

INTRODUCING ILM SERVICE

# INTEGRATED LUBRICATION MANAGEMENT



ILM Edition 1 | 2023



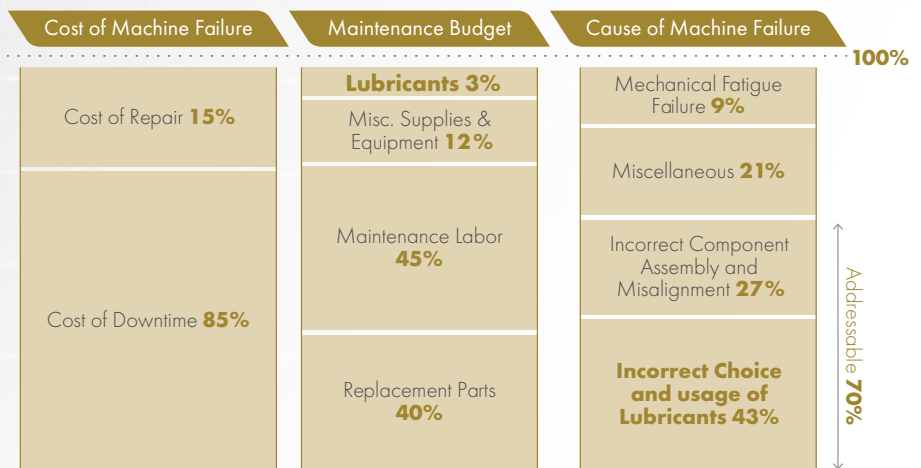
@pertaminalub

# BEST DEAL FOR OPERATION EXCELLENCE

Lubricating cost contribute 3% of total maintenance spending but it typically controls 70% of addressable mechanical failure. Optimizing lubrication management reduce potential losses cause by mechanical failure and increasing operational reliability.

## WHAT WE PROVIDE

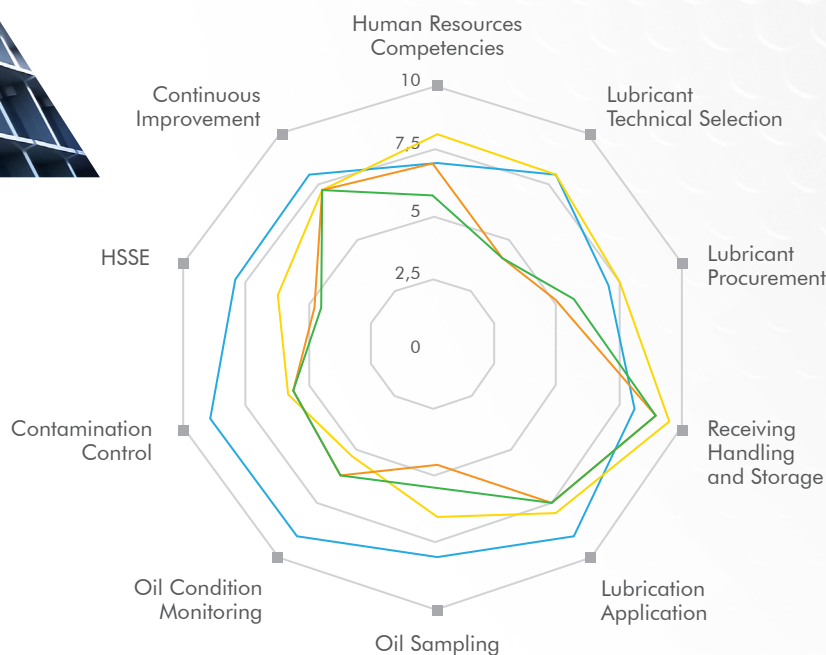
- TECHNICAL Assistance
- HUMAN Competencies
- IN HOUSE Training
- Competencies MAPPING
- TROUBLESHOOTING



# Integrated Lubrication Management Service Levels

**Integrated Lubrication Management (ILM)** aims to maximize the benefits of lubricants properties by through good lubrication management practices.

No.	ILM Service Levels	Key Takeaways
1	Awareness	Understanding Basic Function of Lubricants
2	Basic	Applying Basic Lubrication Knowledge
3	Skillful	Implementing Best Practice of Lubrication Management
4	Advanced	Optimizing Lubrication Management to gain Economic Benefit
5	Partnership	Develop Customized Needs and Products



## Summary Lubrication Audit by Elements

These diagram shows significant improvements resulted from the Lubrication Management Audit in term of cost reduction, taken from one of our customer.

- 2022
- 2021
- 2020
- Target



# OilCLINIC

Providing Excellence in Lubricant and Fuel Analysis

Independent laboratory owned by PT. PERTAMINA LUBRICANTS designed to fulfill the industrial needs of used oil monitoring.

## Oil Clinic **OVERVIEW**



### **CERTIFICATE**

ISO/IEC 17025  
Accredited by KAN



### **TEST PARAMETER**

Provide 45+ Lubricants  
& Fuel Testing Parameters



### **SAMPLE**

>20000 samples/year



### **REPORT**

Used Oil Monitoring  
Web Reporting

Designed as our after sales support laboratory, Oil Clinic provide a quick, reliable, yet accessible oil condition monitoring mainly for Pertamina Lubricants's industrial customers.



