

# LAB REPORT

Unit id  
**STEAM TURBINE**  
Component  
**Lubricating Oil 8T**



Lab number: 1700913

Machine type  
**EG49/8/8**

Manufacturer  
**Siemens/Bergmann Borsig**

Sample from  
**lubricating oil**

Oil brand name  
**Aral Kosmol TF 46**

Oil quantity in system  
**3000 l**

Sample Report  
Scope of Analysis: Turbine Set 8

No wear metals are detectable in the sample. An improvement in the cleanliness class compared to the previous sample is observable. The foaming behavior is slightly elevated. However, in the trend analysis, the value has decreased slightly. The air release behavior LAV is slightly elevated. However, in the trend analysis, the value is stable. 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 observe the trend behavior.



CAUTION

Dipl.-Ing. Rüdiger Krethe

ANALYSIS RESULTS			Current sample	Previous samples →			
Lab number			1700913	1700914			
SAMPLE RATING							
Date of examination			22.04.2025	25.03.2024			
Date of sample taken			02.04.2025	11.03.2024			
Date of last oil change			01.09.2017	01.09.2017			
Top-up since change			1170 l	890 l			
Operating time since change			58805 h	50427 h			
Total operating time			350596 h	342218 h			
Oil changed			no	no			
<b>WEAR</b>							
Iron	Fe	mg/kg	0	1			
Chrome	Cr	mg/kg	0	0			
Tin	Sn	mg/kg	0	0			
Aluminum	Al	mg/kg	0	0			
Nickel	Ni	mg/kg	0	0			
Copper	Cu	mg/kg	0	0			
Lead	Pb	mg/kg	0	0			
Molybdenum	Mo	mg/kg	0	0			
PQ index	-	-	< 25	< 25			
<b>CONTAMINATION</b>							
Silicon	Si	mg/kg	0	0			
Potassium	K	mg/kg	1	0			
Sodium	Na	mg/kg	0	0			
Lithium	Li	mg/kg	0	0			
Water K. F.		ppm	117	105			
<b>OIL CONDITION</b>							
Viscosity at 40 °C		mm <sup>2</sup> /s	44.86	44.90			
Viscosity at 100 °C		mm <sup>2</sup> /s	6.80	6.82			
Viscosity index		-	106	106			
Oxidation		A/cm	1	1			
IR index		-	99.76	99.90			
Color		Farbzahl	1.5	1.0			

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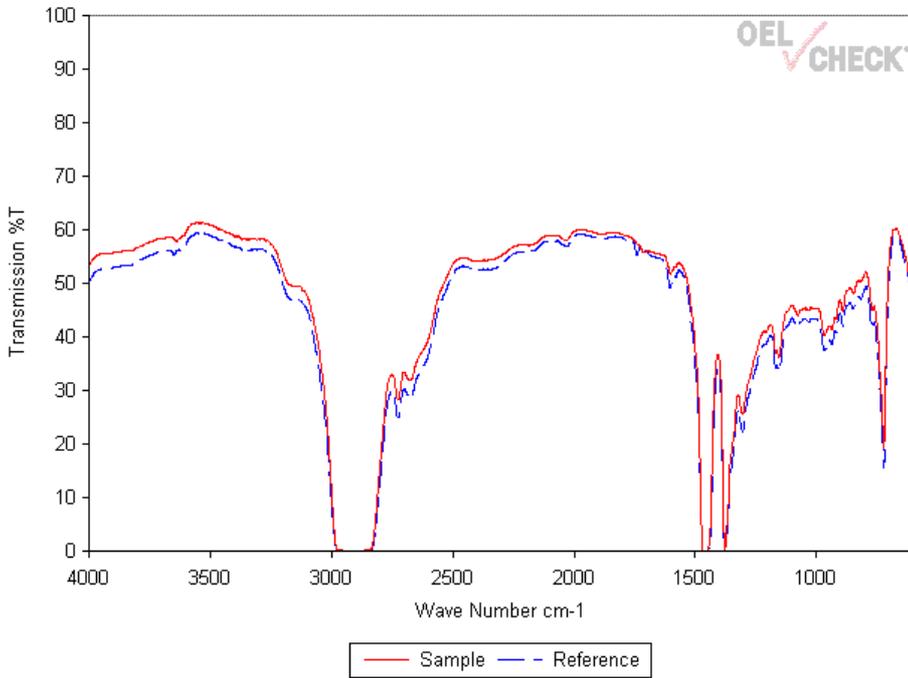
ANALYSIS RESULTS (...)			Current sample	Previous samples →				
Lab number			<b>1700913</b>	1700914				
SAMPLE RATING			<b>i</b>	<b>i</b>				
Date of examination			<b>22.04.2025</b>	25.03.2024				
Date of sample taken			<b>02.04.2025</b>	11.03.2024				
<b>ADDITIVES</b>								
Calcium	Ca	mg/kg	<b>0</b>	0				
Magnesium	Mg	mg/kg	<b>0</b>	0				
Boron	B	mg/kg	<b>0</b>	0				
Zinc	Zn	mg/kg	<b>0</b>	3				
Phosphorus	P	mg/kg	<b>2</b>	2				
Barium	Ba	mg/kg	<b>0</b>	0				
Sulphur	S	mg/kg	<b>236</b>	253				
<b>ADDITIONAL TESTS</b>								
AN / NN	mgKOH/g		<b>0.11</b>	< 0.10				
Air-release properties	min		<b>6.6</b>	6.9				
Water separation (steam)	s		<b>104</b>	111				
Foam test seq. I	ml/ml		<b>490/0</b>	530/10				
Foam test seq. II	ml/ml							
Foam test seq. III	ml/ml							
Cleanliness class	ISO 4406		<b>17/15/11</b>	21/18/13				
Antioxidant 1 - RULER	%		<b>32.6</b>	28.2				



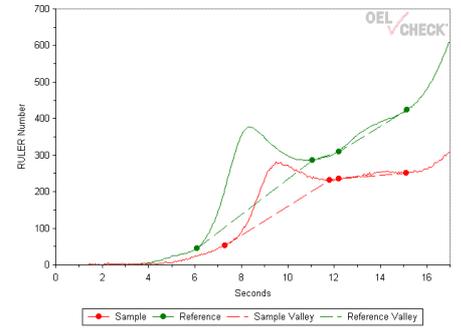
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## SAMPLE IMAGES (LABORATORY NUMBER: 1700913)



INFRARED SPECTRUM



RULER DIAGRAM



BOTTLE AND CAP



**Any questions?**

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sample/1700913