CONST

WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ATTENTION
FLUID CONDITION	NORMAL

Area
Mobile Fleet
Machine Id
6466 6466
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 10W30 (8 GAL)

RECOMMENDATION

No corrective action is recommended at this time. 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

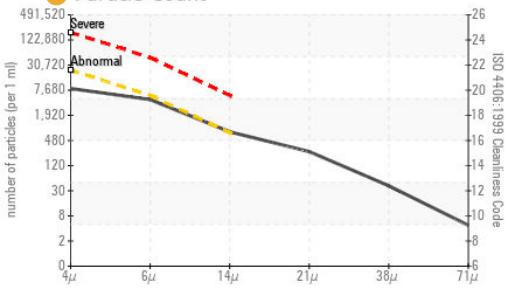
There is a moderate amount of particulates present in the oil.

FLUID CONDITION

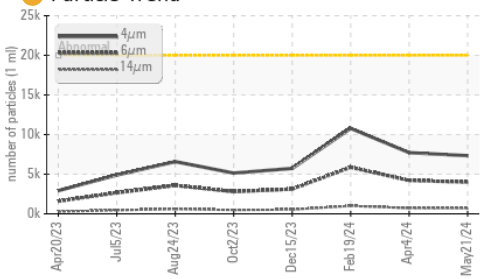
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0939357	WC0918710	WC0902795
Sample Date		Client Info		21 May 2024	04 Apr 2024	19 Feb 2024
Machine Age	hrs	Client Info		2159	1887	1639
Oil Age	hrs	Client Info		272	562	314
Filter Age	hrs	Client Info		272	562	314
Oil Changed		Client Info		Changed	Changed	Not Changd
Filter Changed		Client Info		Changed	Changed	Not Changd
Sample Status				ATTENTION	ATTENTION	ATTENTION
Iron	ppm	ASTM D5185m	>65	11	23	14
Chromium	ppm	ASTM D5185m	>5	<1	<1	<1
Nickel	ppm	ASTM D5185m	>3	0	0	0
Titanium	ppm	ASTM D5185m	>5	0	0	0
Silver	ppm	ASTM D5185m	>2	<1	0	<1
Aluminum	ppm	ASTM D5185m	>35	5	7	6
Lead	ppm	ASTM D5185m	>10	0	0	0
Copper	ppm	ASTM D5185m	>180	21	67	54
Tin	ppm	ASTM D5185m	>8	<1	<1	<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	>15	6	6	6
Potassium	ppm	ASTM D5185m	>20	7	9	9
Fuel		WC Method	>3.0	<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	0.4	0.2
Nitration	Abs/cm	*ASTM D7624	>20	7.0	8.5	7.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.7	22.6	22.6
Particles >4µm		ASTM D7647	>20000	7334	7717	10779
Particles >6µm		ASTM D7647	>5000	3995	4204	5872
Particles >14µm		ASTM D7647	>640	680	715	999
Particles >21µm		ASTM D7647	>160	229	241	337
Particles >38µm		ASTM D7647	>40	35	37	52
Particles >71µm		ASTM D7647	>10	4	4	5
Oil Cleanliness		ISO 4406 (c)	>21/19/16	20/19/17	20/19/17	21/20/17
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	2	2
Boron	ppm	ASTM D5185m	250	54	43	49
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	49	46	43
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	450	537	513	492
Calcium	ppm	ASTM D5185m	3000	1648	1684	1554
Phosphorus	ppm	ASTM D5185m	1150	774	727	706
Zinc	ppm	ASTM D5185m	1350	924	895	863
Sulfur	ppm	ASTM D5185m	4250	2671	2386	2131
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.8	22.3	20.7
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	9.1	8.6	9.3
Visc @ 100°C	cSt	ASTM D445	10.9	11.4	11.3	11.2

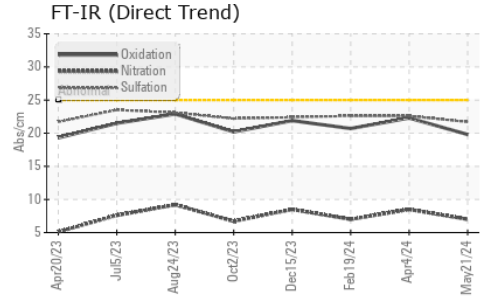
Particle Count



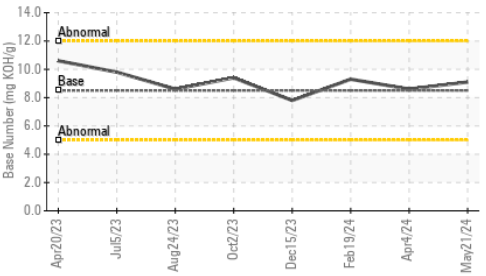
Particle Trend



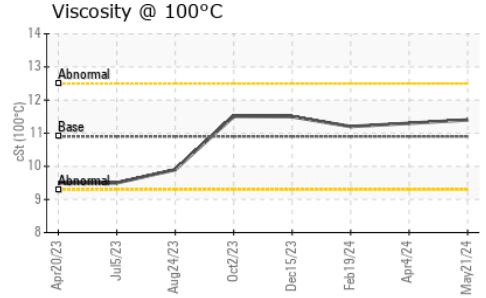
FT-IR (Direct Trend)



