




**OK TEDI  
MINING LIMITED**








**ANNUAL REVIEW  
2019**



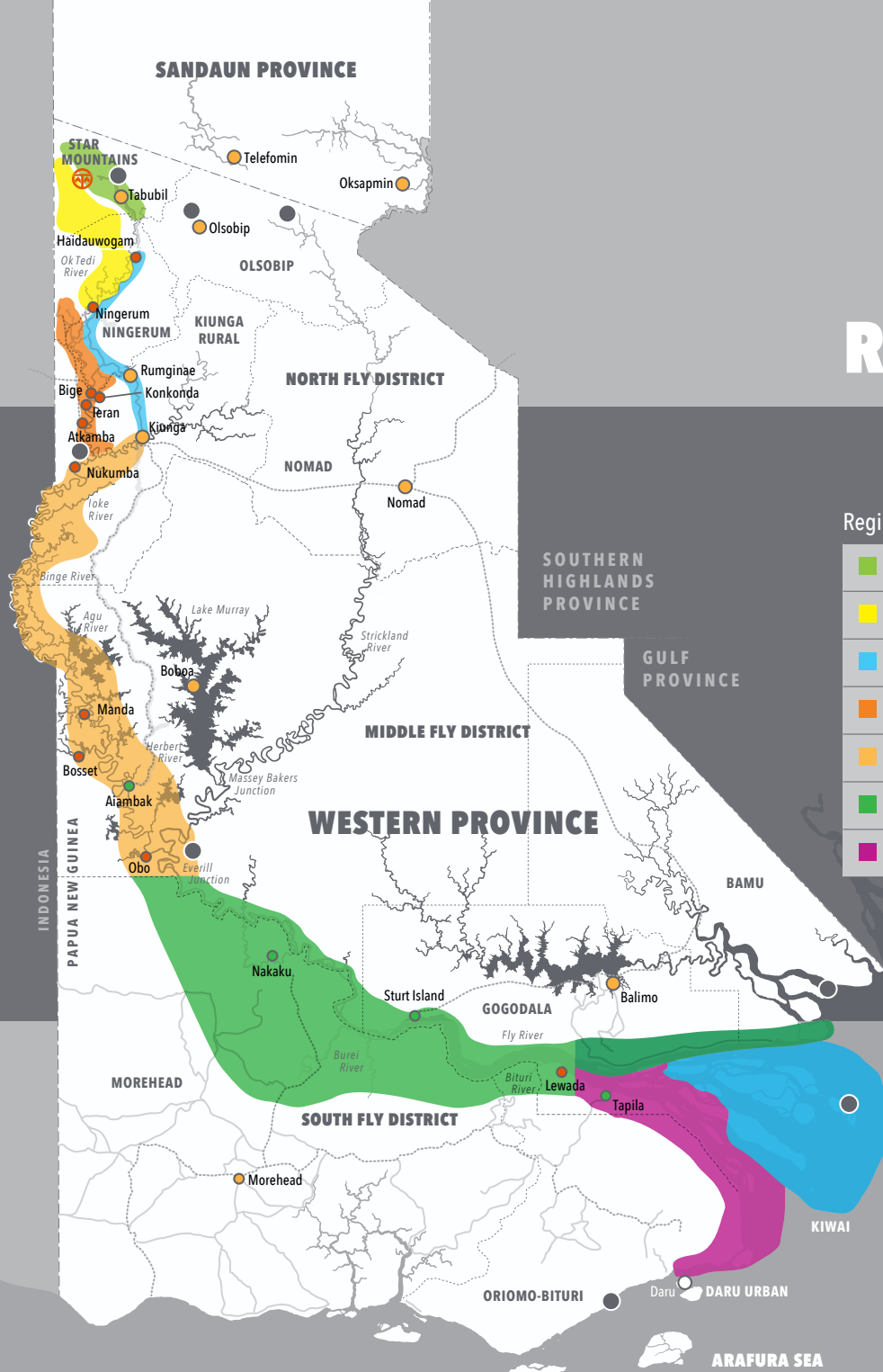
# REGIONAL MAP

## Region Map Key

	Mine Area
	Nupmo
	Tutuwe
	Wai-Tri & Alice River
	Middle Fly
	Suki Fly Gogo
	Dudi - South Bank

	Manawete - North Bank
	Kiwaba
	International Border
	Provincial Border
	District Boundary
	Local Level Government Boundary
	Main Highway (Tabubil - Mill)

	Provincial Road
	Proposed Road
	Major OTML Environmental Monitoring Stations
	Sub District
	Community Relations/OTDF Field Base
	Mine Project Site
	Existing Representative Monitoring Sites



**"THE COMPANY MADE SIGNIFICANT  
PROGRESS ADVANCING ITS MAJOR  
GROWTH PROJECT AND IS WELL  
POSITIONED FOR A STRONG FUTURE."**

## CONTENTS

Highlights	>
Company Profile	>
Vision and Values	>
Chairman's Report	>
Managing Director/Chief Executive Officer's Report	>
Governance	>
Materiality and SDGs	>
Safety	>
Business Review and Outlook	>
Geology	>
People	>
Environment	>
Social Responsibility	>
Finance	>
Abbreviations	>
Contacts and Acknowledgements	>



# 2019 HIGHLIGHTS

## ECONOMIC

- PGK 754 M (USD 222 M) profit after tax
- PGK 400 M (USD 118 M) dividend paid
- Contributed 4.1% of PNG's GDP
- Provided foreign currency into PNG market

## ENVIRONMENTAL

- Compliant with environmental criteria
- Environmental mitigation costs were PGK 239 million

## PEOPLE

- Workforce of 1,747 including 138 trainees
- 96% of the workforce is of Papua New Guinean origin
- 39% from the Western Province and Preferred Area
- 11% female workforce
- Invested PGK 15.7 M on education and training of graduates, apprentices, trade trainees, school and university scholarships

## SAFETY AND OCCUPATIONAL HEALTH

- The Total Recordable Injury Frequency Rate was 1.08
- Crusher Replacement Project worked 469 days LTI free

## SOCIAL

- Total awarded contracts to PNG companies PGK 1,429 M
- Procured 71% of the total value of goods and 48% of service contracts from PNG businesses
- Contributed PGK 26.7 M to Tax Credit Scheme infrastructure projects
- Responded to 100% of community complaints and grievances

To learn more about OTML and this annual review, visit: [www.oktedi.com](http://www.oktedi.com) or contact: [corporate-social-responsibility@oktedi.com](mailto:corporate-social-responsibility@oktedi.com)



> NEXT PAGE

< PREVIOUS PAGE

<< CONTENTS

**PRODUCED SINCE START  
OF OPERATIONS IN 1984:**

**COPPER 4.93** MILLION  
TONNES

**SILVER 34.2** MILLION  
OUNCES

**GOLD 15.1** MILLION  
OUNCES



# COMPANY PROFILE

Ok Tedi Mining Limited (OTML, or the Company) is a proudly 100% owned Papua New Guinea (PNG) company operating in a remote area of Western Province. The company has been mining copper, gold and silver at Mt Fubilan open pit operations for over 36 years.

OTML's registered office and senior management team are located in Tabubil. Support operations are based in Tabubil, Kiunga Port and Bige. OTML also has a representative office in Port Moresby and a marketing logistics office in Brisbane, Australia.

Benefits from the mine are directed to Western Province communities, specifically the Mine Villages, Community Mine Continuation Agreement (CMCA) communities, the Fly River Provincial Government (FRPG) and the Independent State of PNG. Success is measured by safety performance, financial performance, social development indicators and the management and mitigation of environmental impacts.

This 2019 Annual Review presents the integrated financial and non-financial results of the OTML operations. The financial statements have been prepared in accordance with the PNG Companies Act of 1997 and these comply with the International Financial Reporting Standards (IFRS) and other generally accepted PNG accounting practices. External auditor, PriceWaterhouseCoopers (PWC) has verified the financial statements and these are included in this report.

The Global Reporting Initiative's (GRI) Standards guidelines have been used to guide the disclosure of non-financial material information. The GRI reporting has been selectively verified externally by Materiality Counts Pty Ltd and the verification statement is included in this report. The United Nations Sustainable Development Goals (SDGs) have been adopted by PNG, and in this Annual Review, selected reporting is presented against the material aspects and selected SDGs.

## Report Boundary

This Annual Review relates to the material activities of the Ok Tedi mining operations comprising the mining and processing of ore from the Mt Fubilan deposit, the transportation of slurry concentrates to Kiunga and the shipping to the transfer vessel in Port Moresby. This report does not cover the copper concentrate product after transfer from the Company's silo vessel onto export vessels.

This Annual Review covers the 2019 calendar year with 2018 comparatives where available and also includes forward looking information for 2020. Historical data can be found on the Ok Tedi website in previous Annual Reviews.

OTML's performance data is presented in the metric system. Unless otherwise stated, all monetary amounts are quoted in PGK (Papua New Guinea Kina) and/or USD (United States Dollars).

The 2019 Annual Review has been split into two volumes, Annual Review and Financial Review including financial statements, assurance and GRI reporting. Both e-copies are available on the website and printed copies are available from OTML.

## Changes and/or Restatements for the 2019 Annual Review

If erroneous data or information was published in 2018 Annual Review, then acknowledgement of the error/s is mentioned and rectified in the current Annual Review.

The appointment dates of some Board members were incorrectly reported in the 2018 Annual Review as follows:

Sir Moi Avei, KBE, Chairman, Dr Roger Higgins, Director and Mr Glen Kuri, Director, were appointed on the 4th November 2014 and re-appointed for a further three year term on the 1st November 2017; and

Mr Peter Graham, CBE, CEO & MD, was appointed on the 16th March 2015 and re-appointed for a further three year term on the 1st November 2017.

The total compensation payment was erroneously reported in the Environment chapter on pages 58 and 59 as PGK 56.1 million. The correct amount is PGK 44.0 million.

Image (right): Florentina Masi, Luke Cerny and Jamies Ehava, Mine technical team reviewing weekly plans.



**OTML IS A LOW COST  
COPPER PRODUCER CREATING  
VALUE FOR PNG.**







> NEXT PAGE

< PREVIOUS PAGE

<< CONTENTS

# OK TEDI VISION AND VALUES

OTML has been operating successfully in PNG for over 36 years extracting copper, gold and silver from the Mt Fubilan open pit.

Our Vision is that “Nobody gets hurt, operating as one integrated team from Pit to Port; a high-performance organisation with employees proud to be part of a successful PNG-owned company”.

THE OK TEDI VALUES THAT GUIDE EXPECTED BEHAVIOURS OF ALL PEOPLE IN OUR COMPANY ARE:



**SAFETY, ENVIRONMENT** - we care about our employees, business partners and our communities' well-being.



**INTEGRITY** - we expect honesty, trust, fairness and respect.



**ACCOUNTABILITY** - we own our jobs, we meet our commitments.



**PERFORMANCE** - we give our best every day and seek to continuously improve.



**TEAMWORK** - our goals are common, our successes shared.



**SUSTAINABILITY** - we use what we need and conserve what we can.

Image: Loyolla Yakuma, Processing team graduate.

## CHAIRMAN'S REPORT

I am pleased to present our 2019 Annual Review where, despite a partial suspension of operations in the final quarter of the year due to dry weather, the Company generated an after-tax profit of PGK 754 million.

The profit enabled the Board to distribute PGK 400 million in dividends, whilst investing a further PGK 400 million in the Crusher Replacement Project (CRP) which is due to be completed in 2020 and will deliver a significant increase in production and cash generation in 2022 and beyond. At the end of year, the Company was in good financial health holding PGK 357 million in cash and remaining debt free.

The Board thanks management, our employees and business partner workforce for their ongoing efforts and contribution to this strong result. The Board also acknowledges the continued support of our customers with whom we have enjoyed a long term and productive relationship.

On a less positive note we were saddened by a fatality that occurred on 5 October 2019. An employee of a business partner sustained fatal injuries in a line haul truck incident on the Kiunga-Tabubil Highway. The Board extends its deepest sympathy and condolences to his family and friends. The OTML Board remains committed to our safety vision that "Nobody Gets Hurt" and will continue to invest in programs to strengthen safety systems and improve safety awareness and behaviours.

During the year we continued to enjoy support from our communities and the Province. Key to retaining this support was ongoing compliance with the Ok Tedi Environmental Regime during the year. The Company is well prepared to meet the revised requirements of the Ok Tedi Environmental Management Act.

Throughout the year the Company continued to make a contribution to services and infrastructure development in areas affected by the Mine through Ok Tedi Development Foundation Limited (OTDF), 100% owned by OTML, delivering community services and projects. It was pleasing to see OTDF complete the installation of the PNGSDP funded 50 village water supply projects in the South Fly and the commencement of the WestAgro initiative.

The company is a large energy user. During 2019 we completed upgrades to the thermal power station installing more efficient diesel generators and improvements to the hydro power stations. This will reduce our unit electricity costs and greenhouse gas emissions.

During 2019, the composition of the Board remained unchanged. I wish to thank the directors of the Company for their diligence and positive contributions. I would also like to take this opportunity to acknowledge our Trustee Shareholder representing the State, the Prime Minister of Papua New Guinea, the Honourable James Marape and representatives of Mineral Resources No 2 Limited, Mineral Resources CMCA Limited and Mineral Resources Star Mountains Limited, for their continued and valued support throughout the year.

