MOB II WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
CATERPILLAR M-EG4
Component
Diesel Engine
Fluid
CHEVRON DELO 400 MULTIGRADE 15W40 (75 GAL)

RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

WEAR

Metal levels are typical for a new component breaking in.

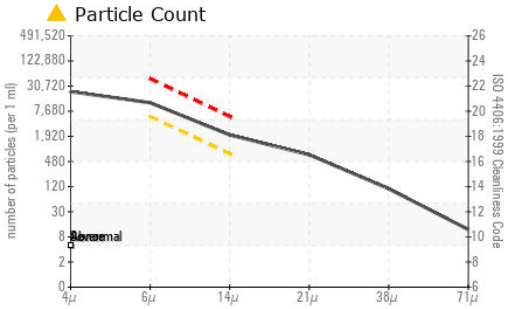
CONTAMINATION

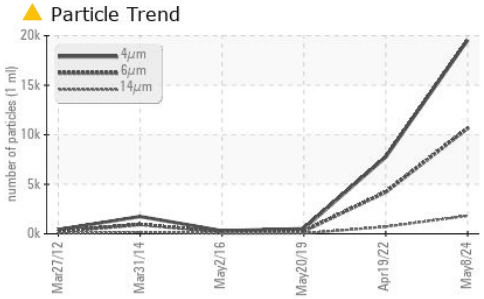
There is a moderate amount of particulates (2 to 100 microns in size) present in the oil. The system cleanliness is above the acceptable limit for the target ISO 4406 cleanliness code.

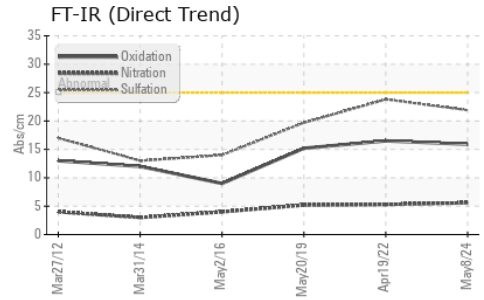
FLUID CONDITION

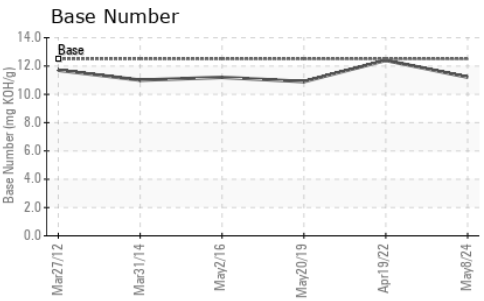
The BN result indicates that there is suitable alkalinity remaining in the oil.

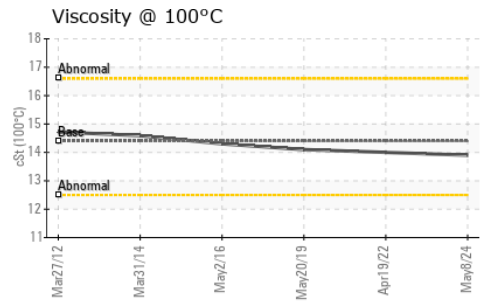
Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		KL0010044	KL0006374	KLM2343924
Sample Date		Client Info		08 May 2024	19 Apr 2022	20 May 2019
Machine Age	hrs	Client Info		237	883	209
Oil Age	hrs	Client Info		16	4	90
Filter Age	hrs	Client Info		6	0	90
Oil Changed		Client Info		Not Changd	Not Changd	Changed
Filter Changed		Client Info		Not Changd	Changed	Changed
Sample Status				ABNORMAL	ATTENTION	NORMAL
Iron	ppm	ASTM D5185m	>100	3	2	3
Chromium	ppm	ASTM D5185m	>20	<1	0	<1
Nickel	ppm	ASTM D5185m	>2	<1	0	0
Titanium	ppm	ASTM D5185m	>2	<1	0	0
Silver	ppm	ASTM D5185m	>2	0	<1	<1
Aluminum	ppm	ASTM D5185m	>25	4	3	2
Lead	ppm	ASTM D5185m	>40	<1	<1	1
Copper	ppm	ASTM D5185m	>330	138	37	14
Tin	ppm	ASTM D5185m	>15	<1	<1	0
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	8	6	3
Potassium	ppm	ASTM D5185m	>20	2	2	2
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	0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	5.6	5.3	5.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.9	23.8	19.7
Particles >4µm		ASTM D7647		19548	7745	512
Particles >6µm		ASTM D7647	>5000	▲ 10649	4219	279
Particles >14µm		ASTM D7647	>640	▲ 1812	● 718	47
Particles >21µm		ASTM D7647	>160	▲ 610	● 242	16
Particles >38µm		ASTM D7647	>40	▲ 94	37	2
Particles >71µm		ASTM D7647	>10	10	4	0
Oil Cleanliness		ISO 4406 (c)	>19/16	▲ 21/18	● 19/17	15/13
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	0	2
Boron	ppm	ASTM D5185m	151	390	384	40
Barium	ppm	ASTM D5185m	0.4	2	0	0
Molybdenum	ppm	ASTM D5185m	250	115	118	33
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	0	604	621	35
Calcium	ppm	ASTM D5185m	2046	1454	1534	3453
Phosphorus	ppm	ASTM D5185m	1043	748	731	1233
Zinc	ppm	ASTM D5185m	943	814	861	1240
Sulfur	ppm	ASTM D5185m	5012	2620	2364	6115
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.9	16.5	15.2
Base Number (BN)	mg KOH/g	ASTM D2896	12.5	11.21	12.4	10.9
Visc @ 100°C	cSt	ASTM D445	14.4	13.9	14.0	14.1

