintenance and weather issues).
- LTIFR of 0.00 achieved.
- Better than plan Cost per ton of R 253/t actual vs R261/t planned.

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OPERATIONAL SOLID PERFORMANCE AND CONSISTENT RETURNS



MARKET REVIEW

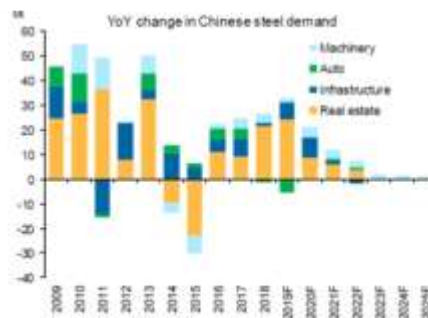
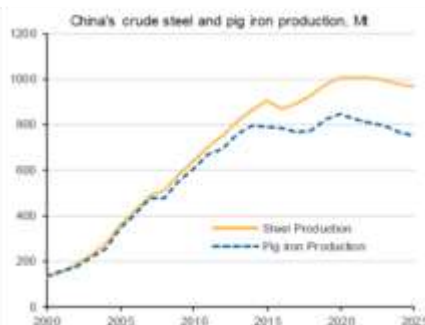
- The high Iron Ore price of 2019 was supported by production shortfalls in Brazil (the No 2 exporter hit by the Vale Dam crisis) and Australia, debilitated by Cyclone Veronica, which having pummelled Western Australia's Pilbara Coast in March
- As a result of the supply shock, the market saw prices spike to their highest level in 2019. However, the second half of the year was not so bright, with prices correcting throughout the six month period.
- Moving into 2020, production should pick up, thus S&P Global's Webb expects the deficit to reduce as the supply shock resolves.
- Steel demand is also quite sluggish at the moment, faced by headwinds from slowing vehicle production and persistent uncertainty about the global economy, thus prices are expected to fall.
- The view of the Australian Government in their latest quarterly review is that Iron ore prices are set to fall in 2020 by a considerable amount.

Continue...

- Global trade seen surging 54 million tonnes a year, but Chinese imports (the No 1 customer) are set to rise only by 1 million tons.
- They project a \$63 a ton Iron Ore price in 2020, but are not expecting an instant sell off.
- Citigroup Inc. also expects iron ore to fall in 2020, although a significant drawdown in inventories this year and challenges around a supply recovery in Brazil mean a sudden collapse isn't likely.
- Morgan Stanley has said prices may remain elevated in early 2020, but decline through the year as tightness unwinds, with iron ore the least-favoured commodity over 12 months.
- As the Iron ore is price forecast is expected to fall over the course of 2020 as seaborne supply recovers further and Chinese steel output drops, lower prices would impact revenue and profit margins.
- Given this outlook for iron ore, over the longer-term it should remain our focus at Khumani to achieve and exceed our operational targets i.e. to:
 - Optimise infrastructure and capacity;
 - Produce high quality sustainable ore by optimal use of resources and
 - Sustainable long term, low cost producer underpinned by meeting production targets.

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China Steel Demand & Production Forecast



Iron Ore Base Price (62%Fe Fines, \$/mt, CFR China)



Iron Ore Lumpy Premium (\$/mt)



FOCUS TO IMPROVE OUR COMPETITIVE POSITION

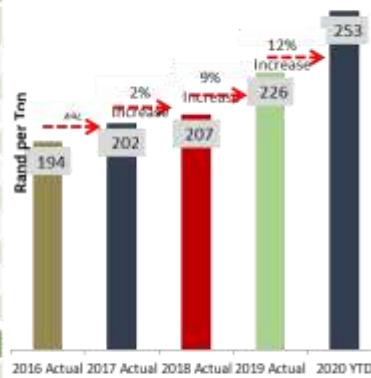
Business Improvement Ideas:

☐ Mining

Idea	Anticipated Outcome
Reduce overloads	Diesel and cycle time saving (40% decrease since Jul)
Selective Mining	Quality shift in material types
GET Optimization	Reduction in drilling cost (R/meter)
Shovel performance	Increase in MTBF and utilization, park 1 PC 4000
Tyre Management	R8.8m saving realized.
Decrease re-drilling	Reduction in drilling cost and GET spend
Drilling utilization optimization	Increase availability
Opt. dispatch – Auto assignment	Achieving truck productivity
Increase Blast Capacity	Consistent floor stock maintained
Double sided loading	Reduction in C.T. and increase in productivity
PSD – Powder factor improvement	Fines reduction, saving of R 11m YTD

Idea	Anticipated Outcome
Flocculent Optimization	R4m – new supplier started Dec 2109
Scaffolding	Contract to be amended in Jan 2020.
Pre-Crusher Stockpiles	Operational & Planning procedures to be completed.
Linking BOM and stock numbers	Project to commence, Feb 2020.
Reduce Blockages on re-claimers.	System to be duplicated – in progress.
Water content reduction in paste.	Cyclones at PDF – scope ready in Feb 2020.
Indurad Optimisation - ligs	lig # 4 completed – ligs 1, 2 and 3 to be done.