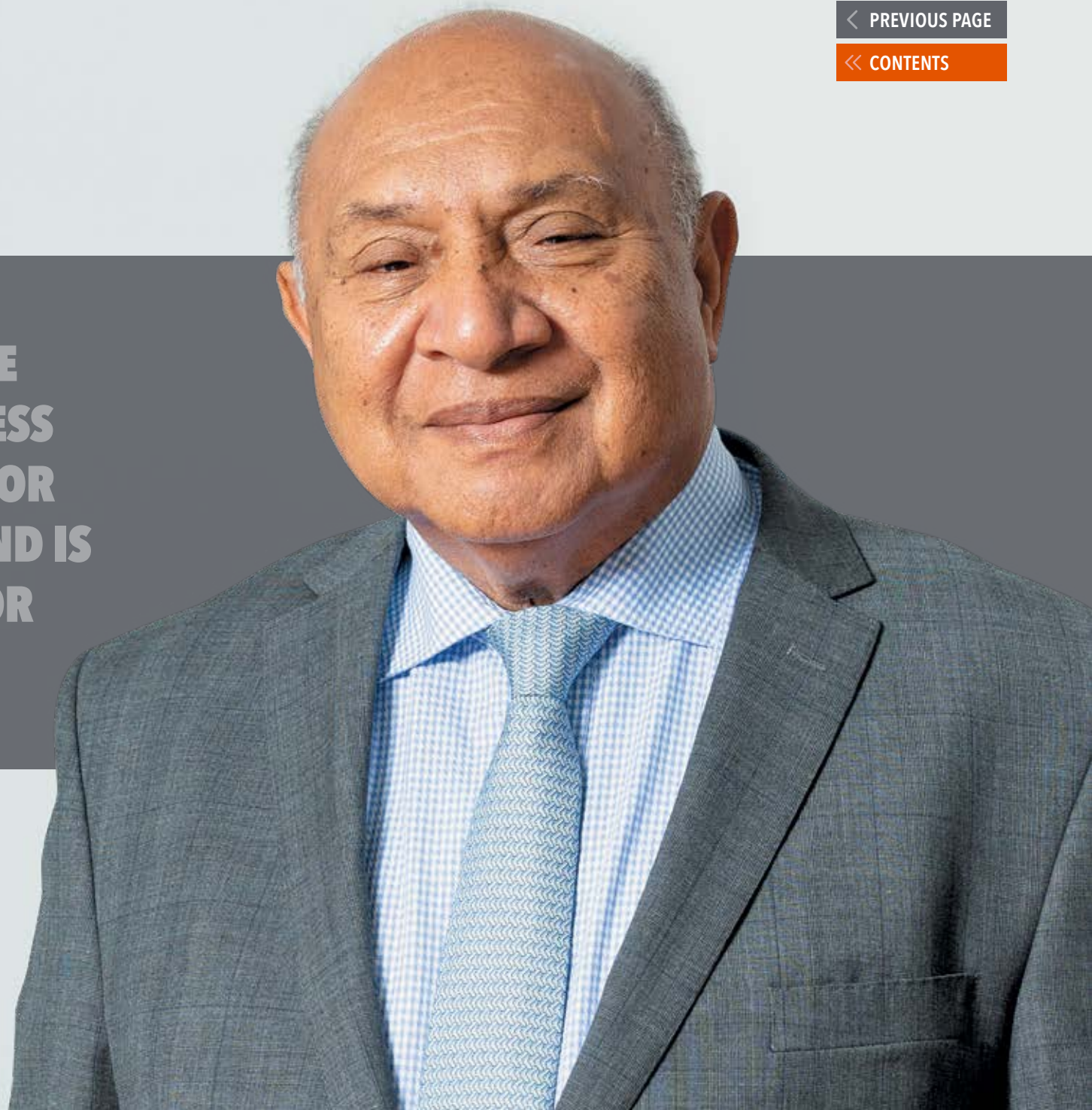
In 2019, Ok Tedi consolidated its position as a globally competitive and profitable copper producer that Papuan New Guineans can be proud of. In addition, the Company made significant progress advancing its major growth project and is well positioned for a strong future. The Board looks forward to a safe and prosperous 2020.



**Sir Moi Avei KBE**  
Chairman



**"THE COMPANY MADE  
SIGNIFICANT PROGRESS  
ADVANCING ITS MAJOR  
GROWTH PROJECT AND IS  
WELL POSITIONED FOR  
A STRONG FUTURE."**



# MANAGING DIRECTOR/ CHIEF EXECUTIVE OFFICER'S REPORT

In 2019 Ok Tedi consolidated its position as a profitable low-cost copper producer and made significant progress advancing key strategic projects.

Copper and gold production increased by 3% and 9% compared to the previous year and this along with containing costs within budgeted levels resulted in the Company generating PGK 754 million in after tax profit which was PGK 288 million higher than in 2018.

This enabled the Company to generate sufficient cash to fund ongoing sustaining capital expenditure requirements (PGK 140 million), invest in waste stripping to secure future ore production (PGK 320 million), fund ongoing exploration costs aimed at extending the mine life (PGK 67 million), invest a further PGK 400 million in the Crusher Replacement Project (CRP) and make a PGK 400 million annual dividend payment.

The CRP, identified as a value opportunity in the 2016 strategic business plan, is a PGK 800 million project that is due to be commissioned in mid-2020 and will drive the next "golden period" at Ok Tedi in 2022 and beyond.

The Company was able to increase mine production 18% (from 89.5 Mt to 105.7 Mt) meeting the key strategic requirement to move more than 100 Mt per annum, resulting in ore grades exceeding internal expectations. This result was achieved through a combination of increased investment in fleet reliability, and improvement in shovel and truck productivity. The mine technical and engineering team and consultants have been able to stabilise the Fubilan pit west wall through depressurisation and remedial works. This will enable a return to mining in the Centre Pit and access to higher grade ore.

Notably, the strong results in 2019 were achieved despite significant dry weather disruptions to our logistics during the year. This is testament to the resilience and capability of our people across all areas of the business and our "One Team Wan Pasin" culture. While these challenges and their impacts will persist deep into 2020, we remain confident of our ability to respond positively.

On a less positive note our safety performance in 2019 did not meet internal expectations. While our Total Recordable Injury Frequency Rate (TRIFR) continued to improve (from 1.48 in 2018 to 1.08 in 2019), a fatality occurred on 5 October 2019 when a line haul truck operated by a contractor lost control on the highway from Tabubil to Kiunga. Our heartfelt condolences go out to the family and all those affected by this tragedy. At Ok Tedi our safety vision is 'Nobody Gets Hurt' and the Board and Management remain committed to this outcome.

During the year, Ok Tedi continued to operate with a strong focus on management of environmental impacts investing more than PGK 239 million to ensure applicable criteria were met.

The Company maintained regular communications with mine impacted communities who are now part owners of the Company and benefitting from a share of the PGK 400 million dividend payments made during the year. During the year the Company continued to meet all compensation and benefit obligations and fund the Ok Tedi Development Foundation to assist with project and service delivery. Social development programs addressing education, health and agriculture were aimed at improving community self-sustainability.

In 2019 we continued to refine our Life of Mine Plan which indicates a mine life between 2026 and 2028. Efforts to identify additional economic resources remain a high priority and our investment in exploration will be maintained. The Company also continues to work on mine waste options that aim to extend mine life without adverse environmental impacts.

Overall, performance in 2019 was strong, reflecting the benefit of our employees and contractors working together as one team. We thank them along with our communities, customers, shareholders and suppliers for their valued support during the year.

As the results demonstrate, the Company has embedded operating and cost management discipline across the business. At the end of 2019 the Company held PGK 357 million in cash and remained debt free. This along with the ongoing investment in projects such as the CRP and exploration positions Ok Tedi for a prosperous future.



**Peter Graham CBE**  
MD and CEO

**"OVERALL, 2019 WAS A  
POSITIVE YEAR FOR OK TEDI  
REFLECTING THE BENEFIT  
OF OUR EMPLOYEES AND  
CONTRACTORS WORKING  
TOGETHER AS ONE TEAM."**





# GOVERNANCE / 1

OTML is an unlisted majority PNG State Owned Enterprise operating in accordance with the PNG Companies Act (1997). The Company is committed to maintaining robust corporate governance practices.

## Ok Tedi Board of Directors

The Board of Directors (or the Board) is primarily responsible for the governance of OTML and operates in accordance with the Company's constitution and applicable legislation.

Board members are nominated by shareholders in accordance with the provisions of the Company's Constitution. The appointment of the Chairman is in accordance with Company Constitution. The Board has three standing committees; Safety Health Environment and Community, Audit and Risk, and Appointment and Remuneration.

Non-executive Directors do not receive any short or long-term incentives, equity-based remuneration and retirement or termination benefits.

The profile of each board member and description of each Committee function can be found on the OTML website, [www.oktedi.com/about-us/board-of-directors](http://www.oktedi.com/about-us/board-of-directors).

The composition of the Ok Tedi Board of Directors as at 31 December 2019 is shown in the table below:

YEAR 2019				
BOARD MEMBER	POSITION	STATUS	DATE APPOINTED	COMMITTEE FUNCTION
Sir Moi Avei, KBE	Chairman	Independent Director nominated by State of PNG	04-Nov-14	Chairman – Appointment and Remuneration
Mr Peter Graham, CBE	CEO and MD	Ex-Officio	16-Mar-15	Member – Appointment and Remuneration, Safety, Health Environment and Community
Dr Roger Higgins	Non-executive Director	Independent Director nominated by State of PNG	04-Nov-14	Chairman – Safety, Health and Environment and Community
Mr Glen Kuri	Non-executive Director	Independent Director nominated by State of PNG	04-Nov-14	Member – Safety, Health and Environment and Community
Mr A. Mano	Non-executive Director	Independent Director nominated by pooled interest of Western Province Entities	23-Aug-18	Chairman – Audit and Risk
Mr J. Chan	Non-executive Director	Independent Director nominated by State of PNG	01-Aug-18	Member – Audit and Risk
Mr R. Kaiyun	Non-executive Director	Independent Director nominated by pooled interest of Western Province Entities	23-Aug-18	Member – Safety, Health and Environment and Community

The executive management team are responsible for Policy development, planning and delivery of strategic economic, environmental and community programs. Issues of high importance are escalated to the Board and Board Committees for review and action.

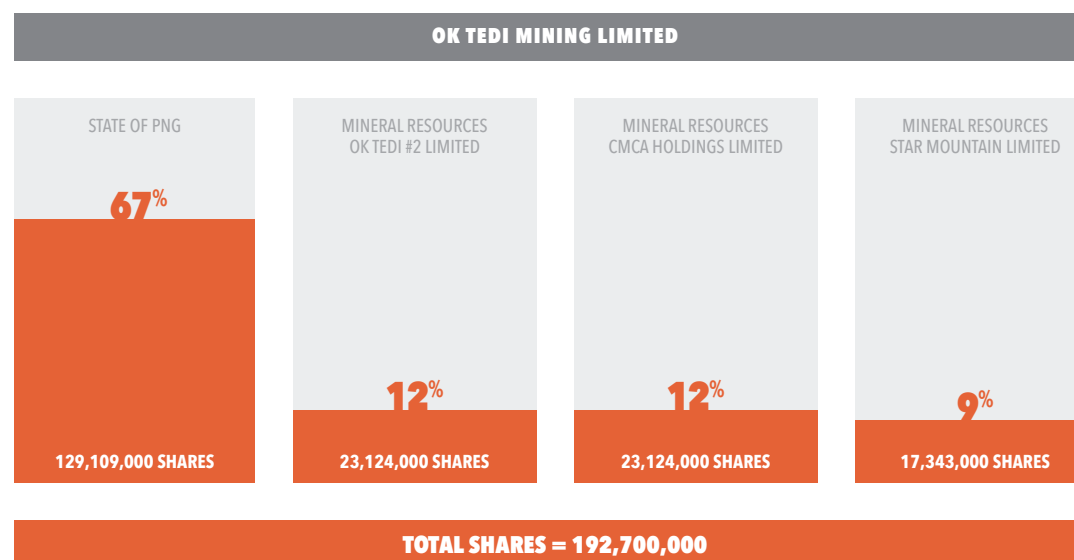
## Board Main Issues

During 2019, the Board and Standing Committees met on eight occasions to consider the following issues:

- approval of key economic assumptions used for planning purposes;
- approval of the 2019 Strategic Business Plan; three Year Plan (2020 to 2022) and the 2020 Annual Budget;
- approval of the Delegation of Authorities, Policies and Guidelines, Code of Conduct and Business Ethics;
- review and approval of matters exceeding the delegated authority of management;
- review of operating and business performance against plan;
- approval of the 2019 bonus and 2020 salary program for OTML employees; and
- distribution of profits to shareholders.

## Shareholder Structure

The shareholder structure for OTML as at 31 December 2019 is shown below with the State holding 67% and Western Province entities, 33%.



# GOVERNANCE /2

## Code of Conduct and Business Ethics

The Code of Conduct and Business Ethics (The Code) provides guidance to directors, employees and stakeholders on adhering to the highest standards of business conduct and compliance with the law and best practise. The Code covers the use of the Company's resources and information, fraud, confidentiality and proprietary information, conflict of interest, gifts and entertainment, outside directorships, financial inducements and political contributions.

## External Standards, Initiatives and Guidelines

The Company benchmarks its performance against the following Papua New Guinean and international standards, initiatives and guidelines:

- ISO14001:2004, the International Standard for Environmental Management Systems;
- OHSAS 18001:2007, the International Safety Management Standard;
- AS/NZS ISO31000:2009, Risk Management, Principles and Guidelines;
- The GRI G4 sustainability reporting framework and guidelines;
- Mining (Safety) Act & Regulations;
- Mining Act;
- PNG Companies Act, 1997; and
- International Financial Reporting Standards (IFRS).

The Company complied with its various licences and permits during 2019.

## The Extractive Industries Transparency Initiative

The Extractive Industries Transparency Initiative (EITI) is a global standard that promotes transparency and accountability in the oil, gas and mining sectors. OTML annual payments to all stakeholders were disclosed in 2019 to the PNG EITI secretariat and will continue to be published in line with the EITI and GRI reporting requirements.

## Risk Management and the Precautionary Approach

OTML uses a risk-based approach to guide the Company through the identification of major hazards and risks in the workplace and from external sources that could impact on the business.

Enterprise Risk Management is used when evaluating economic, environmental or social aspects of mining projects and major changes to the business.

The Board reviews significant business risks with the assistance of established standing committees. The precautionary principle is applied where there may be a lack of evidence to assist in the development of appropriate management plans.

## Reporting

This Annual Review provides a comprehensive overview of the Company's activities and financial outcomes. The financial statutory accounts of the report are audited by PWC PNG against the IFRS and other generally accepted accounting practices in PNG.

The non-financial reporting aspects of the Annual Review have been developed using the GRI Standards Core reporting guidance. The specific Disclosure on Management Approach and indicator summary is located in the back of this Annual Review and the content has been partially verified against the GRI requirements by Materiality Counts Pty Ltd.

## Auditing

### Insurance Audit

In January 2020, the International Mining Industry Underwriters (IMIU) completed OTML's annual operational risk external audit. OTML continues to be well regarded in terms of commitment to risk mitigation with IMIU determining a Risk Exposure Number of 34.2 for OTML, which is better than the IMIU global average of 45.2 that compares other global mining operations. Ok Tedi has maintained a better than average commercial attractiveness to insurers.

The 2020 IMIU audit has demonstrated that the Ok Tedi operations are at the limit of the 'Low Risk' zone. The audit stated that "this is a good result due to OTML having in the past a good level of adoption of risk reduction measures".

### Financial Audit

The financial statements of the Company for the year ending 31 December 2019 have been audited by PWC PNG and their Independent Auditor's Report is included in this Annual Review.

Image (right): Terry Milim, Mining dispatch coordinating truck and shovel movements.



A man with a beard, wearing a yellow high-visibility shirt and a black headset with a microphone, is shown in profile, looking at a computer monitor. He is sitting at a desk with a keyboard. In the background, there are several computer monitors. One monitor displays a website with the word 'INTELL' and some data. Another monitor shows a table of data. The man's hands are on the keyboard.

