



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Area
Mobile Fleet
 Machine Id
1537 1537
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 15W40 (8 GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0955985	WC0902943	WC0716622
Sample Date		Client Info		22 Jun 2024	10 Feb 2024	08 Jul 2022
Machine Age	hrs	Client Info		2793	2290	1999
Oil Age	hrs	Client Info		505	292	560
Filter Age	hrs	Client Info		505	292	560
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	ATTENTION

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	21	27	26
Chromium	ppm	ASTM D5185m	>20	<1	<1	1
Nickel	ppm	ASTM D5185m	>4	0	0	<1
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>20	6	13	7
Lead	ppm	ASTM D5185m	>40	0	0	<1
Copper	ppm	ASTM D5185m	>330	2	3	4
Tin	ppm	ASTM D5185m	>15	0	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

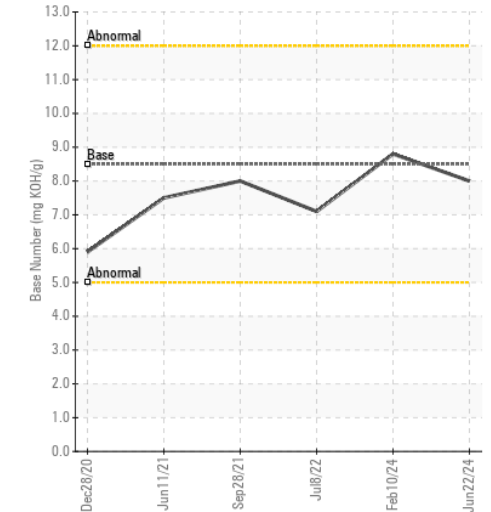
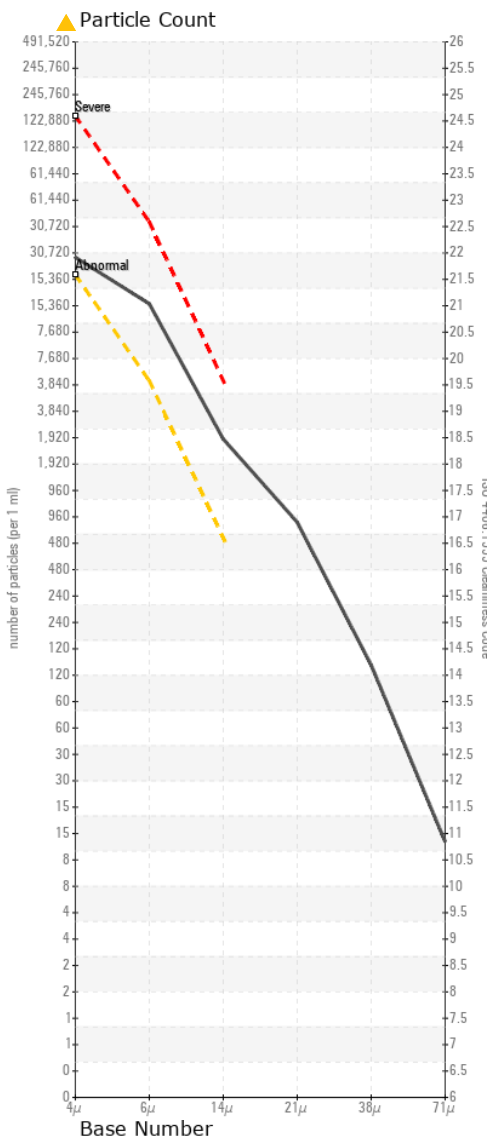
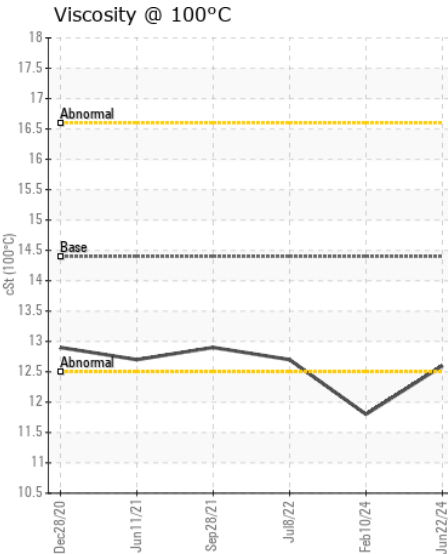
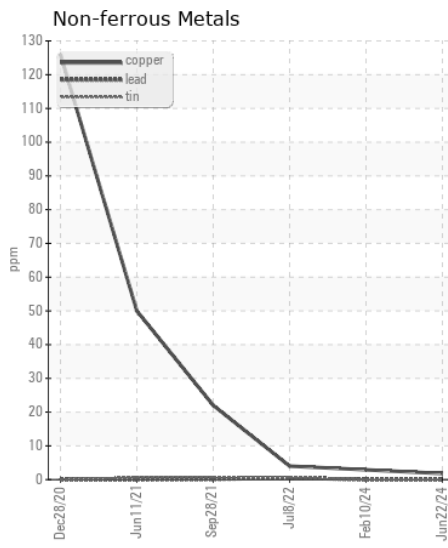
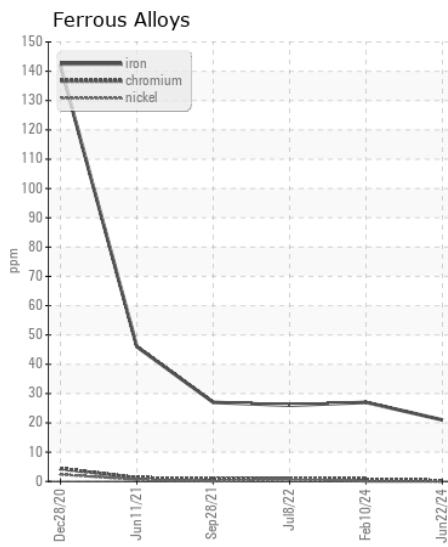
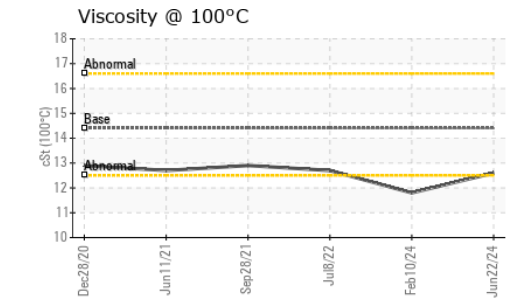
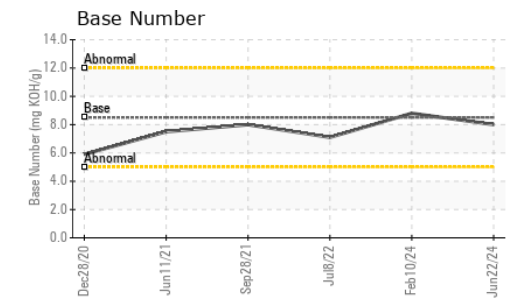
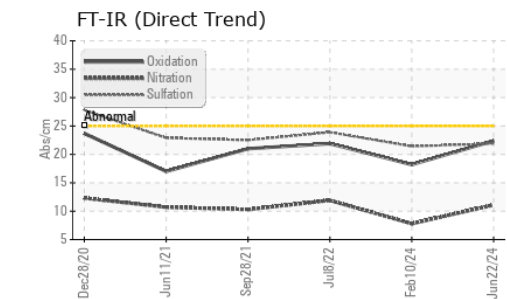
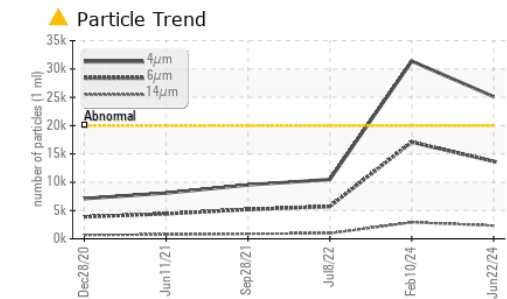
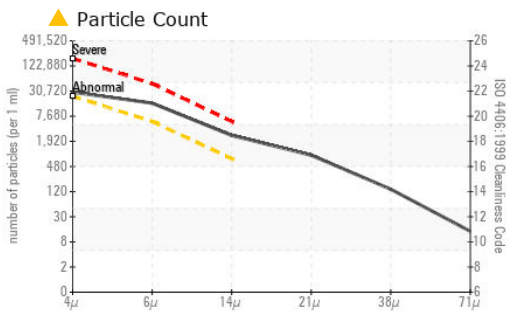
There is a high amount of particulates present in the oil.