Cost per Ton



NOTE:

- Three years YoY "below inflation" increase in cost per ton achieved i.e. mining inflation at +9% YoY
- 2018 to 2019 9% YoY increase is mainly due to lower production volumes YoY i.e. (14.1mt FY 2019 vs 14.7mt FY 2018).
- 2019 to 2020 12% YoY increase is mainly due to Sedibeng capital usage charge and higher opex waste volumes expensed vs. prior year.

\$ BREAKEVEN COST PER TON CIF BASIS



NOTE:

- CIF revenue 62% Fe Fines base of \$93/t, Lumpy premium \$16/t and R/\$ at R 14.71 (Ave. FY 2020)

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PRODUCTION AND MINING – Financial Year to Dec 2019

	Actual to Q2 2020	Plan to Q2 2020	Variance	Actual to Q2 2019	Variance Year on Year
Total Tons Mined	34 385 664	33 583 700	801 964	32 317 586	2 068 078
Waste Mined	23 936 886	23 356 936	579 950	22 707 249	1 229 637
Ex-Pit Ore Mined	10 448 778	10 226 764	222 014	9 610 337	838 441
Stripping Ratio	2.29	2.28	(0.01)	2.36	0.07
Total Production	7 297 065	6 893 970	403 095	6 782 531	514 534
Lumpy	3 977 484	3 882 215	115 270	4 039 614	(62 130)
Fines	3 319 580	3 031 755	287 825	2 742 917	576 663
Total Plants Feed	10 280 973	10 027 401	253 571	9 110 977	1 169 995
On Grade	3 243 712	3 379 645	(135 933)	2 797 407	446 305
Off Grade	7 037 261	6 647 757	389 504	6 313 570	723 691
Average Yield	71%	69%	2%	74%	-3%

LOGISTICS AND SALES – Financial Year to Dec 2019

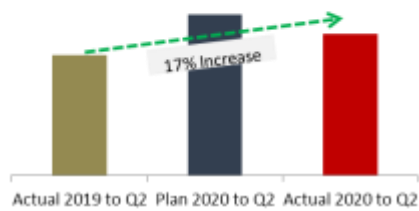
	Actual to Q2 2020	Plan to Q2 2020	Variance	Actual to Q2 2019	Variance Year on Year
Total Tons Railed	6 560 371	6 838 426	(278 056)	6 597 554	(37 184)
Lumpy	3 557 017	3 676 881	(119 864)	3 797 932	(240 915)
Fines	3 003 354	3 161 545	(158 192)	2 799 622	203 731
Total Tonnes Sold	6 190 900	6 869 501	(678 601)	7 250 976	(1 060 076)
Lumpy	3 450 159	3 667 108	(216 949)	4 235 650	(785 491)
Fines	2 740 741	3 202 393	(461 652)	3 015 326	(274 585)
Total Final Live Product Stockpile	3 798 418	2 734 855	1 063 563	2 148 523	1 649 895
Mine	2 612 384	1 931 234	681 150	1 955 882	656 502
Harbour	1 186 034	803 621	382 413	192 641	993 392

FINANCIAL SUMMARY – Financial Year to Dec 2019

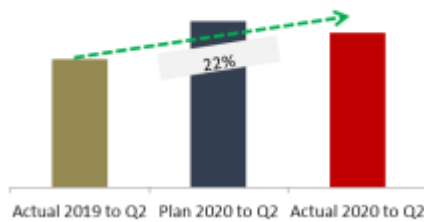
Higher \$ Prices and Weaker Exchange rate impacted positively on profitability vs Prior year

- Average \$ price achieved lower at \$91/t vs planned at \$93/t and higher than previous year \$77/t.
- Average R/\$ Exchange rate weaker at R 14.71 vs planned at R 14.29 and previous year of R 14.19.
- Operating Profit lower than plan by R 523 million.
- Nett Operating Cash flow after Capex R 2.8 billion generated YTD 2020 (R 319m higher than plan and R2.2 billion higher YoY). The main reason for increased cash flow generated was favourable movement in export debtors YoY.
- Higher YoY Earnings mainly due to better \$ Pricing and weaker R/\$ Exchange rate however offset by lower sales volumes (YoY -1.060mt).

