



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL



Area
Mobile Fleet
Machine Id
5009 5009
Component
Diesel Engine
Fluid
MOBIL DELVAC 1300 SUPER15W40 (24 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		WC0919098	WC0744827	WC0716713
Sample Date		Client Info		12 Apr 2024	03 Oct 2022	25 Aug 2022
Machine Age	hrs	Client Info		14974	11484	11298
Oil Age	hrs	Client Info		221	210	548
Filter Age	hrs	Client Info		221	210	548
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	5	5	24
Chromium	ppm	ASTM D5185m	>20	0	0	<1
Nickel	ppm	ASTM D5185m	>2	0	1	0
Titanium	ppm	ASTM D5185m	>2	1	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m	>25	2	3	6
Lead	ppm	ASTM D5185m	>40	0	<1	<1
Copper	ppm	ASTM D5185m	>330	<1	<1	2
Tin	ppm	ASTM D5185m	>15	1	<1	<1
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

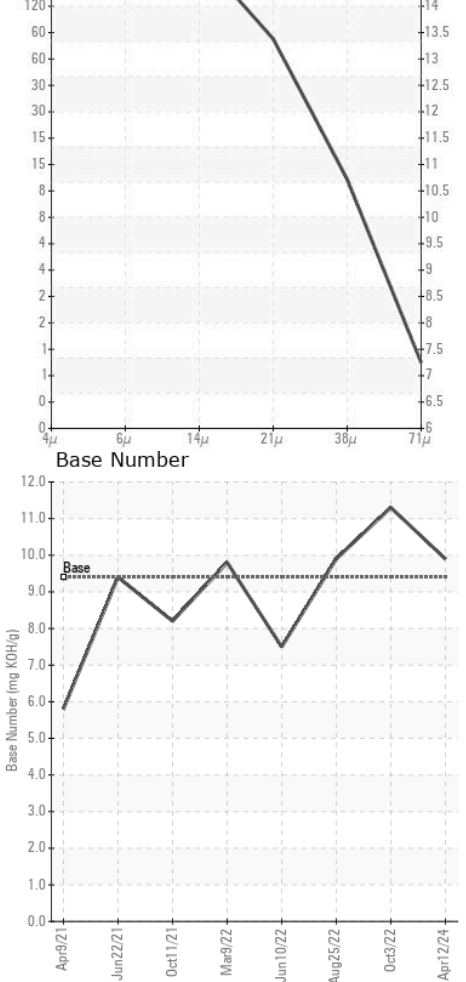
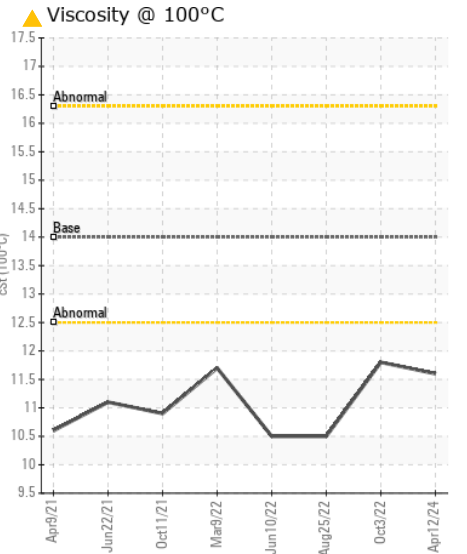
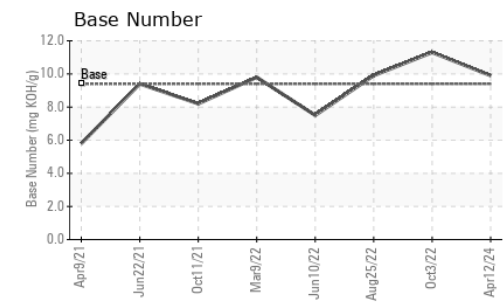
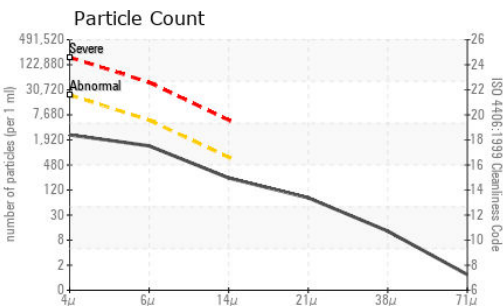
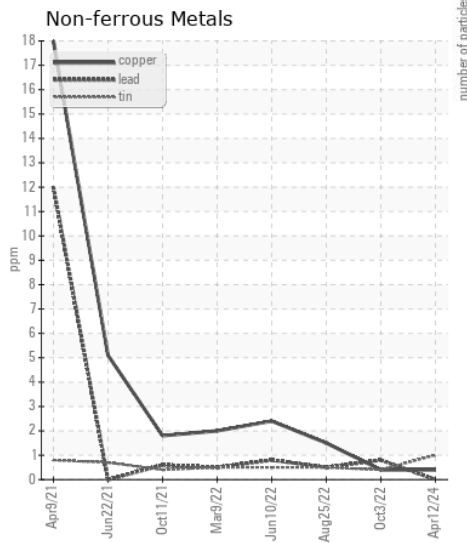
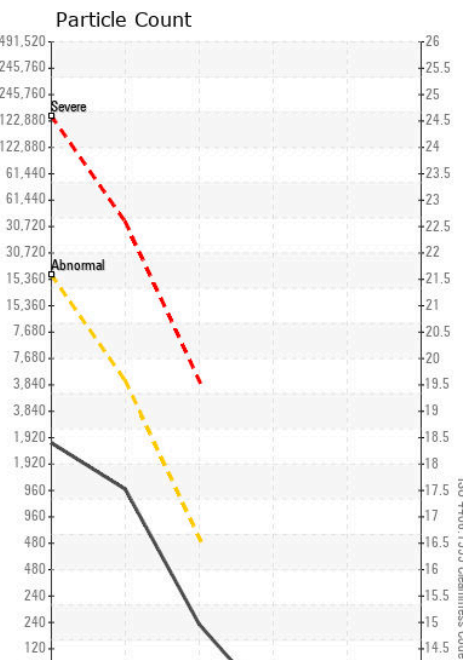
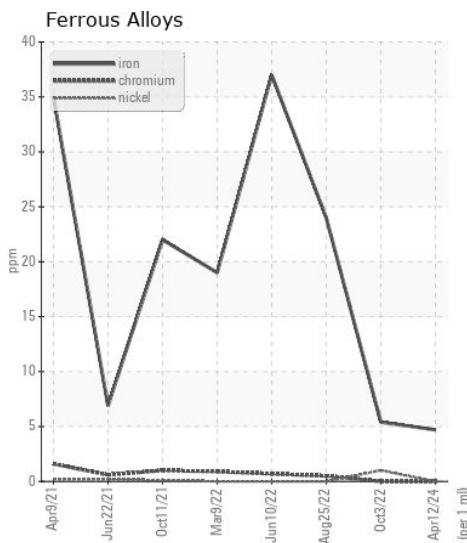
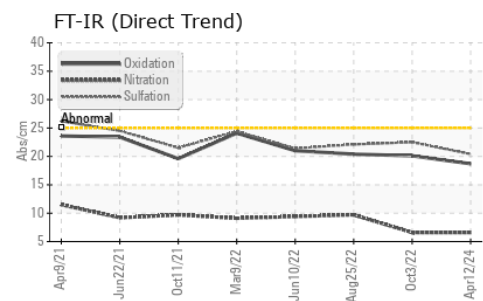
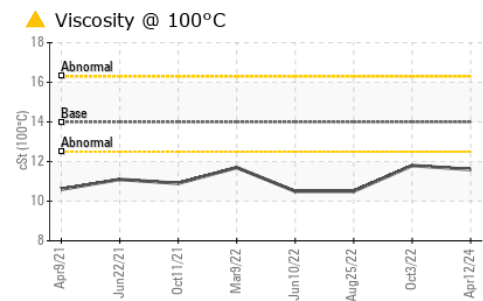
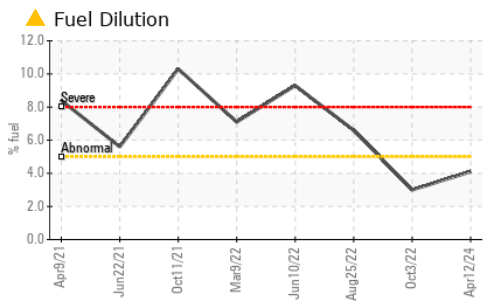
Light fuel dilution occurring.

