

# 1

Ok Tedi Mining Limited

## RISK MANAGEMENT SYSTEM

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## AGENDA

- ◆ Ok Tedi Mining Limited - General Introduction
- ◆ Strategic Safety Objectives
- ◆ Risk Management System Objectives
- ◆ System Overview
- ◆ Risk Management System Elements
- ◆ Risk Management Process
  - Risk Identification
  - Risk Analysis
  - Risk Evaluation
  - Risk Treatment
  - Risk Monitoring & Review
  - Risk Communication & Consultation
- ◆ Benefits
- ◆ Future Direction

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## OK TEDI MINING LIMITED

MINE

MILL

TABUBIL

KIUNGA

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## STRATEGIC SAFETY OBJECTIVES

- ◆ Sustain a Safety is the Priority and Zero Harm the goal operating environment
- ◆ Establish and implement for OTML and Contractors an Integrated site wide Risk Management and Action Plan monitoring system
- ◆ Define, identify, treat and control Critical and Activity Risks
- ◆ Focus on the elimination of "all fatality potential" workplace situations
- ◆ Implement an effective Contractor Management Policy and planned safety risk reduction strategies
- ◆ Review and rewrite of the OTML Safety Standards
- ◆ Achieve and maintain 5 Stars Safety Effort Rating for OTML

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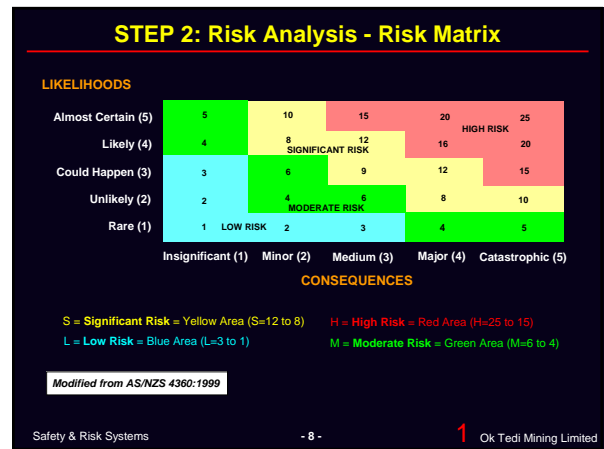
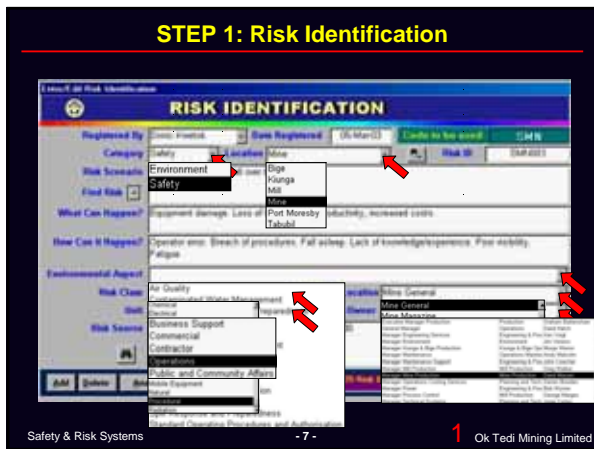
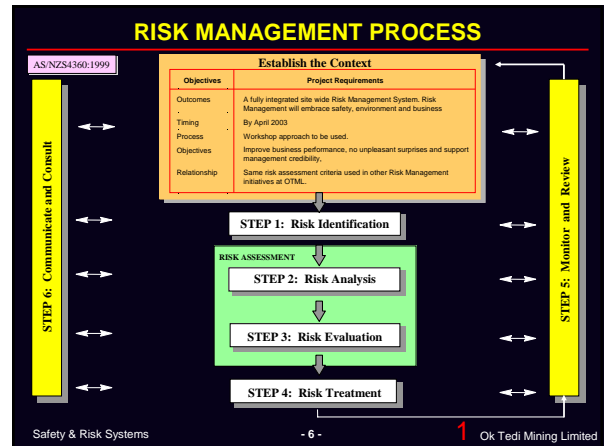
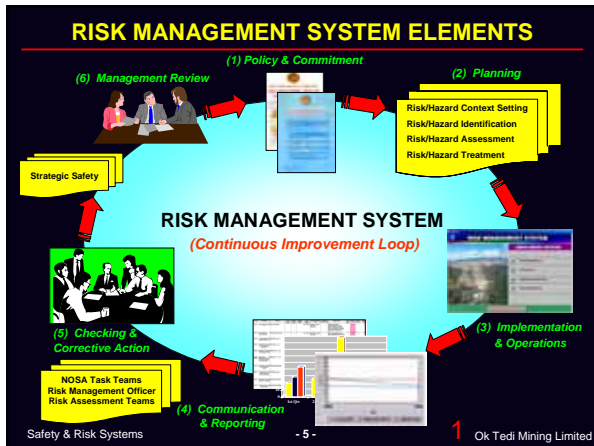
## RISK MANAGEMENT SYSTEM OBJECTIVES