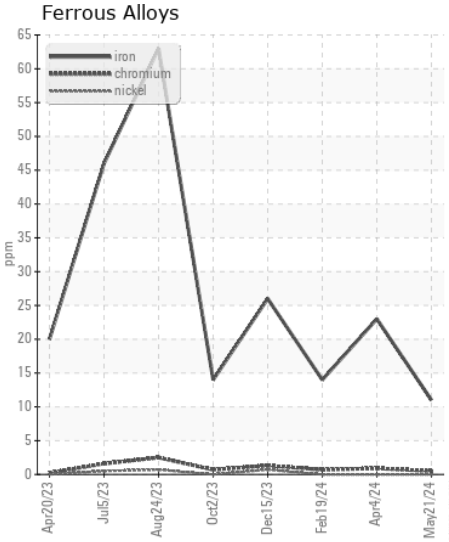
Base Number



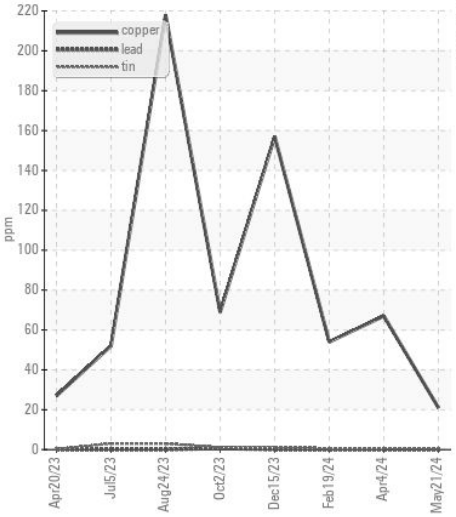
Viscosity @ 100°C



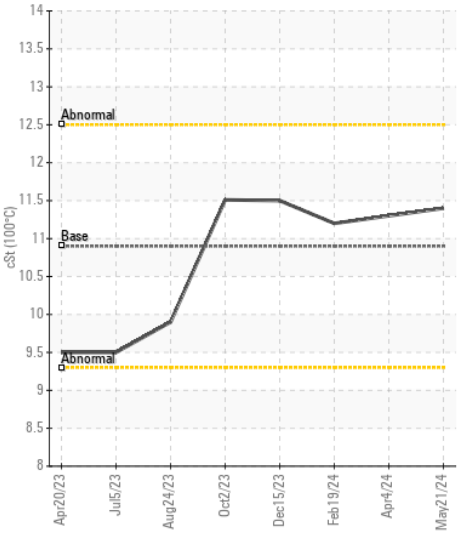
Ferrous Alloys



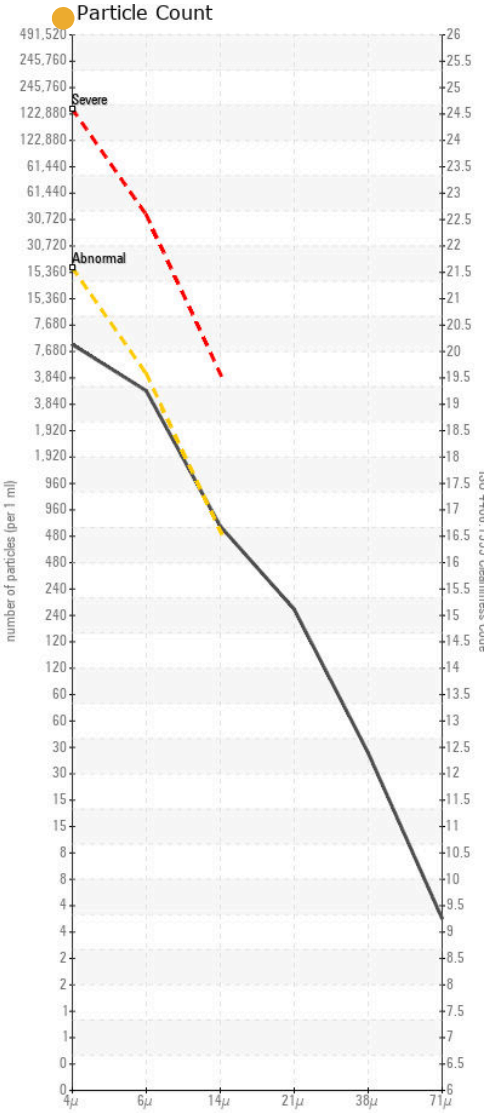
Non-ferrous Metals



Viscosity @ 100°C



Particle Count



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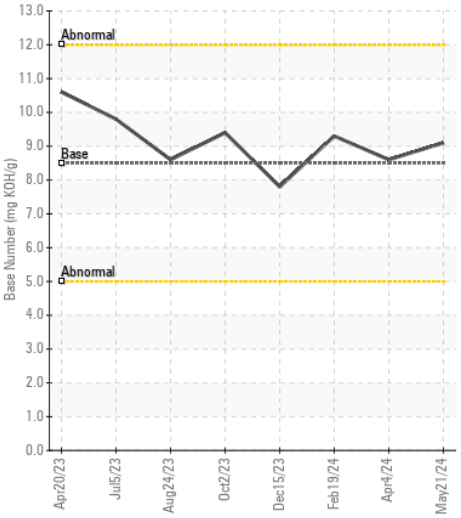

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0939357
Lab Number : 06191746
Unique Number : 11048498
Test Package : CONST (Additional Tests: PrtCount, TBN)

Received : 24 May 2024
Tested : 30 May 2024
Diagnosed : 30 May 2024 - Sean Felton

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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