CONST

WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Area
Mobile Fleet
Machine Id
741 741
Component
Diesel Engine
Fluid
MOBIL DELVAC 1300 SUPER15W40 (6 GAL)

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

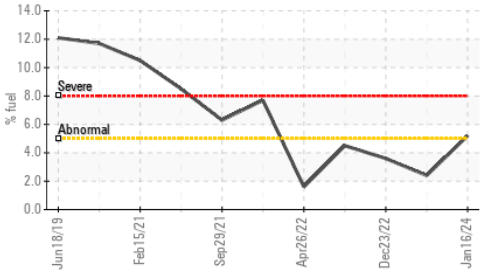
There is a high amount of particulates present in the oil. There is a moderate amount of fuel present in the oil.

FLUID CONDITION

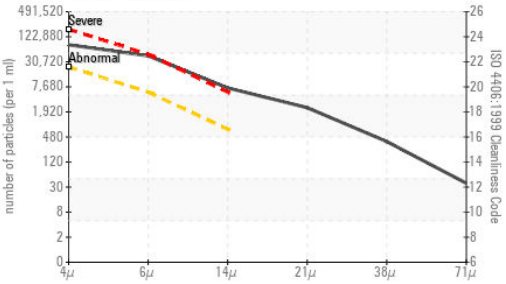
Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0861682	WC0867090	WC0834953
Sample Date		Client Info		16 Jan 2024	06 Dec 2023	24 Jul 2023
Machine Age	hrs	Client Info		13973	13582	13040
Oil Age	hrs	Client Info		2239	61	2322
Filter Age	hrs	Client Info		2239	61	2322
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>105	35	42	82
Chromium	ppm	ASTM D5185m	>5	<1	<1	2
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m	>2	0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>10	1	2	1
Lead	ppm	ASTM D5185m	>15	0	0	0
Copper	ppm	ASTM D5185m	>140	0	0	0
Tin	ppm	ASTM D5185m	>4	0	0	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	4	5	6
Potassium	ppm	ASTM D5185m	>20	0	<1	0
Fuel	%	ASTM D3524	>5	▲ 5.2	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.6	0.6	1
Nitration	Abs/cm	*ASTM D7624	>20	8.6	8.1	9.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.0	22.4	23.7
Particles >4µm		ASTM D7647	>20000	▲ 67962	▲ 27091	▲ 54643
Particles >6µm		ASTM D7647	>5000	▲ 37023	▲ 14758	▲ 29767
Particles >14µm		ASTM D7647	>640	▲ 6301	▲ 2512	▲ 5066
Particles >21µm		ASTM D7647	>160	▲ 2122	▲ 846	▲ 1706
Particles >38µm		ASTM D7647	>40	▲ 328	▲ 131	▲ 263
Particles >71µm		ASTM D7647	>10	▲ 33	▲ 13	▲ 27
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ 23/22/20	▲ 22/21/19	▲ 23/22/20
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	3	2
Boron	ppm	ASTM D5185m	0	58	57	48
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	0	47	47	51
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m	0	493	505	575
Calcium	ppm	ASTM D5185m		1595	1657	1843
Phosphorus	ppm	ASTM D5185m		741	730	810
Zinc	ppm	ASTM D5185m		858	925	1013
Sulfur	ppm	ASTM D5185m		2195	2319	3045
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.2	20.7	22.3
Base Number (BN)	mg KOH/g	ASTM D2896	9.4	8.9	9.6	9.3
Visc @ 100°C	cSt	ASTM D445	14	▲ 11.2	12.0	12.2