- ◆ Support the company's strategic safety goals to eliminate fatality potential situations and sustain a "Zero Harm" work environment
- ◆ Manage exposure to the risks associated with all hazards at OTML by implementing risk reduction strategies for unacceptable risks and maintaining controls for acceptable risk
- ◆ Sustain a risk culture through appropriate training, active participation and accountability
- ◆ Establish an integrated risk management program to enable risk-informed decision making

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## SYSTEM OVERVIEW

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### Likelihood Rating Criteria

**SAFETY & BUSINESS**

Likelihood Rating	Descriptor	Environment Basis	Time Basis	Frequency
1	Rare	The event may occur only under exceptional conditions.	The event is extremely unlikely at any time.	Frequency less than 1 every 100 years.
2	Unlikely	The event not likely to occur under most conditions.	The event not likely at any time.	Frequency between 0.01 [1 every 100 years] and 0.1 times per year.
3	Could Happen	The event could occur under some conditions.	The event could happen at some time.	Frequency between 0.1 [1 every 10 years] and 1 time per year.
4	Likely	The event will likely to occur under many conditions.	The event is likely to happen at some time.	Frequency between 1 and 10 times per year.
5	Almost Certain	The event is expected to occur under most conditions.	The event happens often.	Frequency greater than 10 times per year.

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### Consequences Rating Criteria

**SAFETY**

Safety Consequence Rating	Descriptor	Safety	Occupational Health
1	Insignificant	First aid only. No medical treatment.	Minor short term inconvenience or symptoms to one or few individuals.
2	Minor	Medical treatment requiring hospitalization.	Minor short term inconvenience or symptoms to many individuals.
3	Medium	Serious or disabling injury resulting from accident or security occurrence.	Objectionable but reversible impairment to human health.
4	Major	Single fatality resulting from accident or security occurrence.	Single fatal or long term or permanently disabling effects on human health.
5	Catastrophic	Multiple fatalities resulting from accident or security occurrence.	Short or long term health effects leading to multiple fatalities.

