



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
R3
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0874319	WC0874309	WC0874371
Sample Date		Client Info		13 May 2024	29 Apr 2024	02 Dec 2023
Machine Age	mls	Client Info		177786	0	12617
Oil Age	mls	Client Info		0	0	567
Filter Age	mls	Client Info		0	0	567
Oil Changed		Client Info		Not Chngd	N/A	Changed
Filter Changed		Client Info		Not Chngd	N/A	Changed
Sample Status				NORMAL	ATTENTION	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	4	3	3
Chromium	ppm	ASTM D5185m	>20	<1	0	0
Nickel	ppm	ASTM D5185m	>5	<1	0	0
Titanium	ppm	ASTM D5185m	>2	<1	0	0
Silver	ppm	ASTM D5185m	>2	1	0	<1
Aluminum	ppm	ASTM D5185m	>20	2	2	1
Lead	ppm	ASTM D5185m	>40	<1	0	0
Copper	ppm	ASTM D5185m	>330	1	0	2
Tin	ppm	ASTM D5185m	>15	<1	<1	<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

There is no indication of any contamination in the oil.

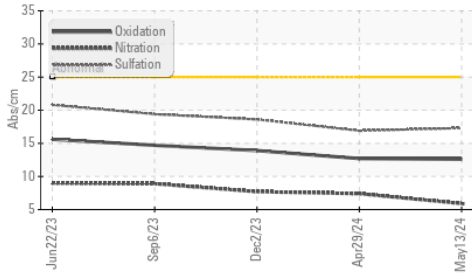
Silicon	ppm	ASTM D5185m	>25	4	4	5
Potassium	ppm	ASTM D5185m	>20	3	<1	1
Fuel		WC Method	>3.0	<1.0	0.6	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>4	0.1	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	5.9	7.4	7.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.3	16.9	18.6
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

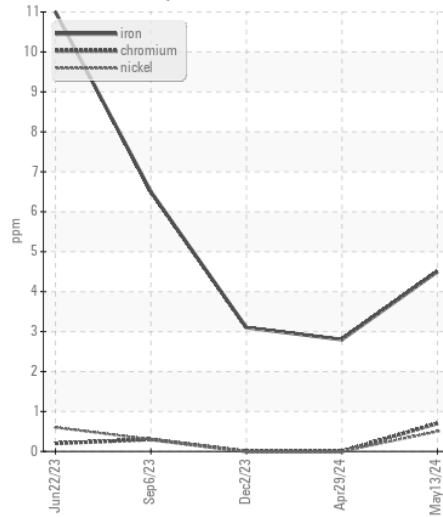
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>158	2	1	5
Boron	ppm	ASTM D5185m	250	14	21	19
Barium	ppm	ASTM D5185m	10	<1	0	0
Molybdenum	ppm	ASTM D5185m	100	68	95	60
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	450	852	861	831
Calcium	ppm	ASTM D5185m	3000	1129	1178	1248
Phosphorus	ppm	ASTM D5185m	1150	976	979	1012
Zinc	ppm	ASTM D5185m	1350	1148	1181	1226
Sulfur	ppm	ASTM D5185m	4250	3317	3405	3134
Oxidation	Abs/.1mm	*ASTM D7414	>25	12.6	12.7	13.9
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	9.1	7.6	7.6
Visc @ 100°C	cSt	ASTM D445	14.4	12.5	11.6	12.7

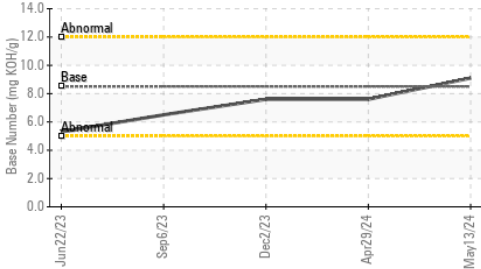
FT-IR (Direct Trend)



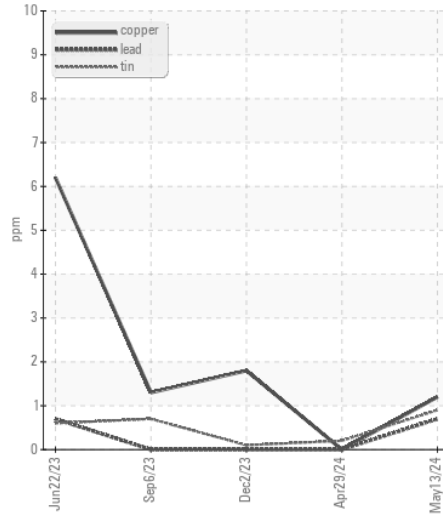
Ferrous Alloys



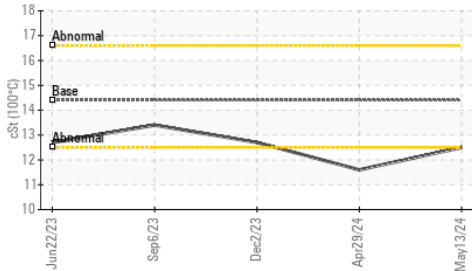
Base Number



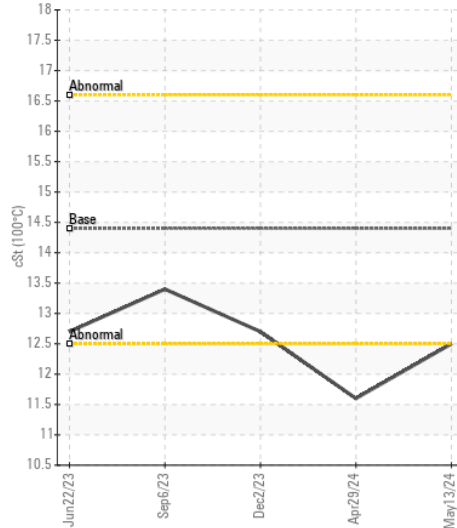
Non-ferrous Metals



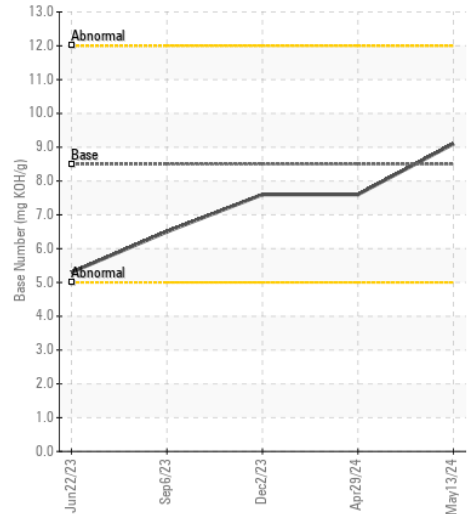
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0874319 **Received** : 28 May 2024
Lab Number : 06192022 **Tested** : 29 May 2024
Unique Number : 11048774 **Diagnosed** : 30 May 2024 - Sean Felton
Test Package : CONST (Additional Tests: 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)

T:
F: