CONST

WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ATTENTION
FLUID CONDITION	NORMAL

Area
Mobile Fleet
Machine Id
5100 5100
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (11 GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

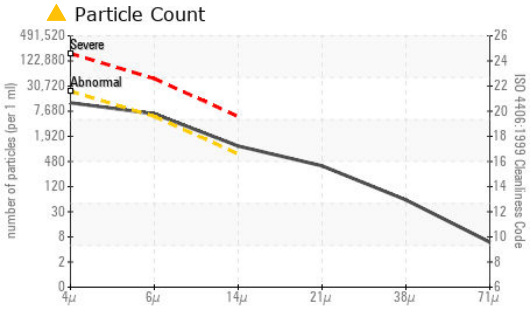
CONTAMINATION

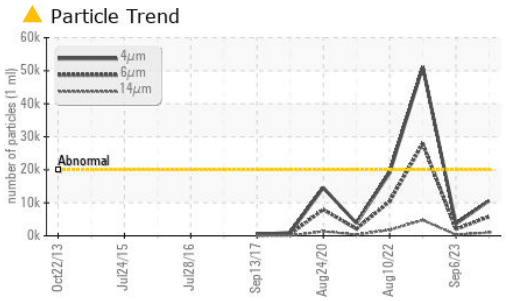
There is a moderate amount of particulates present in the oil.

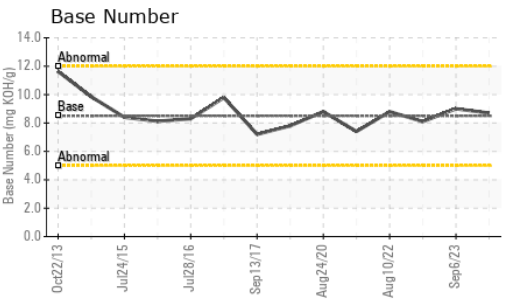
FLUID CONDITION

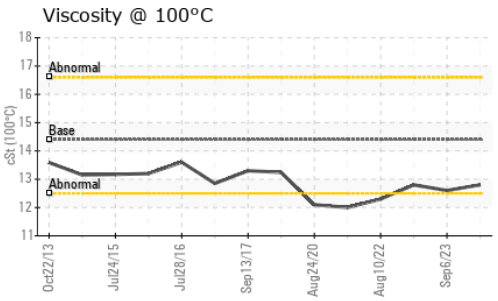
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

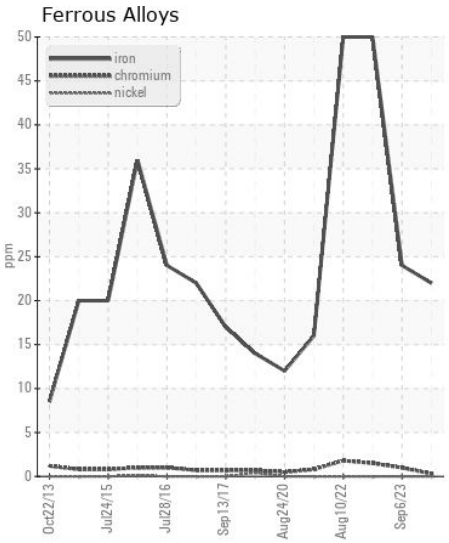
Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0861605	WC0852351	WC0784708
Sample Date		Client Info		05 Jan 2024	06 Sep 2023	15 Mar 2023
Machine Age	hrs	Client Info		12204	11569	10970
Oil Age	hrs	Client Info		527	609	601
Filter Age	hrs	Client Info		527	609	601
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ATTENTION	NORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>91	22	24	50
Chromium	ppm	ASTM D5185m	>8	<1	1	2
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m	>2	0	0	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>16	2	2	6
Lead	ppm	ASTM D5185m	>41	<1	<1	11
Copper	ppm	ASTM D5185m	>22	3	2	3
Tin	ppm	ASTM D5185m	>15	0	<1	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	>24	6	4	14
Potassium	ppm	ASTM D5185m	>20	2	0	2
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	0.8
Nitration	Abs/cm	*ASTM D7624	>20	9.8	10.4	11.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	25.1	25.3	26.9
Particles >4µm		ASTM D7647	>20000	10622	3637	▲ 51154
Particles >6µm		ASTM D7647	>5000	▲ 5787	1981	▲ 27867
Particles >14µm		ASTM D7647	>640	▲ 985	337	▲ 4743
Particles >21µm		ASTM D7647	>160	▲ 332	114	▲ 1597
Particles >38µm		ASTM D7647	>40	▲ 51	18	▲ 247
Particles >71µm		ASTM D7647	>10	5	2	▲ 25
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ 21/20/17	19/18/16	▲ 23/22/19
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	4	5	8
Boron	ppm	ASTM D5185m	250	63	50	46
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	47	46	47
Manganese	ppm	ASTM D5185m		0	<1	1
Magnesium	ppm	ASTM D5185m	450	535	548	533
Calcium	ppm	ASTM D5185m	3000	1752	1788	1685
Phosphorus	ppm	ASTM D5185m	1150	807	778	722
Zinc	ppm	ASTM D5185m	1350	968	942	951
Sulfur	ppm	ASTM D5185m	4250	2669	2937	2580
Oxidation	Abs/.1mm	*ASTM D7414	>25	25.1	25.4	27.4
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	8.7	9.0	8.1
Visc @ 100°C	cSt	ASTM D445	14.4	12.8	12.6	12.8

