MOB II WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
CATERPILLAR GM01
Component
Biogas Engine
Fluid
MAHLER Q8 Mahler G8 SAE 40 (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

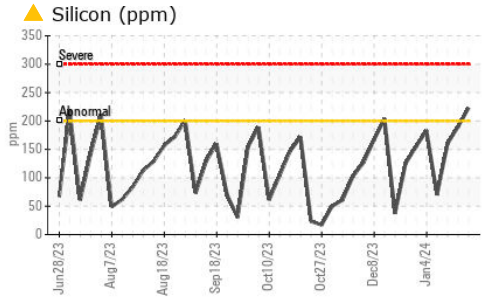
CONTAMINATION

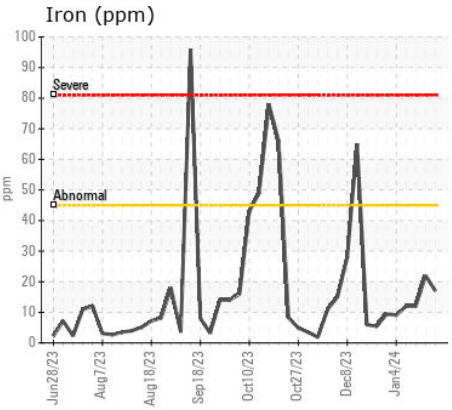
Elemental level of silicon (Si) above normal indicating ingress of seal material.

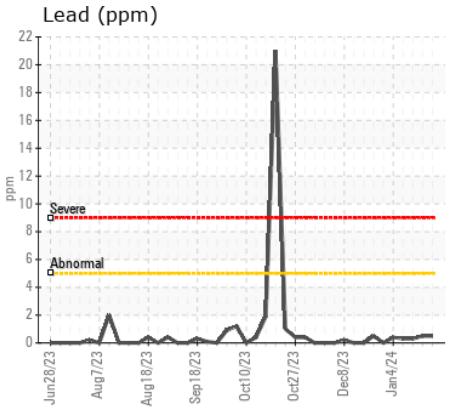
FLUID CONDITION

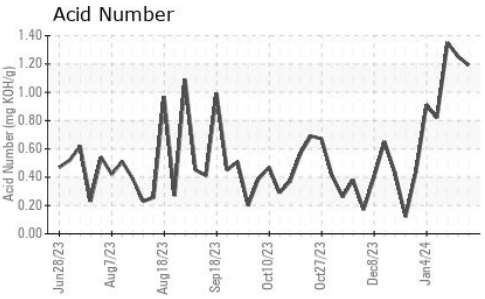
The BN result indicates that there is suitable alkalinity remaining in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

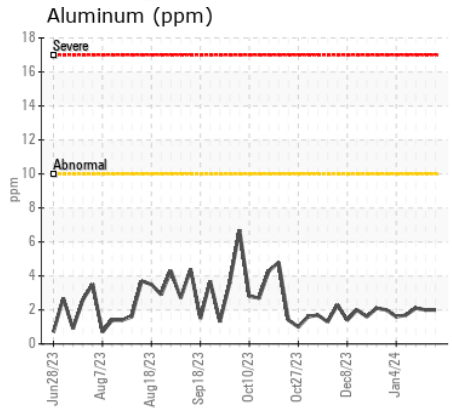
Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0870508	WC0870506	WC0870515
Sample Date		Client Info		08 Feb 2024	06 Feb 2024	31 Jan 2024
Machine Age	hrs	Client Info		25055	25010	24868
Oil Age	hrs	Client Info		406	362	220
Filter Age	hrs	Client Info		406	362	220
Oil Changed		Client Info		Not Changd	Not Changd	N/A
Filter Changed		Client Info		Not Changd	Not Changd	N/A
Sample Status				ABNORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>45	17	22	12
Chromium	ppm	ASTM D5185m	>2	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	<1	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>5	0	0	0
Aluminum	ppm	ASTM D5185m	>10	2	2	2
Lead	ppm	ASTM D5185m	>5	<1	<1	<1
Copper	ppm	ASTM D5185m	>14	2	2	1
Tin	ppm	ASTM D5185m	>13	2	2	2
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	>200	▲ 223	190	160
Potassium	ppm	ASTM D5185m	>20	0	0	0
Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844		0	0	0
Nitration	Abs/cm	*ASTM D7624	>20	6.1	5.8	5.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.3	16.9	16.7
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	>0.1	NEG	NEG	NEG
Sodium	ppm	ASTM D5185m		3	2	<1
Boron	ppm	ASTM D5185m		1	<1	<1
Barium	ppm	ASTM D5185m		0	0	<1
Molybdenum	ppm	ASTM D5185m		1	1	<1
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		6	5	9
Calcium	ppm	ASTM D5185m		1466	1432	1319
Phosphorus	ppm	ASTM D5185m		360	402	368
Zinc	ppm	ASTM D5185m		469	470	447
Sulfur	ppm	ASTM D5185m		2142	2028	1880
Oxidation	Abs/.1mm	*ASTM D7414	>25	12.4	11.7	11.4
Acid Number (AN)	mg KOH/g	ASTM D8045		1.192	1.253	1.35
Base Number (BN)	mg KOH/g	ASTM D2896	8.0	4.68	5.11	5.33
Visc @ 100°C	cSt	ASTM D445	13.2	13.4	13.4	12.7

