CONST

WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ATTENTION
FLUID CONDITION	NORMAL

Area
Mobile Fleet
Machine Id
6408 6408
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 10W30 (10 GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

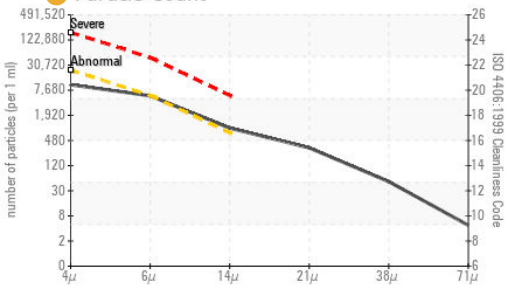
There is a moderate amount of particulates present in the oil.

FLUID CONDITION

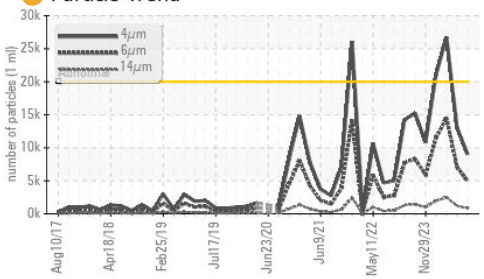
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0956061	WC0918969	WC0918627
Sample Date		Client Info		09 Jul 2024	01 May 2024	15 Mar 2024
Machine Age	hrs	Client Info		20081	19768	19556
Oil Age	hrs	Client Info		313	473	261
Filter Age	hrs	Client Info		313	473	261
Oil Changed		Client Info		Not Changd	Changed	Not Changd
Filter Changed		Client Info		Not Changd	Changed	Not Changd
Sample Status				ATTENTION	ATTENTION	ABNORMAL
Iron	ppm	ASTM D5185m	>100	17	16	30
Chromium	ppm	ASTM D5185m	>20	<1	2	2
Nickel	ppm	ASTM D5185m	>4	0	1	<1
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>3	0	<1	0
Aluminum	ppm	ASTM D5185m	>20	6	7	14
Lead	ppm	ASTM D5185m	>40	0	2	<1
Copper	ppm	ASTM D5185m	>330	3	11	3
Tin	ppm	ASTM D5185m	>15	0	2	<1
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	9	9	8
Potassium	ppm	ASTM D5185m	>20	1	3	4
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	0.5	0.6	0.3
Nitration	Abs/cm	*ASTM D7624	>20	7.3	8.0	6.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.9	22.1	21.8
Particles >4µm		ASTM D7647	>20000	9030	12997	▲ 26717
Particles >6µm		ASTM D7647	>5000	4919	● 7080	▲ 14554
Particles >14µm		ASTM D7647	>640	● 837	● 1205	▲ 2477
Particles >21µm		ASTM D7647	>160	● 282	● 406	▲ 834
Particles >38µm		ASTM D7647	>40	● 44	● 63	▲ 129
Particles >71µm		ASTM D7647	>10	4	6	▲ 13
Oil Cleanliness		ISO 4406 (c)	>21/19/16	● 20/19/17	● 21/20/17	▲ 22/21/18
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		4	4	7
Boron	ppm	ASTM D5185m	250	29	37	22
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	48	41	35
Manganese	ppm	ASTM D5185m		<1	1	1
Magnesium	ppm	ASTM D5185m	450	511	533	392
Calcium	ppm	ASTM D5185m	3000	1742	1802	1240
Phosphorus	ppm	ASTM D5185m	1150	752	837	▲ 567
Zinc	ppm	ASTM D5185m	1350	886	955	713
Sulfur	ppm	ASTM D5185m	4250	2749	3055	2062
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.2	20.2	19.9
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	9.5	8.9	9.8
Visc @ 100°C	cSt	ASTM D445	10.9	11.3	11.5	11.4

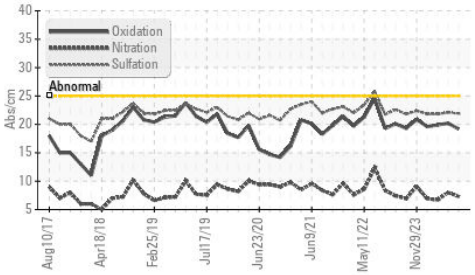
Particle Count



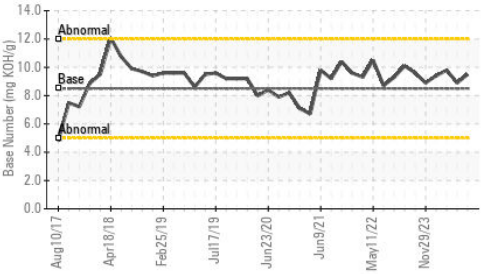
Particle Trend



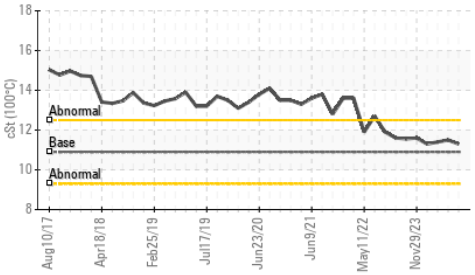
FT-IR (Direct Trend)