> NEXT PAGE

< PREVIOUS PAGE

<< CONTENTS

**THE COMPANY IS COMMITTED TO  
MAINTAINING ROBUST CORPORATE  
GOVERNANCE PRACTICES.**

# MATERIALITY AND SDGS

OTML has prepared the 2019 Annual Review in accordance with the Global Reporting Initiative (GRI) Sustainability Core '100' Standards and selected reporting against the '200-400' Standards and the Mining and Metals Supplement to address OTML's material topics.

OTML has applied a broad approach to the identification and assessment of material topics through the collation of information from internal and external sources. OTML's sphere of influence has a broad reach across Western Province and also at a National Level. Topics of significance are identified through strategic reviews, internal risk registers and major hazard reviews.

OTML undertakes regular formal and informal consultation with the various stakeholder groups and maintains a stakeholder register through the Community Relations Department. Issues impacting stakeholders and the community are identified and managed by OTML responsible departments in collaboration with the Community Relations team.

In late 2015, the 193 United Nations Member States adopted "Transforming our World: the 2030 Agenda for Sustainable Development", which includes a set of 17 Sustainable Development Goals (SDGs). PNG signed up to the SDGs in 2016. In 2017, the PNG Government with the UN and lead agency, the Department of National Planning and Monitoring, convened a multisectoral workshop to link the SDGs to the National Plan and localisation of the SDGs indicators to fit the PNG context.

To accelerate progress towards the 2030 Agenda, the private sector through collaboration, support and partnerships, can make a transformational change in advancing the SDGs implementation. OTML is the largest operating company in Western Province and has been successfully implementing sustainable development programs for over 30 years. SDG programs on social inclusion, reducing hunger, eliminating poverty, improving education, health, water and sanitation infrastructure are managed through OTDF and reporting against selected indicators commenced in 2019.

The UN and GRI Institutions have collaborated and mapped common principles and reporting requirements, so companies can report against standards or indicators that meet both Institutions' requirements.

OTML has completed a principled prioritisation to identify the key SDGs goals which have been aligned to the business materiality and GRI requirements. There is interconnectivity with the risks to people, environment, business operations and services. The interconnectivity is shown in the table below. Initial high-level reporting is undertaken within this Annual Review, and the findings against the GRI and SDGs can be found in the GRI tables in the Financial Review. As OTML improves SDG reporting, further data will be released on the website or through the Annual Review process.

ISSUE	KEY STAKEHOLDERS CONCERNED	ISSUE DESCRIPTION	SUSTAINABLE DEVELOPMENT GOALS	GRI STANDARD	ANNUAL REVIEW SECTION
Delivery of the Strategic Business Plan	Shareholders, Government, Communities and Suppliers	Meet planned mining and processing production rates, balanced with management of safety, technical, environmental, social and operational challenges.	SDG9 Industry, innovation and infrastructure	Economic 200	Business Review and Outlook
Waste rock, tailings and pyrite management	OTML, Communities and Government	Waste rock and tailings impacting the riverine system. Remain compliant with Environment Regime.	SDG14 Life below water SDG15 Life on land	Environment 300	Environment
Nobody Gets Hurt	OTML, Employees, Contractors and Government	Achieving zero harm to employees and contractors is a core value for OTML.	SDG3 Good health and wellbeing	OHS 403	Safety
Community development projects and consultation	OTML, Government and Communities	CMCA community agreements rely on OTML, OTDF and TCS social development and infrastructure project delivery.	SDG11 Sustainable cities and communities SDG 17 Partnerships for the Goals	Social and Economic 102/40, 201, 203-1, 203-2	Social Responsibility and OTDF AR
Peoples' ability to execute operations strategy and plans	OTML, Employees, Government and Communities	Skilled competent people are required to deliver OTML's strategy and plans.	SDG8 Decent work and economic growth SDG9 Industry, innovation and infrastructure	People 201, 404-2	People



> NEXT PAGE

< PREVIOUS PAGE

<< CONTENTS

# SAFETY



**AT OTML OUR VISION IS  
THAT “NOBODY GETS HURT”,  
OPERATING AS ONE INTEGRATED  
TEAM FROM PIT TO PORT.**

# SAFETY /2

OTML has implemented a Safety and Occupational Health Management System that aligns with OHSAS18001. The system addresses the major business hazards and oversight is through the internal Safety and Occupational Health, Environment and Community Steering Committee (SHEC).

In 2019, the focus was on assessment of major hazards and controls, and employee and contractor safe behaviour programs.

## Safety Performance

OTML reports against the industry standard lagging indicators for LTIFR, TRIFR and Significant Incident Frequency Rate (SIFR). In 2019, seventeen employees and contractors experienced injuries requiring medical treatment and thirty-one significant incidents were recorded. The TRIFR was 1.08, an improvement against 2018 TRIFR of 1.48 but the trend has been essentially flat since 2014. There were two Lost Time Injuries, and sadly one of these incidents involving a contractor truck driver on the Kiunga-Tabubil highway resulted in a fatality. Of the Total Recordable Injuries, 41% involved some level of temporary work restrictions.

A number of Departments achieved significant safety milestones in 2019.

The Crusher Replacement Project team with a staffing of around 900 contract employees celebrated 469 days LTI free to year-end. Their work involved frequent mobile equipment interactions in tight work areas, working at heights, extensive use of cranes, and work in confined spaces.

The small underground mining team celebrated 10 years without an LTI while completing 3.6 km of tunnel development using handheld mining equipment and removing 36,700 m<sup>3</sup> of rock. The Power Services Department and Fubilan Catering Services both celebrated 8 years LTI free.

## Leading Indicators

The iLead system details expectation of safety activities including Inspections, Hazard Identifications and Job Safety Observations each month for all levels of management and monitors compliance. An average compliance rate of 99% was achieved for the year.

In 2019 while the compliance with the frequency of inspections and observations was high, the focus of iLead was shifted to improving the quality of job safety observations.

## Safety Management Systems

The OTML Safety Management System (SMS) is aligned with OHSAS 18001. A systematic risk-based approach is applied to identify potentially fatal or life changing hazards and risks. During 2019, the transition of the SMS onto INX safety management software was completed to improve the system's data capture and reporting capability. The deployment of Compliance and Obligation support software "i2i" was a priority to improve the line of sight between statutory and in-house policy and obligations and work procedures.

In 2019, major risk and reviews of appropriate controls and systems were a priority for; vehicle and mobile equipment interactions; collapsing or falling objects; caught, struck or crushed by fixed equipment; and surface mining operations.



Image (previous page): Andrew Baida, Emergency Response Team Leader.

## Behavior Based Safety

A one-on-one safety coaching program, Advanced Safety Awareness (ASA), continued in 2019, including employee and contractor training. ASA develops individual attitudinal safety awareness. Individual participants are coached to achieve recognition of their ability to exercise personal control of safety in all environments and situations regardless of how innocuous or hazardous the appearance. The primary focus is on the participant accepting personal responsibility for their own safety behaviour. A team of 52 Safety Coaches has been trained to conduct the coaching with the aim of reaching every employee and contractor working with OTML.

## Safety Training Capability

In 2019, an emphasis was placed on upgrading the Verification of Competencies for drivers of light vehicles, buses, and all highway trucks. Fitness for Duty standards were reviewed and strengthened, instructors were trained following Australian standards, and testing was made more comprehensive. Simulators are used for training of operators of light vehicles and trucks.

Particular attention was placed on the handling and safe transportation of dangerous goods. Dangerous goods training was attended by 96 OTML and Contractors from Tabubil, Kiunga and Warehouse teams.

## Occupational Health & Wellness

The Company's Wellness and Fitness for Duty program was reinvigorated in 2019. The company completed pre-employment and periodical medicals on over 2,200 employees and contractors in 2019. Based on the results of medicals, employees have been categorized against an international set of health criteria. Employees designated "Significant Risk" (typically with cardiovascular disease) are placed on a supervised Health Improvement Plan and monitored frequently. Medical criteria for higher risk occupations have been developed and applied.

Occupational health talks covering a range of common illnesses and lifestyle diseases were presented to employee and contractor toolbox sessions and during community village meetings.

The Company applies a zero-tolerance policy for alcohol and drugs. In 2019, more than 248,000 blood alcohol tests were conducted for employees and contractors with forty-one positive results. There were also over 2,800 tests for illicit drug use with three positive results detected.



> NEXT PAGE

< PREVIOUS PAGE

<< CONTENTS

# 21,529

## TOTAL SAFETY COURSE ATTENDEES

## SAFETY PERFORMANCE\*

12.9	15.7	HOURS WORKED (MILLION PER ANNUM)
2	2	LOST TIME INJURY
0.16	0.13	LTIFR
19	17	TOTAL RECORDABLE INJURY
1.48	1.08	TRIFR
21	31	SIGNIFICANT INCIDENTS
1.1	1.97	SIFR

## LEADING INDICATORS\*\*

14,430	14,739	INSPECTIONS
6,431	6,906	HAZARD ID
18,624	27,051	JOB SAFETY OBSERVATIONS

## SAFETY TRAINING COURSE

	NUMBER OF EMPLOYEES & CONTRACTORS		WORK HOURS		
GENERAL SAFETY TRAINING	6,025	5,156	17,002	14,400	MINING
	3,007	4,121	9,923	14,171	PROCESSING
	10,478	8,326	47,348	56,107	STATUTORY TRAINING
COMPETENCY BASED TRAINING	835	914	5,268	4,726	MINE AREA TRAINING (INTERNAL)
	1,478	421	4,960	1,938	MILL AREA TRAINING (INTERNAL)
	0	108	0	625	EXTERNAL TRAINING
REFRESHER TRAINING	4,363	1,948	13,855	4,731	MINING
	756	535	1,365	735	PROCESSING
	26,942	21,529	99,721	97,433	TOTAL

2018 2019 KEY

\* INCLUDES EMPLOYEES AND CONTRACTORS. SIGNIFICANT INCIDENTS INCLUDE HIGH POTENTIAL / NEAR MISS INCIDENTS.  
\*\* COMBINES ACTIVITIES FOR BOTH OTML AND CONTRACTOR EMPLOYEES.

# SAFETY / 4

OTML funds and manages the Tabubil hospital and local clinics which provide medical services to employees, contractors and the general community. About 80% of presentations seeking treatment are from community members.

Hospital pathology staff identified 41 positive cases of Tuberculosis (TB), with none confirmed as OTML employees. Malaria testing identified 345 positive cases from over 4,500 tests. This was significant decrease compared to 2018, due to increased education health talks, upgraded vector control program, fogging, residual spraying of properties and issue of factory treated clothing for workers in high risk areas. Screening for Dengue identified 8 positive cases from 325 persons tested, with none being employees.

CASES REPORTED AT TABUBIL HOSPITAL		
	2018	2019
TB	34	41
Dengue	16	8
Malaria	812	345

## Security

Security is managed by OTML's Asset Protection Department (APD), supported by contracted (unarmed) security guards, the Royal PNG Constabulary (RPNGC) including both Provincial Police and Mobile Squad personnel. APD staff and contractor partners comply with the United Nations Voluntary Principles of Human Rights and undertake annual training in the Principles. All security occurrences and incidents are captured with the OTML 'eSolve' case management system, a comprehensive and confidential security and intelligence database.

In April 2019, Human Rights training was facilitated by trainers from the RPNGC in coordination with the United Nations Office of High Commissioner for Human Rights and the UN in PNG. This was attended by APD officers, police and security personnel. The course covered Human Rights requirements, updating knowledge, skills and attitudes of enforcement officers on international human rights standards and how to apply these principles in their duties.

A five-year MOU was signed between OTML and the RPNGC facilitating RPNGC security support to OTML sites. Under the MOU OTML continues to provide support in the form of a per diem allowance to officers, accommodations, meals and logistical support including the donation of two new vehicles to RPNGC.

Two new X-Ray machines were installed and commissioned at the Tabubil domestic and international terminals to improve cargo and passenger screening.

Emergency response capability was upgraded with the purchase of advanced heavy-duty road accident rescue patient extraction tools and lifting bags for Tabubil and Bige teams. Refresher training in advanced cardiac life support and basic life support was provided to seven fire and rescue paramedics.

Ok Tedi placed first overall out of 10 other teams from mining and oil and gas companies in the 2019 PNG Extractive Industry Emergency Response Challenge. Ok Tedi's team captain also received the Overall Challenge Best Team Captain award. This competition is a biennial Emergency Response event facilitated by the PNG Chamber of Mines and Petroleum.

Image (previous page): Thompson Buka, Kiunga operations supervising copper concentrate ship loading.

Image (right): Tyson Ambosep in the training workshop.



A full-page background image of a male worker with a beard, wearing a yellow hard hat with a logo, safety glasses, and a yellow high-visibility work shirt. He is wearing white work gloves and is focused on working on a large, cylindrical metal component. The background is slightly blurred, showing an industrial setting.

> NEXT PAGE

< PREVIOUS PAGE

<< CONTENTS

**IN 2019, THE FOCUS WAS ON  
ASSESSMENT OF MAJOR  
HAZARDS AND CONTROLS,  
AND EMPLOYEE AND  
CONTRACTOR SAFE  
BEHAVIOUR PROGRAMS.**



> NEXT PAGE

< PREVIOUS PAGE

<< CONTENTS

# BUSINESS REVIEW AND OUTLOOK



> NEXT PAGE

< PREVIOUS PAGE

<< CONTENTS

# OTML OPERATES THE LONGEST RUNNING OPEN-PIT COPPER, GOLD AND SILVER MINE IN PNG.





# BUSINESS REVIEW AND OUTLOOK / 2

Since the start of operations, Ok Tedi mine has produced more than 5.0 Mt of copper, 15.4 million ounces (Moz) of gold and 35 Moz of silver. As at 31 December 2019, the Mineral Resource estimate was 747 Mt at 0.43% copper and 0.52 grams per tonne (g/t) gold.

Total sales of copper, gold and silver concentrate in 2019 were PGK 3.8 billion (USD 1.1 billion). All product sales are denominated in USD dollars making Ok Tedi an important source of foreign currency for the PNG economy.

OTML's business operations are centred on the Mt Fubilan deposit located in the Star Mountains. The deposit is mined as a large open pit with a flotation processing plant capable of treating in the order of 22 to 24 million tonnes per annum (Mtpa). The throughput rate is highly dependent on the ore lithology delivered from the mine. The plant uses conventional technology to recover copper and gold into a saleable concentrate containing 24 to 25% copper and a gold content in the range of 15 to 25 g/t Au.

