MOBIL LUBE 360 OIL DIAGNOSTICS

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
3720101
Component
Diesel Engine
Fluid
SHELL ROTELLA T4 10W30 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

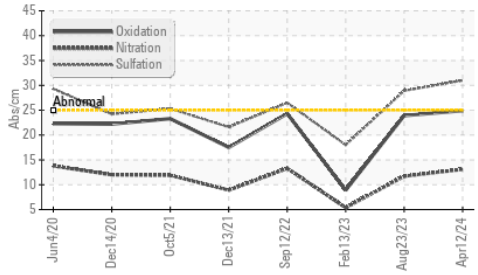
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

FLUID CONDITION

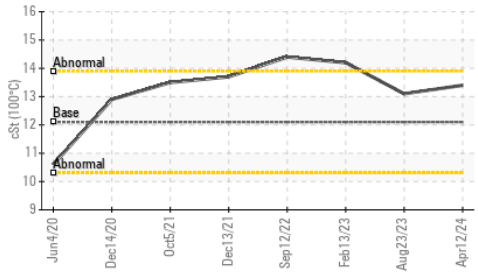
The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PC0083998	PC0074750	PC0066865
Sample Date		Client Info		12 Apr 2024	23 Aug 2023	13 Feb 2023
Machine Age	mls	Client Info		406103	895549	291553
Oil Age	mls	Client Info		61000	56000	36000
Filter Age	mls	Client Info		61000	56000	36000
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185(m)	>200	82	62	37
Chromium	ppm	ASTM D5185(m)	>6	3	4	2
Nickel	ppm	ASTM D5185(m)	>3	0	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	0	<1	<1
Silver	ppm	ASTM D5185(m)	>2	0	<1	0
Aluminum	ppm	ASTM D5185(m)	>50	68	68	14
Lead	ppm	ASTM D5185(m)	>10	0	<1	<1
Copper	ppm	ASTM D5185(m)	>50	8	8	7
Tin	ppm	ASTM D5185(m)	>6	0	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---
Silicon	ppm	ASTM D5185(m)	>50	6	8	6
Potassium	ppm	ASTM D5185(m)	>20	104	132	6
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	0.0
Soot %	%	ASTM D7844*	>3	1.1	0.9	0.1
Nitration	Abs/cm	ASTM D7624*	>20	13.1	11.7	5.4
Sulfation	Abs/.1mm	ASTM D7415*	>30	31.0	28.9	18.0
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Sodium	ppm	ASTM D5185(m)		4	6	3
Boron	ppm	ASTM D5185(m)		8	13	5
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)		17	53	61
Manganese	ppm	ASTM D5185(m)		1	1	<1
Magnesium	ppm	ASTM D5185(m)		147	518	983
Calcium	ppm	ASTM D5185(m)		2280	1715	1267
Phosphorus	ppm	ASTM D5185(m)		937	1078	1165
Zinc	ppm	ASTM D5185(m)		1145	1234	1296
Sulfur	ppm	ASTM D5185(m)		2633	2423	2318
Oxidation	Abs/.1mm	ASTM D7414*	>25	24.9	23.9	8.9
Visc @ 40°C	cSt	ASTM D7279(m)	81.8	97.5	94.0	107
Visc @ 100°C	cSt	ASTM D7279(m)	12.1	13.4	13.1	14.2
Viscosity Index (VI)	Scale	ASTM D2270*	141	136	137	134

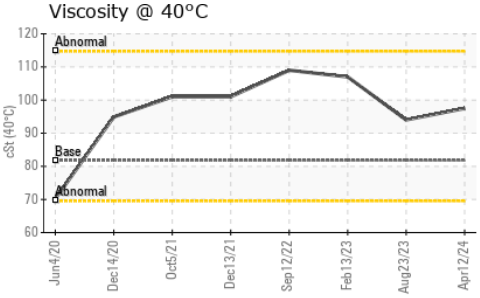
FT-IR (Direct Trend)



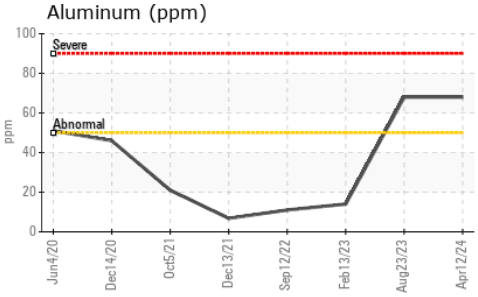
Viscosity @ 100°C



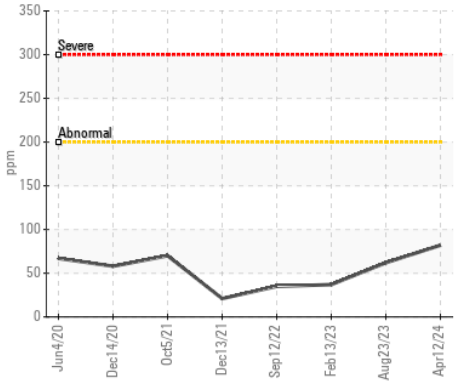
Viscosity @ 40°C



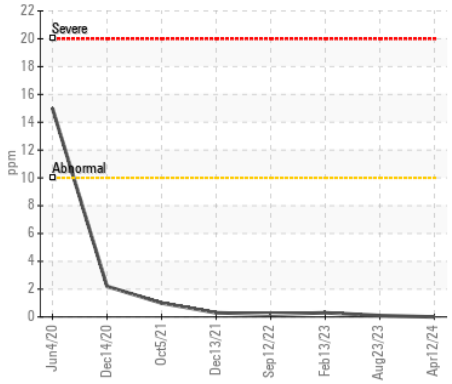
Aluminum (ppm)