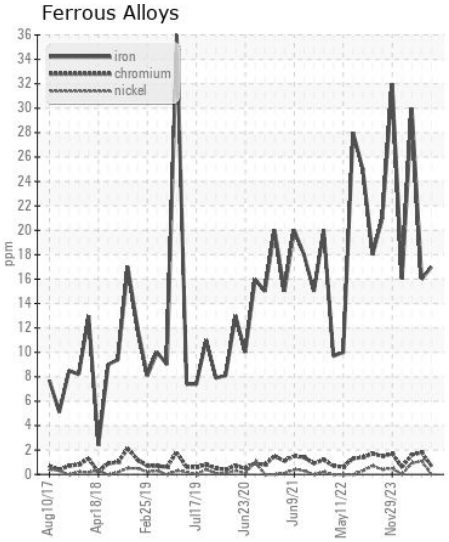
Base Number



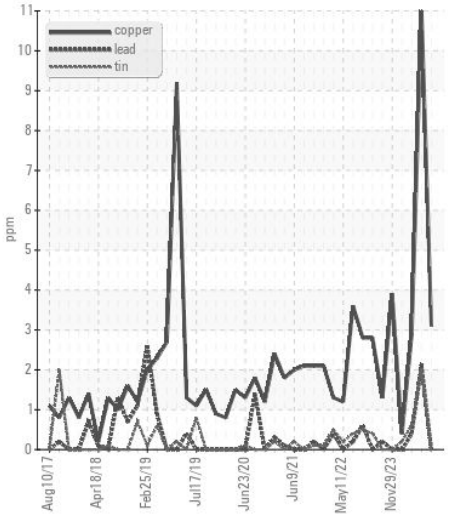
Viscosity @ 100°C



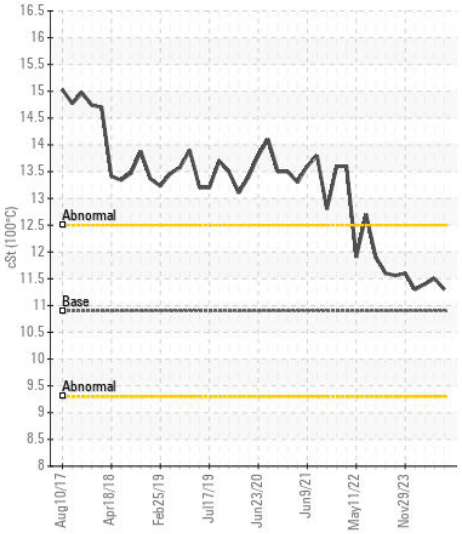
Ferrous Alloys



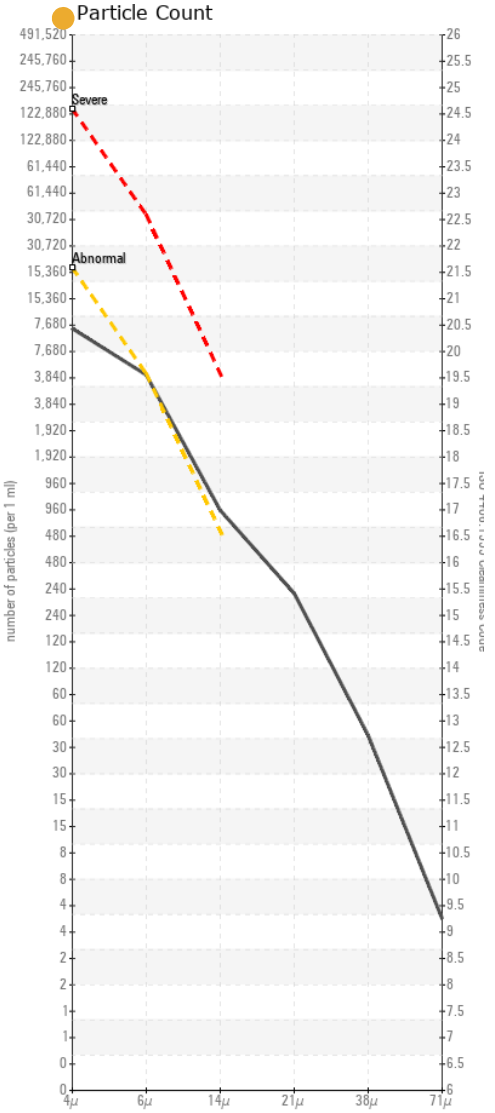
Non-ferrous Metals



Viscosity @ 100°C



Particle Count



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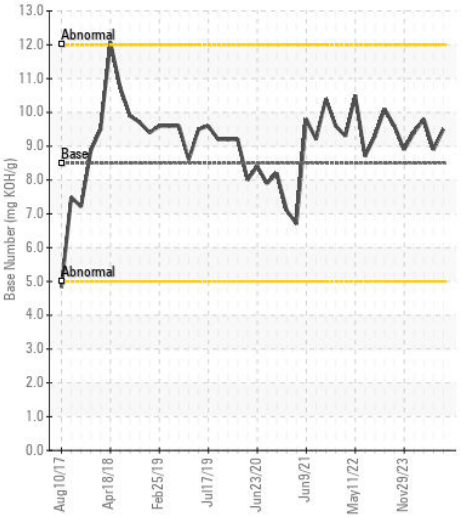

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0956061 **Received** : 11 Jul 2024
Lab Number : 06233146 **Tested** : 12 Jul 2024
Unique Number : 11116639 **Diagnosed** : 12 Jul 2024 - Don Baldridge
Test Package : CONST (Additional Tests: PrtCount, TBN)

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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