Copper concentrate is piped 156 kilometres (km) south to the Kiunga port facilities located on the Fly River. The concentrate is dried, stored, blended and then shipped down the Fly River using purpose-built vessels. Once the product arrives in Port Moresby, it is transferred to a storage vessel before being exported to overseas customers using commercial shipping services.



The mine is serviced by the township of Tabubil, located 20 km to the southeast of the mine and it is here that the Company maintains its registered office. OTML also maintains a corporate office in Port Moresby and a marketing and logistics facility in Brisbane, Australia.

## Financial

OTML generated PGK 3.8 billion (USD 1.1 billion) in total sales revenue in 2019 which was 36% higher than in 2018. The higher PGK revenue was a result of the following factors:

- A reduction in copper concentrate inventory stocks (from 58 Kt at the end of 2018 to 15 Kt at the end of 2019) which were abnormally high at the end of 2018 due to the impact of dry weather in the last quarter of 2018. This had the effect of increasing 2019 sales by 9%.
- An increase in copper production of 3% (from 97 Kt in 2018 to 99 Kt in 2019) and an increase in gold production of 9% (from 280 Koz in 2018 to 306 Koz in 2019).
- An increase in gold price of 9% (from USD 1,278/oz in 2018 to USD 1,397/oz in 2019) which more than offset the 3% fall in average realised copper price (from USD \$2.96/lb to USD2.71/lb).
- The favourable impact of a revaluation gain (an adjustment to the value of product sold based on price movements from the time of shipment to the time of finalisation) relating to opening stocks of concentrate inventories held.
- A strengthening of the USD against the PGK of 1%.

Total operating costs in 2019 were PGK 2,739 million, which was PGK 569 million higher than the previous year.

Marketing costs (export freight, treatment & refining charges, and royalties) were PGK 50 million higher, while the sales during the year of concentrate product held at end of 2018 resulted in a movement in inventory charges of PGK 378 million.

The balance of the cost increase reflects an increase in mine production of 17% (from 89 Mt to 106 Mt), additional maintenance expenditure on the mining fleet (which was substantially rebuilt in 2018), increased maintenance expenditure on the ageing processing facility to improve operational reliability, and a 40% increase in exploration costs.

The Company generated PGK 754 million in after tax profit which was PGK 288 million higher than in 2018.

Cash generated from operations during 2019 was PGK 1,376 million. This is an increase from 2018 of PGK 678 million, primarily driven by the higher revenues.

An amount of PGK 556 million was used to fund sustaining capital and the investment in the Crusher Replacement Project. A further PGK 329 million was invested in waste stripping to ensure timely presentation of future ore sources. Under revised International accounting standards, part of the contract payments made to dredge, aircraft and vessel business partners are now reported as finance leases and these totalled PGK 153 million in 2019. During the year a total of PGK 400 million was paid in dividends.

At the end of 2019 the Company held PGK 357 million in cash, was debt free and remained in a very strong financial position.

Image (previous page): Andrew Vincent and Brendan Gowdie inspecting the crusher construction works.

## Mining

Mining of the Mt Fubilan Ore Reserves continues to be carried out as a large open pit operation. Mining is conducted using conventional drill and blast techniques, with shovel and excavator loading equipment. Ore is mined and transported to a primary crusher as first stage processing or to a Run of Mine stockpile, where blending of various ore types can take place. Waste rock is characterised according to its Acid Rock Drainage (ARD) potential and disposed of in one of five waste dumps. Limestone waste rock is selectively dumped together with potential ARD waste rock to neutralise acid production.

The total material moved in 2019 was 105.7 Mt. This compared favourably to the 2018 production of 89.5 Mt and benefitted from a comprehensive fleet rebuild program and a substantial increase in key equipment productivities.

The 2019 copper feed grade to the mill of 0.60% was marginally higher than in 2018 (0.59%) while gold grade during the year of 0.85 g/t was 9% higher than the previous year (0.78 g/t). This reflects the required sequencing of the ore body to deliver the approved Life of Mine Plan.

Mine production was achieved at a unit cost of USD 2.62/t of material moved which was higher than the previous year (USD 2.49/t) due to the significant investment in mine fleet reliability and is expected to reduce in 2020 when the rebuild program completes.

## Processing

The ore is crushed in a primary crusher at a nominal 8,000 tonnes per hour and conveyed to a primary ore stockpile. The primary ore is then ground (two trains each comprising a SAG mill and two ball mills) to a final grain size of approximately 180 microns. This material is treated in a twin parallel standard mineral flotation circuit to produce a copper, gold and silver concentrate of approximately 24% to 25% Cu and between 15 g/t and 25 g/t Au. A portion of gold is also captured separately utilising a gravity gold circuit. The concentrate is thickened and piped as slurry to handling facilities at Kiunga where it is filtered, dried and prepared for shipping.

In 2019, 18.7 Mt of ore was milled. This was marginally lower than 2018 (18.9 Mt) due to a number of unplanned outages which occurred in the first half of the year, many in the existing crushing circuit, confirming the Company's investment in the CRP and its resolve to increase investment in plant maintenance in order to re-establish the required plant reliability.

Copper recovery during the year was 87.8% which was an improvement compared to the previous year (2018; 86.0%). Gold recovery of 60.0% was also higher than 2018 (59.0%). These results reflect the benefit of targeted improvement programs. A program of major equipment replacement continued in the processing plant with SAG Mill 1 main drive replaced with a new variable speed drive unit. SAG Mill 2 drive is scheduled for replacement in 2020.

Copper production in 2018 was 99 Kt. This was 3% higher than in 2018 (96 Kt) due to higher feed grade (1%) and improved recoveries (2%). Gold production in 2019 was 306 Koz which was 9% higher than in 2018 due to higher grade (9%). Production was constrained in December due to dry weather impacts on availability of hydro power and consequential load shedding of mills.

## Technology and Innovation

Ok Tedi continues to invest in replacement of aging plant and equipment and in new technologies in order to maintain its status as a low-cost copper producer.

In 2019, a major component change-out program was progressed which included engine replacements to the mining fleet and rebuilds on the trucks, shovels and ancillary equipment. Online monitoring of equipment vital signs is aiding diagnosis of equipment issues and operator performance.

Thermal power station upgrades were completed with the 30-year-old Mirlees generating units being replaced with high thermal efficiency Wartsila units which use 18% less fuel per MWhr of electricity produced, resulting in an annual saving in fuel consumption of PGK 13.6 million and lower greenhouse gas emissions.

## BUSINESS REVIEW AND OUTLOOK /3

The Mining Technical Services department continues to adopt smart technology in mine planning and operations. Mine planning uses sophisticated software capable of analysing thousands of scenarios to optimise mine design and the value derived from the ore body. A high precision global positioning system is used on major mining equipment (shovels, drills, trucks) to support compliance with mine plans and improved productivity.

The risk of a major failure on the West Wall of Mt Fubilan pit has been mitigated after two years of detailed geotechnical studies and remedial work. State of the art radar systems monitor sub-millimetre movement in rock faces. These systems will enable mining operations to recommence in the Centre Pit, allowing access to higher grade ore in 2022.

Modern, computerised simulators are used to train mine haul truck, shovel, backhoe and ancillary equipment operators. In 2019, a light vehicle simulator was also commissioned to train light vehicle operators and improve driving skills.

In the Processing Plant, the mill motors of SAG Mill I were replaced together with new variable speed controls which should reduce mill liner wear. The SAG Mill 2 motors will be replaced in 2020. The new Tinaroo water supply dam, as part of the Crusher Replacement Project scope, has significantly reduced operational risk in the event of water string outages. The dam has also decreased freshwater demand and as a consequence, power demands to pump water, as higher volumes of recycled water can now be utilised in the plant.

### Production and Commercial Outlook

Mine production which has increased by 25% in the last two years as a result of fleet rebuild and productivity improvement programs is now at the level required to deliver the Company's Strategic Business Plan and the associated Three-Year Plan.

Metal grades in 2020 and 2021 are expected to be lower than recent years reflecting the changing ore profile as some mining stages come to an end prior to the higher-grade ores being liberated by the CRP. Ore grades and production will enjoy a "step change" increase in mid-2022 and beyond.

In order to offset lower grades in 2020 and 2021 and maintain copper and gold production, it is necessary that mill operating time maintains the improvement trend achieved in the second half of 2019. Improvements in maintenance processes and capital expenditure will continue in 2020. The CRP which will be completed in mid-2020 will also assist. As a result, metal production in 2020 and 2021 is expected to be in line with 2019.

Cash generation will be impacted in the first half of 2020 due to the impacts of dry weather in late 2019 which prevented export shipments and resulted in a shipping backlog. Unlike the previous year when the Company held abnormally high levels of saleable concentrate, this product was sold in 2019 on bill and hold arrangements and will need to be shipped in the first quarter of 2020. The Company is confident that shipping capacity is sufficient to clear this backlog and ship all 2020 concentrate production over the course of the year.

It is expected that OTML will liberate more cash in 2020 than in 2019 by virtue of the major growth investment in the CRP ceasing in the middle of the year. Profits are however expected to be lower by virtue of an increase in depreciation when the CRP is capitalised. This will dampen profits until such time as the main benefit of that project (higher grade ore) presents in 2022.



## PRODUCTION RATES YEAR-ON-YEAR COMPARISON

89.5	105.7	TOTAL MATERIAL MOVED (Mt)
18.9	18.7	ORE MILLED (Mt)
0.59	0.60	COPPER GRADE (%)
86.0	87.8	COPPER RECOVERY (%)
0.78	0.85	GOLD GRADE (g/t)
59.0	60.0	GOLD RECOVERY (%)
394	412	CONCENTRATE PRODUCED (Kt)
96	99	COPPER PRODUCED (Kt)
280	306	GOLD PRODUCED (Koz)
2018	2019	KEY





> NEXT PAGE

< PREVIOUS PAGE

<< CONTENTS

# GEOLOGY

# **OTML MANAGES THE EXISTING MINERAL RESOURCE WHILE HONOURING ENVIRONMENTAL CONSTRAINTS.**



## GEOLOGY / 2

The priority of the Geology and Exploration team for 2019 was quantifying near-mine resources within the SML, particularly in the Sulphide Creek area at the New York, Darien, Hagley Park and Wellington prospects.

Exploration activities outside of the SML included drilling at Mt Anju, Dorongo and Mt Kwang, where previous exploration had identified intrusive rocks hosting copper and gold mineralisation. Statutory work and expenditure commitments were maintained on all exploration licences.

The focus for 2020 will be to continue resource definition drilling within the SML. The aim is to convert exploration targets to Mineral Resource status so the resources can be included in the Life of Mine models. Exploration drilling will also be undertaken on identified targets on and adjacent to SML 1. Regional work will be done on the Mt Frew prospect (EL2156), EL2256 (Mt Anju) and EL2472 (Bubu). OTML reduced its tenement holding to 476 square kilometres (km<sup>2</sup>) during 2019 with area reductions on EL1677 and EL2289 in line with licence conditions.

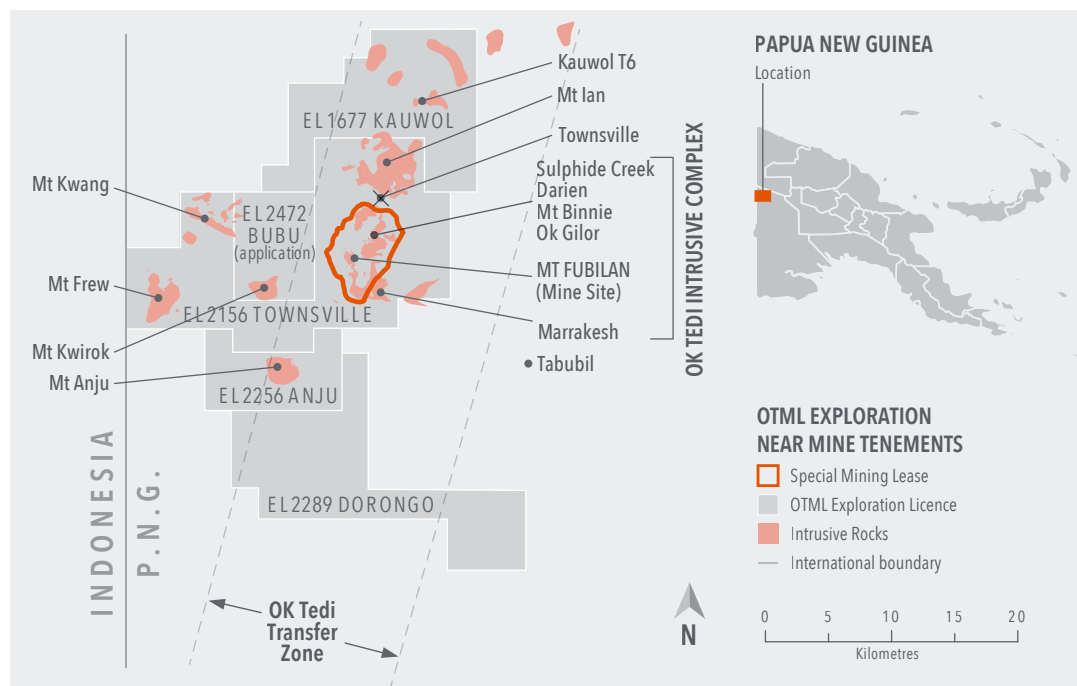


Image (previous page): Nathaniel Kame studying exploration drill core breccia.

## Mineral Resource And Ore Reserve

In February 2020, a revised Mt Fubilan Mineral Resource and Ore Reserve as at 31st December 2019 was presented to the OTML Board. Comparing the 2019 estimate with the previous estimate, the changes report a 4% decrease in the total Mineral Resource tonnes from 776 Mt to 747 Mt, a similar copper grade and slight decrease in gold grade by 1%. The total Proven and Probable Ore Reserves over the same period decreased by 11% from 244 Mt to 216 Mt, with a 4% increase in the copper grade and a slight increase of 1% in the gold grade.

The Mineral Resource and Ore Reserve reflects the outcome of strategic planning work undertaken in 2019. Current environmental constraints due to limits on riverine tailings and waste disposal are included in the calculation of Ore Reserves.

