



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Machine Id
F21
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 15W40 (--- 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		WC0874295	WC0758918	WC0784002
Sample Date		Client Info		21 Mar 2024	15 Jul 2023	08 Apr 2023
Machine Age	hrs	Client Info		97261	7232	6473
Oil Age	hrs	Client Info		303	746	540
Filter Age	hrs	Client Info		0	0	540
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ATTENTION	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>110	12	13	8
Chromium	ppm	ASTM D5185m	>4	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m	>25	2	3	3
Lead	ppm	ASTM D5185m	>45	<1	7	0
Copper	ppm	ASTM D5185m	>85	<1	34	49
Tin	ppm	ASTM D5185m	>4	<1	4	2
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

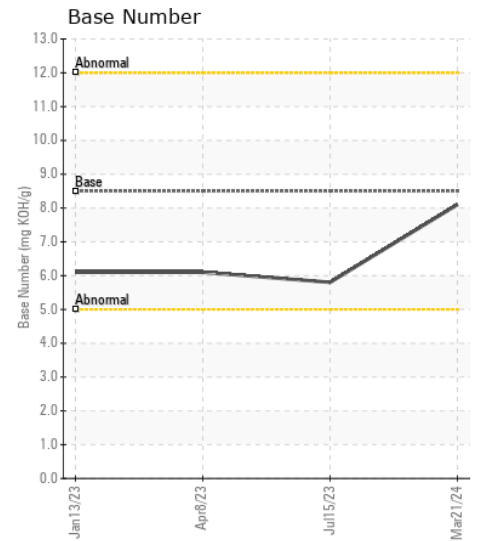
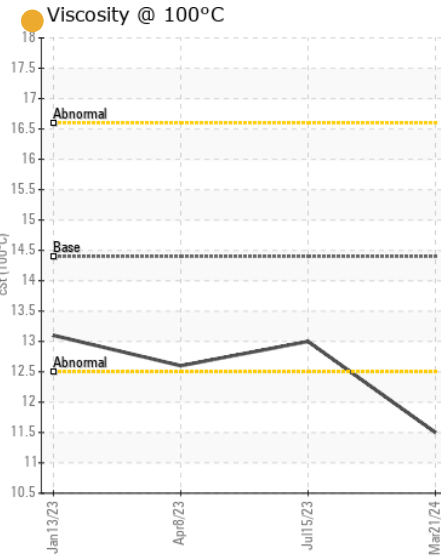
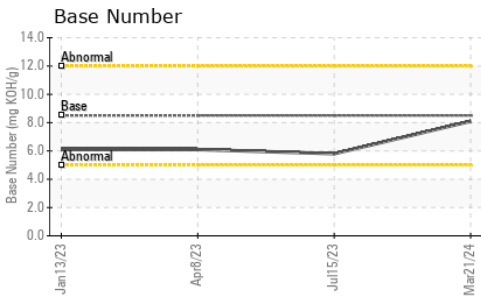
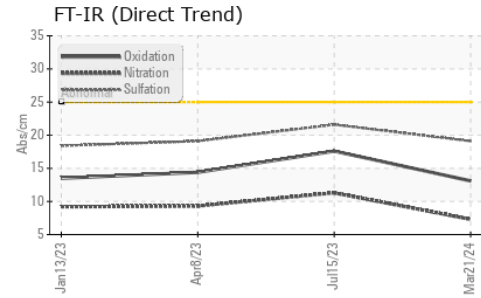
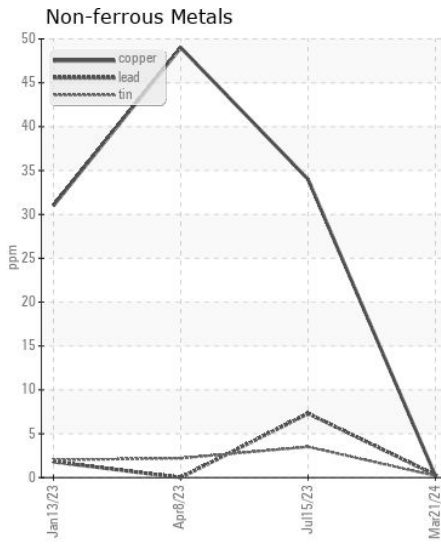
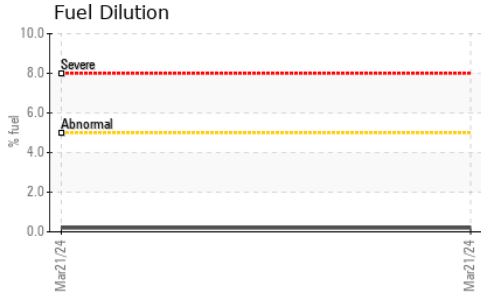
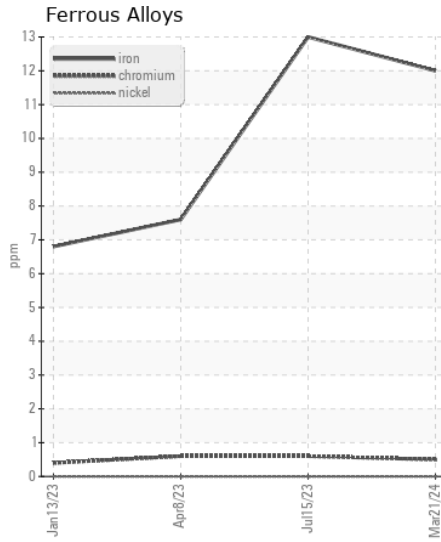
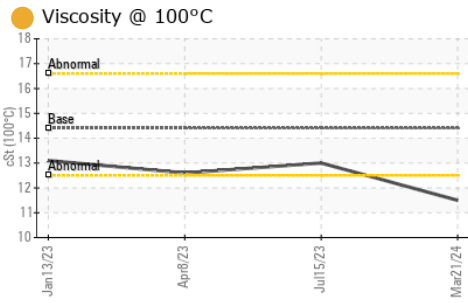
Fuel content negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>30	5	7	5
Potassium	ppm	ASTM D5185m	>20	1	3	2
Fuel	%	ASTM D3524	>5	0.2	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.8	0.4	0.2
Nitration	Abs/cm	*ASTM D7624	>20	7.3	11.3	9.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.1	21.6	19.1
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	>158	1	2	2
Boron	ppm	ASTM D5185m	250	21	23	57
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	101	89	85
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	450	908	115	104
Calcium	ppm	ASTM D5185m	3000	1232	2244	2117
Phosphorus	ppm	ASTM D5185m	1150	1105	1012	1012
Zinc	ppm	ASTM D5185m	1350	1253	1262	1212
Sulfur	ppm	ASTM D5185m	4250	3591	3797	4273
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.1	17.6	14.4
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	8.1	5.8	6.1
Visc @ 100°C	cSt	ASTM D445	14.4	11.5	13.0	12.6



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0874295 **Received** : 16 Apr 2024
Lab Number : 06149972 **Tested** : 22 Apr 2024
Unique Number : 10980050 **Diagnosed** : 22 Apr 2024 - Jonathan Hester
Test Package : CONST (Additional Tests: FuelDilution, PercentFuel, TBN)

Apple Valley Waste - EHT Location
 6626 Delilah Road
 Egg Harbor Township, NJ
 US 08234
 Contact: Service Manager

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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F: