



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area

Mobile Fleet

Machine Id

8041 8041

Component

Diesel Engine

Fluid

DIESEL ENGINE OIL SAE 10W30 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0947771	WC0919091	WC0861595
Sample Date		Client Info		12 Jun 2024	17 Apr 2024	12 Dec 2023
Machine Age	hrs	Client Info		4502	4131	3767
Oil Age	hrs	Client Info		371	702	338
Filter Age	hrs	Client Info		371	702	338
Oil Changed		Client Info		Changed	Changed	Not Chngd
Filter Changed		Client Info		Changed	Changed	Not Chngd
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	11	17	9
Chromium	ppm	ASTM D5185m	>20	<1	<1	1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	4	7	4
Lead	ppm	ASTM D5185m	>40	0	0	<1
Copper	ppm	ASTM D5185m	>330	2	3	3
Tin	ppm	ASTM D5185m	>15	<1	<1	0
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

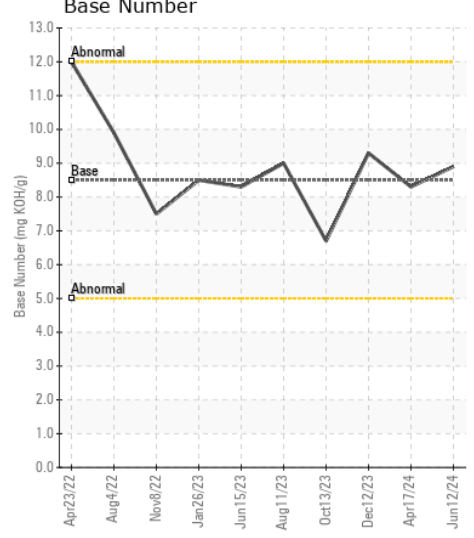
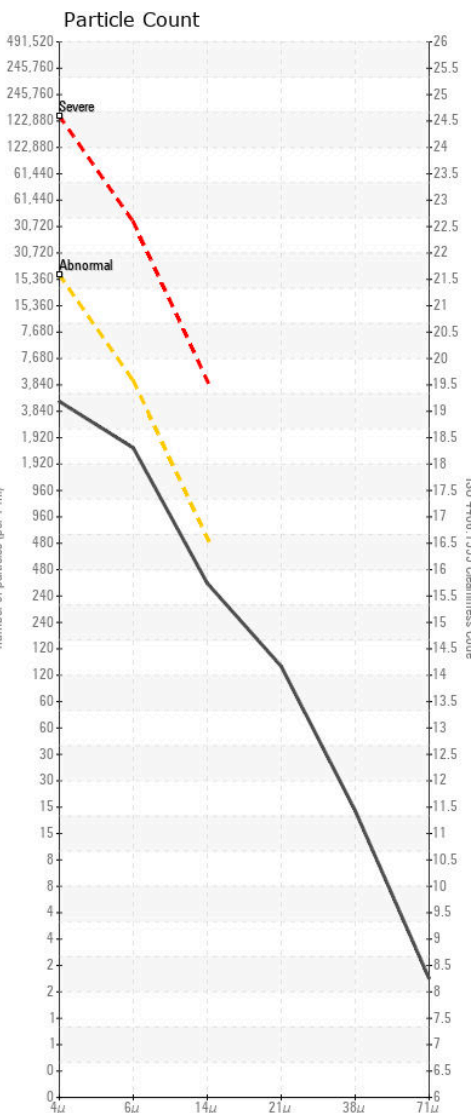
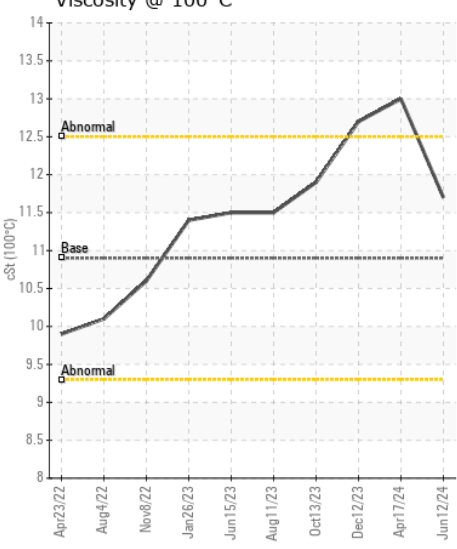
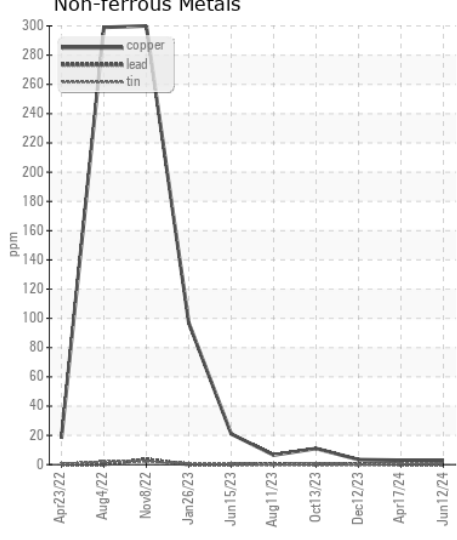
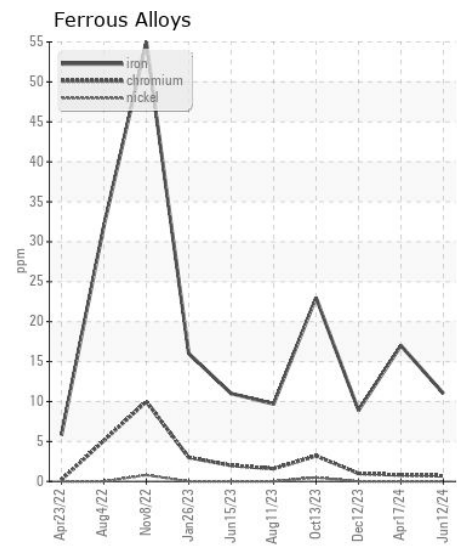
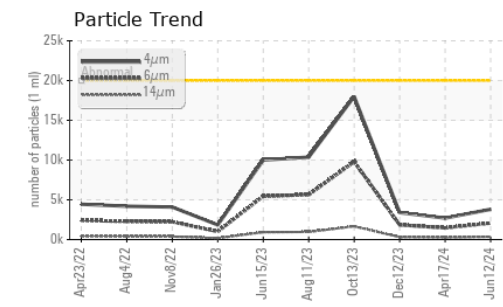
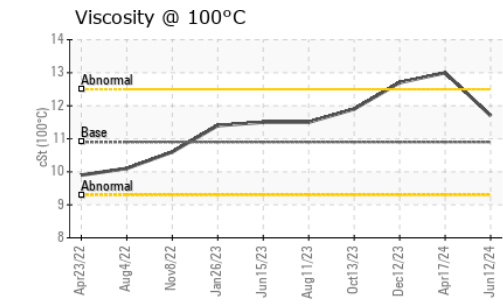
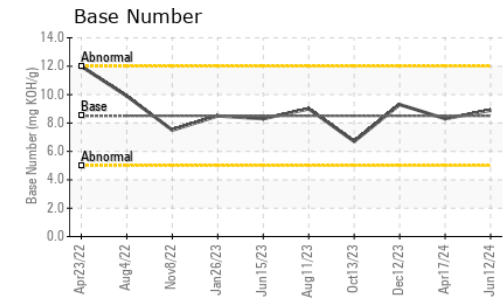
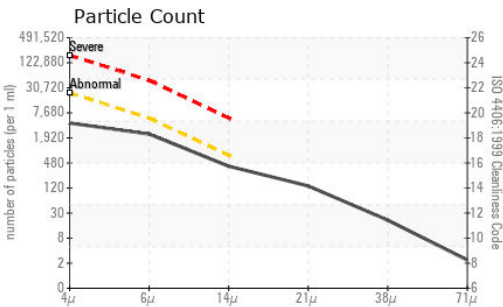
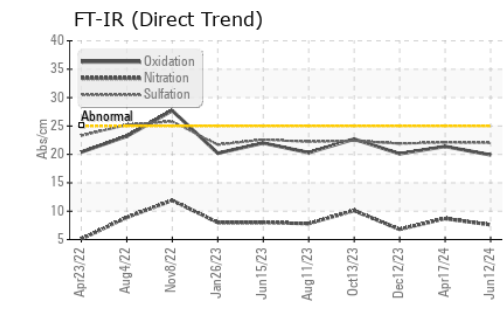
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>25	6	8	7
Potassium	ppm	ASTM D5185m	>20	8	13	7
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	0.4	0.5	0.3