Mt Fubilan Mineral Resource and Ore Reserve as at 31st December 2019

MINERAL RESOURCE				ORE RESERVE				CONVERSION
CATEGORY	TONNAGE (Mt)	CU (%)	AU (g/t)	CATEGORY	TONNAGE (Mt)	CU (%)	AU (g/t)	RESERVE / RESOURCE RATIO
Measured	289	0.38	0.43	Proven	107	0.58	0.64	37%
Indicated	406	0.47	0.58	Probable	110	0.66	0.81	27%
Inferred	53	0.45	0.47					
<b>TOTAL</b>	<b>747</b>	<b>0.43</b>	<b>0.52</b>	<b>TOTAL</b>	<b>216</b>	<b>0.62</b>	<b>0.73</b>	<b>29%</b>

Mt Fubilan Mineral Resource and Ore Reserve as at 31st December 2018

MINERAL RESOURCE				ORE RESERVE				CONVERSION
CATEGORY	TONNAGE (Mt)	CU (%)	AU (g/t)	CATEGORY	TONNAGE (Mt)	CU (%)	AU (g/t)	RESERVE / RESOURCE RATIO
Measured	352	0.46	0.52	Proven	155	0.64	0.75	44%
Indicated	375	0.40	0.52	Probable	90	0.51	0.68	24%
Inferred	48	0.56	0.55					
<b>TOTAL</b>	<b>776</b>	<b>0.44</b>	<b>0.52</b>	<b>TOTAL</b>	<b>244</b>	<b>0.59</b>	<b>0.72</b>	<b>32%</b>

The inaugural Townsville Mineral Resource of 2018 has not changed for 2019 as shown below.

Townsville Mineral Resource as at 31st December 2019

MINERAL RESOURCE			
CATEGORY	TONNAGE (Mt)	AU (g/t)	AU (Moz)
Measured	-	-	-
Indicated	2.4	4.1	0.3
Inferred	17.0	4.3	2.3
<b>TOTAL</b>	<b>19.0</b>	<b>4.3</b>	<b>2.6</b>

**THE MINERAL RESOURCE AND ORE RESERVE REFLECTS THE OUTCOME OF STRATEGIC PLANNING WORK UNDERTAKEN IN 2019.**





# GEOLOGY / 4

## Near Mine Exploration Targets

The exploration priority for 2019 was to increase the geological understanding of known mineralised material in SML 1. A total of 23,927 m was drilled in 2019 with 42 holes completed to target depth.

### Hagley Park Skarn

Nine holes have been drilled into the Hagley Park skarn, presently sufficient to construct a detailed geological model and define the mineralised envelope.

### New York Breccia

In 2019, ten additional holes were drilled into the New York Breccia and the knowledge obtained has contributed positively towards an understanding of the morphology. The New York Breccia appears to be a large pipe-like body approximately 600 m by 400 m in plan, extending with broader dimensions to a depth of at least 1,000 m from surface. The drill holes also intersected what is still interpreted as New York Breccia in excess of 200 m beyond the main pipe, but in localised areas parallel and above the Taranaki Thrust as sill-like bodies. This system still remains open vertically to the north and the south.

Mineralisation occurs as interstitial sulphides in the form of pyrrhotite, pyrite, sphalerite and chalcopyrite. Free gold is commonly observed in sulphide-rich zones. Gold mineralisation hosted within the New York Breccia pipe is interpreted to be intrusive-related and hydrothermal in style.

Infill drilling in the upper parts of the system is planned for 2020, together with deeper drilling to investigate possible copper mineralisation at depth. A concept study is under way to identify potential mining options and bulk samples have been collected from drill core for preliminary metallurgical test work.

### Wellington

Mineralisation at Wellington consists of a series of magnetite skarn and calc-silicate endoskarns associated with the Taranaki Thrust and limestone intrusive contacts.

A program of resource definition drilling was initiated in 2019 and this is expected to be completed in early 2020.

### Darien

Darien is a small copper-gold porphyry system immediately westwards of the New York Breccia. Historic drilling indicated copper mineralisation, but the extent of the system has never been accurately delineated. Mineral Resource definition drilling commenced in late 2019 and will be completed in 2020.

## Waterfall Epithermal System

This epithermal system is a broad area of alteration containing porphyry related veins at the site of the waterfall in Sulphide Creek. These veins appear to be directed towards a shallow intrusive body beneath the main area containing epithermal veins. Drilling is underway to test for potential gold mineralisation in this area.

### Gilor Breccia

This breccia was discovered in Upper Gilor in 2017. The outcrops resemble both the New York Breccia and the Townsville breccia and is probably a hybrid of both types. Drill testing is planned for early 2020.

### Gilor Skarn

Reconnaissance drilling in early 2019 intersected a broad zone of skarn mineralisation on the margins of the Komgubup Sill in Lower Gilor Creek. Encouraging results were obtained (79.5 m at 0.73 g/t Au from 203 m) and follow up drilling is planned in 2020.

Aerial image showing pit location, SML boundary and location of key targets in SML 1.



## Regional Exploration

OTML has continued to carry out exploration activities in the granted tenements outside of the SML area as part of a wider regional exploration program. Beyond the boundary of the SML, OTML holds five Exploration Licences (ELs) in Western Province. These are Townsville (EL2156), Kauwol (EL1677), Bubu (EL2472), Anju (EL2256) and Dorongo (EL2289). Ongoing exploration work has included geophysical surveys, geological mapping and drilling of prospective targets.

An induced polarisation survey will be undertaken immediately North of the Mining Lease towards the Townsville gold and copper prospect. It is anticipated that a number of new drill targets will be generated by this survey, which will require priority follow-up.

Intrusive and breccia-hosted mineralisation at Mt Anju will continue to be drill tested in 2020, through the testing of anomalies identified by the induced polarisation survey completed in early 2019.

Scout drilling is planned on a number of regional tenements including EL1677, EL2156 and EL2472. This work can be considered as follow-up on previous reconnaissance mapping and geochemical sampling programs.



# OTML CONTINUES TO INVEST IN REGIONAL EXPLORATION OUTSIDE OF THE SML.



# REGIONAL EXPLORATION PROJECT PIPELINE





# PEOPLE



# **OTML'S "ONE TEAM, WAN PASIN" HIGH PERFORMANCE INITIATIVE STRENGTHENS BUSINESS OUTCOMES.**



## PEOPLE /2

The program focuses on key aspects of culture, capability and systems so employees can perform at their best and reach their potential through professional and personal development.

At year end, OTML directly employed 1,747 people with PNG citizens representing 96% of the workforce and with 39% from the Western Province and Preferred Area.

OTML has recruited back to PNG, 19 national staff who have gained further experience with international mining companies. These staff have broader experience not only in their technical discipline but also in leadership styles.

Most employees are on a FIFO rosters (either on a three or six week cycle) and over 420 employees from the local Western and Sandaun Provinces reside in company housing in Tabubil. The rosters provide for efficient allocation of resources while allowing for adequate respite.

OTML participates in an annual remuneration survey of PNG extractive industry companies in order to compare and adjust salaries and benefits to maintain a competitive remuneration package for employees.

The workforce is assigned into 12 Position Grades from entry level to senior management. 1,024 employees are in Grades 1 to 4 which report to frontline supervisors and have the option of union representation. Of these, approximately 53% are members of the union. Regular communications with the workforce and union executives facilitate alignment and timely resolution of grievances. There were no interruptions to operations due to industrial action.

The 2019 employee demographics have remained relatively constant compared to 2018 and there are no seasonal variations in employment numbers. Employees receive regular performance reviews with their supervisors.

### A High-Performance Organisation

OTML focusses on developing a high performing, one integrated team approach. Establishing the desired culture, developing workforce capabilities and ensuring effective systems are the three key pillars to OTML's approach.

#### The Desired Culture

Various initiatives have been progressed to develop the desired high-performance culture.

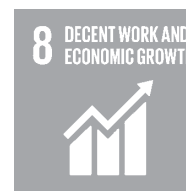
### One Team, Wan Pasin

The Pasin Ok Tedi Team is a selection of opinion leaders from across the business formed to help develop and implement initiatives focusing on developing a "One Team, Wan Pasin" culture. The team identified the desired personal behaviours that would bring to life the Ok Tedi Values of Safety & Environment, Integrity, Accountability, Teamwork, Performance and Sustainability.

During 2019 the Team rolled out the Values in a form which engaged the workforce in various team and individual contests and challenges to raise awareness of the Values.

The Team also facilitated events such as the Ok Tedi Anniversary to provide opportunities for employees to participate and engage and to feel proud of their company.

This program will continue throughout 2020.



## Diversity and Inclusion

As part of the desired culture, OTML is committed to diversity and inclusion and recognises that there is currently an imbalance in gender diversity. The OTML Women's Network (OWN) was formed in 2018 and is sponsored by the Company to support and raise awareness of the interests and challenges of female employees and contract business partners. Following a successful program of activities, OWN consolidated in 2019 by holding their first election of officers and developing a strategic plan covering key areas of Safety & Security, Health & Wellness, Development & Coaching, Network & Support, Community & Education and Promoting OTML as a first choice for women.

OTML has engaged a Brisbane based institute to conduct Empowerment Workshops for female employees and contractor business partners. The workshops also provided feedback for the Diversity and Inclusion action plan being developed for 2020.

## Communication

The workforce is informed on company performance and has an understanding that its competitive position is important to ensure a sustainable future. Formal "Town Hall" meetings (Haus Bungs) for all employees are conducted twice per year to share business results and plans, as well as regular internal newsletters and bulletin board posts.

## Other Initiatives

Employees potentially impacted by the OTML Code of Conduct are required to annually re-fresh their understanding of the Code which covers rules regarding behaviour, discrimination, fraud and confidentiality.

In order to support the workforce to perform at their best an Employee Assistance Program is in place to provide confidential counselling and support to employees and their families.

## Developing Workforce Capability

### Re-vitalising the Ok Tedi Training Centre

During 2019 the new Manager Organisational Development & Training has focussed on improving the utilisation and contribution of the Ok Tedi Training Centre by ensuring the availability of appropriate facilities, delivering high quality training and providing services to operations which may have otherwise been outsourced.

### Leadership Development

The Ok Tedi Leadership Development Program was developed and the roll-out commenced and will continue into 2020. The program was developed to specifically address areas for improvement identified within the frontline leadership group as well as reinforcing the Ok Tedi Values.

The Extended Leadership Team comprising all General Managers and Managers continues to meet monthly to ensure the Leadership Team are aligned on the business strategy and is informed on business results, challenges and opportunities.

> NEXT PAGE

< PREVIOUS PAGE

<< CONTENTS



# 1,747

**TOTAL EMPLOYEES**



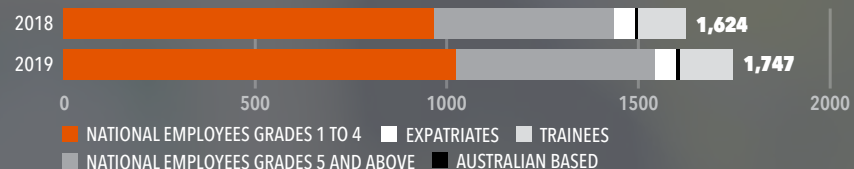
## TOTAL EMPLOYEES

■ 2018 ■ 2019

1,624

1,747 TOTAL

## EMPLOYEES BY CATEGORY



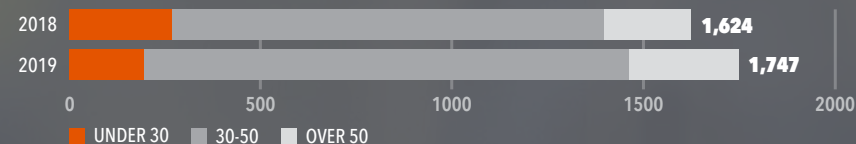
## EMPLOYEES BY GENDER



## EMPLOYEES BY ORIGIN



## EMPLOYEES BY AGE



## PEOPLE /4

### Operator and Trade Training

The operational business units with support from the Training Centre are progressively refreshing training packages and assessing competencies to ensure the workforce have the skills and knowledge to safely and effectively perform their jobs and prepare for new technologies.

### Formal Traineeships

OTML's commitment to the development of national youth extends beyond the Company's direct need and contributes to the national skilled labour pool. Many of those who do not continue in employment at the end of their traineeship return to Ok Tedi after having gained further experience elsewhere. In 2019 an investment of PGK 3.1 million was made on direct training.

OTML operates the following traineeships:

- **Graduate Development Scheme:** A 2 year program to develop recent university graduates in technical and business disciplines. In 2019, there were 24 Graduates in the program.
- **Trade Apprenticeship:** A 4 year program to develop competent trades persons in various relevant disciplines. In 2019, there were 79 apprentices in this program.
- **Preferred Area Development Program:** A 2-year program to provide entry level training to preferred area youth in skills such as mobile and fixed plant operation, trade skills and business skills. In 2019, there were 35 trainees in this program.

### Youth Development

As youth education is critical, education assistance is offered to dependent children of employees to reimburse mandatory school fees and associated costs for primary, secondary and tertiary education. In 2019, PGK 11.3 million was spent on education assistance, a benefit which is much appreciated by employees and contributes to upskilling and development of future generations.

### Systems

During 2019 significant progress was made in implementing on-line systems to support efficient people processes.

### Recruitment and On-Boarding

The first phase of Success Factors (the SAP Human Resources module) was successfully implemented. This phase provides an on-line system to manage recruitment and on-boarding. Applicants are able to create their profile and apply for vacancies on-line. The process through to on-boarding is then managed within the system providing greater efficiency and visibility to the process.

The next phase has been approved for implementation during 2020.

### Permits, Competency and Licensing Management

Significant progress was made in configuring INX InTuition for the recording and management of permits, licenses and competencies. This will allow greater efficiency and visibility of the permits and skills held by employees. This system will be ready for full implementation in 2020.

### Camp and Housing Management

A proposal for the implementation of INX Inflight was approved for development and implementation in 2020. This will improve the scheduling, allocation and maintenance of on-site accommodation.

Image (previous page): Daritha Fulieng, PAD trainee maintenance fitting and machining.

Image (right): Jonathan Dalaweta in training workshop.

A man with a beard, wearing a yellow hard hat with a logo and safety glasses, is focused on his work. He is wearing a yellow high-visibility shirt. In the background, there is industrial machinery, including a large red component. The scene is set in a workshop or factory environment.[NEXT PAGE](#)[PREVIOUS PAGE](#)[CONTENTS](#)

**OTML'S COMMITMENT TO THE  
DEVELOPMENT OF NATIONAL YOUTH  
EXTENDS BEYOND ITS DIRECT NEEDS  
WHICH RESULTS IN QUALIFIED  
PERSONNEL ENTERING THE  
GENERAL LABOUR MARKET.**



> NEXT PAGE

< PREVIOUS PAGE

<< CONTENTS

# ENVIRONMENT



# OTML SPENT OVER PGK 239 MILLION ON ENVIRONMENTAL MITIGATION PROGRAMS.

# ENVIRONMENT /2

Ok Tedi's mining operations are centred on the Mt Fubilan deposit in the upper Fly River catchment in the remote Star Mountains, Western Province. The mine is located at an altitude of approximately 2,000 m in a densely vegetated, mountainous area where the annual average rainfall is approximately 9,000 millimetres per annum.