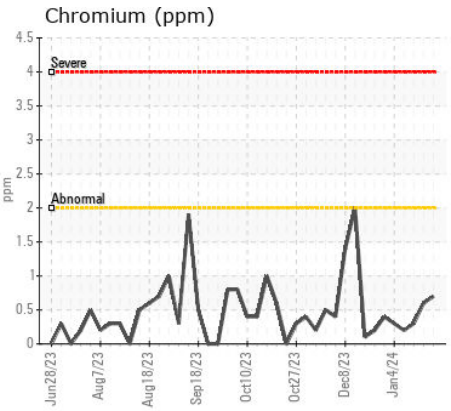


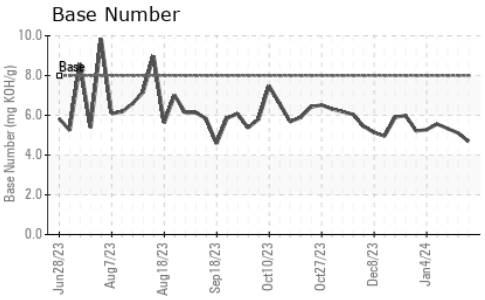


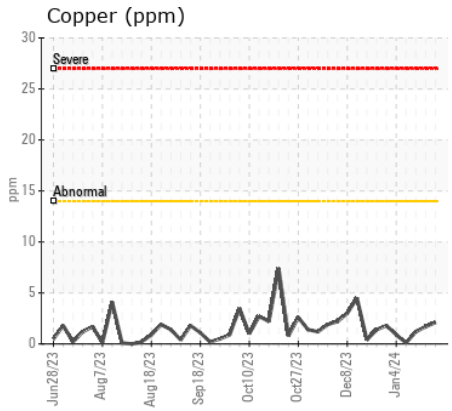


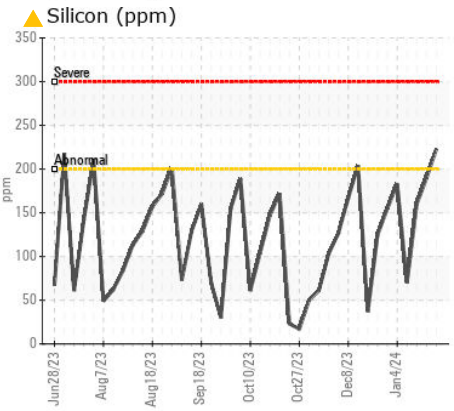


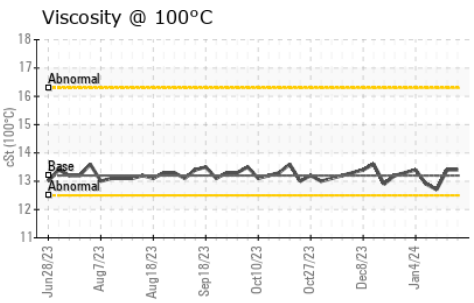


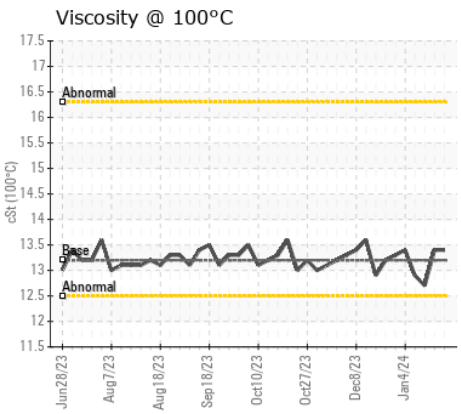


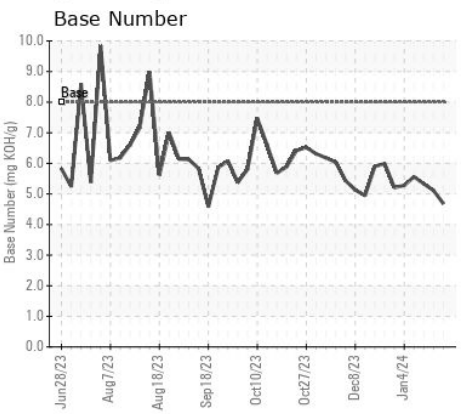












Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0870508
Lab Number : 06085446
Unique Number : 10872891
Test Package : MOB 2

Received : 09 Feb 2024
Tested : 12 Feb 2024
Diagnosed : 12 Feb 2024 - Sean Felton

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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