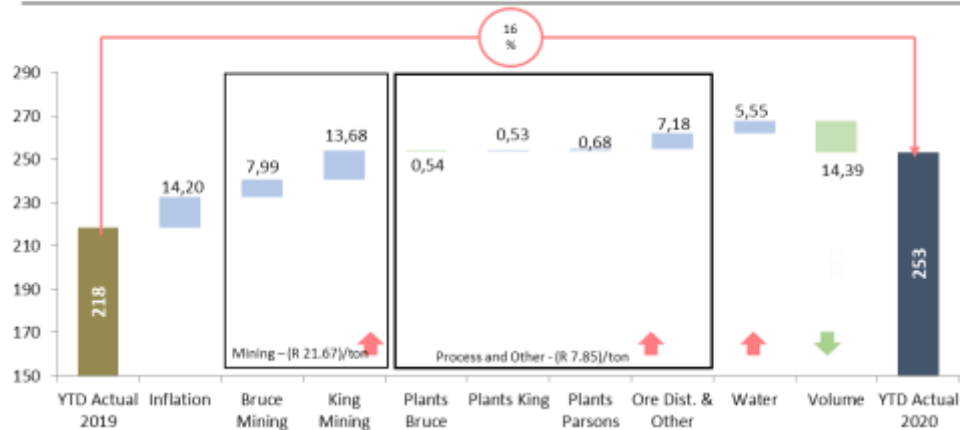
Operating Profit (Rm)



Earnings (Rm)



ACTUAL UNIT COST – Year on Year



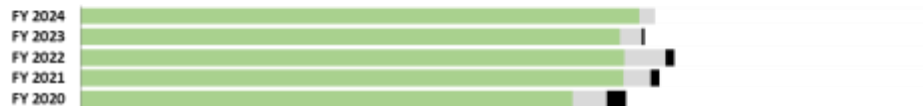
- Production cost per ton increased 16% versus corresponding period last year at R 218t vs R 253/t.
- Mining cost R21.67/t more than previous year i.e. mainly due to increase of 838kt working cost ore, increase of 2.526mt working cost waste and decreased of 1.296mt capital waste compared to same period last year.
- Ore Distribution and Other cost R7.18/t more than previous year mainly due to higher power inflation and usage.
- Production Volume of 515kt more year to date compared to same period last year contributed to R 14.4/t decrease in cost.

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MAJOR CAPITAL – 5 YEARS

The R8.353 billion Capital over the 5 year period makes provision for:

Description	Amount
Overburden Stripping	R 3.006b
789D Truck Replacements	R 640m
Drill Rigs Replacements - DK45, PV271, 580	R 540m
860E Trucks to Replace (4) 789D	R 141m
994 FEL Replacements (2)	R 129m
Discard Conveyor Bypass - Phase II (Spreader)	R 129m
Infill Drilling	R 105m
D10 Track Dozer Replacements	R 83m



R '000	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Sustainability	1 438 913	1 586 972	1 588 248	1 575 474	1 631 769
Improve Efficiency	99 617	78 176	122 300	65 006	48 002
Compliance	55 587	27 627	25 982	8 900	0
Total	1 594 117	1 692 775	1 736 531	1 649 379	1 679 771

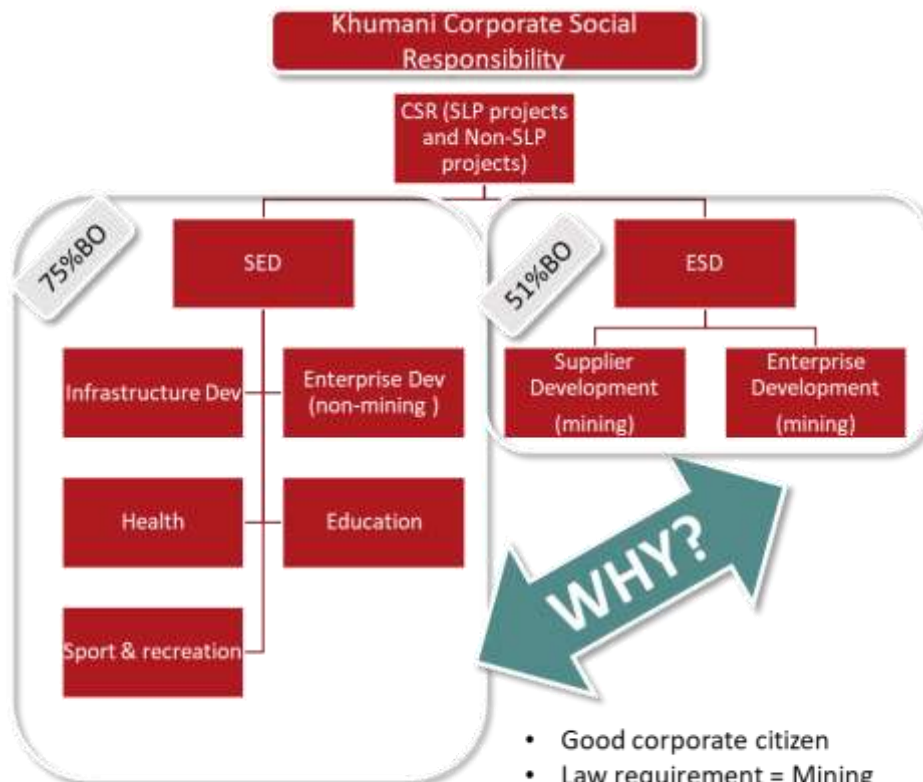
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KEY FOCUS AREAS AND OBJECTIVES OF PLAN