# OUR SERVICES

## Oil Condition Monitoring Packages

No	Parameter	OC-1, Engine Oil	OC-2, Non-Engine Oil	OC-3, Gas Engine Oil	OC-4, Turbine Oil
1	Kinematic Viscosity at 40°C & 100°C, ASTM D7279	✓	✓	✓	✓
2	Acid Number, ASTM D664	✓	✓	✓	✓
3	Base Number, ASTM D2896	✓	✓	✓	✓
4	FTIR (Soot, Oxidation, Nitration, & Sulfation), ASTM E2412	✓	✓	✓	✓
5	Wear & Contamination Elemental Analysis by ICP, ASTM D5185	✓	✓	✓	✓
6	Water Content Karl Fischer, ASTM D6304	✓	✓	✓	✓
7	Cleanliness ISO 4406	✓	✓	✓	✓

## Fuel Analysis Packages

No	Parameter	OC-5, Diesel Fuel Oil	OC-6, Marine Fuel Oil
1	Kinematic Viscosity at 40°C, ASTM D7279	✓	
2	Kinematic Viscosity at 50°C, ASTM D7279		✓
3	Acid Number, ASTM D664	✓	
4	Strong Acid Number, ASTM D664	✓	
5	Density 15°C, ASTM D1298 & ASTM D4052	✓	✓
6	Flash Point PMCC, ASTM D93	✓	✓
7	Sulfur Content X-Ray, ASTM D4294	✓	✓
8	Ash Content, ASTM D482	✓	✓
9	Conradson Carbon Residue, ASTM D189	✓	✓
10	Distillation, ASTM D86	✓	
11	Water Content by Karl Fischer, ASTM D6304	✓	
12	Water Content by Distillation, ASTM D95		✓
13	Color ASTM, ASTM D1500	✓	
14	Wear & Contamination Elemental Analysis by ICP, ASTM D5185		✓

## Other Parameters

No	Parameter	Method
1	API Gravity	ASTM D4052
2	Apparent Viscosity / CCS	ASTM D5293
3	Appearance	In House
4	Calculated Cetane Index	ASTM D4737
5	Colour ASTM / Colour Visual	ASTM D1500 / In House
6	Copper Strip Corrosion	ASTM D130
7	Dissolved Gas Analysis (DGA)	ASTM D3612
8	Pour Point Testing	ASTM D97 / ASTM D5950
9	Rotary Bomb Oxidation Tester (RBOT)	ASTM D2272
10	Ferrogaphy	ASTM D7690
11	Flash Point COC	ASTM D92
12	Micro Flash Point	ASTM D7094
13	Foaming Test	ASTM D892 & D6082
14	FTIR Matching / Fingerprint	ASTM E2412
15	Insoluble Content	In House
16	Sulphated Ash	ASTM D874
17	Viscosity Index	ASTM D2270
18	Rust Prevention	ASTM D665
19	Water Separability	ASTM D1401
20	MPC Analysis	ASTM D7843
21	Ruler Test	ASTM D7590
22	Sediment Content	ASTM D473
23	PQ Index	In House
24	Break Down Voltage (BDV)	IEC 60156



# ILMA Integrated Lubrication Management Academy



The only integrated lubrication management academy in Indonesia, owned by major lubricant company.

Understanding the complexity of lubrication process, ILMA provides all services on lubrication management training and assistance as follows:

## Basic I

- Fundamental Lubrication
- BBM & Gas
- Lubricants & Lubrication of Vehicle
- General Equipment Lubricants & It's Products
- Overview Chemical and Specialties Products
- Product Comparison, Competitiveness, and Approval (Retail)

## Basic II

- Lube Selection (Industry)
- Lubrication of Specific Equipment & It's Products
- Production, Handling, Storage & Quality Control
- Contaminant & Contamination Control
- Oil Clinic, OCM Program & Oil Sampling
- Test Method Standard & Degradation
- Chemical and Specialties Products and Application
- Product Comparison, Competitiveness and Approval (Industry)

## Intermediate

- Maintenance Strategy
- Grease & Lube Selection
- Oil Degradation
- Wear Debris Analysis, Statistical Analysis & Management
- Problem Solving & Lubricant Failure
- Analysis of Mechanical & Thermal Test
- General Industrial Equipment & It's Products

## Advance

- Hydraulic
- Turbine
- Compressor
- Heavy Duty Diesel Oil
- Low & Medium Speed Diesel Oil
- Heavy Equipment
- Gear and Transmission
- Grease, Specific Application and Grease Audit
- Management of Change / Lubricants Change Management

## Training PACKAGE (Segment)



Mining



Marine



Cement



Oil & Gas



Railway



Power Plant



Military



Fleet



Sugar Mill

# Meet Our EXPERTS

PTPL has highly educated, certified & trained experts and consultants for most of all lubrication segments.

Here are the People for more on them:

## Specialist



Agung Prabowo

*Technical Specialist Gear,  
Hydraulic & Grease*



Nur Chalim Wibisono

*Technical Specialist HSD  
Engine Oil*



Brahma Putra M.

*Technical Specialist HSD  
Engine Oil*



Ade Irwanto

*Technical Specialist MSD  
& LSD Engine Oil*



Tantra Harliyanto

*Technical Specialist Gear,  
Hydraulic & Grease*



Rudiono Kamaludin P.

*Technical Specialist  
Rotating Eq. & Gas Engine*

## Field Engineer

Bhima Ananta R. *Field Engineer Sales Region I*

Taufiq Rahman *Field Engineer Sales Region II*

Suprastowo *Field Engineer Sales Region III*

Bagus Septa S. *Field Engineer Sales Region IV*

Muhammad N. A. *Field Engineer Sales Region V*

Chandra Silaen *Field Engineer Sales Region VI*

Benny Sugiarto *Field Engineer Sales Region VI*

Andi A. K. *Field Engineer Sales Region VII*

// Integrated Lubrication Management is a //  
tool for customers to improve reliability  
of the equipments, yet ensuring long time  
efficiency for the overall maintenance and  
investment budget

Feel FREE to  
**CONTACT US**

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### Oil Clinic JAKARTA

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### Oil Clinic BATAKAN

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