MOB I

Dura-Check Fluid Analysis

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
[PMOAS3340819]
Machine Id
SGM32NDDD - FIRE STATION 1
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (--- QTS)

RECOMMENDATION

We suspect abnormal contamination may be due to sampling method. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

WEAR

Moderate concentration of visible metal present. All component wear rates are normal.

CONTAMINATION

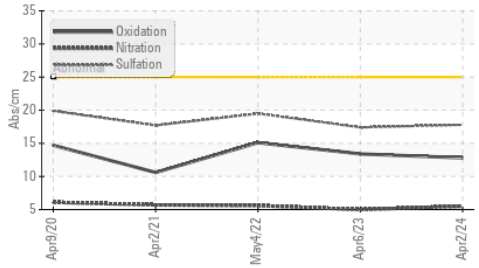
There is no indication of any contamination in the oil.

FLUID CONDITION

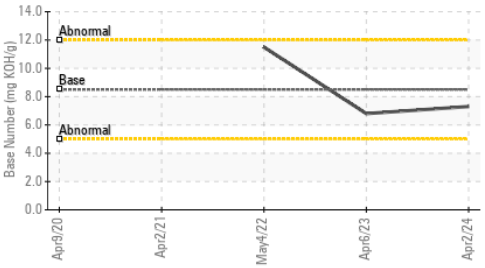
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		DC0035250	DC0027694	DC0020370
Sample Date		Client Info		02 Apr 2024	06 Apr 2023	04 May 2022
Machine Age	hrs	Client Info		146	0	95
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	N/A
Sample Status				ABNORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>100	<1	1	2
Chromium	ppm	ASTM D5185m	>20	0	0	0
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>20	<1	<1	<1
Lead	ppm	ASTM D5185m	>40	0	0	2
Copper	ppm	ASTM D5185m	>330	<1	0	8
Tin	ppm	ASTM D5185m	>15	0	0	1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	▲ MODER	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	2	2	6
Potassium	ppm	ASTM D5185m	>20	2	2	<1
Fuel	%	ASTM D3524	>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	0.1
Nitration	Abs/cm	*ASTM D7624	>20	5.5	5.0	5.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.8	17.4	19.5
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	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	>158	<1	1	<1
Boron	ppm	ASTM D5185m	250	9	14	10
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	11	10	56
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m	450	39	68	891
Calcium	ppm	ASTM D5185m	3000	2337	1993	1091
Phosphorus	ppm	ASTM D5185m	1150	893	631	1008
Zinc	ppm	ASTM D5185m	1350	1144	878	1199
Sulfur	ppm	ASTM D5185m	4250	4570	3225	3456
Oxidation	Abs/.1mm	*ASTM D7414	>25	12.8	13.4	15.1
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	7.3	6.8	11.5
Visc @ 100°C	cSt	ASTM D445	14.4	13.38	13.4	13.5

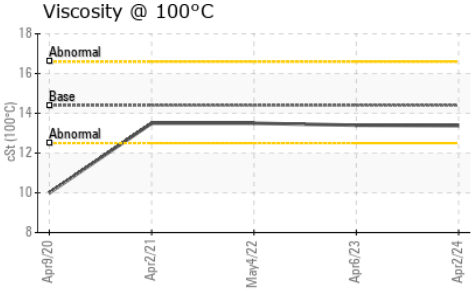
FT-IR (Direct Trend)



