MOB I

Dura-Check Fluid Analysis

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Machine Id
M32120
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (--- QTS)

RECOMMENDATION

We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

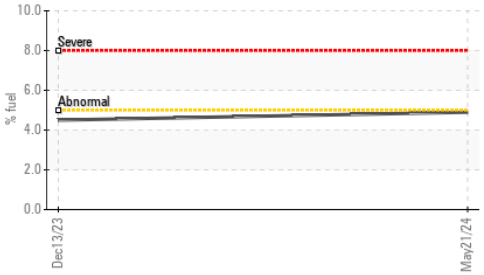
There is a moderate amount of fuel present in the oil.

FLUID CONDITION

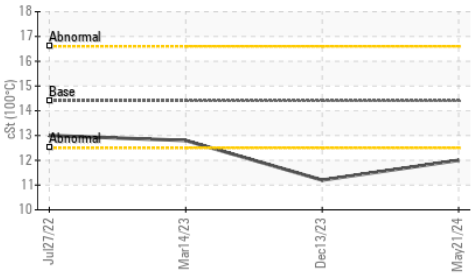
Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		DC0036418	DC0032144	DC0023112
Sample Date		Client Info		21 May 2024	13 Dec 2023	14 Mar 2023
Machine Age	mls	Client Info		61122	44005	22960
Oil Age	mls	Client Info		0	2862	1541
Filter Age	mls	Client Info		0	2862	1541
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	NORMAL
Iron	ppm	ASTM D5185m	>100	106	67	68
Chromium	ppm	ASTM D5185m	>20	1	<1	<1
Nickel	ppm	ASTM D5185m	>4	<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	<1	0	<1
Aluminum	ppm	ASTM D5185m	>20	12	14	21
Lead	ppm	ASTM D5185m	>40	<1	0	0
Copper	ppm	ASTM D5185m	>330	2	4	19
Tin	ppm	ASTM D5185m	>15	1	<1	<1
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	8	14
Potassium	ppm	ASTM D5185m	>20	14	24	58
Fuel	%	ASTM D3524	>5	▲ 4.9	▲ 4.5	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	1.3	1	0.7
Nitration	Abs/cm	*ASTM D7624	>20	11.8	12.1	9.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	28.4	26.7	22.8
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	>158	5	8	4
Boron	ppm	ASTM D5185m	250	58	32	3
Barium	ppm	ASTM D5185m	10	0	<1	0
Molybdenum	ppm	ASTM D5185m	100	4	36	8
Manganese	ppm	ASTM D5185m		1	2	2
Magnesium	ppm	ASTM D5185m	450	52	393	130
Calcium	ppm	ASTM D5185m	3000	2180	1711	2119
Phosphorus	ppm	ASTM D5185m	1150	914	1013	818
Zinc	ppm	ASTM D5185m	1350	1089	1226	1019
Sulfur	ppm	ASTM D5185m	4250	3269	2754	3857
Oxidation	Abs/.1mm	*ASTM D7414	>25	27.1	28.0	17.7
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	5.0	7.4	5.6
Visc @ 100°C	cSt	ASTM D445	14.4	▲ 12.0	▲ 11.2	12.8

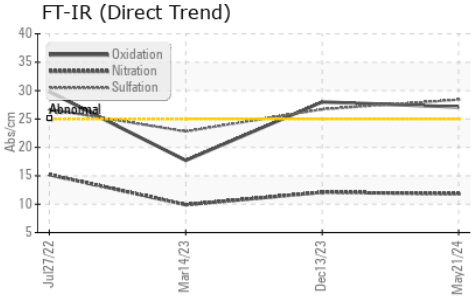
Fuel Dilution



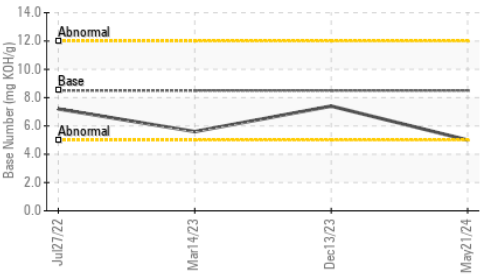
Viscosity @ 100°C



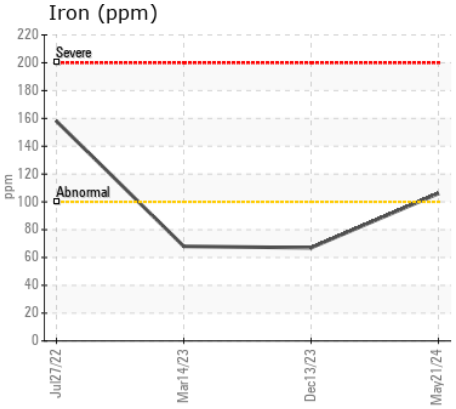
FT-IR (Direct Trend)