Understanding challenges	Embedding operating principles	Delivering outcomes
Safe production	Safety framework	▶ Zero harm
Transformation and Women in Mining	Compliance and sustainable development	▶ Inclusivity
Mining	Improved operating performance – Selective Mining	▶ Consistency
Cost Inflation	Cost control	▶ Competitiveness
Labour environment	Manning Levels People development Improved Technology	▶ Stable ▶ Technical ▶ Competence ▶ Skilled

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THE FOLLOWING PRESENTATION ON CORPORATE SOCIAL RESPONSIBILITIES SERVE AS AN EXAMPLE OF THE ACTIVITIES AND PROJECTS COMPLETED BY KHUMANI MINE. THIS IS NOT AN EXHAUSTIVE LIST OF ALL PROJECTS, DONATIONS AND INTERVENTIONS CONDUCTED AS PART OF KHUMANI'S COMPLIANCE AND FOCUS ON CORPORATE SOCIAL RESPONSIBILITY.



- Good corporate citizen
- Law requirement = Mining license / SLP / MC2018
- BBBEE – ARM BEE certificate

Impact

R31,8m/
R35m
Khumani Bulk
Water



R5,2m
/R6m
Upgrading Dibeng
Waste water
treatment works



Social & Labour Plan

R4.8m
Ga-Segonyane
waste removal



R13.7m
Upgraded 18
pumps stations in
Kathu/Mapoteng
Sewerage Truck
for Gemagosa LM



R14.5m
Provision of water
& sanitation
Oltantshoek 321
stands



Impact FY18/19



What is Enterprise and Supplier Development

Supplier Development

- MUST be successful in tender/order = **Supplier**
- Conduct a due diligence to determine development area(s)
- Sign a development agreement
- Support may include:
 - Mentoring / Coaching
 - Training
 - Early payments (15 days)
 - Monetary support:
 - Interest free loans
 - Equipment (grant/loan)

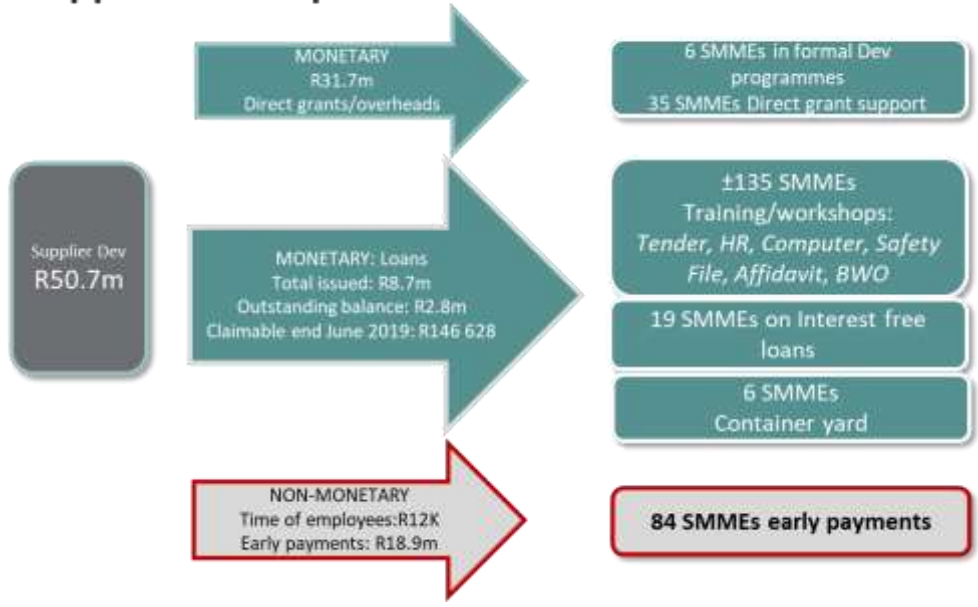
Enterprise Development

- Specific Programmes running
- Sign a development agreement
- Support part of a Programme may include:
 - Mentoring / Coaching
 - Training
 - Monetary support:
 - Interest free loans
 - Equipment (grant/loan)

Impact FY18/19



Supplier Development Initiatives 2018 - 2019



Project name: Kuruman SMME Village



Located:	Kuruman, Northern Cape Province
Local Municipality effected:	Ga – Segonyana Municipality
Year implemented:	2017/18
Benefit realisation:	57 SMMEs – access to facility 64 Jobs created during construction
Project scope:	Creating a safe and conducive environment for local SMME's from Kuruman and surrounding villages
Project Value:	R11.7m