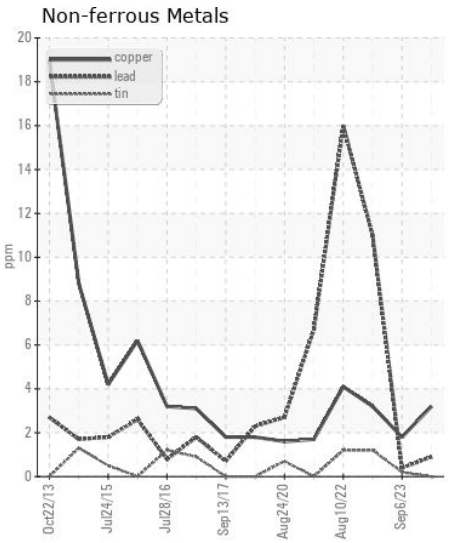


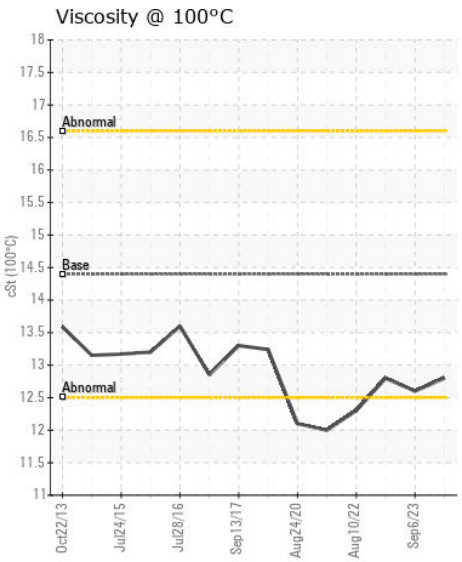


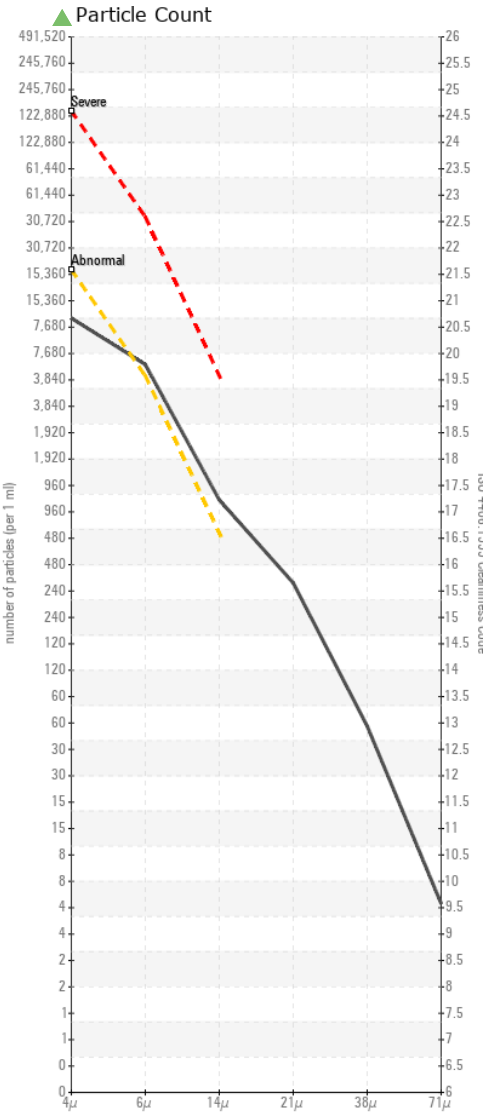


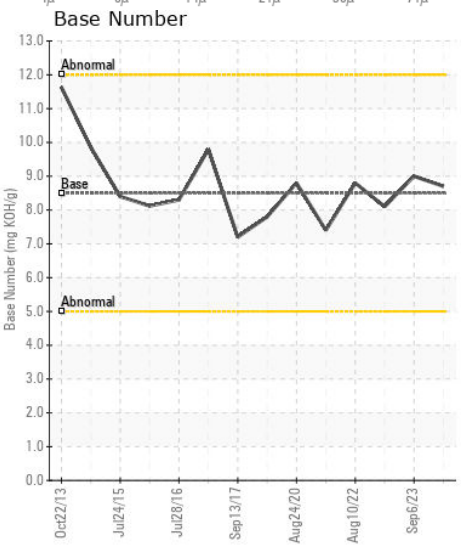












Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0861605 **Recieved** : 09 Jan 2024
Lab Number : 06055821 **Diagnosed** : 11 Jan 2024
Unique Number : 10821770 **Diagnostician** : Don Baldridge
Test Package : CONST (Additional Tests: PrtCount, TBN)

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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