MOB II WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Machine Id
QC230725MOB2
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 40 (--- GAL)

RECOMMENDATION

We advise that you check for the source of water entry. We recommend that you drain the oil from the component if this has not already been done. We recommend you service the filters on this component. We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample.

WEAR

All component wear rates are normal.

CONTAMINATION

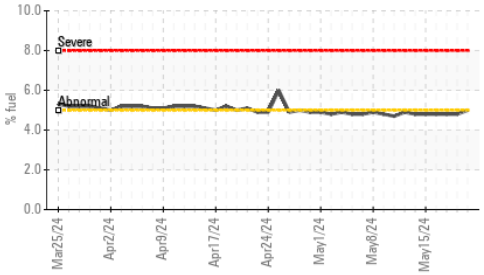
There is a moderate amount of fuel present in the oil. There is a light concentration of water present in the oil. Tests confirm the presence of fuel in the oil.

FLUID CONDITION

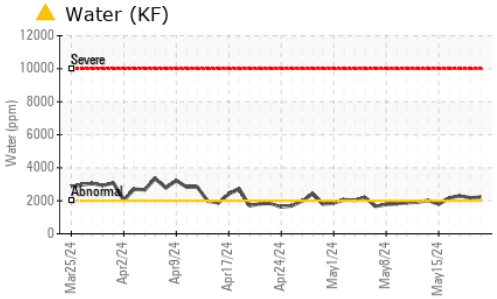
The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0936563	WC0936562	WC0936558
Sample Date		Client Info		22 May 2024	21 May 2024	17 May 2024
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
Iron	ppm	ASTM D5185(m)	>100	20	20	19
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	0	0	0
Titanium	ppm	ASTM D5185(m)		3	3	3
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	4	4	4
Lead	ppm	ASTM D5185(m)	>40	<1	3	1
Copper	ppm	ASTM D5185(m)	>330	9	9	9
Tin	ppm	ASTM D5185(m)	>15	<1	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
Silicon	ppm	ASTM D5185(m)	>25	6	5	6
Potassium	ppm	ASTM D5185(m)	>20	▲ 16	▲ 15	▲ 14
Fuel	%	ASTM D7593*	>5	▲ 5	▲ 4.8	▲ 4.8
Water	%	ASTM D6304*	>0.2	▲ 0.221	▲ 0.218	▲ 0.229
ppm Water	ppm	ASTM D6304*	>2000	▲ 2215	▲ 2187	▲ 2296
Glycol	%	ASTM D7922*		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	0.3	0.3	0.3
Nitration	Abs/cm	ASTM D7624*	>20	10.0	10.1	10.0
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.9	20.9	20.9
Emulsified Water	scalar	Visual*	>0.2	▲ .2%	▲ .2%	▲ .2%
Sodium	ppm	ASTM D5185(m)	>216	● 69	● 67	● 64
Boron	ppm	ASTM D5185(m)	250	32	35	33
Barium	ppm	ASTM D5185(m)	10	<1	<1	<1
Molybdenum	ppm	ASTM D5185(m)	100	48	47	47
Manganese	ppm	ASTM D5185(m)		<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	450	629	611	603
Calcium	ppm	ASTM D5185(m)	3000	1487	1470	1454
Phosphorus	ppm	ASTM D5185(m)	1150	869	848	841
Zinc	ppm	ASTM D5185(m)	1350	1031	1012	987
Sulfur	ppm	ASTM D5185(m)	4250	2597	2535	2517
Oxidation	Abs/.1mm	ASTM D7414*	>25	16.3	16.2	16.1
Base Number (BN)	mg KOH/g	ASTM D2896*	8.5	8.53	8.63	8.88
Visc @ 40°C	cSt	ASTM D7279(m)	138	▲ 75.3	▲ 76.0	▲ 75.3
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	▲ 11.3	▲ 11.4	▲ 11.3
Viscosity Index (VI)	Scale	ASTM D2270*	102	141	141	141

