CONST

WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
Mobile Fleet
Machine Id
6461 6461
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 10W30 (8 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

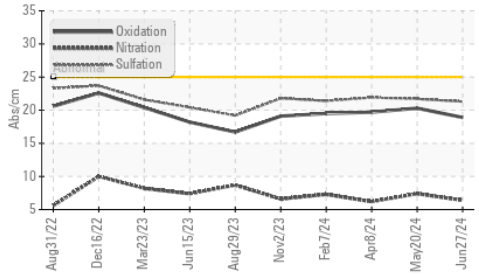
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

FLUID CONDITION

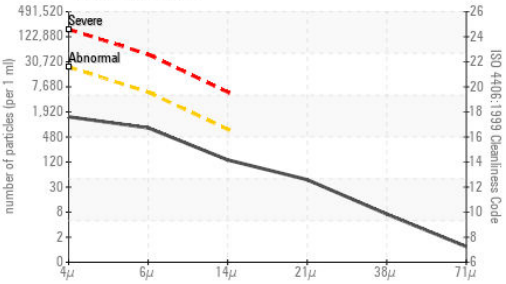
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0937752	WC0939243	WC0918768
Sample Date		Client Info		27 Jun 2024	20 May 2024	08 Apr 2024
Machine Age	hrs	Client Info		3423	3163	2905
Oil Age	hrs	Client Info		260	521	263
Filter Age	hrs	Client Info		260	521	263
Oil Changed		Client Info		Not Changd	Changed	Not Changd
Filter Changed		Client Info		Not Changd	Changed	Not Changd
Sample Status				NORMAL	ATTENTION	NORMAL
Iron	ppm	ASTM D5185m	>100	8	21	11
Chromium	ppm	ASTM D5185m	>20	<1	2	1
Nickel	ppm	ASTM D5185m	>4	<1	<1	<1
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	<1	1	<1
Aluminum	ppm	ASTM D5185m	>20	8	12	4
Lead	ppm	ASTM D5185m	>40	<1	<1	<1
Copper	ppm	ASTM D5185m	>330	16	69	42
Tin	ppm	ASTM D5185m	>15	<1	2	1
Vanadium	ppm	ASTM D5185m		<1	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	4	8	6
Potassium	ppm	ASTM D5185m	>20	15	21	9
Fuel		WC Method	>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	0.2	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	6.4	7.4	6.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.3	21.7	21.9
Particles >4µm		ASTM D7647	>20000	1279	7569	5455
Particles >6µm		ASTM D7647	>5000	697	4123	2971
Particles >14µm		ASTM D7647	>640	119	702	506
Particles >21µm		ASTM D7647	>160	40	236	170
Particles >38µm		ASTM D7647	>40	6	36	26
Particles >71µm		ASTM D7647	>10	1	4	3
Oil Cleanliness		ISO 4406 (c)	>21/19/16	17/17/14	20/19/17	20/19/16
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		<1	3	<1
Boron	ppm	ASTM D5185m	250	41	57	64
Barium	ppm	ASTM D5185m	10	<1	0	0
Molybdenum	ppm	ASTM D5185m	100	49	71	49
Manganese	ppm	ASTM D5185m		<1	<1	1
Magnesium	ppm	ASTM D5185m	450	491	765	536
Calcium	ppm	ASTM D5185m	3000	1657	2494	1751
Phosphorus	ppm	ASTM D5185m	1150	713	1116	790
Zinc	ppm	ASTM D5185m	1350	900	1363	975
Sulfur	ppm	ASTM D5185m	4250	2221	3604	2767
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.9	20.3	19.7
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	9.5	9.0	9.8
Visc @ 100°C	cSt	ASTM D445	10.9	11.2	11.2	11.32

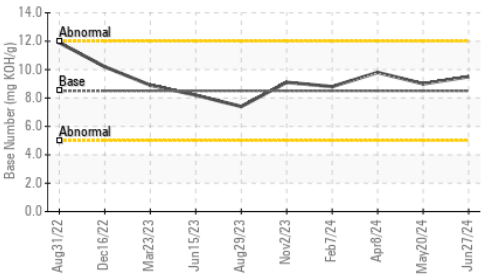
FT-IR (Direct Trend)



