CONST

WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
Mobile Fleet
Machine Id
813 813
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

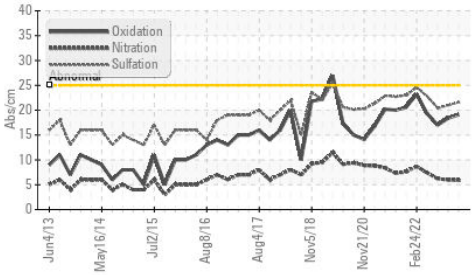
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

FLUID CONDITION

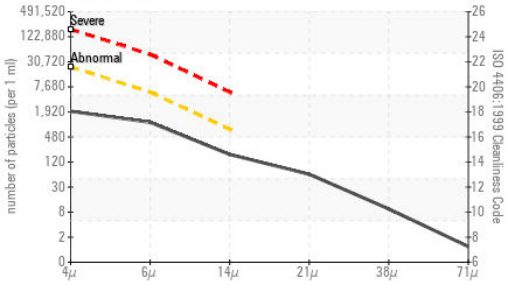
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		**WC0918960**	WC0861578	WC0808995
Sample Date		Client Info		**16 Apr 2024**	18 Dec 2023	12 May 2023
Machine Age	hrs	Client Info		**23784**	23423	22915
Oil Age	hrs	Client Info		**392**	512	563
Filter Age	hrs	Client Info		**392**	512	563
Oil Changed		Client Info		**Changed**	Changed	Changed
Filter Changed		Client Info		**Changed**	Changed	Changed
Sample Status				**NORMAL**	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>100	**15**	14	20
Chromium	ppm	ASTM D5185m	>6	**<1**	<1	<1
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	>30	**2**	3	<1
Lead	ppm	ASTM D5185m	>10	**1**	0	<1
Copper	ppm	ASTM D5185m	>150	**3**	6	6
Tin	ppm	ASTM D5185m	>4	**<1**	1	<1
Vanadium	ppm	ASTM D5185m		**<1**	<1	0
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silicon	ppm	ASTM D5185m	>20	**9**	14	6
Potassium	ppm	ASTM D5185m	>20	**0**	<1	0
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**	0.3	0.3
Nitration	Abs/cm	*ASTM D7624	>20	**5.9**	6.0	6.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	**21.6**	21.0	20.4
Particles >4µm		ASTM D7647	>20000	**1740**	4898	2236
Particles >6µm		ASTM D7647	>5000	**948**	2668	1218
Particles >14µm		ASTM D7647	>640	**161**	454	207
Particles >21µm		ASTM D7647	>160	**54**	153	70
Particles >38µm		ASTM D7647	>40	**8**	24	11
Particles >71µm		ASTM D7647	>10	**1**	2	1
Oil Cleanliness		ISO 4406 (c)	>21/19/16	**18/17/15**	19/19/16	18/17/15
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		**3**	4	4
Boron	ppm	ASTM D5185m	250	**52**	57	39
Barium	ppm	ASTM D5185m	10	**0**	0	0
Molybdenum	ppm	ASTM D5185m	100	**43**	48	50
Manganese	ppm	ASTM D5185m		**<1**	<1	<1
Magnesium	ppm	ASTM D5185m	450	**490**	507	596
Calcium	ppm	ASTM D5185m	3000	**1761**	1610	1493
Phosphorus	ppm	ASTM D5185m	1150	**769**	796	788
Zinc	ppm	ASTM D5185m	1350	**853**	921	951
Sulfur	ppm	ASTM D5185m	4250	**2865**	2706	2798
Oxidation	Abs/.1mm	*ASTM D7414	>25	**19.1**	18.4	17.0
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	**9.5**	9.1	9.2
Visc @ 100°C	cSt	ASTM D445	10.9	**10.8**	10.6	10.6

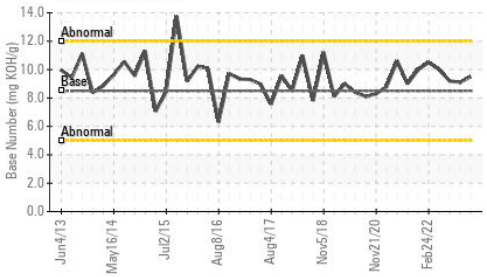
FT-IR (Direct Trend)