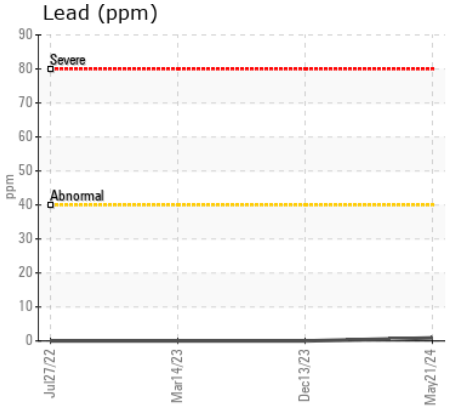
Base Number



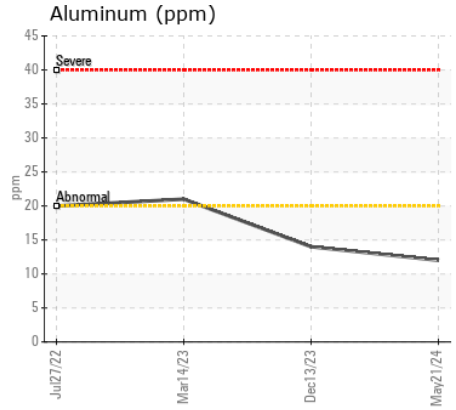
Iron (ppm)



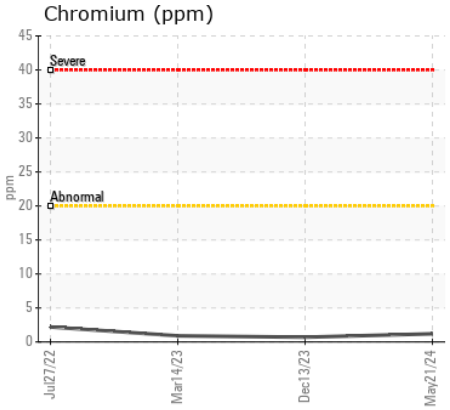
Lead (ppm)



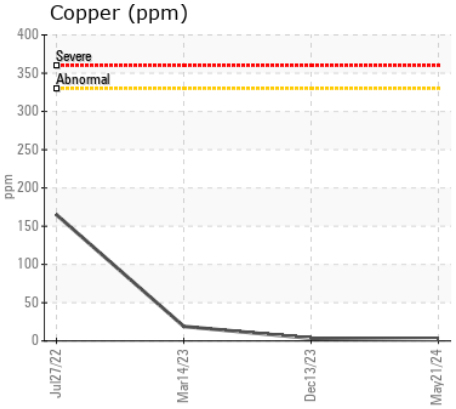
Aluminum (ppm)



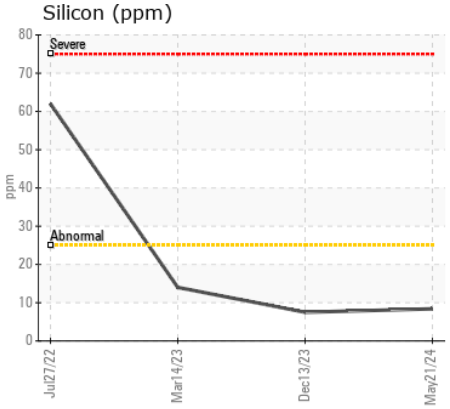
Chromium (ppm)



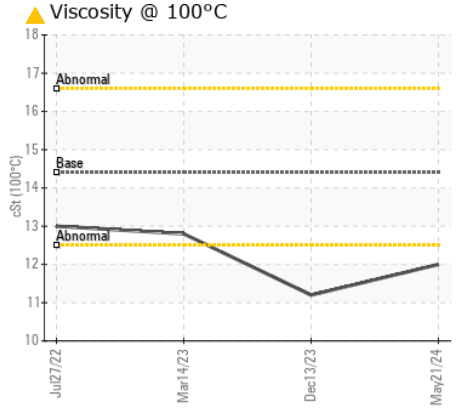
Copper (ppm)



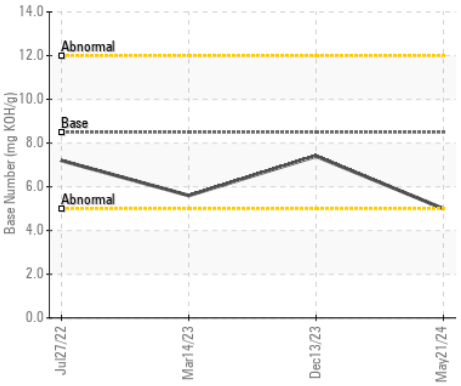
Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : DC0036418 **Received** : 29 May 2024
Lab Number : 06194817 **Tested** : 03 Jun 2024
Unique Number : 11056940 **Diagnosed** : 03 Jun 2024 - Don Baldridge
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel, TBN)

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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