



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
Mobile Fleet [57231]
Machine Id
781 781
Component
Diesel Engine
Fluid
MOBIL 15W40 (12 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0861697	WC0462488	WCMCF69202
Sample Date		Client Info		24 Feb 2024	24 Apr 2020	06 Feb 2019
Machine Age	hrs	Client Info		7333	7265	6713
Oil Age	hrs	Client Info		170	552	1606
Filter Age	hrs	Client Info		170	552	1606
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>75	6	17	45
Chromium	ppm	ASTM D5185m	>4	<1	<1	<1
Nickel	ppm	ASTM D5185m	>5	<1	<1	<1
Titanium	ppm	ASTM D5185m	>2	<1	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>54	1	2	6
Lead	ppm	ASTM D5185m	>20	<1	3	9
Copper	ppm	ASTM D5185m	>240	2	4	19
Tin	ppm	ASTM D5185m	>5	<1	0	1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

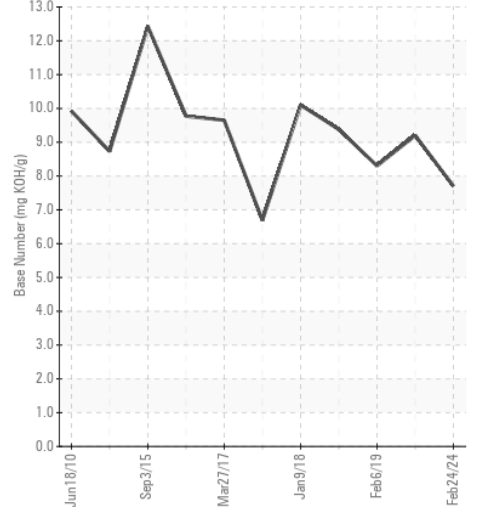
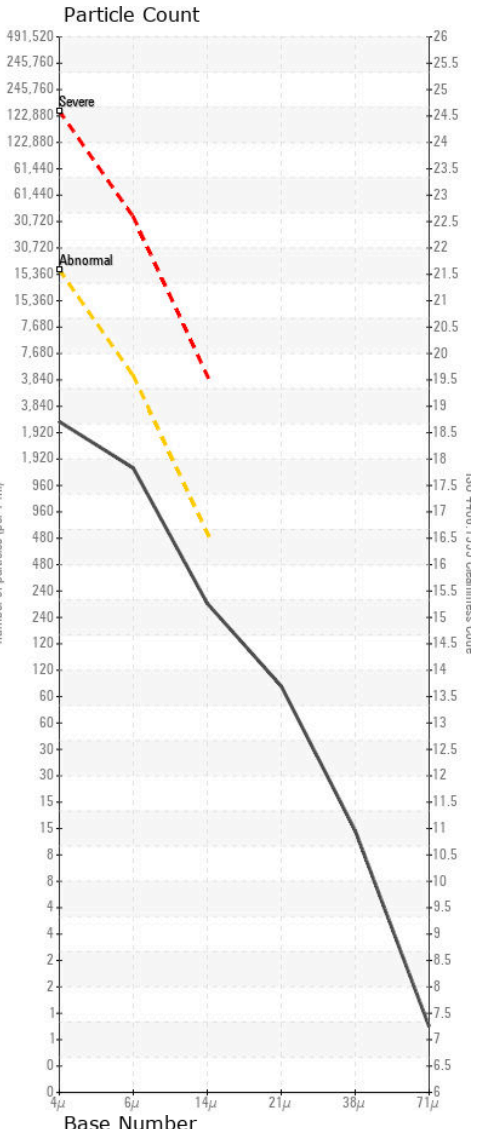
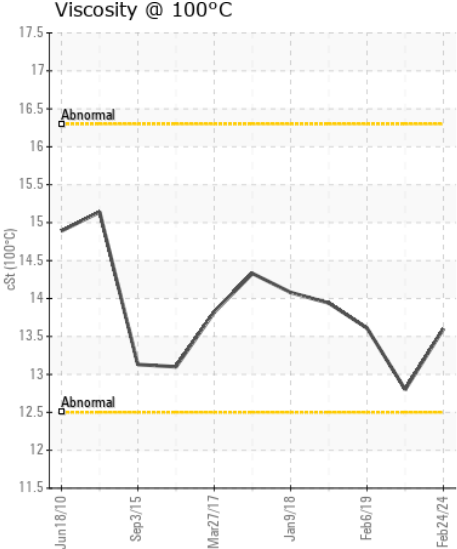
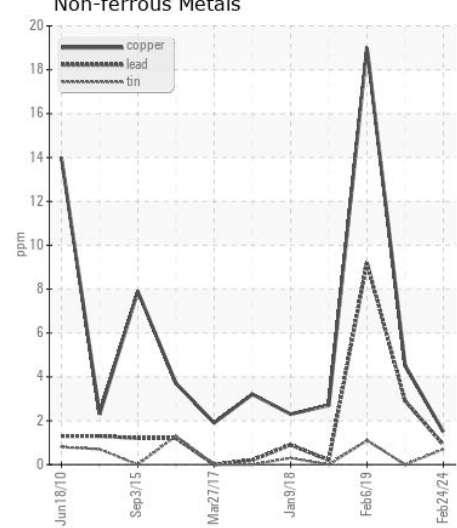
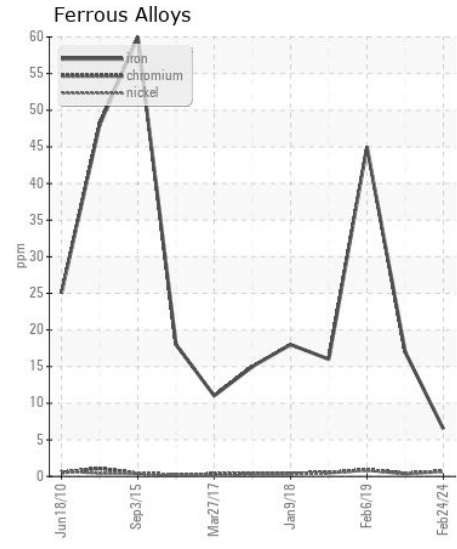
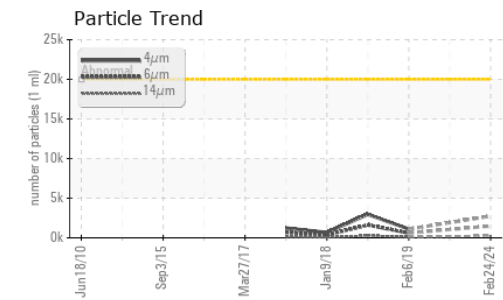
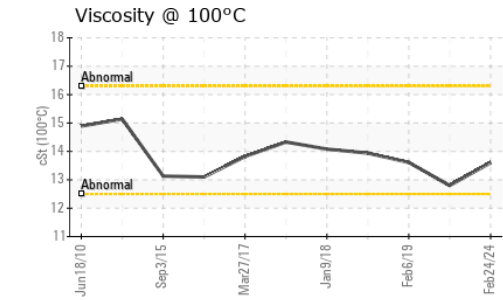
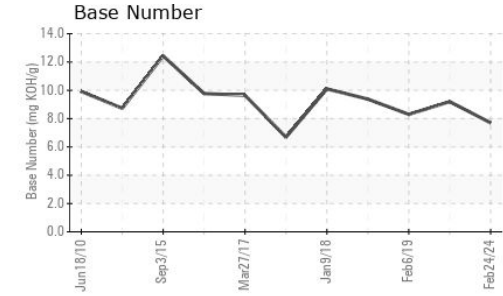
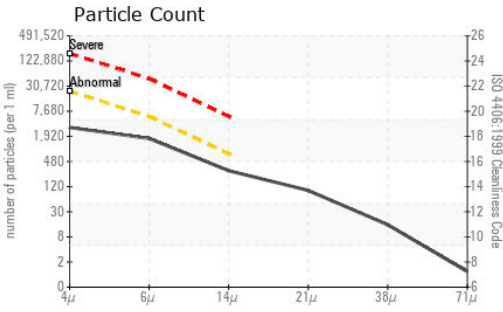
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185m	>35	5	4	7
Potassium	ppm	ASTM D5185m	>20	4	4	13
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	0.5	0.9
Nitration	Abs/cm	*ASTM D7624	>20	6.8	8.5	9.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.1	23.1	24.9