SED Project Showcase: Ga- Segonyana Local Municipality Waste Removal Project



Located	Kuruman
Local Municipality Benefited	Ga- Segonyana Local Municipality
Year Implemented	2019
Project Description	Electrification and fencing of the Kuruman Landfill Site. Donation of a compactor truck, skip loader truck and 6 Skip bins.
Progress	100%
Project Value	R5m
Job Creation	7

SED Project Showcase: Mandela Day 2019 Babatas ECD



Located	Babatas, Gamagara Area
Local Municipality Benefited	Gamagara Municipality
Year Implemented	2019
Project Description	Mandela Day celebration took place at Babatas community. Khumani donated a modular classroom. Staff assisted to paint the classroom and make a outdoor play area. Toddlers now can have access to early learning as per the NDP.
Progress	70%
Project Value	R379 351,98
Job Creation / Benefit	2 ECD Practitioners 16 Children

ESD Project showcase: BWO Workshop



Local Municipality Benefited	Gamagara and Ga – Segonyana Municipalities
Year Implemented	5 Sept 2019
Project Description	The 2019 BWO workshop was held in Kathu. The focus areas were physical, mental, social and financial wellbeing of the entrepreneur. Each business created a vision board for the their enterprises.
Progress	This was a once off event. The beneficiaries will be invited for other training opportunities for further support.
Project Value	R127 223
Benefit Realisation	70 Participants

3 NON-CONFORMANCE FEEDBACK

KARIEN POOLMAN

COMPLAINTS DISCUSSED AS PER PRESENTATION	
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4 VELD MANAGEMENT AND REHABILITATION OF DEGRADED VELD

PROF. KLAUS KELLNER

AS PER PRESENTATION BY PROFESSOR KLAUS KELLNER	
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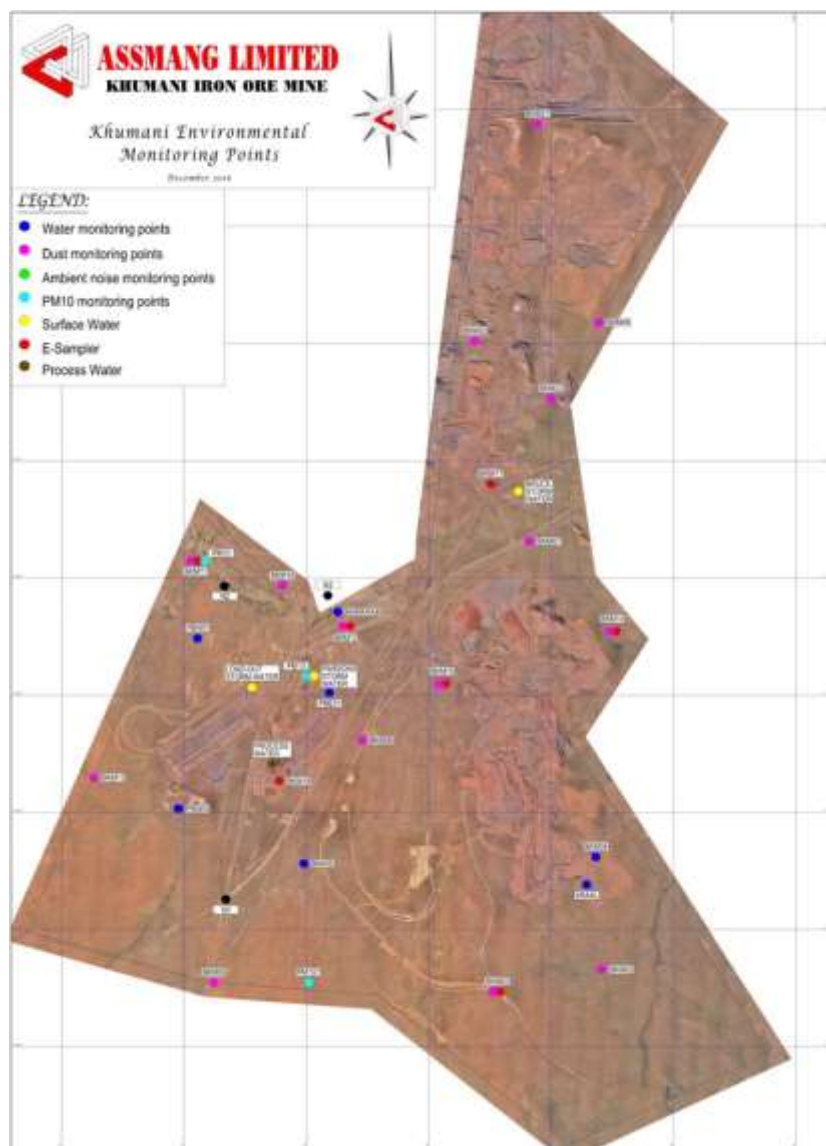
5 TRANSNET – RAIL AND FIRE MAINTENANCE

