



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
Mobile Fleet
 Machine Id
6459 6459
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 10W30 (8 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0939274	WC0918714	WC0902940
Sample Date		Client Info		16 May 2024	03 Apr 2024	09 Feb 2024
Machine Age	hrs	Client Info		3962	3642	3346
Oil Age	hrs	Client Info		319	297	282
Filter Age	hrs	Client Info		319	297	282
Oil Changed		Client Info		Changed	Not Changd	Changed
Filter Changed		Client Info		Changed	Not Changd	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	10	5	6
Chromium	ppm	ASTM D5185m	>20	2	0	<1
Nickel	ppm	ASTM D5185m	>4	<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>3	1	0	0
Aluminum	ppm	ASTM D5185m	>20	6	2	4
Lead	ppm	ASTM D5185m	>40	<1	0	0
Copper	ppm	ASTM D5185m	>330	5	2	9
Tin	ppm	ASTM D5185m	>15	1	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

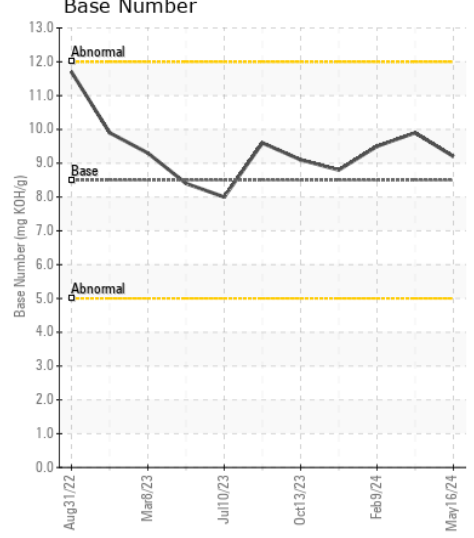
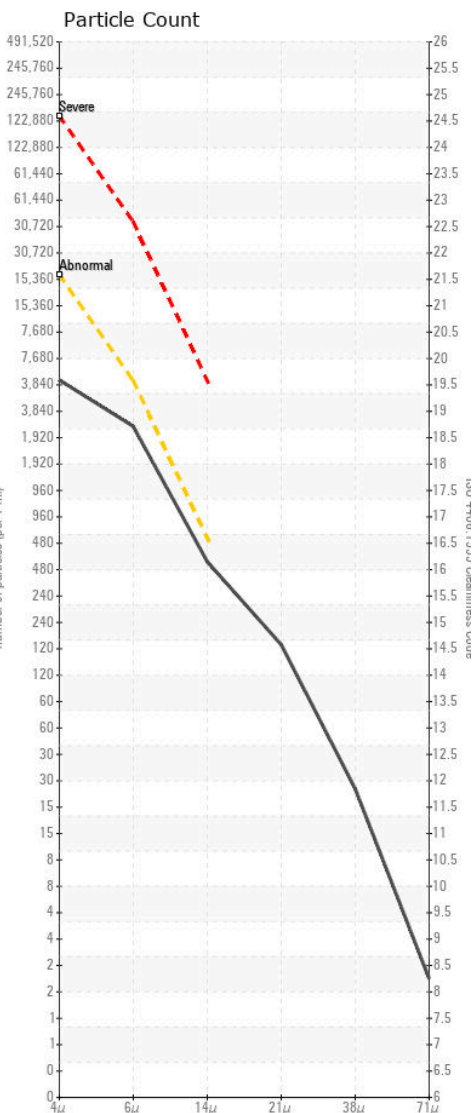
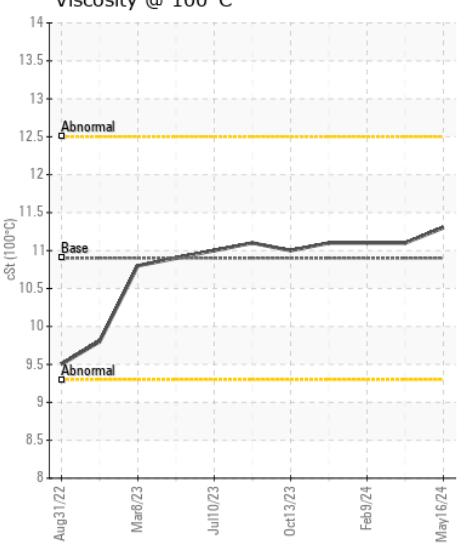
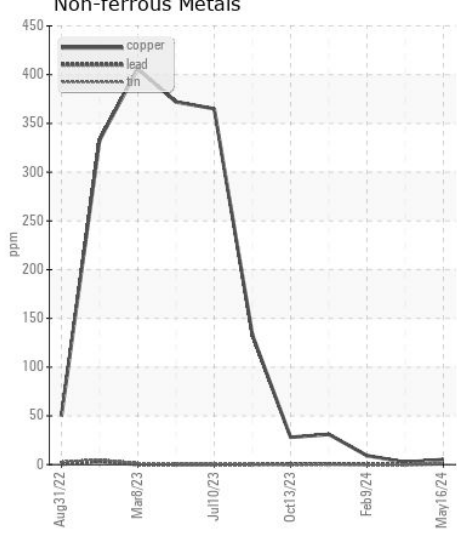
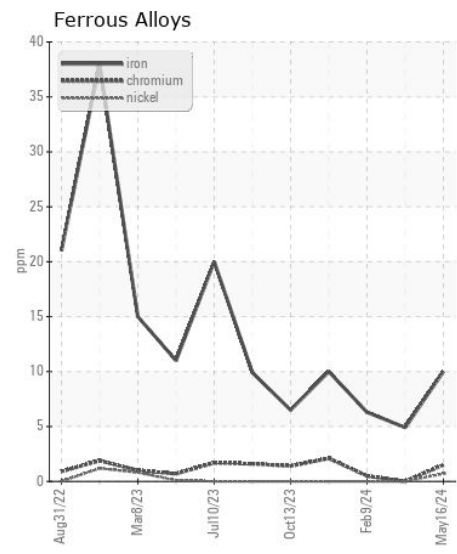
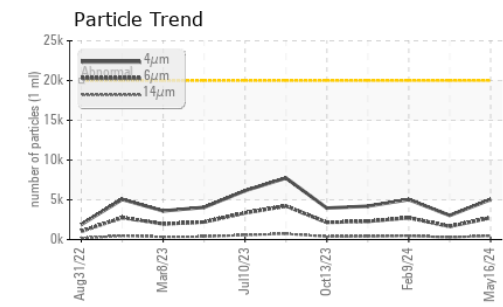
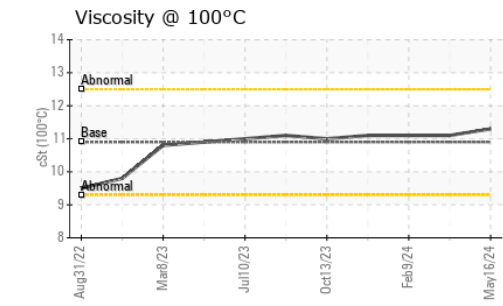
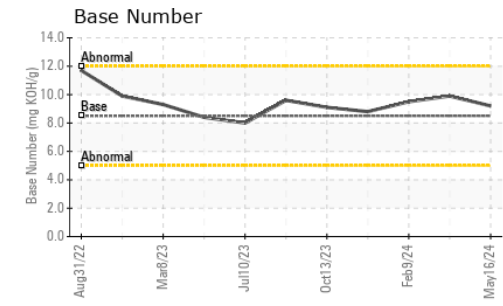
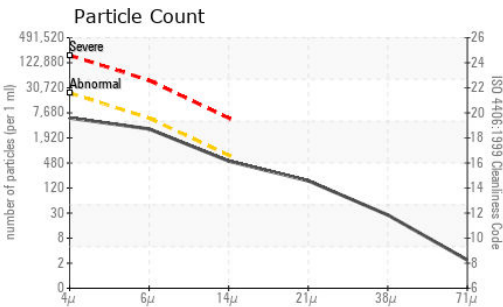
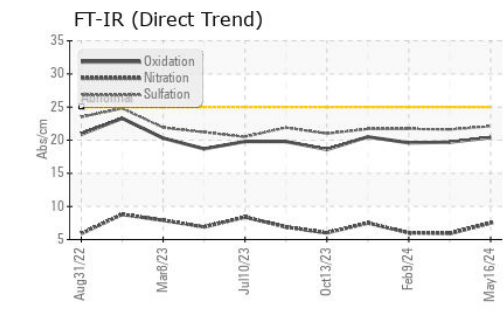
The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	6	4	4
Potassium	ppm	ASTM D5185m	>20	9	3	10