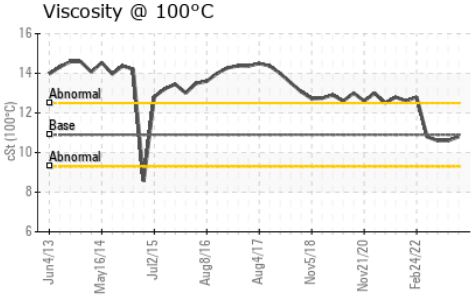
Particle Count



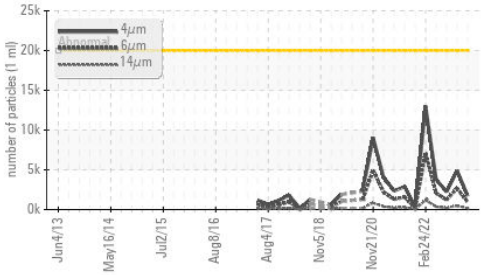
Base Number



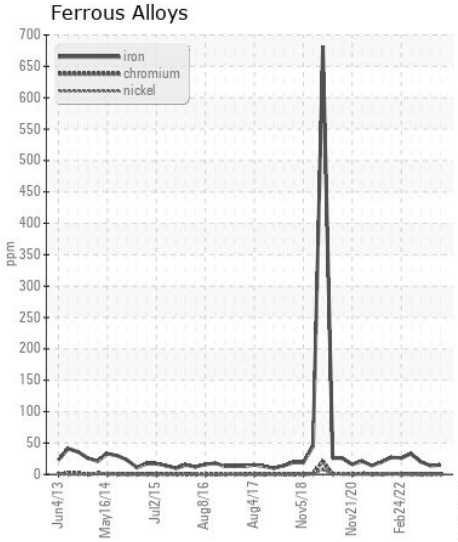
Viscosity @ 100°C



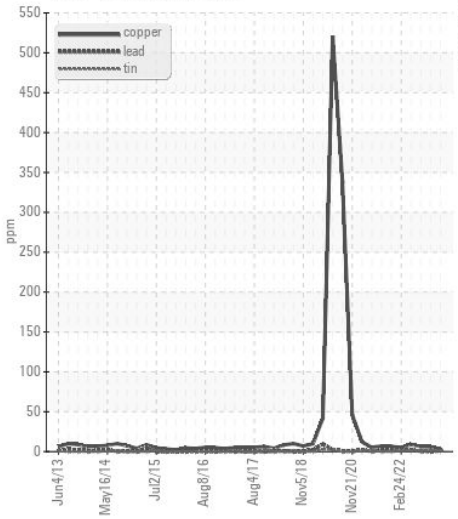
Particle Trend



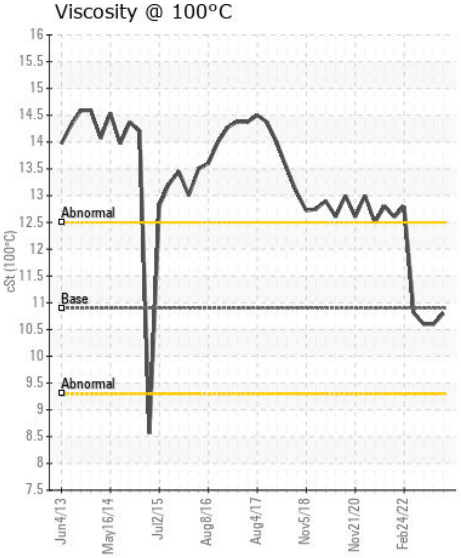
Ferrous Alloys



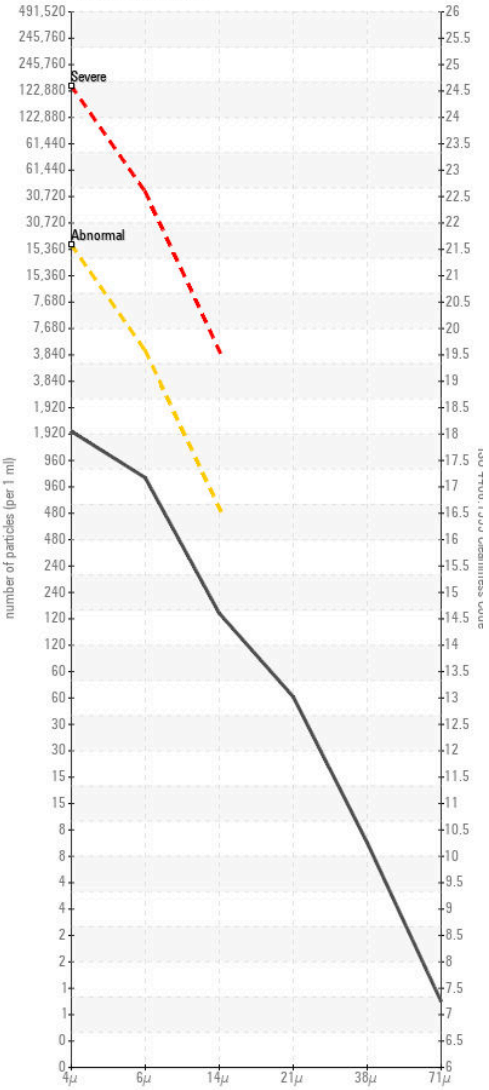
Non-ferrous Metals



Viscosity @ 100°C



Particle Count



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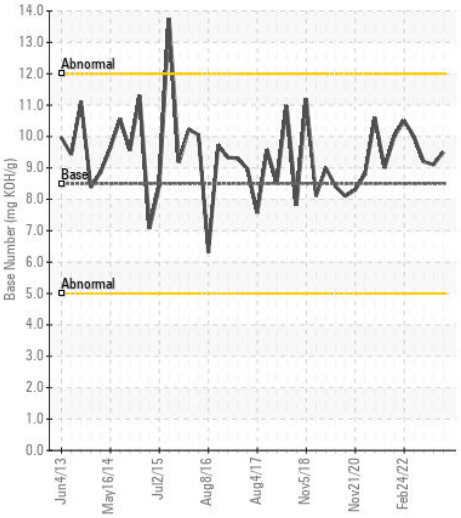

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0918960
Lab Number : 06154185
Unique Number : 10989608
Test Package : CONST (Additional Tests: PrtCount, TBN)

Received : 19 Apr 2024
Tested : 23 Apr 2024
Diagnosed : 23 Apr 2024 - Don Baldridge

Certificate L2367

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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)