Silicon	ppm	ASTM D5185m	>25	6	8	8
Potassium	ppm	ASTM D5185m	>20	7	8	8
Fuel		WC Method	>5	<1.0	1.5	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.7	0.8	0.8
Nitration	Abs/cm	*ASTM D7624	>20	11.1	7.8	11.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.9	21.4	23.9
Particles >4µm		ASTM D7647	>20000	▲ 25125	▲ 31371	10485
Particles >6µm		ASTM D7647	>5000	▲ 13687	▲ 17090	5712
Particles >14µm		ASTM D7647	>640	▲ 2329	▲ 2908	972
Particles >21µm		ASTM D7647	>160	▲ 785	▲ 980	327
Particles >38µm		ASTM D7647	>40	▲ 121	▲ 151	51
Particles >71µm		ASTM D7647	>10	▲ 12	▲ 15	5
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ 22/21/18	▲ 22/21/19	▲ 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

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	>158	<1	1	3
Boron	ppm	ASTM D5185m	250	25	38	31
Barium	ppm	ASTM D5185m	10	0	11	0
Molybdenum	ppm	ASTM D5185m	100	46	47	21
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m	450	492	483	619
Calcium	ppm	ASTM D5185m	3000	1592	1416	1562
Phosphorus	ppm	ASTM D5185m	1150	666	623	656
Zinc	ppm	ASTM D5185m	1350	946	851	844
Sulfur	ppm	ASTM D5185m	4250	2374	2510	3390
Oxidation	Abs/.1mm	*ASTM D7414	>25	22.4	18.2	21.9
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	8.0	8.8	7.1
Visc @ 100°C	cSt	ASTM D445	14.4	12.6	● 11.8	12.7



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0955985
Lab Number : 06221068
Unique Number : 11099265
Test Package : CONST (Additional Tests: PrtCount, TBN)

Received : 26 Jun 2024
Tested : 27 Jun 2024
Diagnosed : 27 Jun 2024 - Don Baldrige

CAROLINA SUNROCK
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 US 27509

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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)