OTML undertakes a comprehensive environmental monitoring program governed by the Ok Tedi Agreement. In 2019, environmental monitoring was compliant with the Environmental Regime conditions and there were no fines or imposed penalties.



## Compliance Monitoring

Compliance monitoring undertaken during 2019 is defined in the Regime which is part of the Ninth Supplemental Agreement of the Ok Tedi Mining Act. The Environmental Regime which contains OTML's environmental management and reporting obligations set against the following six environmental values:

- the assessment of potable water quality downstream of the operation;
- the availability of normal aquatic resources such as fish and edible aquatic flora to meet normal community requirements;
- the safe edibility of these aquatic resources;
- the availability of normal terrestrial resources such as dry land on which to establish gardens, hunt and gather firewood and meet normal community requirements;
- the safe edibility of these terrestrial resources such as crops and natural forest resources, included in the normal dietary intake of the local community; and
- water levels in the main Ok Tedi and Fly River channels for navigation by commercial and village craft.

The OTML Environment Department is responsible for monitoring impacts along the 1,000 km downstream riverine system from the mine to the Fly Delta and at the port transfer facility in Port Moresby harbour. The 2019 Ok Tedi Annual Environmental Report findings were that the mine was compliant with the Environmental Regime conditions.

## OK Tedi Environmental Management Act

The new Ok Tedi Environmental Management Act (OTEMA) was passed by the PNG Parliament in February 2019 and certified in February 2020 for gazettal. The certified OTEMA gave effect to Section 13 of the Act relating to Ok Tedi Permit "Permit" as of 13 February 2020. The other sections of the OTEMA will be effective after the Act is formally gazetted. During 2019, Conservation Environment Protection Authority (CEPA) approved a submission by OTML to amend the Permit conditions relating to NAPP requirements at the Mine waste rock dumps and sewerage treatment plants. Under the revised Permit, OTML will be required to monitor 102 conditions. OTML is finalising the various management plans required to be submitted to CEPA within 12 months of the Permit effective date.

Image (previous page): Emmanuel Aku inspecting new revegetation on Bige stockpiles.



## Tailings and Waste Rock Management

Due to steep terrain and high rainfall the region is geologically unstable, resulting in the mine permit allowing placement of treated tailings and waste rock into the upper river valleys. The riverine discharge of tailings and waste rock management continues to be the most significant long-term environmental risk for OTML.

In 2019, 15.7 Mt of treated tailings was discharged into the upper reaches of the Ok Tedi and 77.2 Mt of waste rock was discharged to failing dumps to the north and south of the mine. The tonnage delivered to the river system in 2019 was the highest since mine operation commenced as a result of increased waste rock removal from the mine's west wall to reduce wall instability and access future ore in the centre pit.

As part of the Mine Waste Tailings Project (MWTP), OTML separates sulphides (pyrite) from the tailings prior to tailings discharge to reduce the long-term impact on the river system. The pyrite concentrate produced is piped 125 km to storage pits on the West Bank at Bige where it is permanently stored sub-aqueously and then covered with non-acid forming sands dredged from the river. The dredge removes approximately 10 Mm<sup>3</sup> per annum of sediments (comprising natural sands, tailings and waste rock fines) for placement in engineered stockpiles and rehabilitated.

To further assist in neutralising potential acid production from the mining and processing operations, limestone is mined and discharged in the waste rock failing dumps to ensure a NAPP target of -150 kg H<sub>2</sub>SO<sub>4</sub>/t is achieved in the dumps. Limestone is also added to the mill feed at the primary crusher to achieve a Net Acid Production Potential (NAPP) target of -30 kg H<sub>2</sub>SO<sub>4</sub>/t in the tailings. The finely ground limestone reacts more readily to neutralise acidity and is transported with the tailings down the river system. The annual ANC/MPA measure was 2.9 nearly 45% under the permit threshold ANC/MPA requirement of 2.0, indicating there is excess neutralising capacity in the river at Bige.

## Biodiversity Impacts

The long-term discharge of mine waste to the upstream river system has resulted in sediment deposition along the river. During high or long rainfall events in the upper catchment an increase in the duration and frequency of overbank floodplain inundation is observed in the lower Ok Tedi and middle Fly Rivers.

In 2019 a comprehensive monitoring program was completed that also included new monitoring parameters and sites.

The annual vegetation assessment survey was completed to measure the impacts on the terrestrial ecosystems along these rivers. Between December 2017 and July 2019, 35 transects and 78 unbounded plots were established as monitoring sites including forest dieback stressed and recovery zones.

Vegetation dieback mapping in 2019 revealed that there was no additional vegetation impact compared to the 2018 estimate. The overall impacted area is 1,983 km<sup>2</sup> and a lower Ok Tedi estimate of 217 km<sup>2</sup>. Vegetation recovery over the total area decreased by 3 km<sup>2</sup> and by 0.5 km<sup>2</sup> within the lower Ok Tedi floodplain. The total area is less than the long term predicted maximum impact area of 2,395 km<sup>2</sup>.

Sago palm distribution was mapped in the Ok Tedi, Middle Fly and South Fly districts and compared to the baseline established in 1982. The aim of the study is to measure changes in distribution. The 1982 baseline was measured using 1:15,000 scale aerial photographs, whereas the 2019 survey used high resolution aerial mapping. The data is being interpreted and the study will be completed in 2020.

# ENVIRONMENT /3

OTML has monitored long term fish biomass, abundance and species richness, using standardised gillnet methods at three riverine and two floodplain sites. The extent of decline in fish biomass (15%), abundance (62%) and species (38%) has been recorded at riverine sites. In contrast, floodplain sites show an increasing trend in fish catch for all parameters from 2009. This coincides with the observed improvement in water quality and river bed level stabilisation due to mitigation programs (MWTP and dredging).

To further understand causes of fish decline, five fish guild structures (viz. habitat, reproduction, migration, feeding and biological measures) were assessed for 84 species against mine impact variables. The study confirms habitat as being important for fish. Migratory species are able to avoid degraded habitat by moving away and taking refuge in tributaries and off-river water bodies not impacted by mine wastes.

In 2019, the survey of eleven Off River Water Bodies (ORWB), in the Upper, Middle, Lower Fly and Strickland River was completed to assess the fish and other aquatic life biomass. Both impacted and control sites were sampled for aquatic invertebrates, dissolved metals and general water quality. A final report for this ecological health assessment is expected during 2020.

The 2018 fish diversity survey identified 91 of the 108 previously recorded Fly River fresh water species. In 2019, a new species of Freshwater Moray Eel (*Gymnothorax polyuranodon*) was caught in the lower Ok Tedi area and brings the species record to 109. A new species of eel-tailed catfish caught in 2018 has been submitted to Australian museums for genetic and morphological identification.

A repeat study to assess copper distribution in the estuary across the salinity range (from fresh to salt water) 0 to 35 Practical Salinity Unit was completed in 2019. The 2019 sampling was extended west towards Daru and east towards the Gulf of Papua to increase coverage of the study. The dissolved copper concentration as a function of salinity is consistent with past (1993, 2010 and 2013) results.

To understand the impact of transshipping copper in Port Moresby harbour, sampling was conducted within the vicinity of storage vessel MV Kumul Arrow area and a control site at Bootless Bay. Fish tissue from carnivore, omnivore and herbivore species, oyster, sea grass (leaves and rhizomes), seawater (surface and bottom) and benthic marine invertebrate samples were collected in April 2019. The report is expected to be completed in 2020.

## Environmental Performance

OTML is committed to improving environmental performance across all aspects of the Company's operations and has prepared the 2019 data tables and 2018 data for comparison. The annual average % Sulphur in final tailings discharge was 0.95%. This was 5% lower than the target value of 1%. The average annual ANC/MPA ratio in dredged sediments at Bige was 2.9, 45% higher than the set compliance limit of 2.0 due to excess neutralising capacity in the river at Bige.

## Water Usage

In 2019, total water use was 7% lower than in 2018 due to reduced production caused by dry weather in December. Recycled water comprised 75% of the water utilised by the processing plant.

## Energy Consumption

Open cut mining and the processing of copper ores is energy intensive. OTML's energy intensity index (MWh/t contained copper) decreased marginally from 4.6 in 2018 to 4.5 in 2019.

Image (right): Ben Gafie, Nicko Paulus and Mathew Saki, Environmental Field Technicians collecting river water samples.

A photograph of three workers in high-visibility yellow and blue gear, including hard hats and life vests, conducting an environmental sampling exercise on a rocky shoreline. One worker is kneeling and using a long-handled white bucket to collect water from the river. Another worker is kneeling nearby, possibly recording data or using a device. A third worker stands behind them, observing the process. The background shows a river and a forested hill under a blue sky with scattered clouds.

**OTML IS COMMITTED TO IMPROVING  
ENVIRONMENTAL PERFORMANCE  
ACROSS ALL ASPECTS OF THE  
COMPANY'S OPERATIONS.**



# ENVIRONMENT /4

In 2019, total diesel consumption was 105 ML and 26% of this consumption was used for power generation. In 2019 the replacement Wartsila power unit project was completed resulting in significant fuel savings (PGK 13.6 million) and lower greenhouse gas emissions compared to the old units.

Hydroelectric base load power is utilised in preference over high cost thermal energy generation.

The total amount of electricity used during 2019 was 447 Gigawatt hours (GWh) compared to 461 GWh in 2018, with 330 GWh being produced from hydroelectric generation. Hydroelectric power provided 76% of OTML's power requirement through the two hydroelectric generation stations (Ok Menga and Yuk Creek).

ENERGY TYPE (CONSUMPTION)	2018	2019
Total energy used (fossil + renewables) (Petajoule (PJ))	5.31	5.38
Total energy (fossil) (PJ)	4.12	4.16
Total renewable energy (PJ)	1.19	1.22
Energy used for transportation (ships, planes, vehicles) (PJ)	2.69	2.72
ENVIRONMENTAL MANAGEMENT PERFORMANCE		
Environmental induction (number of OTML and contract employees)	5,036	3,123
Incidents Level 3+ (medium, major or catastrophic)	1	0
WATER MANAGEMENT		
Total water used ('000 m <sup>3</sup> )	52,779	49,037
Freshwater ('000 m <sup>3</sup> / % of total)	12,185 / 23	12,054 / 25
Recycled water ('000 m <sup>3</sup> / % of total)	40,594 / 77	36,983 / 75
Freshwater intensity index (m <sup>3</sup> /t contained copper)	127	122
WASTE MANAGEMENT		
Total riverine disposal ('000 t)	75,333	92,897
Waste rock ('000 t / % of total)	59,391 / 79	77,210 / 83
Tailings ('000 t / % of total)	15,942 / 21	15,688 / 17
PCon slurry piped to Bige ('000 t)	2,550	2,626
Riverine disposal intensity index (t/t contained copper)	785	939

WASTE MANAGEMENT (CONTINUED)	2018	2019
Annual dredge slot production rates (Mt)	15.8	14.8
Average annual % sulphur in waste rock	0.92	2.69
Average annual % sulphur in tailings	0.97	0.95
Average annual ANC/MPA in dredged sediments	1.9	2.9
Average dissolved copper (µg/L) at Nukumba	7	8
Scrap metal (t shipped for recycling)	3,041	2,630
ENERGY AND GREENHOUSE GAS PRODUCTION		
Total diesel consumption (ML)	108.5	105
Diesel consumption for power generation (ML / % of total)	28.6 / 28	24.9 / 26
Diesel used for machinery / other (ML / % of total)	79.9 / 72	76.9 / 72
Electricity use (MWh)	461,029	447,114
Diesel generated electricity (MWh / % of total)	130,437 / 28	106,806 / 24
Hydroelectricity (MWh / % of total)	330,592 / 72	340,308 / 76
Power sold (MWh)	437	422
Energy intensity index (MWh/t contained copper)	4.6	4.5
GHG emissions ('000 t CO <sub>2</sub> -e)	304	313
GHG emissions index (t CO <sub>2</sub> -e/t contained copper)	3.2	3.2
New land disturbed this year (ha)	0.13	13.4
Total land disturbed to date (ha)	2,735	2,748.4
Land rehabilitated this year (ha)	3.23	35

## Land Disturbance and Rehabilitation

In 2019, 13.4 ha of new land was disturbed as part of the extension of Bige stockpile area and geological exploration activities. The total cumulative disturbance at all operational sites is 2,748 ha. During 2019, 35 ha of Bige stockpiles were rehabilitated using a mixture of tree and grass species. Rehabilitation methodology involves auguring oversize holes into the substrate, filling with woodchip and soil and planting native seedlings.

During 2019, 30 Ecosystem Function Analysis (EFA) transects were monitored on both the Western and Eastern stockpiles. Six new EFA transects were established across the new 2019 Eastern stockpile rehabilitation area. Monitoring data are stored and regularly updated for the stockpile rehabilitation program. The rehabilitation is demonstrating excellent growth and resilience. In 3-5 year old growth, significant leaf litter cycling and recent seed production will be monitored for second generation tree establishment.

# ENVIRONMENT /5

## Mine Closure Planning

OTML is required to prepare an updated Mine Closure Plan, Mine Area Rehabilitation Plan and Social Economic Review every three years and lodge with the PNG Government. The mine closure Social Economic Review was completed in August and presented to an indepartmental government meeting in October. The other plans were completed and lodged in December 2019, with a follow-up government meeting scheduled in January 2020. In preparation for closure works based on the current life of mine plan, OTML has PGK 845 million (USD 248 million) in an offshore trust fund.

## Environmental Incidents and Compensation

In 2019 there were no environmental production-related (Level 3) incidents, and therefore no compensation was paid. Annual compensation payments were made to the nine CMCA regions, as direct reparation for use of riverine tailings discharge. In 2019, compensation payments totalled PGK 44 million.

ENVIRONMENTAL COMPENSATION				
	2018 (PGK M)	2019 (PGK M)	2018 (USD M)	2019 (USD M)
Non-CMCA related	0	0	0	0
CMCA related	44	44	13	13
<b>TOTAL</b>	<b>44</b>	<b>44</b>	<b>13</b>	<b>13</b>

## Waste Management

The Company has developed an integrated waste management program that is actively collecting and sorting materials that can be recycled to reduce landfill. In 2019, there was a decrease in waste scrap steel shipped off-site primarily due to dry weather.

SCRAP METAL SHIPPED FOR RECYCLING (t)				
YEAR	FERROUS	NON - FERROUS	LINER PLATES	TOTAL
2019	1,810	109	679	2,598
2018	2,028	144	856	3,028

OTML shipped 1,095 kilograms of mixed refrigerant gases which were environmentally destroyed by a registered Australian company. This was the first ever shipment to a registered waste facility from PNG. Over 1.5 million litres of waste oil and 41.6 tonnes of hydrocarbon waste was burnt in the lime kiln. Excess waste oil (300,000 litres) was sent off site to a third party and OTML completed an audit on their storage and processes.

