MOB II WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	ABNORMAL

Machine Id
LOMBARDINI 5LD 825-3/L
Component
Diesel Engine
Fluid
ALPHA 15W40 (5 QTS)

RECOMMENDATION

We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

WEAR

All component wear rates are normal.

CONTAMINATION

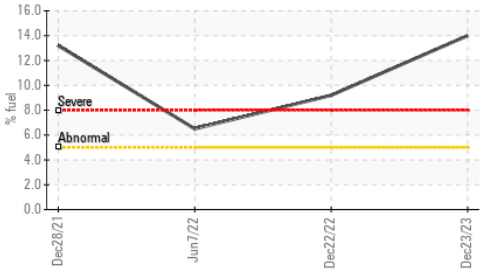
There is a high amount of fuel present in the oil.

FLUID CONDITION

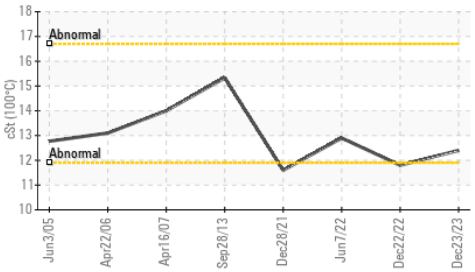
Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil. The AN level is acceptable for this fluid. The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WCM2283010	WCM2283011	WCM2283013
Sample Date		Client Info		23 Dec 2023	22 Dec 2022	07 Jun 2022
Machine Age	hrs	Client Info		25601	24278	23616
Oil Age	hrs	Client Info		706	662	299
Filter Age	hrs	Client Info		706	662	299
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				SEVERE	SEVERE	ABNORMAL
Iron	ppm	ASTM D5185m	>100	52	30	18
Chromium	ppm	ASTM D5185m	>20	2	2	1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>20	8	6	4
Lead	ppm	ASTM D5185m	>40	2	1	2
Copper	ppm	ASTM D5185m	>330	<1	2	1
Tin	ppm	ASTM D5185m	>15	<1	0	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	11	8	6
Potassium	ppm	ASTM D5185m	>20	<1	0	<1
Fuel	%	ASTM D3524	>5	⬢ 14.0	⬢ 9.2	▲ 6.5
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.6	0.4	0.2
Nitration	Abs/cm	*ASTM D7624	>20	21.0	16.8	11.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	42.6	39.9	22.9
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Sodium	ppm	ASTM D5185m		2	4	2
Boron	ppm	ASTM D5185m		0	0	1
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		1	14	49
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		34	144	723
Calcium	ppm	ASTM D5185m		5483	4129	1537
Phosphorus	ppm	ASTM D5185m		854	860	916
Zinc	ppm	ASTM D5185m		1092	1020	1178
Sulfur	ppm	ASTM D5185m		3508	4125	3072
Oxidation	Abs/.1mm	*ASTM D7414	>25	54.9	51.9	26.4
Acid Number (AN)	mg KOH/g	ASTM D8045		2.07	2.05	1.82
Base Number (BN)	mg KOH/g	ASTM D2896		15.49	10.74	8.34
Visc @ 100°C	cSt	ASTM D445		▲ 12.4	▲ 11.8	12.9