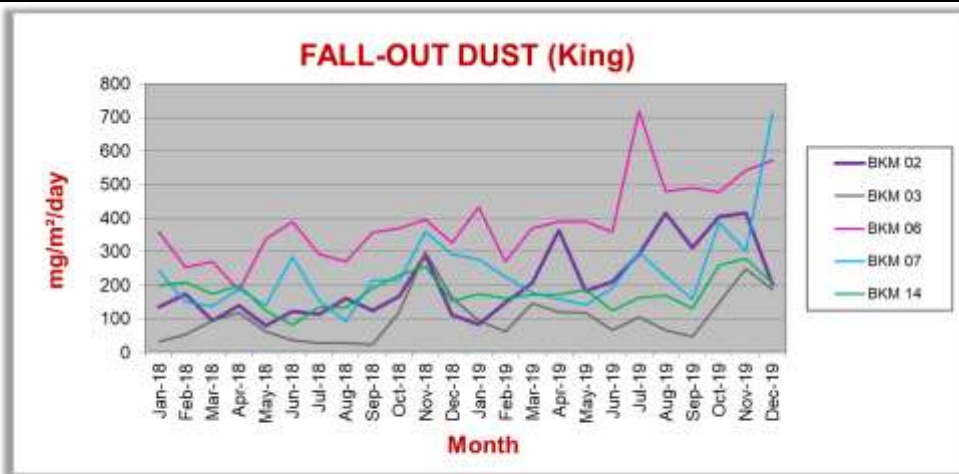
DISCUSSIONS FACILITATED BETWEEN I&A PARTIES AND TRANSNET CUSTOMER RELATIONS MANAGER	
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AS PER PRESENTATION

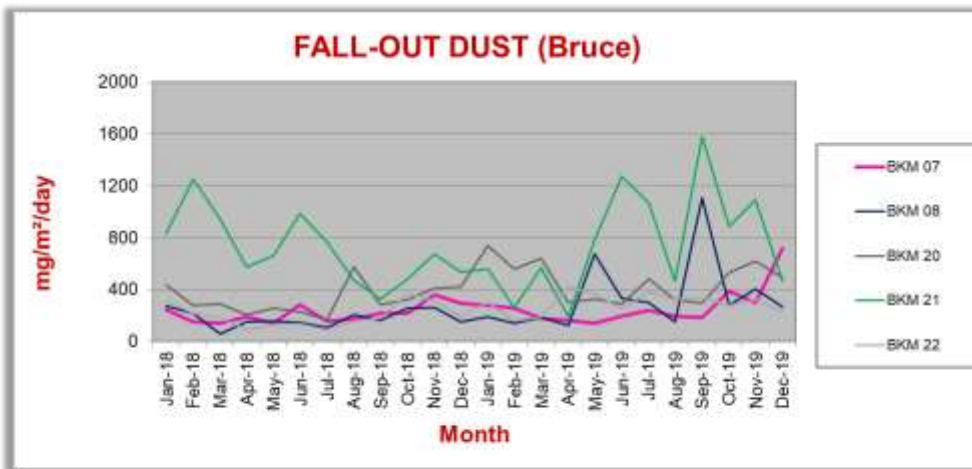
Dust monitoring network

- Dust monitoring should adhere to the requirements of ASTM D1739 as given in the National Dust Control Regulations
- Directional dust monitoring units were replaced with single ones, since National Regulations and the SANS 1137:2012 standard makes no reference of the design of directional units for dust sampling.
- DENC requested that we use an accredited lab for dust analysis, Gondwana has been appointed since January 2018
- Chemical analysis of dust samples is not stipulated by regulations, but can be performed if the mine deems it viable for internal EHS programme.
- Khumani requested Gondwana to conduct elemental analysis on fifteen batches of dustfall filters. The batches included five years of dustfall filters for each sampling point. A total of 43 elements were analysed for.