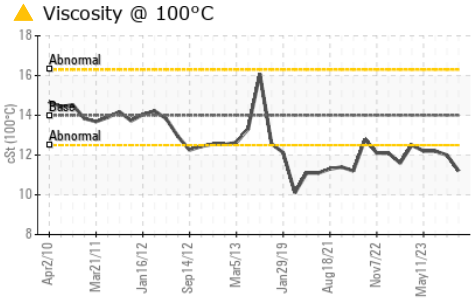
Fuel Dilution



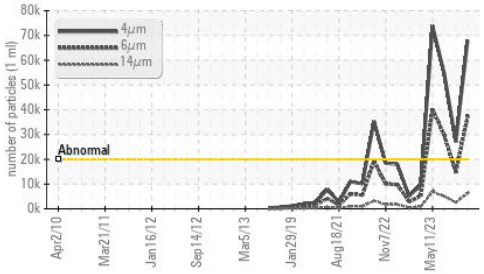
Particle Count



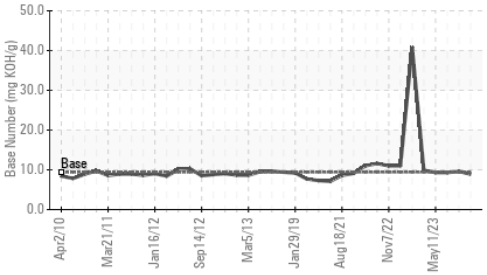
Viscosity @ 100°C



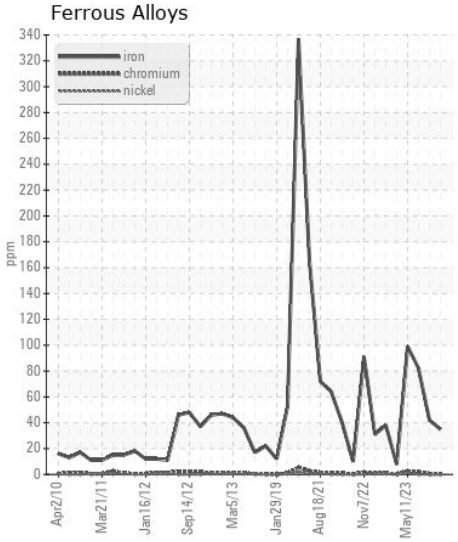
Particle Trend



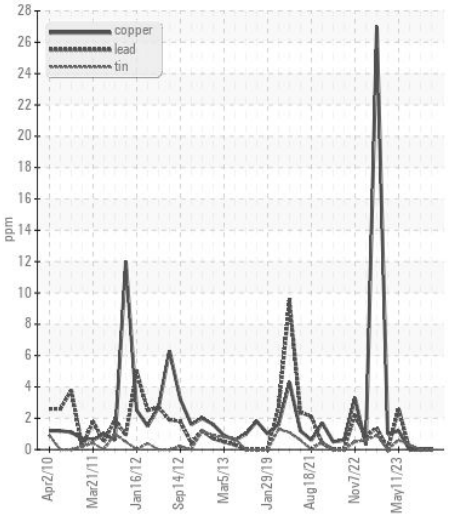
Base Number



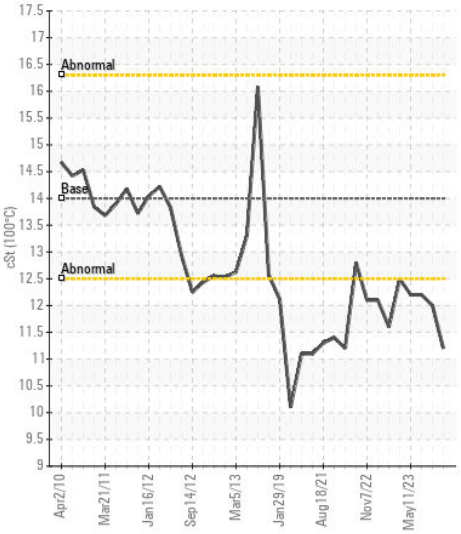
Ferrous Alloys



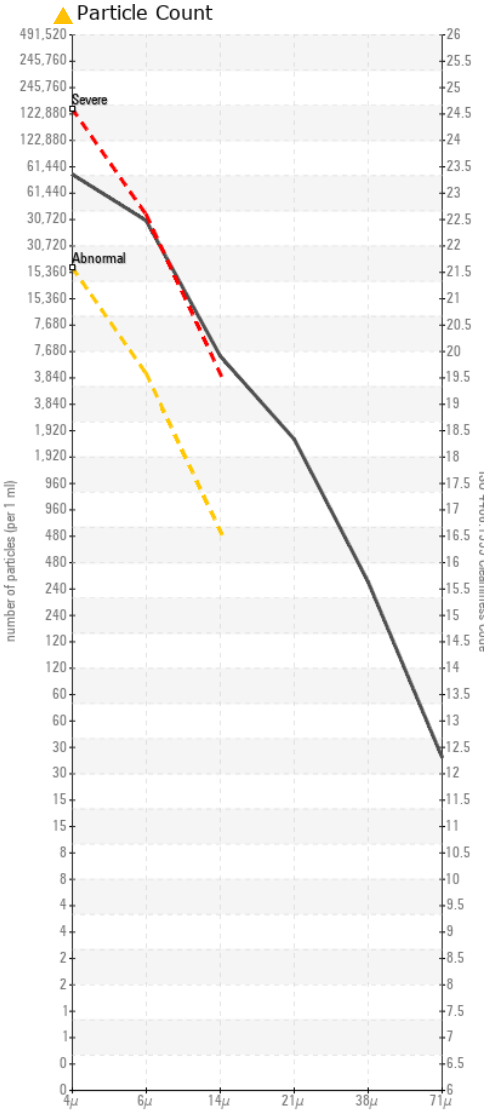
Non-ferrous Metals



Viscosity @ 100°C



Particle Count



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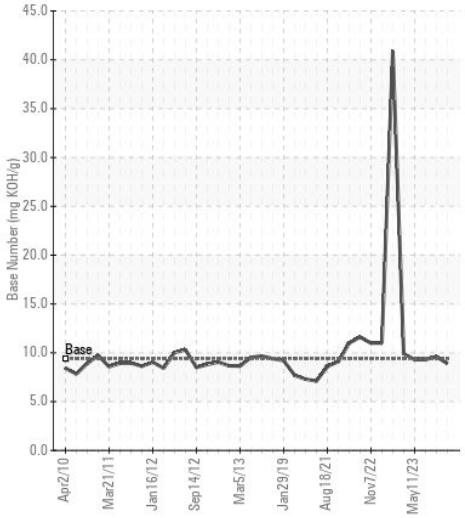

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0861682
Lab Number : 06085939
Unique Number : 10873384
Test Package : CONST (Additional Tests: FuelDilution, PercentFuel, PrtCount, TBN)
Received : 12 Feb 2024
Tested : 15 Feb 2024
Diagnosed : 15 Feb 2024 - Jonathan Hester

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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