

# LAB REPORT

Unit id  
**CSF**  
 Component  
**Metalworking fluid**



**Lab number: 1705833**

Machine type  
**machine tool**

Oil brand name  
**Cooling lubricant not water-miscible**

Oil quantity in system  
**2200 l**

Beispielbericht  
 Analysenumfang: Analysenset 3

Only slight deviations can be detected compared to the previous sample. In forming and metalworking oils, the metal content is mainly attributable to the machining process and is practically irrelevant for assessing the condition. Abrupt changes can be caused either by changes in the machining parameters or by increased tool wear. You should observe any further changes during the next analysis. I recommend that you send us the next sample during your next maintenance or during the usual inspection to observe the trend behavior.

Dipl.-Ing. Andy Böhme (CLS)



**UNRATED**

ANALYSIS RESULTS			Current sample	Previous samples →			
Lab number			<b>1705833</b>	1705834	1705835	1705836	
SAMPLE RATING			●	●	●	●	
Date of examination			<b>09.03.2026</b>	04.09.2025	14.10.2024	05.02.2024	
Date of sample taken			<b>28.02.2026</b>	20.08.2025	03.10.2024	27.01.2024	
Date of last oil change			-	-	-	-	
Top-up since change			-	-	-	-	
Operating time since change			-	-	-	-	
Total operating time			-	-	-	-	
Oil changed			-	-	-	-	
<b>WEAR</b>							
Iron	Fe	mg/kg	<b>21</b>	20	21	16	
Chrome	Cr	mg/kg	<b>0</b>	1	1	0	
Tin	Sn	mg/kg	<b>0</b>	0	0	0	
Aluminum	Al	mg/kg	<b>0</b>	0	0	0	
Nickel	Ni	mg/kg	<b>5</b>	5	5	4	
Copper	Cu	mg/kg	<b>1</b>	1	1	0	
Lead	Pb	mg/kg	<b>0</b>	0	0	0	
Molybdenum	Mo	mg/kg	<b>0</b>	0	3	0	
Manganese	Mn	mg/kg	<b>2</b>	2	2	1	
PQ index	-	-	<b>&lt; 25</b>	< 25	< 25	< 25	
<b>CONTAMINATION</b>							
Silicon	Si	mg/kg	<b>0</b>	0	0	0	
Potassium	K	mg/kg	<b>0</b>	0	0	1	
Sodium	Na	mg/kg	<b>4</b>	4	4	3	
Lithium	Li	mg/kg	<b>1</b>	1	-	1	
Silver	Ag	mg/kg	<b>0</b>	0	0	0	
Titanium	Ti	mg/kg	<b>2</b>	2	3	2	
Vanadium	V	mg/kg	<b>0</b>	0	0	0	
Water K. F.		ppm	<b>284</b>	411	380	158	

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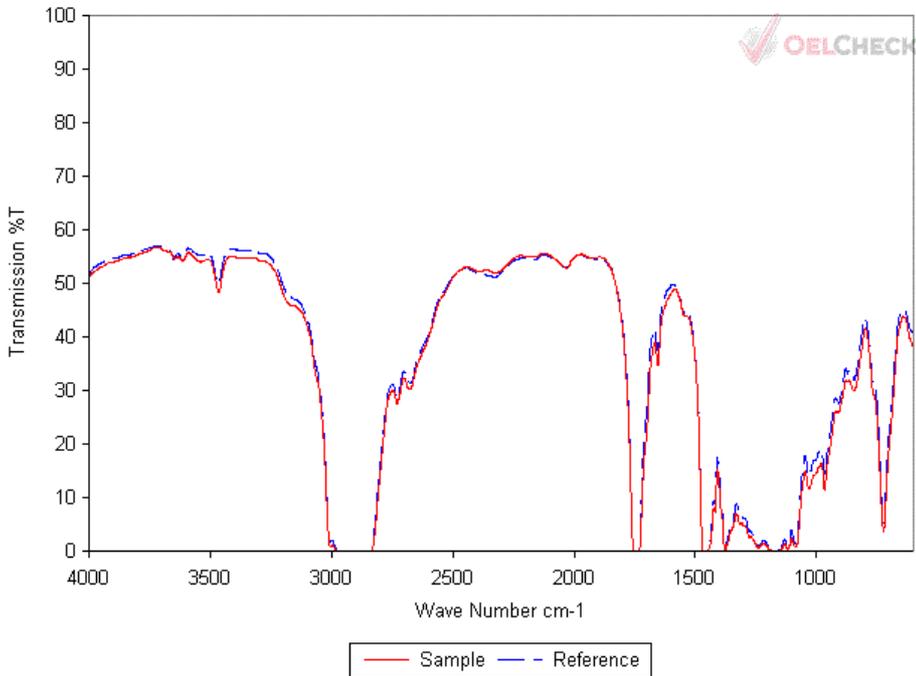
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OIL CONDITION							
Viscosity at 40 °C	mm <sup>2</sup> /s		<b>12.79</b>	12.82	12.98	13.03	
Viscosity at 100 °C	mm <sup>2</sup> /s		<b>3.67</b>	3.68	3.69	3.71	
Viscosity index	-		<b>190</b>	192	188	189	
Oxidation	A/cm		<b>6</b>	7	7	4	
Color	Farbzahl		<b>2.5</b>	2.0	2.0	2.0	
ADDITIVES							
Calcium	Ca	mg/kg	<b>34</b>	33	22	17	
Magnesium	Mg	mg/kg	<b>0</b>	0	0	0	
Boron	B	mg/kg	<b>0</b>	1	1	0	
Zinc	Zn	mg/kg	<b>53</b>	52	43	37	
Phosphorus	P	mg/kg	<b>630</b>	664	602	596	
Barium	Ba	mg/kg	<b>0</b>	0	0	0	
Sulphur	S	mg/kg	<b>6761</b>	6707	7034	6382	
ADDITIONAL TESTS							
AN / NN		mgKOH/g	<b>2.22</b>	2.42	2.45	2.29	



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SAMPLE IMAGES (LABORATORY NUMBER: 1705833)



INFRARED SPECTRUM



BOTTLE AND CAP



Any questions?

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## LAB.REPORT



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