CONST

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
LIEBHERR
Machine Id
LIEBHERR LH50M 1203-79577
Component
Diesel Engine
Fluid
VALVOLINE 15W40 (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

WEAR

The aluminum level is abnormal. All other component wear rates are normal.

CONTAMINATION

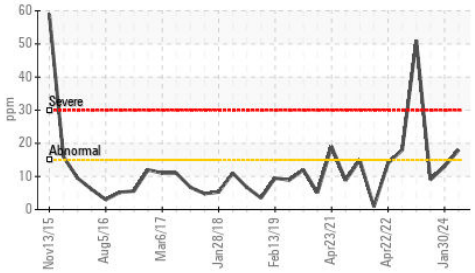
There is no indication of any contamination in the oil.

FLUID CONDITION

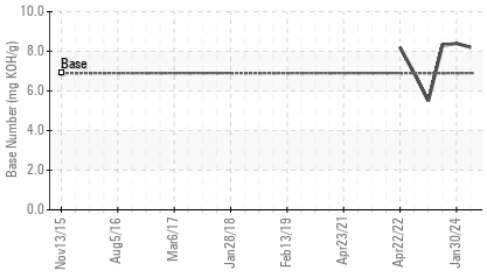
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		DJJ0023777	DJJ0011142	DJJ0011206
Sample Date		Client Info		05 Mar 2024	30 Jan 2024	04 Dec 2023
Machine Age	hrs	Client Info		16446	16281	16228
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Filter Changed		Client Info		Changed	Not Changd	Not Changd
Sample Status				ABNORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>100	26	22	14
Chromium	ppm	ASTM D5185m	>5	<1	2	<1
Nickel	ppm	ASTM D5185m	>5	0	<1	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>15	▲ 18	13	9
Lead	ppm	ASTM D5185m	>30	8	10	5
Copper	ppm	ASTM D5185m	>125	4	4	3
Tin	ppm	ASTM D5185m	>5	0	<1	0
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	>60	6	7	8
Potassium	ppm	ASTM D5185m	>20	<1	3	3
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.8	0.4	0.3
Nitration	Abs/cm	*ASTM D7624	>20	12.0	9.5	8.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.0	19.7	19.2
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		3	0	2
Boron	ppm	ASTM D5185m	39	71	94	107
Barium	ppm	ASTM D5185m	1	0	0	3
Molybdenum	ppm	ASTM D5185m	49	74	80	73
Manganese	ppm	ASTM D5185m	1	0	<1	0
Magnesium	ppm	ASTM D5185m	616	40	45	37
Calcium	ppm	ASTM D5185m	1554	2521	2234	2255
Phosphorus	ppm	ASTM D5185m	899	1088	916	943
Zinc	ppm	ASTM D5185m	1069	1237	1263	1098
Sulfur	ppm	ASTM D5185m	2624	4689	3534	3933
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.8	14.8	16.4
Base Number (BN)	mg KOH/g	ASTM D2896	6.9	8.2	8.4	8.3
Visc @ 100°C	cSt	ASTM D445	13.6	13.7	13.7	13.5

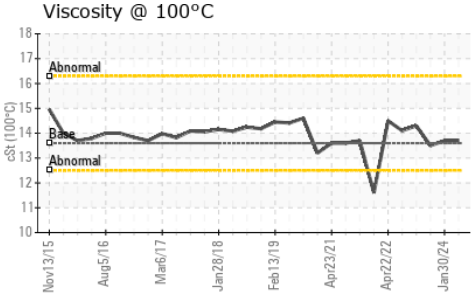
Aluminum (ppm)



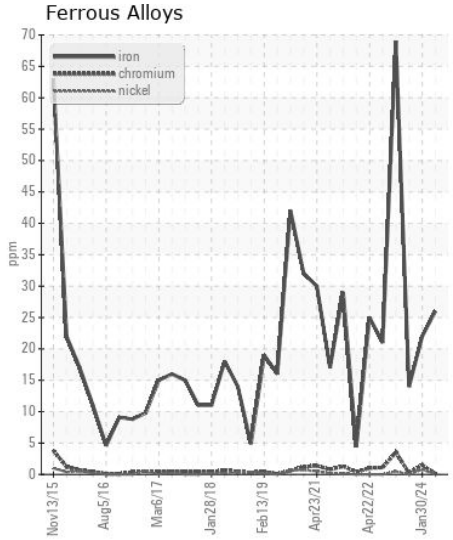
Base Number



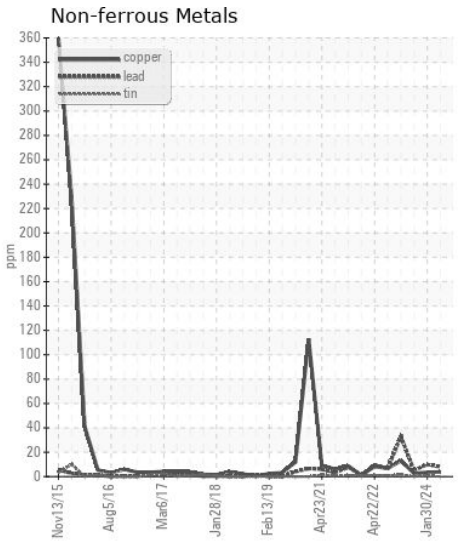
Viscosity @ 100°C



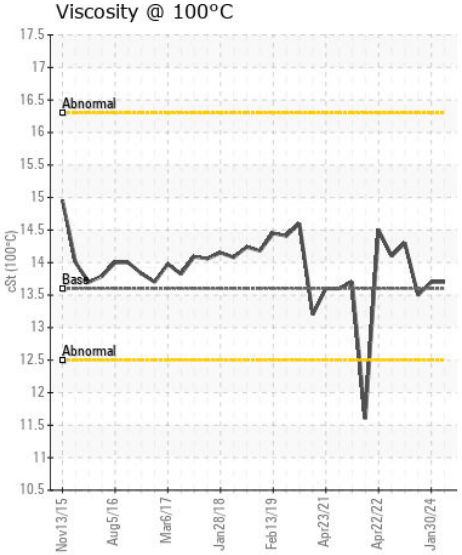
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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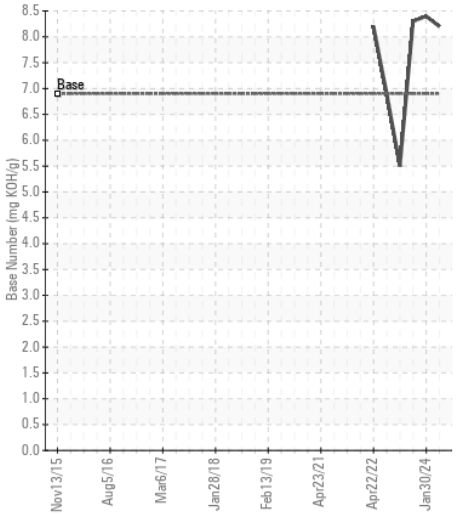

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : DJJ0023777
Lab Number : 06122061
Unique Number : 10936212
Test Package : CONST (Additional Tests: TBN)

Received : 19 Mar 2024
Tested : 19 Mar 2024
Diagnosed : 21 Mar 2024 - Don Baldridge

METAL RECYCLING SERVICES - MONROE
P.O. BOX 812
MONROE, NC
US 28111
Contact: RYAN BOWDEN

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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