



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Area
Mobile Fleet
 Machine Id
550 550
 Component
Diesel Engine
 Fluid
MOBIL 15W40 (6 GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0919123	WC0794068	WC0585528
Sample Date		Client Info		11 Apr 2024	04 Apr 2023	15 Jun 2021
Machine Age	hrs	Client Info		1785	1629	1368
Oil Age	hrs	Client Info		159	261	171
Filter Age	hrs	Client Info		159	261	171
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ATTENTION	ATTENTION	ATTENTION

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>90	9	11	5
Chromium	ppm	ASTM D5185m	>20	<1	0	<1
Nickel	ppm	ASTM D5185m	>2	<1	0	0
Titanium	ppm	ASTM D5185m	>2	0	0	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	1	<1
Lead	ppm	ASTM D5185m	>40	<1	0	<1
Copper	ppm	ASTM D5185m	>330	2	2	2
Tin	ppm	ASTM D5185m	>15	<1	0	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

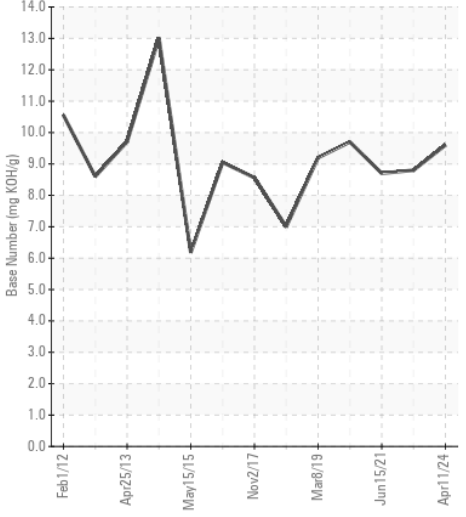
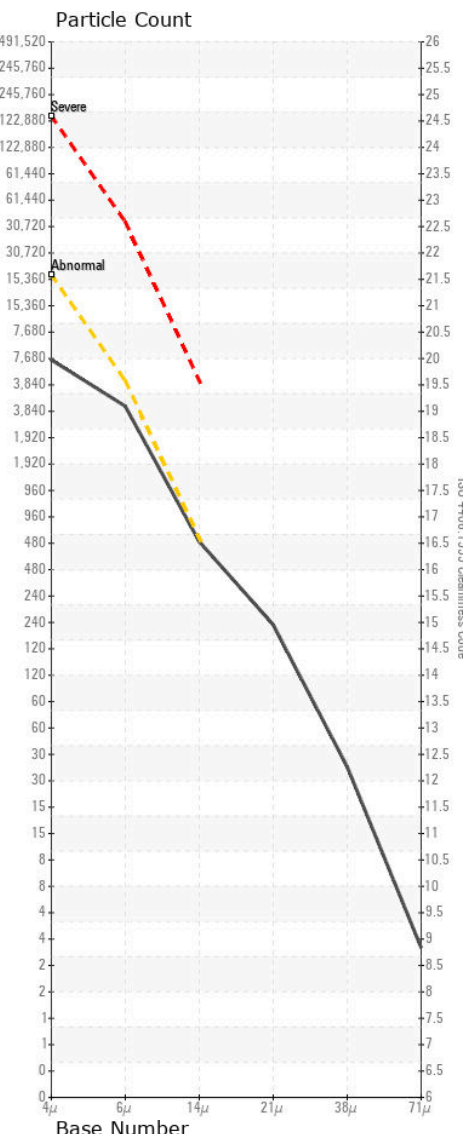
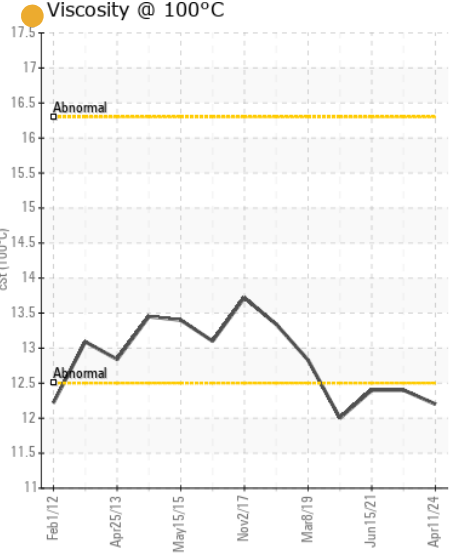
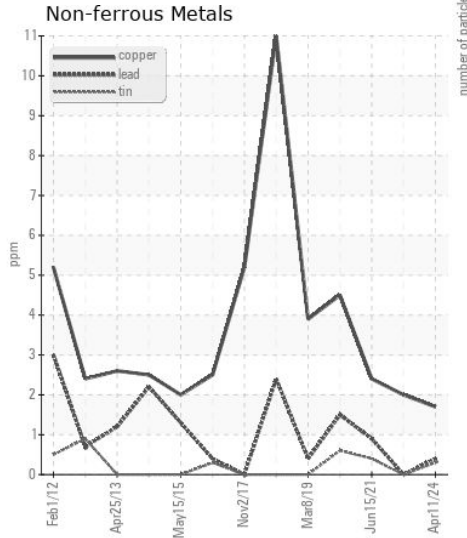
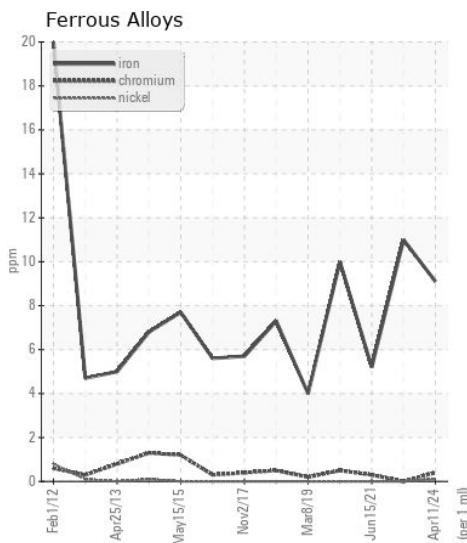
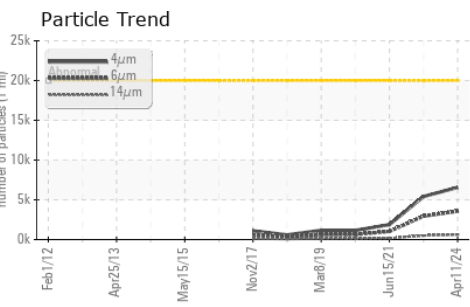
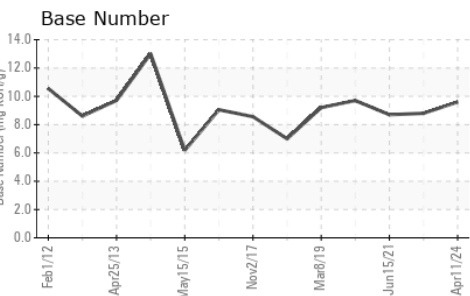
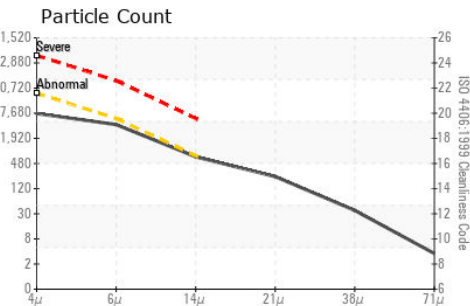
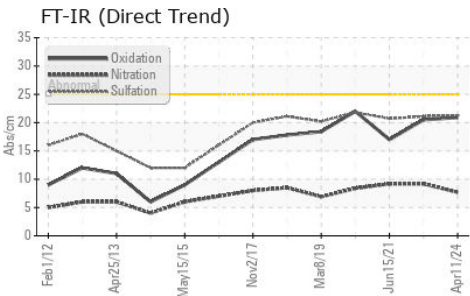
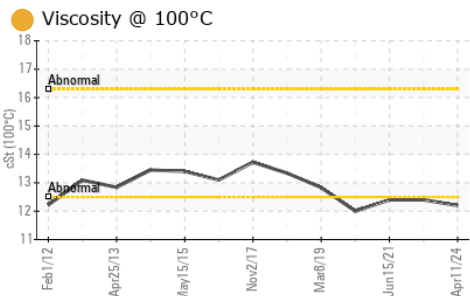
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>25	4	4	3
Potassium	ppm	ASTM D5185m	>20	<1	0	<1
Fuel		WC Method	>3.0	<1.0	<1.0	0.6