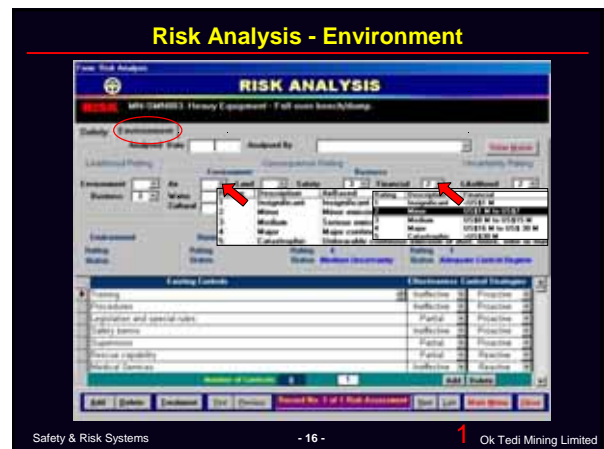
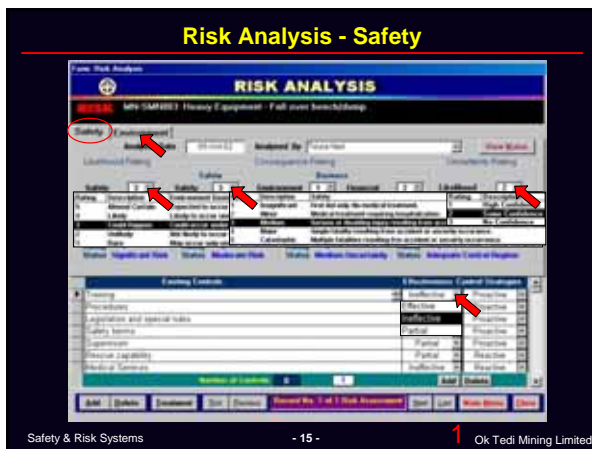
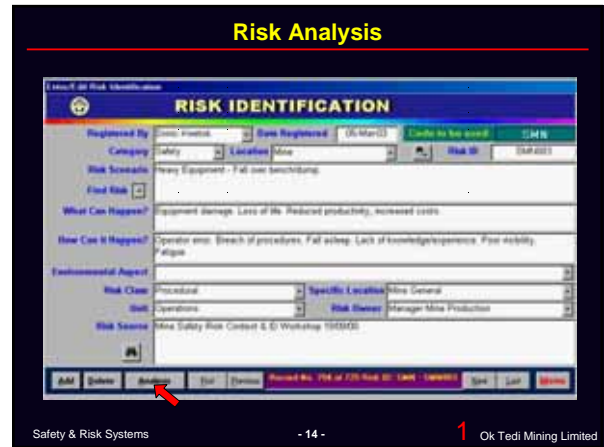
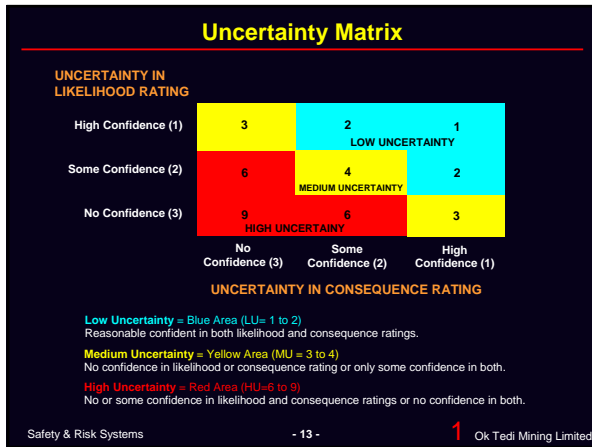
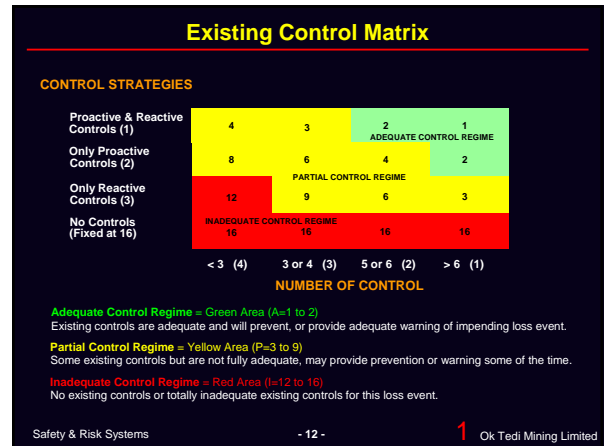
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### Consequences Rating Criteria