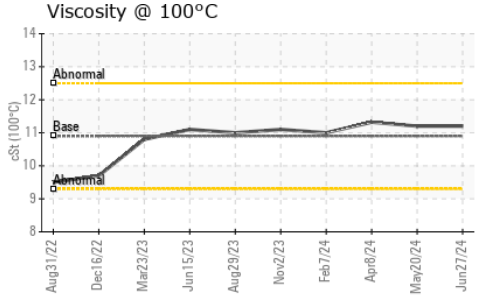
Particle Count



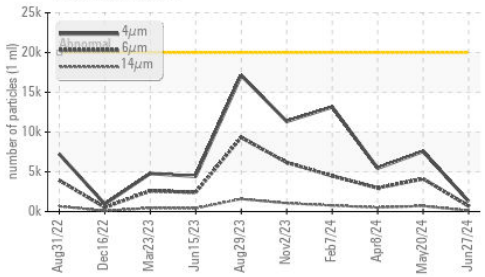
Base Number



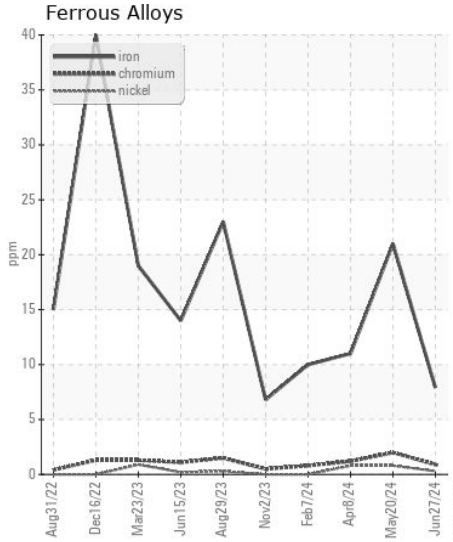
Viscosity @ 100°C



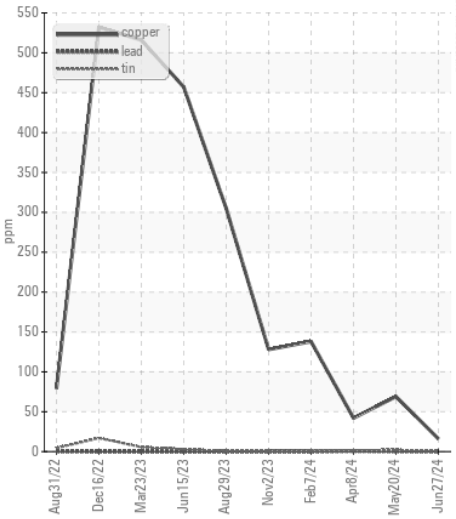
Particle Trend



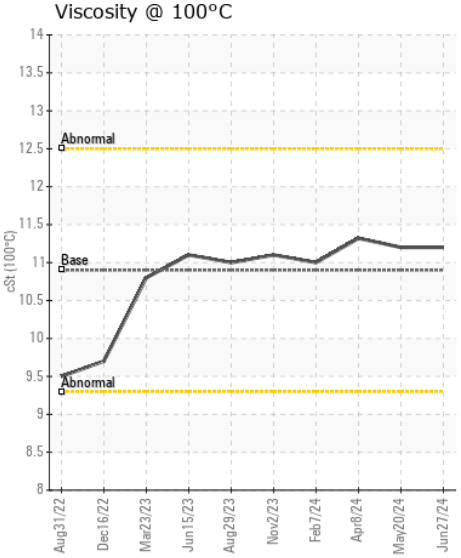
Ferrous Alloys



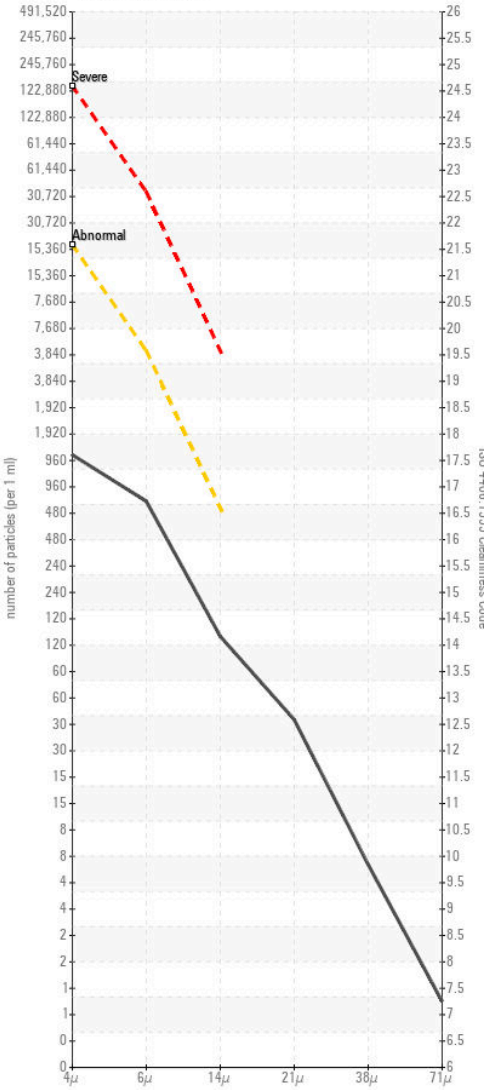
Non-ferrous Metals



Viscosity @ 100°C



Particle Count



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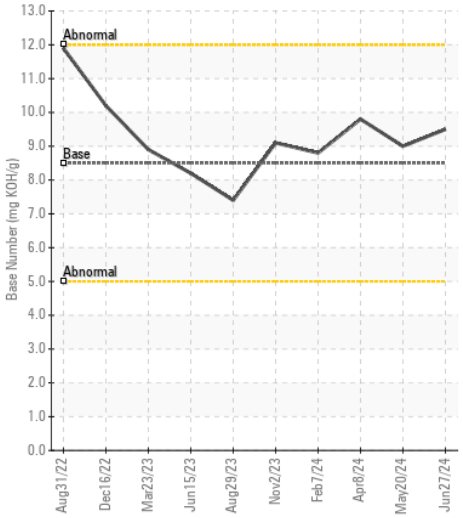

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0937752 **Received** : 01 Jul 2024
Lab Number : 06225689 **Tested** : 03 Jul 2024
Unique Number : 11103886 **Diagnosed** : 03 Jul 2024 - Don Baldridge
Test Package : CONST (Additional Tests: KV40, PrtCount, TBN)

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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