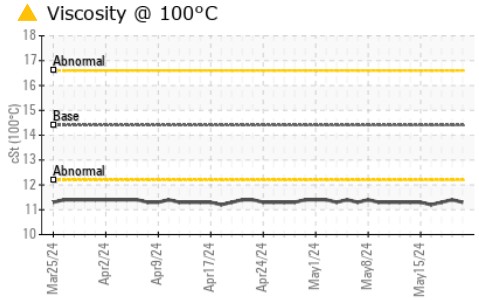
Fuel Dilution



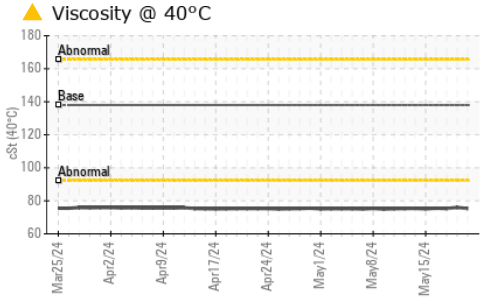
Water (KF)



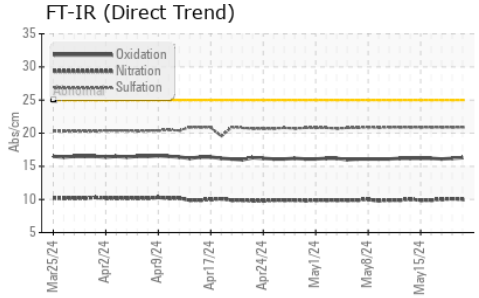
Viscosity @ 100°C



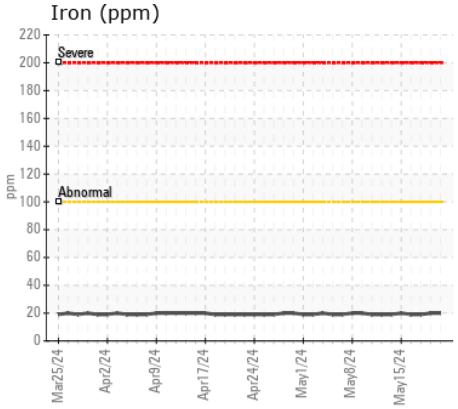
Viscosity @ 40°C



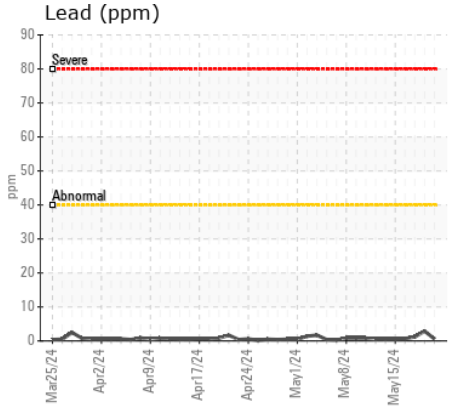
FT-IR (Direct Trend)



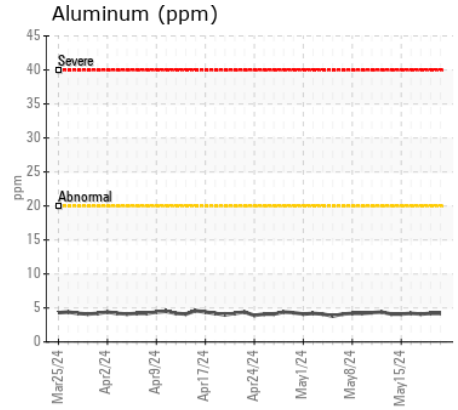
Iron (ppm)



