

LAB REPORT

Unit id
RMG 2 SHELL
Component
Hydraulics



Lab number: 1705904

System type
A 920

Manufacturer
Liebherr

Oil brand name
Shell Panolin S4 HLP Synth 46

Oil quantity in system
350 l

The mineral oil content resulting from a conversion or mixing with mineral oil-based hydraulic oil is <2%. No wear metals are detectable in the sample. The cleanliness class of the oil meets the requirements. The water content is within the normal range. You should monitor further changes based on the next analysis. I advise you: Send us the next sample at your next maintenance or during the regular inspection to monitor the trend behavior.



NORMAL

Dipl.-Ing. Andy Böhme (CLS)

ANALYSIS RESULTS		Current sample					
Lab number		1705904					
SAMPLE RATING							
Date of examination		07.03.2025					
Date of sample taken		06.03.2025					
Date of last oil change		-					
Top-up since change		-					
Operating time since change		2 h					
Total operating time		2 h					
Oil changed		-					
WEAR							
Iron	Fe	mg/kg	0				
Chrome	Cr	mg/kg	0				
Tin	Sn	mg/kg	0				
Aluminum	Al	mg/kg	0				
Nickel	Ni	mg/kg	0				
Copper	Cu	mg/kg	0				
Lead	Pb	mg/kg	0				
Molybdenum	Mo	mg/kg	0				
Manganese	Mn	mg/kg	0				
PQ index	-		< 25				
CONTAMINATION							
Silicon	Si	mg/kg	1				
Potassium	K	mg/kg	1				
Sodium	Na	mg/kg	1				
Water K. F.		ppm	309				
OIL CONDITION							
Viscosity at 40 °C		mm ² /s	43.90				
Viscosity at 100 °C		mm ² /s	8.21				
Viscosity index		-	164				
IR index		-	100.00				

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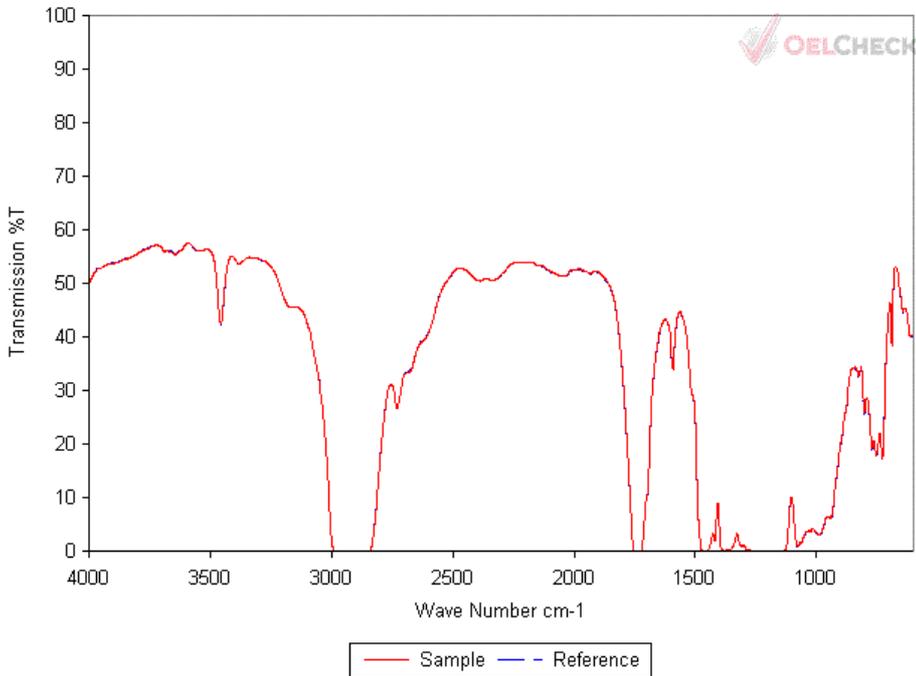
ANALYSIS RESULTS (...)		Current sample					
Lab number		1705904					
SAMPLE RATING							
Date of examination		07.03.2025					
Date of sample taken		06.03.2025					
ADDITIVES							
Calcium	Ca	mg/kg	11				
Magnesium	Mg	mg/kg	0				
Boron	B	mg/kg	0				
Zinc	Zn	mg/kg	8				
Phosphorus	P	mg/kg	1652				
Barium	Ba	mg/kg	0				
Sulphur	S	mg/kg	1231				
ADDITIONAL TESTS							
AN / NN	mgKOH/g		0.71				
Density 15 °C	kg/m ³		915				
Mineral oil content	%		< 2				
Cleanliness class	ISO 4406		16/14/11				
A: >4µm = ISO >4µm	Anzahl/100ml		61119				
B: >6µm = ISO >6µm	Anzahl/100ml		15758				
C: >14µm = ISO >14µm	Anzahl/100ml		1780				
D: >21µm	Anzahl/100ml		585				
E: >38µm	Anzahl/100ml		32				
F: >70µm	Anzahl/100ml		17				
Cleanliness class	SAE AS 4059		7A				



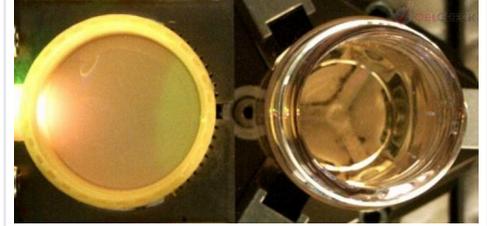
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SAMPLE IMAGES (LABORATORY NUMBER: 1705904)



INFRARED SPECTRUM



BOTTLE AND CAP



Any questions?

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LAB.REPORT



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