Particles >4µm		ASTM D7647	>20000	2740	---	1102
Particles >6µm		ASTM D7647	>5000	1493	---	600
Particles >14µm		ASTM D7647	>640	254	---	102
Particles >21µm		ASTM D7647	>160	86	---	34
Particles >38µm		ASTM D7647	>40	13	---	5
Particles >71µm		ASTM D7647	>10	1	---	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	19/18/15	---	17/16/14
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	>118	4	10	6
Boron	ppm	ASTM D5185m		85	42	34
Barium	ppm	ASTM D5185m		1	0	0
Molybdenum	ppm	ASTM D5185m		10	40	39
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		555	468	471
Calcium	ppm	ASTM D5185m		1081	1614	1631
Phosphorus	ppm	ASTM D5185m		648	697	678
Zinc	ppm	ASTM D5185m		726	795	826
Sulfur	ppm	ASTM D5185m		3423	2494	2584
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.7	21.9	24.2
Base Number (BN)	mg KOH/g	ASTM D2896		7.7	9.2	8.3
Visc @ 100°C	cSt	ASTM D445		13.6	12.8	13.61



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0861697 **Received** : 27 Feb 2024
Lab Number : 06101500 **Tested** : 29 Feb 2024
Unique Number : 10899730 **Diagnosed** : 29 Feb 2024 - Jonathan Hester
Test Package : CONST (Additional Tests: PrtCount, TBN)

CAROLINA SUNROCK
 PO BOX 25
 BUTNER, NC
 US 27509
 Contact: Leigh Dennis
 rdennis@thesunrockgroup.com
 T: (919)575-4505
 F: (919)575-0162

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)