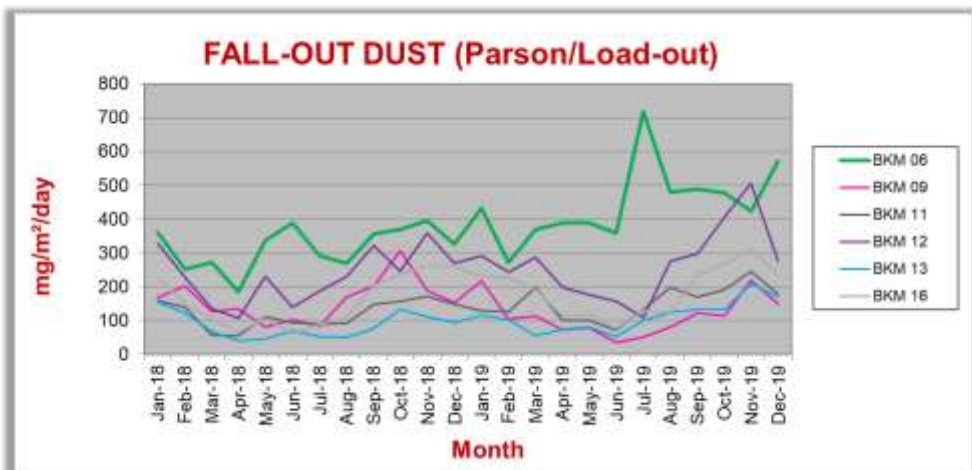




• Legal Limit: 1 200 mg/m²/day



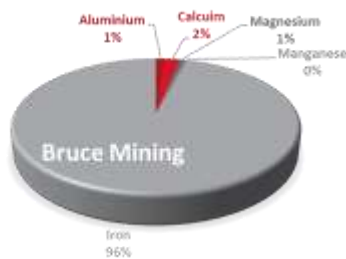
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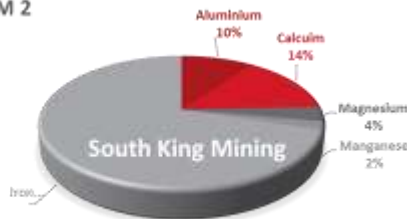
Dust Analysis

Determinants	%	Determinants	%
Silver, Ag	0,01	Nickel, Ni	0,01
Aluminium, Al	4,12	Phosphorus, P	0,45
Arsenic, As	0,01	Lead, Pb	0,01
Gold, Au	0,01	Palladium, Pd	0,01
Barium, Ba	0,23	Platinum, Pt	0,01
Beryllium, Be	0,01	Rhodium, Rh	0,01
Bismuth, Bi	0,01	Ruthenium, Ru	0,01
Calcium, Ca	6,84	Sulfur, S	0,65
Cadmium, Cd	0,01	Antimony, Sb	0,01
Cobalt, Co	0,01	Selenium, Se	0,01
Chromium, Cr	0,03	Tin, Sn	0,01
Copper, Cu	0,23	Strontium, Sr	0,01
Iron, Fe	81,23	Tellurium, Te	0,01
Mercury, Hg	0,01	Thorium, Th	0,01
Iridium, Ir	0,01	Titanium, Ti	0,22
Potassium, K	0,66	Thallium, Tl	0,01
Lanthanum, La	0,01	Uranium, U	0,01
Lithium, Li	0,01	Vanadium, V	0,03
Magnesium, Mg	1,98	Tungsten, W	0,01
Manganese, Mn	1,33	Zinc, Zn	0,13
Molybdenum, Mo	0,01	Zirconium, Zr	0,01
Sodium, Na	1,78		

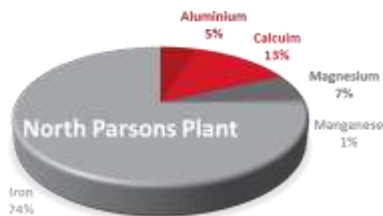
BKM21



BKM 2



BKM12



BKM15



DUST CONTROL

CHALLENGES

- SHORTAGE IN WATER SUPPLY
- TRANSFER POINT BLOCKAGES
- MATERIAL FROM PITS VS SYSTEM DESIGN
- HUMAN FACTOR

ACTIONS

- BENMARC TO TEST NEW PRODUCT
- WATER APPLICATION SAVING
- REDESIGN SPRAY SYSTEM AT OVERLAND BOX – COMPLETED
- CONTINUOUS MONITORING OF CHEMICAL USAGE VS PRODUCTION
- AWARENESS AFTER IMPLEMENTATION

WATER CONSERVATION PLAN

KHUMANI MINE HAS IDENTIFIED THE NEED TO OPTIMISE THE WATER DISTRIBUTION NETWORK ON THE MINE AND UPDATE THE CURRENT WATER MANAGEMENT PLAN.

- INSPECT WATER FACILITIES, STORAGE AND CONVEYANCE CAPACITIES OF KEY INFRASTRUCTURE, AND THE PERFORMANCE OF EXISTING SYSTEMS.

- ASSESS THE DESIGN AND OPERATION OF EXISTING STORM WATER FACILITIES IN THE CONTEXT OF GN 704 AND RELEVANT LEGAL REQUIREMENTS.
- UTILISE THE WATER BALANCE TO REVIEW INTAKE AND IDENTIFY WATER USERS ON MINE
- IDENTIFY MEASURES WHICH CAN BE IMPLEMENTED ON THE MINE THAT CAN CONTRIBUTE TO REDUCTION OF WATER USE AT SOURCE AND POLLUTION PREVENTION.

THE PLAN WAS CONCLUDED BY DELIVERY OF A WATER RE-USE AND RECLAMATION MANAGEMENT PLAN.

Parson

Progress

- Received authorization to upgrade pipelines from SWD, installation to be done in 2020
- Lining of trenches at Parsons almost completed



King

Progress

- Received authorization to construct a 3rd RWD and piping
- Design on KM02 WRD to be completed
- Challenges to reclaim water from KM02



Additional storage - Parsons

Progress

- The use of 3 additional RWD's was put on hold, the current storage facilities are adequate will be utilized for returnwater.