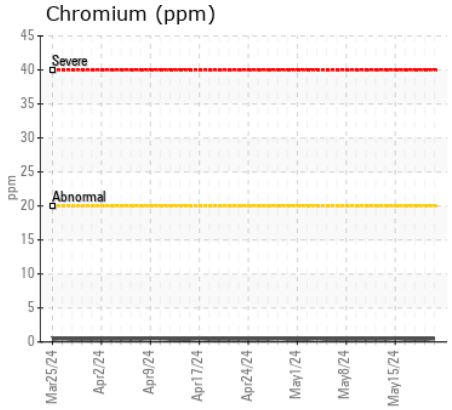
Lead (ppm)



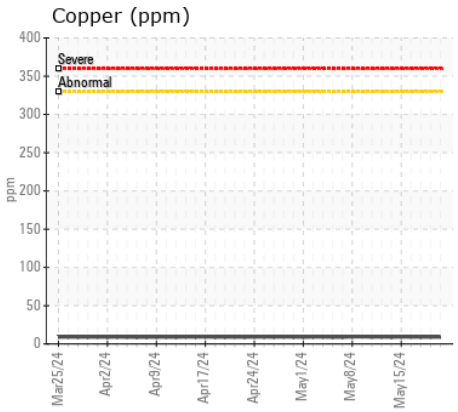
Aluminum (ppm)



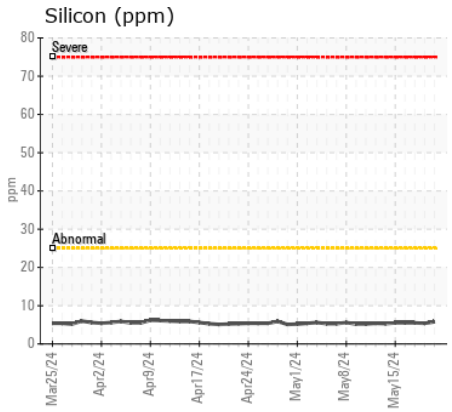
Chromium (ppm)



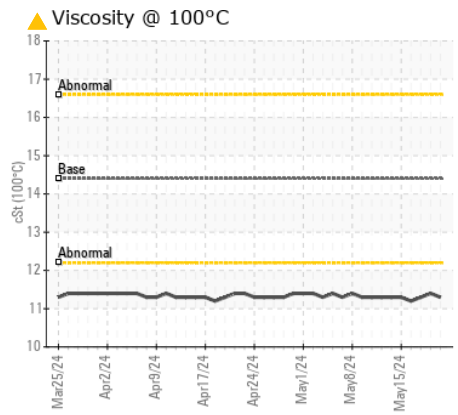
Copper (ppm)



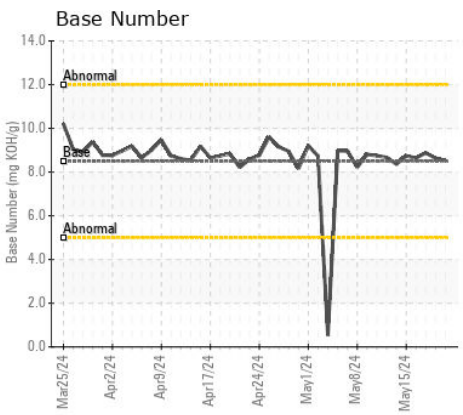
Silicon (ppm)



Viscosity @ 100°C



Base Number



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **WearCheck Quality Control Sample Results**
Sample No. : WC0936563 **Received** : 22 May 2024
Lab Number : 02636918 **Tested** : 24 May 2024 Burlington, ON
Unique Number : 5786080 **Diagnosed** : 24 May 2024 - Kevin Marson CA
Test Package : MOB 2 (Additional Tests: FuelDilution, Glycol, KF, KV40, PercentFuel, VI) Contact: Dorian Anderson

To discuss this sample report, contact Customer Service at 1-800-268-2131. dorian.anderson@wearcheck.com
Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. T: (289)291-4652
Validity of results and interpretation are based on the sample and information as supplied. F: (905)569-8605