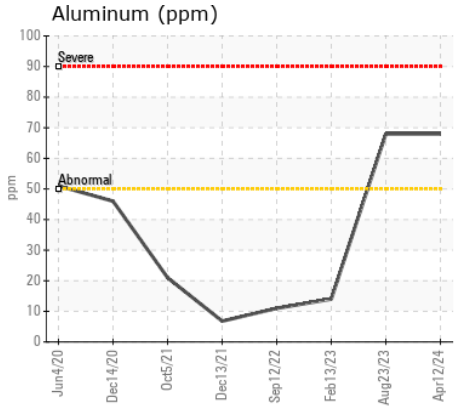
Iron (ppm)



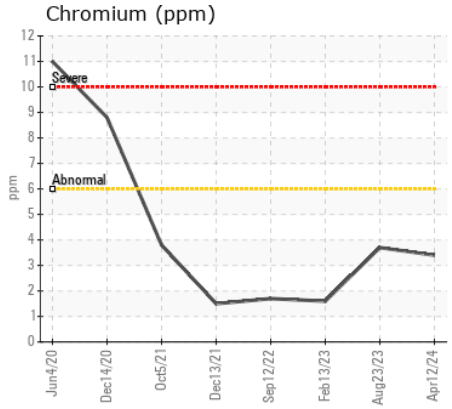
Lead (ppm)



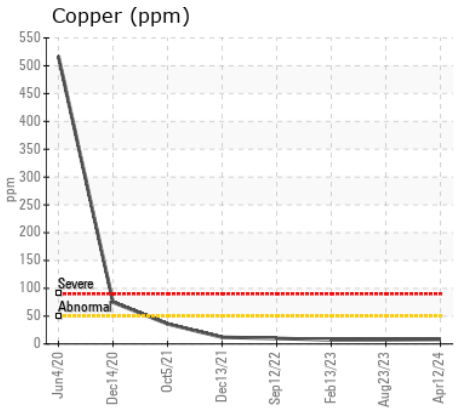
Aluminum (ppm)



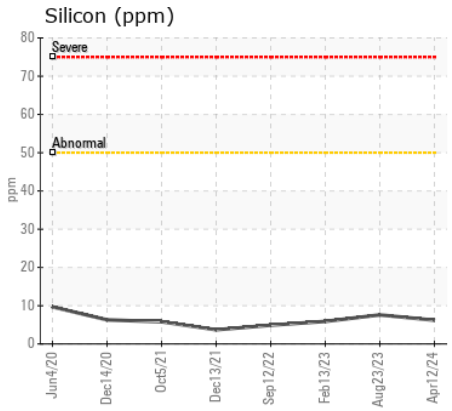
Chromium (ppm)



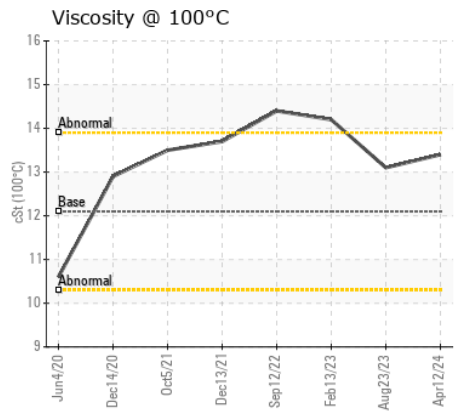
Copper (ppm)



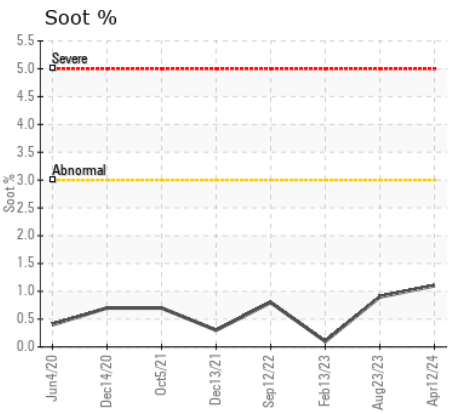
Silicon (ppm)



Viscosity @ 100°C



Soot %



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0083998 **Received** : 03 Jun 2024
Lab Number : 02639338 **Tested** : 03 Jun 2024
Unique Number : 5788500 **Diagnosed** : 03 Jun 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: KV40, VI, Visual)

To discuss this sample report, contact Customer Service at 1-800-268-2131.
Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
Validity of results and interpretation are based on the sample and information as supplied.

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