VIBRATION ASSESSMENT

- THE ISITHELO MINING CONSULTANTS AND SERVICES WAS CONTACTED TO PERFORM A NOISE AND VIBRATION STUDY. UNIVERSITY OF PRETORIA MECHANICAL ENGINEERING DEPARTMENT (CAIMCONSULT) WAS REQUESTED TO ASSIST IN THE INVESTIGATION DUE TO THEIR EXPERIENCE AND MEASUREMENT CAPABILITY IN FIELD OF NOISE AND VIBRATION.
- THE INVESTIGATION WAS CONDUCTED BY MEASURING NOISE AND GROUND BORNE VIBRATIONS SIMULTANEOUSLY INSIDE AND OUTSIDE THE PARSONS ENGINEERING, PLANT BUILDING AND FARMS NE AND S OF THE PLANT. WITH THE TYPICAL OPERATING FREQUENCY OF VIBRATING SCREENS AT PARSONS RANGING BETWEEN 12 AND 18 Hz, SUITABLE MICROPHONES WERE SELECTED WITH INFRASOUND MEASUREMENT CAPABILITIES. THE MEASUREMENTS WERE RECORDED CONTINUOUSLY FOR EXTENDED PERIODS FROM 11 TO 13 SEPTEMBER 2019
- FINAL REPORT IS STILL OUTSTANDING

CONCLUSION

- LEVELS INDICATE THE PRESENCE OF LOW FREQUENCY NOISE. FURTHER SPECTRUM ANALYSIS SHOWS THAT THE DOMINATING FREQUENCY COMPONENT TO BE 16 Hz, WHICH CORRESPONDS TO MECHANICAL VIBRATIONS.
- CORRELATION IS SHOWN BETWEEN THE NOISE LEVELS OBSERVED AT FARM S AND PLANT, SHOWING THAT THESE NOISE LEVELS ARE PLANT RELATED.
- CORRELATION IS OBSERVED BETWEEN FARM NE AND PLANT, ALTHOUGH AT THE SAME TIME LARGE LEVEL FLUCTUATIONS ARE OBSERVED FOR THE FARM INDEPENDENT OF PLANT LEVELS. THIS INDICATES THAT OTHER SOURCES ARE ALSO CONTRIBUTING TO THE OBSERVED NOISE LEVELS.
- EVALUATING NOISE LEVELS AGAINST GROUND BORNE VIBRATION SHOW THAT NO SUCH CORRELATION EXIST. THUS THE NOISE LEVEL PROPAGATION MECHANISM FOR BOTH FARMS IS AIR BORNE AND NOT GROUND BORNE.
- EVALUATING THE DIFFERENT FARM LEVELS AGAINST VARIOUS WEATHER PARAMETERS, IT IS OBSERVED THAT MAXIMUM LEVELS OCCUR WHEN LITTLE WIND ACTIVITY IS PRESENT.
- IT IS FURTHER SHOWN THAT NOISE LEVELS INCREASE WITH DECREASE IN TEMPERATURE, AS INDICATED BY THE COMPLAINANTS.

ACTIONS

- COMPLETE REPORT AND DISTRIBUTE TO RELEVANT STAKEHOLDERS
- PHASE 2 – CONDUCT LAB TESTS TO DETERMINE BEST ABSORBENT MATERIAL
- APPLY FOR CAPITAL
- IMPLEMENT RECOMMENDATIONS FROM LAB TEST RESULTS

Legal Compliance - Authorisations

Description	Responsible person	Due date	Comments
Tyre storage areas	Env Dept and consultants	May 2020	Received registration, Abatement plan submitted, Awaiting audit from Rural emergency services
Asbestos clean-up	Env Dept, Mining, Contract management, Procurement	May 2020	Awaiting allocation of contract
Water use licence	Env Dept, Consultant	June 2020	Technical reports has been submitted, awaiting respond from DWS
Mokaning and low grade stockpiles application	Env Dept and Consultants	June 2021	Specialists studies completed, layout to be finalised

Mokaning application



WUL Application status

Action	Responsible person	Due date	Comments
Information required for Application (letter of Attorney, Cert ID, Water balance and Water uses approval)	Env Dept	11 March 2019	Completed
Submission of Application	Consultant	19 March 2019	Completed
Authority Acknowledges receipt (10 days)	DWS	28 March 2019	Completed
Site inspection (30 Days)	DWS	27 April 2019	Was not conducted
Dump and Dam designs	Env Dept and consultants	30 May 2019	Completed
Submit Technical report and specialist studies (105 days)	Env Dept and Consultants	November 2019	Completed
Review application (154 days)	DWS	May 2020	
Issue License	DWS	June 2020	

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7 SINKHOLE FEEDBACK

KENNETH MATHIBELA

AS PER PRESENTATION	
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8 GENERAL

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9 DATE OF NEXT MEETING

19 JANUARY 2020