Silicon	ppm	ASTM D5185m	>25	5	6	6
Potassium	ppm	ASTM D5185m	>20	0	0	0
Fuel	%	ASTM D3524	>5	▲ 4.1	▲ 3.0	▲ 6.6
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.2	0.2	0.6
Nitration	Abs/cm	*ASTM D7624	>20	6.6	6.6	9.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.4	22.5	22.1
Particles >4µm		ASTM D7647	>20000	2218	2540	10005
Particles >6µm		ASTM D7647	>5000	1209	1384	5450
Particles >14µm		ASTM D7647	>640	206	236	928
Particles >21µm		ASTM D7647	>160	69	79	312
Particles >38µm		ASTM D7647	>40	11	12	48
Particles >71µm		ASTM D7647	>10	1	1	5
Oil Cleanliness		ISO 4406 (c)	>21/19/16	18/17/15	19/18/15	21/20/17
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

Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

Sodium	ppm	ASTM D5185m		4	3	4
Boron	ppm	ASTM D5185m	0	51	40	24
Barium	ppm	ASTM D5185m	0	0	0	<1
Molybdenum	ppm	ASTM D5185m	0	39	40	47
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m	0	461	477	451
Calcium	ppm	ASTM D5185m		1582	1518	1443
Phosphorus	ppm	ASTM D5185m		662	704	642
Zinc	ppm	ASTM D5185m		766	836	798
Sulfur	ppm	ASTM D5185m		2754	2465	2173
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.7	20.1	20.4
Base Number (BN)	mg KOH/g	ASTM D2896	9.4	9.9	11.3	9.9
Visc @ 100°C	cSt	ASTM D445	14	▲ 11.6	▲ 11.8	▲ 10.5



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0919098 **Received** : 16 Apr 2024
Lab Number : **06150191** **Tested** : 22 Apr 2024
Unique Number : 10980269 **Diagnosed** : 22 Apr 2024 - Jonathan Hester
Test Package : CONST (Additional Tests: PercentFuel, PrtCount, TBN)

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Certificate L2367
 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)