**BUSINESS**

Business Consequence Rating	Descriptor	Environment	Outrage	Financial	Business Interruption
1	Insignificant	Minor or no Pollution.	Individual or small group concern.	<US\$1 M	< 1 day
2	Minor	Some pollution in the short term.	Involves division or all employees.	US\$1 M to US\$7 M	1 to 7 days
3	Medium	Serious pollution E.g. fish kill.	Involves all employees and/or local communities.	US\$8 M to US\$15 M	8 to 15 days
4	Major	Major environmental release – large fish kill.	Province or nation wide significance. Minor international concern.	US\$16 M to US\$30 M	16 to 30 days
5	Catastrophic	Catastrophic environmental event – toxic river System.	Serious international Significance.	> US\$30 M	> 30 days

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### STEP 3: Risk Evaluation

#### LIKELIHOODS

Almost Certain (5)	5	10	15	20	25
Likely (4)	4	8	12	16	20
Could Happen (3)	3	6	9	12	15
Unlikely (2)	2	4	6	8	10
Rare (1)	1	2	3	4	5

Insignificant (1) Minor (2) Medium (3) Major (4) Catastrophic (5)

#### CONSEQUENCES

Acceptable Risk = Green Area (AC=1 to 6)  
Monitor risk for changes.

Unacceptable Risk = Red Area (UN=8 to 25)  
Undertake risk treatment planning

### STEP 4: Risk Treatment

### Risk Treatment (cont...)

### Risk Treatment (cont...)

### Risk Treatment (cont...)

### STEP 5: Risk Monitoring & Review

### Risk Monitoring (cont...)

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### Monitoring: Closing the loop

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### Review

**RISK WORKSHOPS**

- ◆ RISK ASSESSMENT TEAMS
  - 9 OTML
  - 13 Contractor
- ◆ 84 Risk Assessment Team Members

Every 6 months  
Attendees: Risk Assessment Teams

**AGENDA**

- ◆ Risk Scenarios
- ◆ Risk Rating
- ◆ Uncertainty Rating
- ◆ Existing Controls
- ◆ Actions Plans
- ◆ Progress Review

**OUTCOMES (If Applicable)**

- ◆ New Risks
- ◆ New Risk Profile
- ◆ New Risk Treatment Plans
- ◆ New Risk Treatment Priorities

Register Updated by Risk Management Officer

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### STEP 6: Communication & Consult

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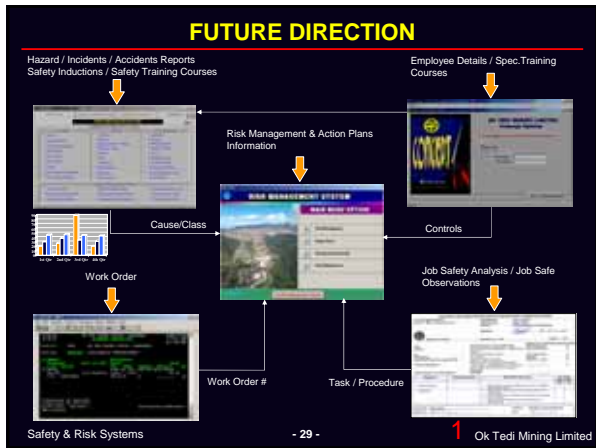
### Risk Cascade Signage

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### BENEFITS

- ◆ Consistent with OTML Charter, Corporate Safety and Environmental Strategy, PNG Regulations and Audit Standards
- ◆ Improved business performance through improved knowledge in risk profile and awareness, improved decision making, better budgeting, better communications and integrated continuous risk management capability
- ◆ Potential to eliminate "shocks" and their impacts such as catastrophic events, fatalities and equipment damage
- ◆ Improve response to problems avoiding "waste of time"
- ◆ Numeric approach for risk assessment & treatment implementation progress
- ◆ Improve effectiveness of existing controls
- ◆ Integration and common understanding of safety, occupational health, environmental, financial, and business risks
- ◆ Systematic way of Risk Management

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## END OF PRESENTATION