

## Machine Id **KOMATSU TH-36** Component **Diesel Engine** Fluid **DIESEL ENGINE OIL SAE 40 (10 GAL)**

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RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.	Sample Number		Client Info		CL0005341	CL0004958	
	Sample Date		Client Info		14 Apr 2024	31 Oct 2023	
	Machine Age	hrs	Client Info		5485	5180	
	Oil Age	hrs	Client Info		305	0	
	Filter Age	hrs	Client Info		0	0	
	Oil Changed		Client Info		Changed	Changed	
	Filter Changed		Client Info		Changed	Changed	
	Sample Status				NORMAL	NORMAL	
WEAR	Iron		ASTM D5185m	> 100	21	18	
All component wear rates are normal.	Chromium	ppm ppm	ASTM D5185m		0	0	
	Nickel	ppm	ASTM D5185m		0	0	
	Titanium	ppm	ASTM D5185m	21	0	0	
	Silver	ppm	ASTM D5185m	>3	0	0	
	Aluminum	ppm	ASTM D5185m		2	1	
	Lead	ppm	ASTM D5185m		_ <1	0	
	Copper	ppm	ASTM D5185m		<1	2	
	Tin	ppm	ASTM D5185m		0	0	
	Vanadium	ppm	ASTM D5185m	210	0	0	
	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	3	5	
	Potassium	ppm	ASTM D5185m	>20	0	0	
There is no indication of any contamination in the oil.	Fuel		WC Method	>5	<1.0	<1.0	
	Water		WC Method	>0.2	NEG	NEG	
	Glycol		WC Method		NEG	NEG	
	Soot %	%	*ASTM D7844	>3	0.4	0.7	
	Nitration	Abs/cm	*ASTM D7624	>20	9.7	9.7	
	Sulfation	Abs/.1mm	*ASTM D7415	>30	19.1	20.9	
	Silt	scalar	*Visual	NONE	NONE	NONE	
	Debris	scalar	*Visual	NONE	NONE	NONE	
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
	Appearance	scalar	*Visual	NORML	NORML	NORML	
	Odor	scalar	*Visual	NORML	NORML	NORML	
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	
FLUID CONDITION	Sodium	nom	ASTM D5185m	> 216	1	1	
FLOID CONDITION	Boron	ppm	ASTM D5185m		54	40	
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Barium	ppm	ASTM D5185m		0	40	
	Molybdenum	ppm	ASTM D5185m		90	65	
	Manganese	ppm ppm	ASTM D5185m	100	90 0	0	
	Magnesium	ppm	ASTM D5185m	450	67	385	
	Calcium		ASTM D5185m		2345	1810	
	Phosphorus	ppm ppm	ASTM D5185m		1076	1060	
	Zinc	ppm	ASTM D5185m		1332	1264	
	Sulfur	ppm	ASTM D5185m		4702	3189	
	Oxidation	Abs/.1mm	*ASTM D3185111 *ASTM D7414		15.1	18.2	
		MU5/.111111	AGTIVI D7414	>20	13.1	10.2	

7.1

13.3

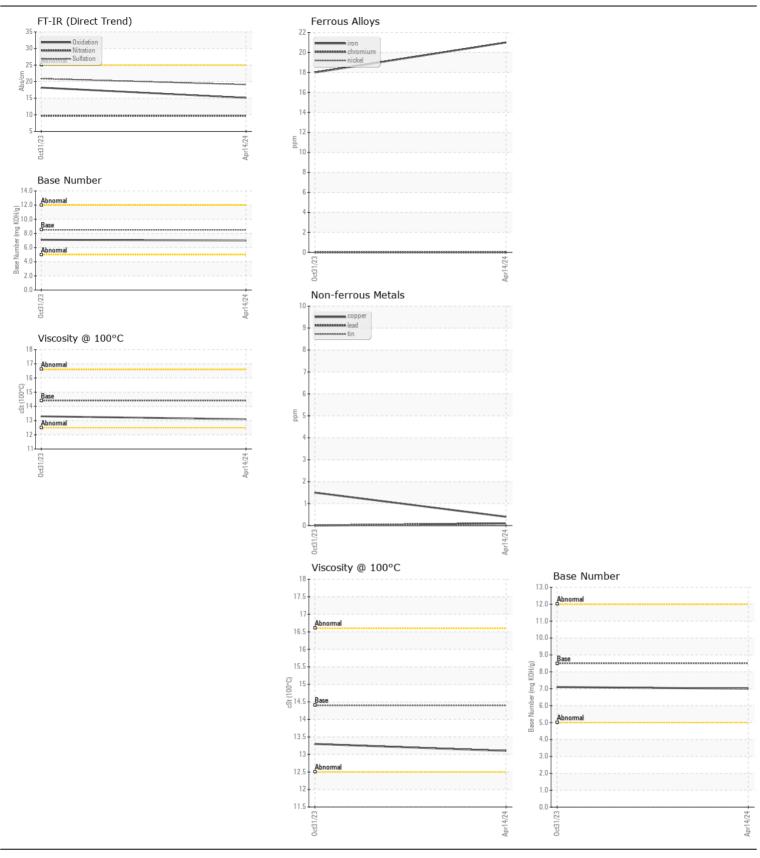
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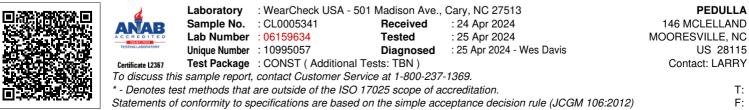
13.1

Base Number (BN) mg KOH/g ASTM D2896 8.5

ASTM D445 14.4

Visc @ 100°C cSt





Submitted By: JEFF CHALMERS Page 2 of 2