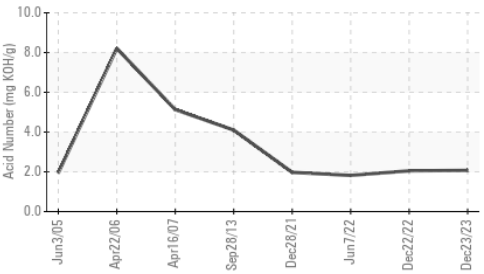
Fuel Dilution



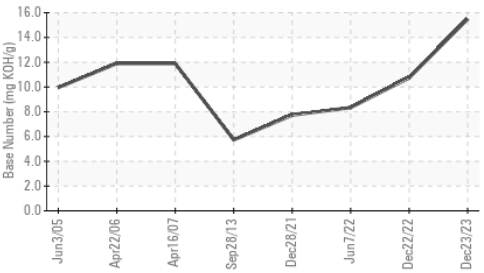
Viscosity @ 100°C



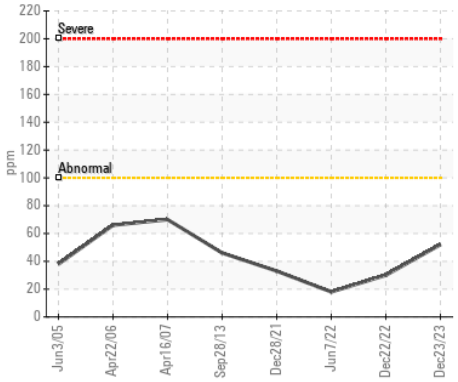
Acid Number



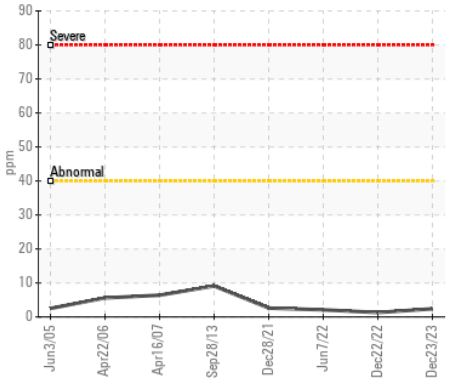
Base Number



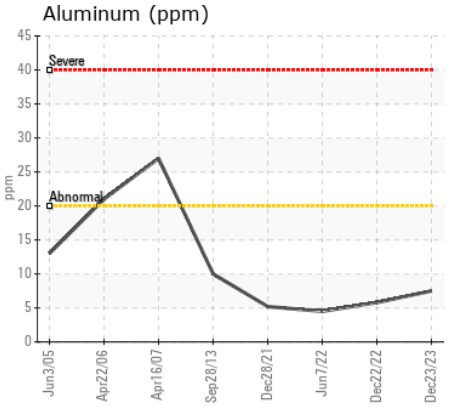
Iron (ppm)



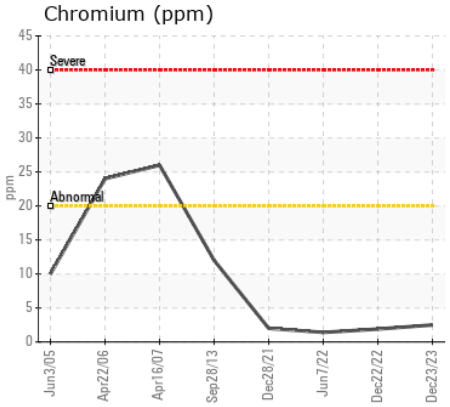
Lead (ppm)



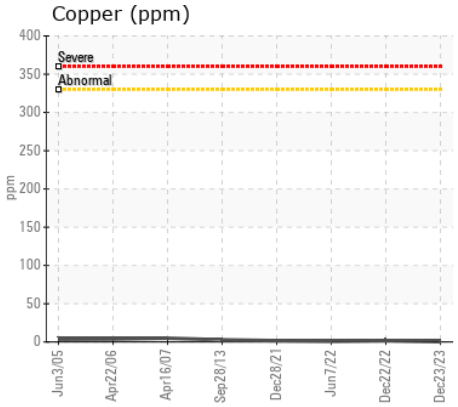
Aluminum (ppm)



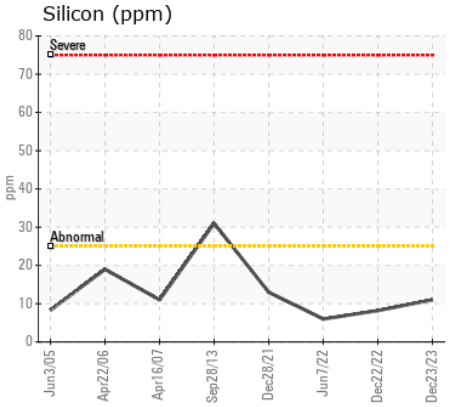
Chromium (ppm)



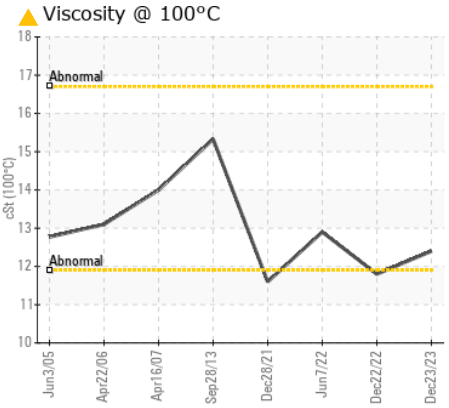
Copper (ppm)



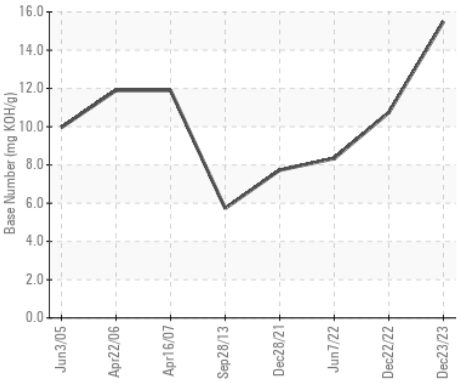
Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WCM2283010 **Received** : 27 Dec 2023
Lab Number : 06046335 **Tested** : 28 Dec 2023
Unique Number : 10806943 **Diagnosed** : 28 Dec 2023 - Don Baldridge
Test Package : MOB 2 (Additional Tests: PercentFuel)

To discuss this sample report, contact Customer Service at 1-800-237-1369.
** - Denotes test methods that are outside of the ISO 17025 scope of accreditation.*
Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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