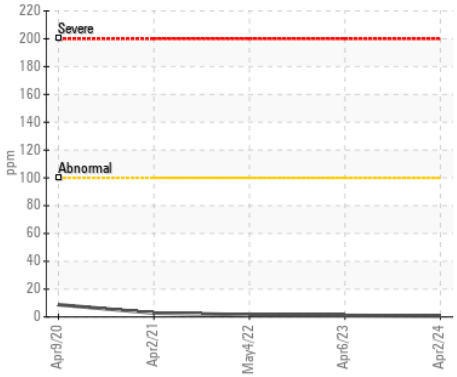
Base Number



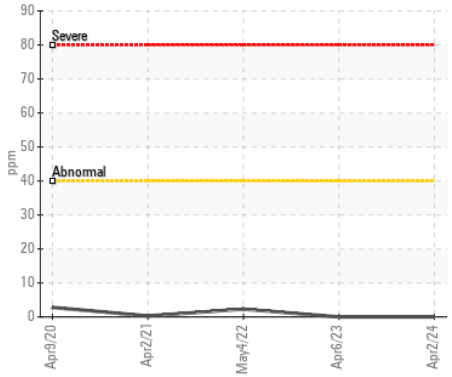
Viscosity @ 100°C



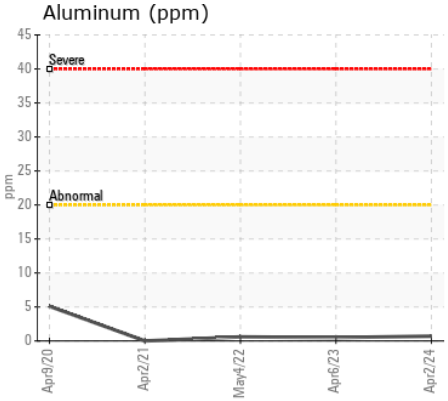
Iron (ppm)



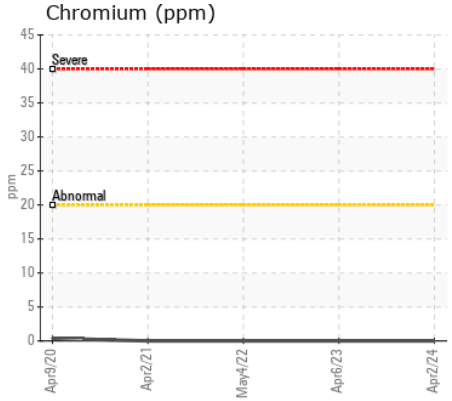
Lead (ppm)



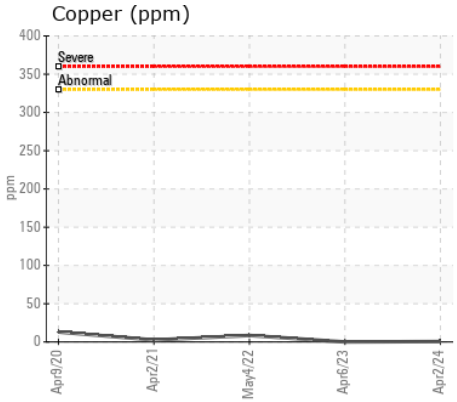
Aluminum (ppm)



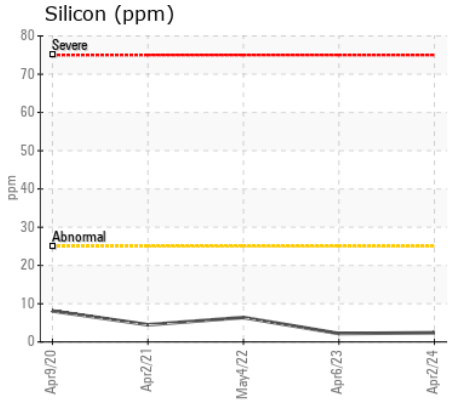
Chromium (ppm)



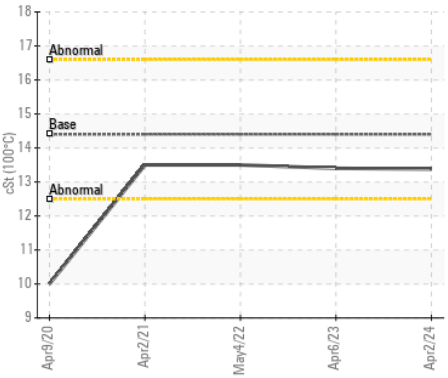
Copper (ppm)



Silicon (ppm)



Viscosity @ 100°C



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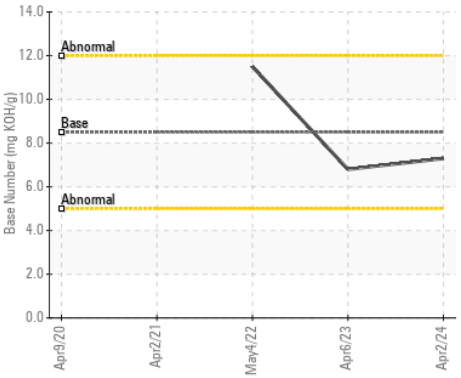

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : DC0035250
Lab Number : 06157485
Unique Number : 10992908
Test Package : MOB 1 (Additional Tests: FuelDilution, TBN)

Received : 23 Apr 2024
Tested : 26 Apr 2024
Diagnosed : 29 Apr 2024 - Jonathan Hester

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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