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	0.3	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	7.5	5.9	6.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.1	21.6	21.7
Particles >4µm		ASTM D7647	>20000	5046	3036	5037
Particles >6µm		ASTM D7647	>5000	2749	1654	2744
Particles >14µm		ASTM D7647	>640	468	281	467
Particles >21µm		ASTM D7647	>160	158	95	157
Particles >38µm		ASTM D7647	>40	24	15	24
Particles >71µm		ASTM D7647	>10	2	1	2
Oil Cleanliness		ISO 4406 (c)	>21/19/16	20/19/16	19/18/15	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

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.

Sodium	ppm	ASTM D5185m		2	1	0
Boron	ppm	ASTM D5185m	250	42	51	63
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	47	46	51
Manganese	ppm	ASTM D5185m		<1	0	0
Magnesium	ppm	ASTM D5185m	450	516	540	512
Calcium	ppm	ASTM D5185m	3000	1690	1846	1648
Phosphorus	ppm	ASTM D5185m	1150	840	835	743
Zinc	ppm	ASTM D5185m	1350	953	986	931
Sulfur	ppm	ASTM D5185m	4250	2920	3336	2440
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.4	19.7	19.6
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	9.2	9.9	9.5
Visc @ 100°C	cSt	ASTM D445	10.9	11.3	11.1	11.1



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0939274 **Received** : 21 May 2024
Lab Number : 06185989 **Tested** : 23 May 2024
Unique Number : 11042741 **Diagnosed** : 23 May 2024 - Jonathan Hester
Test Package : CONST (Additional Tests: PrtCount, TBN)
 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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