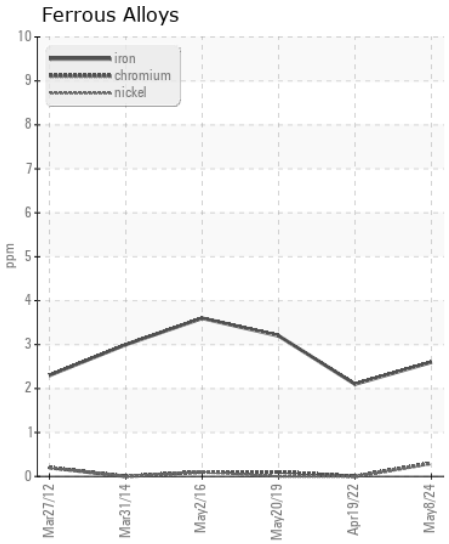


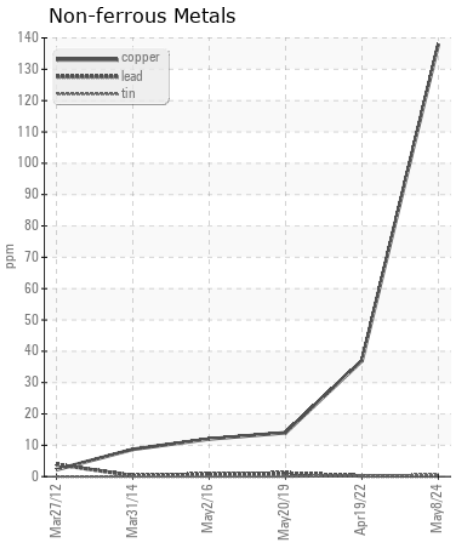


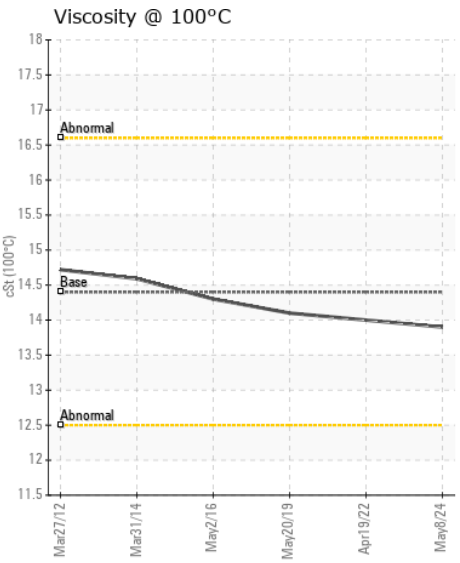


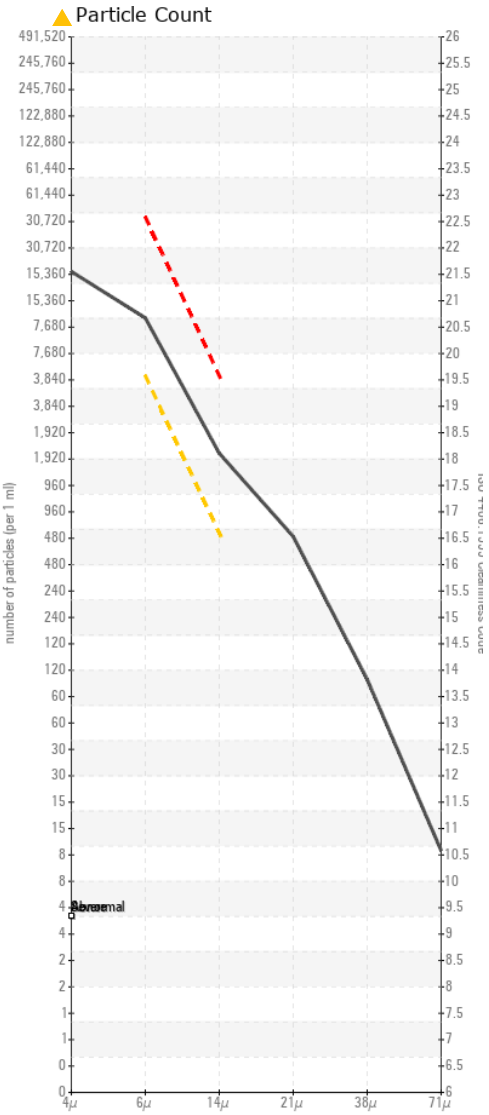


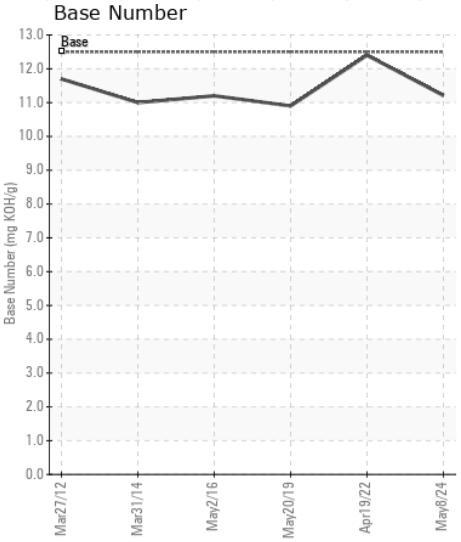












Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KL0010044
Lab Number : 06194688
Unique Number : 11056811
Test Package : MOB 2 (Additional Tests: PrtCount)

Received : 29 May 2024
Tested : 31 May 2024
Diagnosed : 31 May 2024 - Wes Davis

Certificate L2367

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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