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>6	0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	7.7	9.2	9.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.3	21.1	20.7
Particles >4µm		ASTM D7647	>20000	6568	5411	1877
Particles >6µm		ASTM D7647	>5000	3578	2948	1022
Particles >14µm		ASTM D7647	>640	609	502	174
Particles >21µm		ASTM D7647	>160	205	169	59
Particles >38µm		ASTM D7647	>40	32	26	9
Particles >71µm		ASTM D7647	>10	3	3	1
Oil Cleanliness		ISO 4406 (c)	>21/19/16	20/19/16	20/19/16	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

FLUID CONDITION

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m	>118	0	0	<1
Boron	ppm	ASTM D5185m		67	61	82
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		45	37	16
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		524	547	651
Calcium	ppm	ASTM D5185m		1732	1543	1430
Phosphorus	ppm	ASTM D5185m		888	726	731
Zinc	ppm	ASTM D5185m		962	921	869
Sulfur	ppm	ASTM D5185m		2889	2876	2514
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.9	20.5	17
Base Number (BN)	mg KOH/g	ASTM D2896		9.6	8.8	8.7
Visc @ 100°C	cSt	ASTM D445		12.2	12.4	12.4



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0919123 **Received** : 15 Apr 2024
Lab Number : 06148535 **Tested** : 16 Apr 2024
Unique Number : 10978613 **Diagnosed** : 17 Apr 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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