Image (right): Samuel Glenn, Environmental laboratory testing.



> NEXT PAGE

< PREVIOUS PAGE

<< CONTENTS

A man with a beard and safety glasses, wearing a white lab coat over a yellow shirt, is using a pipette to transfer liquid into a small vial. He is wearing blue nitrile gloves. The lab coat has a logo on the left chest that reads "OK TEDI MINING" and "SUKSES, KAPURBANENG" below it. The background is a blurred laboratory setting with white walls and equipment.

**IN 2019, ENVIRONMENTAL  
MONITORING WAS  
COMPLIANT WITH THE  
ENVIRONMENTAL REGIME  
CONDITIONS AND THERE  
WERE NO FINES OR  
IMPOSED PENALTIES.**

A close-up photograph of a person's face, likely of indigenous descent, featuring traditional white and red face paint. They are wearing a woven headband. The background is a blurred green forest.

> NEXT PAGE

< PREVIOUS PAGE

<< CONTENTS

# SOCIAL RESPONSIBILITY



# **SOCIAL RESPONSIBILITY PROGRAMS FOCUS ON SELF SUSTAINABILITY.**



# SOCIAL RESPONSIBILITY / 2

OTML conducts its operations in a manner that balances economic and social impacts, respecting the rights and cultural heritage of impacted communities. The company has a number of government and community agreements including the Community Mine Continuation Agreement (CMCA) which is underpinned by transparent dialogue with communities through regular field patrols and trust meetings. This dialogue is based on the principles of Free and Prior Informed Consent.

The delivery and management of social responsibility programs is achieved through the Ok Tedi Development Foundation (OTDF), a not-for-profit entity, funded directly from OTML. The OTDF focus is on building capacity and developing self sufficiency through enhancing economic livelihoods.

OTML provides significant benefits for Papua New Guinea and Western Province through taxes, dividends, royalties and compensation. The company is the largest operating business in the Province providing employment and training, national and local business opportunities and economic programs.

## Community Mine Continuation Agreement

OTML has developed and facilitated a formal CMCA with associated communities within the eight CMCA regions and six Mine villages representing the 158 communities. The agreement outlines the annual compensation, investment and development payments and is reviewed and updated on a regular basis. Each of the eight regions has an established trust, trustees and elected representatives from both genders. The six mine villages have village development committees comprising representation from men, women, youth, and church.

The Community Relations Department conducts biennial population updates for the eight CMCA regions and an annual update for the Mine villages. Payments to the beneficiaries are calculated according to the population of the respective regions and are paid directly into over 20,000 family accounts.

## Community Consultation

OTML organises regular formal and informal community engagement events. The 2019 annual CMCA community consultation patrol to all 158 villages could not take place due to Community Relation (CR) officers providing significant support to the PNG Civil Registry officers to register Western Province citizens under the National Identification (NID) registration. Most villages in the CMCA corridor were visited in 2019 except for those only accessible by helicopter in the North and Lower Ok Tedi regions. The NID registration will assist the CR team with future person identification. During registration, CR officers were on hand to answer any queries from the communities.

In late 2019, a combined OTML and OTDF patrol visited villages in the South Fly by boat. Additional joint patrols are planned throughout 2020.



In 2019, there were no community disruptions to OTML operations, largely due to the Company, in general, enjoying a positive working relationship with the communities.

### **Complaints and Grievances Management System**

OTML has a comprehensive on-line Complaints and Grievance Management System (CGMS) which meets the grievance mechanism tool guidelines of the United Nations and International Finance Corporation for Resource Sector development.

In 2019, a total of 215 complaints or queries were lodged in the system. Of these complaints, 46% concerned compensation and payments. Complaints can be resolved and closed out at any time if a complainant is satisfied with the response/outcome. The system enables management to analyse trends by complaint type, region or complainant.

The number of complaints in 2019 is less than in previous years and this can be attributed to fewer compensation issues and claims due to a better understanding by the community that spurious claims will be rejected. There were also less information and protocol breaches due to improved systems and staff training.

### **Significant Disputes Relating to Land Use or Customary Rights**

In 2019, a total of ten land related disputes were ongoing. Four of these claims contest land ownership issues over the SML and Tabubil Township lease and two further cases are landownership claims for Tabubil Township land. Another claim relates to a claim for benefits from the State for the Kiunga Wharf operational areas and landowner groups from Dablan creek who are claiming payments from OTML for land use. OTML is monitoring these legal cases carefully.

### **Community Relations Projects**

In April 2019, the CR social impact team co-ordinated the triennial Mine Closure Social Economic Review. The team and consulting anthropologist visited the six mine villages and five Middle Fly villages completing a comprehensive study on social issues and data collection relating to current village life and potential impacts at mine closure. A report was presented to a multi-stakeholder forum in Port Moresby and finalised in December 2019 as part of the Mine Closure Planning submission to the PNG Government.

A community leaders meeting was held where the OTML CEO made presentations on behalf of the company. OTDF also presented the WestAgro initiative, which was received with interest as an alternative livelihood and future economic option for CMCA communities.

# SOCIAL RESPONSIBILITY /3

## Ok Tedi Development Foundation

OTDF was established in 2001 under the Ok Tedi Mine Continuation (Ninth Supplemental) Agreement Act as a tax-free entity. OTDF's vision is to improve self-sustainability and improve the quality of life of all Western Province communities. Project and program funding for the OTDF is primarily provided by OTML, the CMCA Trusts, Mine Village Development Funds, the Alice River Trust, the OTML Tax Credit Scheme (TCS) and the Western Province Peoples Dividend Trust Fund (WPPDTF).

The focus of the OTDF is to deliver programs in five key sectors namely; Local and Regional Development, Education, Health, Infrastructure and Community and Social Development.

While OTML funding was sustained in 2019, funding from other sources decreased, principally due to litigation over access to trust funds, and finalisation of the health project.

Detailed information on community program delivery for 2019 can be found in the OTDF Annual Report and on the OTDF website: [www.otdfpng.org](http://www.otdfpng.org).

## Economic Contribution

OTML provides significant funds towards socio-economic development, both directly through services provided and infrastructure and indirectly through the facilitation of community access to services and infrastructure. OTML's economic contribution to PNG and the Western Province is through the following payments:

- royalties from metal sales;
- employee salaries;
- capital and operating expenditure to suppliers of goods and services in PNG;
- payments under the various land and community agreements;
- various business taxes, including company payroll, goods and services and the TCS;
- donations and investments in community development programs; and
- investments in local and regional infrastructure, including roads, bridges, jetties, hospitals and schools.

Payments into the PNG economy in 2019 were approximately PGK 3,045 million, which was significantly higher than in 2018 (PGK 1,636 million). A dividend payment of PGK 400 million was paid to shareholders.

TCS expenditure was PGK 26.7 million compared to 2018 expenditure of PGK 22.4 million. Goods purchased in PNG increased to PGK 628 million compared to PGK 478 million in 2018. There was a significant increase in PNG contractor payments of PGK 1.429 million compared to 2018 expenditure of PGK 420 million. These increases are attributed to the Crusher Replacement Project.



## Contribution to local communities and the PNG economy

	PGK (M)		USD (M)	
	2018	2019	2018	2019
Taxes and levies paid to PNG Government	293.3	187.1	89.3	55.2
Dividend paid	100.0	400	30.4	118.2
<b>ROYALTY PAYMENT</b>				
Western Provincial Government	25.4	32.3	7.7	9.5
Landowners	26.7	32.3	8.1	9.5
Less: Royalty tax (IRC)	(1.3)	(1.6)	(0.4)	(0.5)
<b>SUBTOTAL</b>	<b>50.8</b>	<b>63.0</b>	<b>15.4</b>	<b>18.5</b>
<b>TAX CREDIT SCHEME</b>				
- Health	0.7	0	0.2	-
- Education	6.0	4.9	1.8	1.4
- Roads, bridges, airport	10.1	18.6	3.1	5.5
- Utilities	5.6	0.03	1.7	0.007
<b>SUBTOTAL</b>	<b>22.4</b>	<b>23.5</b>	<b>6.8</b>	<b>6.9</b>
<b>LOCAL BUSINESS</b>				
Goods purchased in PNG	478.3	628	145.5	185
PNG contractors	419.6	1,429	124.6	426
Local training costs	4.1	3.1	1.2	0.9
Salaries and wages	267.4	311.5	81.0	92.0
<b>TOTAL</b>	<b>1,635.9</b>	<b>3,045</b>	<b>494.2</b>	<b>902.7</b>

## COMPLAINT CATEGORY

144	99	COMPENSATION AND PAYMENTS	5	4	LOCAL LEADERSHIP AND ORGANISATION
11	6	SAFETY AND SECURITY INCIDENTS	54	26	INFORMATION, PROCEDURES AND PROTOCOL BREACHES
27	21	EMPLOYMENT, TRAINING AND BUSINESS	10	7	ENVIRONMENT AND EMERGENCIES
22	13	LAND AND LOCAL CULTURE	3	1	KEY STAKEHOLDER RELATIONS
27	33	INFRASTRUCTURE, HEALTH, EDUCATION AND TECHNOLOGY	34	5	OTHER
337				215	TOTAL

## GROUPS AND TRUSTS (PGK M)

5.5	5.6	MINE LANDOWNERS
3.1	3.1	DEVELOPMENT FUND
5.9	5.9	WOMEN AND CHILDREN FUND
2.3	2.3	INVESTMENT FUND
32.7	32.7	SPECIAL COMPENSATION
49.5	49.6	TOTAL

## PAYMENT CATEGORY (PGK M)

5.7	5.9	LAND LEASED TO VILLAGES
50.2	0.5	DONATIONS
16.1	0.0 <sup>1</sup>	8TH SUPPLEMENTAL AGREEMENT
44.0	44.0	CMCA
5.5	5.6	MINE VILLAGE BENEFITS
0.0	0.0	OTHER COMPENSATION
121.5	56.0	<b>TOTAL</b>

NOTE 1: PAYMENT DEFERRED FROM 2019 TO JANUARY 2020

## OK TEDI DEVELOPMENT FOUNDATION

### SOURCE OF INCOME (PGK M)

17.4	21.5	OTML
8.0	2.3	VILLAGE TRUST FUNDS
10.8	5.3	CMCA TRUST
1.48	4.9	WOMEN & CHILDREN TRUST
36.2	34.0	<b>TOTAL</b>

### PROGRAM EXPENDITURE BY SECTOR (PGK M)

5.3	1.1	COMMUNITY AND SOCIAL DEVELOPMENT
4.4	5.2	EDUCATION
12.5	2.4	HEALTH
7.5	4.5	INFRASTRUCTURE
6.5	3.7	LOCAL AND REGIONAL ECONOMIC DEVELOPMENT
36.2	16.9	<b>TOTAL</b>

KEY  
2018  
2019



# SOCIAL RESPONSIBILITY /5

## Royalty Payments

In 2019, OTML paid PGK 64.5 million in royalties based on net revenues derived from copper and gold production. The royalties were higher than those paid in 2018 due to increased production.

## Tax Credit Scheme

The TCS was established by the PNG National Government in 1996 to deliver infrastructure and development projects to the Provinces in which Mineral Resources companies operate. This funding stream is the National Government's direct funding for projects from the taxes collected in the Province where they were generated.

Since its establishment, the TCS has provided significant project funding (PGK 375 million) to the Western and Sandaun Provinces. In 2019, the OTML's TCS project commitment was PGK 26.7 million. This includes PGK 18.6 million for Tabubil Telefomin road and PGK 4.8 million for the Oksapmin High School development project.

## Compensation Payments

OTML makes annual lease payments for land associated with the mine and its infrastructure. General compensation payments to CMCA communities include, mine and landowner projects, environmental projects and other compensation.

In 2019, compensation payments totalled PGK 56 million. This was lower than in 2018 which then included a PGK 50 million donation to the Earthquake Disaster Restoration Fund.

## CMCA Payments

The CMCA provides specific funding on an annual basis to affected villages in the eight Trust Regions and the six mine villages. The funding includes reparation for the mining induced impacts on the receiving environment. Village Planning Committees (VPC) identify and prioritise sustainable development projects for Trust funding. The Trust Board meets every quarter to review and approve new projects submitted by the VPC. OTDF provides assistance in project scoping, design, tenders and oversees project construction.

In 2018 and 2019, PGK 49.6 million was distributed to the various groups and trusts.

## Local Business Supply Chain

OTML has a policy to preferentially source PNG manufactured goods and service providers where they are competitively priced and meet quality standards. The PNG supply chain includes multinational companies that are represented in PNG and many have offices in the Western Province. Small to medium businesses that have pre-qualified and established management systems are preferred suppliers.

In 2019, the total value of services contracts sourced from PNG suppliers was PGK 1,429 million or 71% of all contracts.

The breakdown of goods purchased by source included PGK 292.4 million was generated from within the Western Province, a significant increase from 2018. This increase was mainly due to the crusher project.

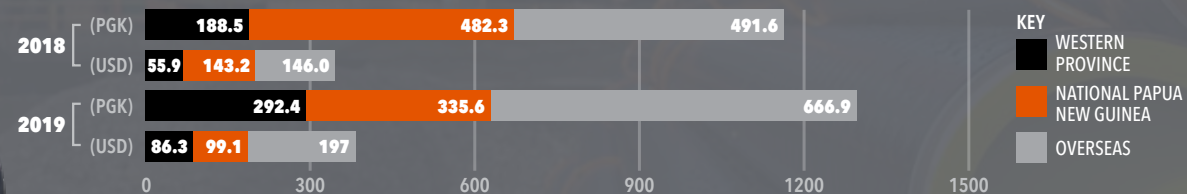
Image (previous page): Sing Sing dancers – Wanga Wanga Village, Middle Fly.  
Image (right): Hillary Turnamur, Kiunga Operations Manager, at Kiunga dispatch yard.

> NEXT PAGE

< PREVIOUS PAGE

<< CONTENTS

### BREAKDOWN OF PURCHASES OF GOODS BY LOCATION (million)



### LOCAL PURCHASES IN WESTERN PROVINCE (million)





> NEXT PAGE

< PREVIOUS PAGE

<< CONTENTS

# FINANCE







**PROFIT AFTER TAX  
PGK 754M ON  
SALES REVENUE  
OF PGK 3,804M.**

## FINANCE /2

The company spent PGK 886 million on capital expenditure and declared a dividend of PGK 400 million.

The financial statements have been externally audited by PricewaterhouseCoopers PNG. During 2019, there was no direct financial assistance in the form of tax subsidies, royalty relief, grants or financial incentives received by the Company from the PNG Government.