Nitration	Abs/cm	*ASTM D7624	>20	7.6	8.7	6.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.0	22.1	21.9
Particles >4µm		ASTM D7647	>20000	3810	2697	3393
Particles >6µm		ASTM D7647	>5000	2076	1469	1848
Particles >14µm		ASTM D7647	>640	353	250	315
Particles >21µm		ASTM D7647	>160	119	84	106
Particles >38µm		ASTM D7647	>40	18	13	16
Particles >71µm		ASTM D7647	>10	2	1	2
Oil Cleanliness		ISO 4406 (c)	>21/19/16	19/18/16	19/18/15	19/18/15
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

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		1	3	2
Boron	ppm	ASTM D5185m	250	31	32	37
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	49	51	46
Manganese	ppm	ASTM D5185m		0	<1	0
Magnesium	ppm	ASTM D5185m	450	491	531	426
Calcium	ppm	ASTM D5185m	3000	1606	1660	1616
Phosphorus	ppm	ASTM D5185m	1150	678	765	703
Zinc	ppm	ASTM D5185m	1350	906	911	881
Sulfur	ppm	ASTM D5185m	4250	2583	2677	1810
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.9	21.4	20.1
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	8.9	8.3	9.3
Visc @ 100°C	cSt	ASTM D445	10.9	11.7	13.0	12.7



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0947771 **Received** : 14 Jun 2024
Lab Number : 06209929 **Tested** : 19 Jun 2024
Unique Number : 11082793 **Diagnosed** : 19 Jun 2024 - Don Baldrige
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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