### Sales and Marketing

OTML produces a copper-gold-silver concentrate product which is sold to customers in Japan, Philippines, Germany, South Korea and India, with these formal offtake agreements representing at least 85% of expected annual production. The balance of product is sold to the spot market as circumstances dictate.

OTML's commitment to meeting customer requirements occurs across the value chain, with operations and logistics teams working together to reliably deliver a marketable concentrate parcel. Customer concentrate specifications are blended at OTML's Kiunga facility, before being shipped to the silo vessel, the Kumul Arrow, in Port Moresby harbour. Product is then exported to customers by our commercial export shipping partners.

#### SALES REVENUE BY COMMODITY (MILLION)

	2018 PGK	2019 PGK	2018 USD	2019 USD
Copper	1,782	2,114	542	624
Gold	1,033	1,538	314	454
Silver	53	81	16	24
Finalisation - Gains / (-Losses)	(75)	72	(23)	21
<b>TOTAL SALES REVENUE</b>	<b>2,793</b>	<b>3,804</b>	<b>850</b>	<b>1,122</b>

### Metal Prices

The 2019 copper price was 8% lower than in 2018 and the gold price was 0.5% higher.

### Financial Performance Summary

In 2019, the Company recorded a profit (after tax) of PGK 754 million (USD 222 million), and generated PGK 1,376 million of cash from operating activities.

PGK 556 million of this cash was used to fund sustaining capital and the investment in the Crusher Replacement Project, PGK 329 million invested in waste stripping to ensure timely presentation of future ore sources, and PGK 153 million to fund lease payments on dredge, vessel and aircraft assets.

The Company distributed PGK 400 million in dividends. A cash balance of PGK 357 million (USD 105 million) was held as at 31 December 2019.

## Company Income Statement and Balance Sheet

RESULTS: INCOME STATEMENT				
	2018 PGK (M)	2019 PGK (M)	2018 USD (M)	2019 USD (M)
<b>SALES REVENUE</b>	<b>2,793</b>	<b>3,804</b>	<b>845</b>	<b>1,122</b>
Other operating income	(3)	(4)	(1)	(1)
Marketing costs	(333)	(383)	(101)	(113)
Cash operating costs	(1,746)	(1,760)	(530)	(519)
Change in product inventories	182	(196)	55	(58)
Depreciation and amortisation	(270)	(396)	(82)	(117)
<b>PROFIT FROM OPERATIONS</b>	<b>620</b>	<b>1,061</b>	<b>188</b>	<b>312</b>
Net finance costs	41	(3.3)	12	0.7
<b>PROFIT FROM ORDINARY ACTIVITIES BEFORE TAX</b>	<b>660</b>	<b>1,058</b>	<b>200</b>	<b>313</b>
Income tax expense	(195)	(304)	(59)	(90)
<b>NET PROFIT FOR THE YEAR</b>	<b>466</b>	<b>754</b>	<b>141</b>	<b>222</b>

## Discussion of Income Statement

### Revenue

Total operating revenue in 2019 was PGK 3,804 million, which was 36% higher than in 2018. The higher PGK revenue was a result of the following factors:

- A reduction in copper concentrate inventory stocks (from 58 Kt at the end of 2018 to 15 Kt at the end of 2019) which were abnormally high at the end of 2018 due to the impact of dry weather in the last quarter of 2018. This had the effect of increasing 2019 sales by 9%.

- An increase in copper production of 3% (from 97 Kt in 2018 to 99 Kt in 2019) and an increase in gold production of 9% (from 280 Koz in 2018 to 306 Koz in 2019).
- An increase in gold price of 9% (from USD 1,278/oz in 2018 to USD 1,397/oz in 2019) which more than offset the 3% fall in average realised copper price (from USD \$2.96/lb to USD2.71/lb).
- The favourable impact of a revaluation gain (an adjustment to the value of product sold based on price movements from the time of shipment to the time of finalisation) relating to opening stocks of concentrate inventories held.
- A strengthening of the USD against the PGK of 1%.

YEAR	PGK (M)
2019	3,804
2018	2,793

EXPORT SALES	2018	2019
Concentrate (dmt)	361,460	454,648
Contained copper (t)	87,110	107,339
Contained gold (oz)	259,412	338,318
Contained silver (oz)	1,111,760	1,640,007



# FINANCE /3

## Operating Costs

The total operating cost in 2019 was PGK 2,739 million (USD 808 million) which was PGK 569 million or 26% higher than in 2018.

PGK 378 million of this increase was related to inventory charges. In 2018 concentrate inventory stocks built up due to dry weather and this resulted in a credit to costs of PGK 182 million. In 2019 the inventory build-up was cleared resulting in an inventory charge of PGK 196 million.

The balance of cost increase was primarily related to an increase in mine production of 17% (from 89 Mt to 106 Mt), additional maintenance expenditure on the mining fleet, increased maintenance expenditure on the ageing processing facility to improve operational reliability, and a 40% increase in exploration costs.

## Profitability

The after-tax profit generated by the Company in 2019 was PGK 754 million, which was PGK 289 million higher than the previous year.

PROFITABILITY (COMPANY)		
PGK (M)	2018	2019
Profit Before Tax	661	1,058
Tax Expense	(195)	(304)
<b>PROFIT AFTER TAX</b>	<b>466</b>	<b>754</b>

RESULTS: BALANCE SHEET				
	2018 PGK (M)	2019 PGK (M)	2018 USD (M)	2019 USD (M)
<b>ASSETS</b>				
Cash and cash equivalents	459	357	136	105
Trade and other receivables	219	318	65	80
Inventories	941	831	279	244
Income Tax refund	49	6	15	14
<b>TOTAL CURRENT ASSETS</b>	<b>1,668</b>	<b>1,513</b>	<b>495</b>	<b>443</b>
Financial assurance fund	796	845	237	249
Property, plant and equipment	2,924	3,782	868	1,115
Restoration and rehabilitation	0	41	0	12
Deferred Income Tax Asset	0	0	0	0
Other	0	0	0	0
<b>TOTAL NON-CURRENT ASSETS</b>	<b>3,720</b>	<b>4,668</b>	<b>1,105</b>	<b>1,377</b>
<b>LIABILITIES</b>				
Trade and other payables	332	311	99	92
Borrowings	0	0	0	0
Provisions	84	189	25	56
<b>TOTAL CURRENT LIABILITIES</b>	<b>416</b>	<b>500</b>	<b>124</b>	<b>147</b>
Restoration and rehabilitation	672	739	200	218
Provisions	483	808	144	238
<b>TOTAL NON-CURRENT LIABILITIES</b>	<b>1,155</b>	<b>1,547</b>	<b>343</b>	<b>456</b>
<b>NET ASSETS</b>	<b>3,817</b>	<b>4,134</b>	<b>1,134</b>	<b>1,219</b>
Share capital	195	195	234	234
Reserves	0	0	(647)	(661)
Retained earning	3,622	3,939	1,546	1,162
<b>TOTAL EQUITY</b>	<b>3,817</b>	<b>4,134</b>	<b>1,134</b>	<b>1,219</b>

## Discussion of Balance Sheet

### Cash and Borrowings

Cash on hand at the end of 2019 was PGK 357 million (USD 105 million), with no borrowings. This is a decrease of PGK 102 million over the cash held at the end of 2018 (PGK 459 million), primarily due to the planned investment of PGK 239 million in the Crusher Replacement Project during the year.

### Receivables

Trade and other receivables were PGK 318 million (USD 94 million) as at 31 December 2019. This was 45% higher than PGK 219 million (USD 65 million) in 2018, primarily due to higher export shipments in the last quarter of 2019 as compared to the corresponding period in 2018.

### Inventory

Inventories on hand as at 31 December 2019 were PGK 831 million (USD 245 million), 12% lower than in 2018. This reflects the lower concentrate inventory stored at Kiunga.

### Non-Current Assets

The Financial Assurance Fund is maintained to fund estimated mine closure obligations. The value of the fund increased from PGK 796 million at the end of 2018 to PGK 845 million as at 31 December 2019, primarily due to the strengthening of the USD against the PGK.

Property, Plant and Equipment increased by PGK 858 million during the year to PGK 3,759 million.

### Trade and Other Payables

Trade and other payables at the end of 2019 were PGK 311 million. This was slightly lower than 2018 (PGK 332 million).

### Non-Current Liabilities

Non-current liabilities as at 31 December 2019 were PGK 1,547 million and included a provision for restoration and rehabilitation of PGK 739 million, and a provision for deferred tax (which accounts for timing differences between accounting and tax treatments) of PGK 400 million.

### Equity

Shareholder equity increased from PGK 3,816 million to PGK 4,134 million during 2019 reflecting a net profit after tax of PGK 754 million and the dividend distribution of PGK 400 million. The application of international accounting standard IFRS 16 also necessitated an implementation adjustment to retained earnings of PGK 36 million.

## EXPORT SALES

361,460	454,648	CONCENTRATE (t)
87,110	107,339	CONTAINED <b>COPPER</b> (t)
259,412	338,318	CONTAINED <b>GOLD</b> (oz)
1,111,760	1,640,007	CONTAINED <b>SILVER</b> (oz)

## METAL PRICES

2.96	2.71	<b>COPPER</b> (USD/lb)
1,278	1,285	<b>GOLD</b> (USD/oz)

2018	2019	KEY
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# ABBREVIATIONS

/	Per	FRPG	Fly River Provincial Government	m <sup>3</sup>	Cubic metres	PJ	Petajoule
%	Percent	g/t	Grams per tonne	m <sup>3</sup> /t	Cubic metres per tonne	PNG	Papua New Guinea
ADP	Asset Protection Department	GDP	Gross Domestic Product	MD	Managing Director	PNGSDP	PNG Sustainable Development Program
ANC	Acid Neutralising Capacity	GHG	Greenhouse Gas	ML	Megalitres	ppm	Parts per million
APD	Asset Protection Department	GRI	Global Reporting Initiative	MOU	Memorandum of Understanding	PWC	PriceWaterhouseCoopers
ARD	Acid Rock Drainage	GWh	Gigawatt hour	Moz	Million ounces	RPNGC	Royal PNG Constabulary
ASA	Advanced Safety Awareness	ha	Hectare	MPA	Maximum Potential Acidity	RWI	Restricted Work Injuries
Au	Gold	H <sub>2</sub> SO <sub>4</sub>	Sulphuric Acid	Mt	Million tonnes	SAG	Semi Autogenous Grinding
CEO	Chief Executive Officer	IFRS	International Financial Reporting Standards	Mtpa	Million tonnes per annum	SDGs	Sustainable Development Goals
CEPA	Conservation Environment Protection Authority	IMIU	International Mining Industry Underwriters	MWh	Megawatt hour	SHC	Safety, Health, Environment and Community
CGMS	Complaints and Grievance Management System	IRC	Internal Revenue Centre	MWTP	Mine Waste Tailings Project	SIFR	Significant Injury Frequency Rate
CMCA	Community Mine Continuation Agreement	kg	Kilogram	NAPP	Net Acid Production Potential	SML	Special Mining Lease
CO <sub>2</sub> -e	Carbon dioxide equivalent	km	Kilometre	NID	National Identification	t	tonnes
CR	Community Relations	km <sup>2</sup>	Square kilometre	O&I	Observations and Interactions	TB	Tuberculosis
CRP	Crusher Replacement Project	Koz	Thousand ounces	ORWB	Off River Water Bodies	TCS	Tax Credit Scheme
Cu	Copper	Kt	Thousand tonnes	OTDF	Ok Tedi Development Foundation Limited	TRIFR	Total Recordable Injury Frequency Rate
dmt	Dry metric tonnes	lb	Pound	OTEMA	Ok Tedi Environmental Management Act	UN	United Nations
EFA	Ecosystem Function Analysis	LTI	Lost Time Injury	OTML	Ok Tedi Mining Limited	ug/L	Microgram per litre
EITI	Extractive Industries Transparency Initiative	LTIFR	Lost Time Injury Frequency Rate	OWN	OTML Women's Network	USD	United States Dollar
EL	Exploration Lease	m	Metre	oz	Ounces	VPC	Village Planning Committee
FIFO	Fly-in Fly-out	M	Million	PCon	Pyrite concentrate	WPPDTF	Western Province Peoples Dividend Trust Fund
		Mm <sup>3</sup>	Million cubic metres	PGK	Papua New Guinea Kina		



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## Cautionary Statement Regarding Forward Looking Information

Certain information contained in this Annual Review and Financial Review 2019, including any information as to the Company's strategy, projects, plans, future financial or operating performance and other statements that express management's expectations or estimates of future performance, constitute "forward-looking statements". All statements, other than statements of historical fact, are forward-looking statements. The words "aim", "believe", "expect", "will", "should", "anticipate", "contemplate", "target", "plan", "project", "continue", "budget", "may", "intend", "estimate" and similar expressions identify forward-looking statements. Forward-looking statements are necessarily based upon a number of estimates and assumptions that, while considered reasonable by management, are inherently subject to significant business, economic and competitive uncertainties and contingencies. The Company cautions the reader that such forward-looking statements involve known and unknown risks, uncertainties and other factors, many of which are beyond the control of the Company, that may cause the actual financial results, performance or achievements of the Company to be materially different from the Company's estimated future results, performance or achievements expressed or implied by those forward-looking statements and the forward-looking statements are not guarantees of future performance. These risks, uncertainties and other factors include, but are not limited to the impact of global liquidity and credit availability on the timing of cash flows and the values of assets and liabilities based on projected future cash flows, changes in the worldwide price of gold, copper or certain other commodities (such as silver, fuel and electricity), possible variations of ore grade or recovery rates, failure of plant equipment or processes to operate as anticipated, ability to profitably produce and transport the Company's product, demand for the Company's product, fluctuations in foreign currency markets, risks arising from holding derivative instruments ability to successfully complete announced transactions and integrate acquired assets, legislative, political or economic developments in the jurisdictions in which the Company carries on business including increases in taxes, operating or technical difficulties in connection with mining or development activities, employee relations, availability and costs associated with mining inputs and labour, the speculative nature of exploration and development, including the risks of obtaining necessary licenses and permits and diminishing quantities or grades of reserves, changes in costs and estimates associated with the Company's projects and the risks involved in the exploration, development and mining business. There can be no assurance that forward-looking statements and information will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers are cautioned not to place undue reliance on forward-looking statements and information due to inherent uncertainty. All forward looking statements and information made herein are qualified by this cautionary statement and speak only as at the date of issue of this Annual Review and Financial Review 2019. The Company disclaims any intention or obligation to publicly update, revise or review any forward-looking statements whether as a result of new information, future events or otherwise, except as required by applicable laws or regulations.

< PREVIOUS PAGE

<< CONTENTS



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