



# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Machine Id  
**DFGS061043**  
 Component  
**Diesel Engine**  
 Fluid  
**DIESEL ENGINE OIL SAE 15W40 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0911085</b>	WC0668876	WC0526045
Sample Date		Client Info		<b>14 Apr 2024</b>	17 Feb 2022	18 Feb 2021
Machine Age	hrs	Client Info		<b>20876</b>	17798	16151
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	N/A	N/A
Filter Changed		Client Info		<b>Changed</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>12</b>	10	8
Chromium	ppm	ASTM D5185m	>20	<b>1</b>	<1	0
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>4</b>	2	2
Lead	ppm	ASTM D5185m	>40	<b>0</b>	1	0
Copper	ppm	ASTM D5185m	>330	<b>1</b>	<1	<1
Tin	ppm	ASTM D5185m	>15	<b>1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

There is no indication of any contamination in the oil.

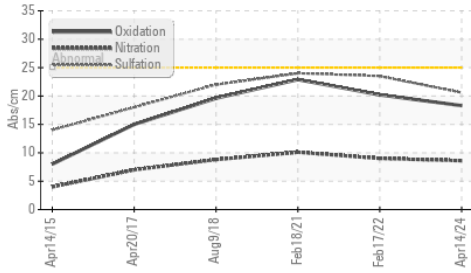
Silicon	ppm	ASTM D5185m	>25	<b>8</b>	4	<1
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	<1	<1
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.1</b>	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.6</b>	9.0	10.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.6</b>	23.5	24
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

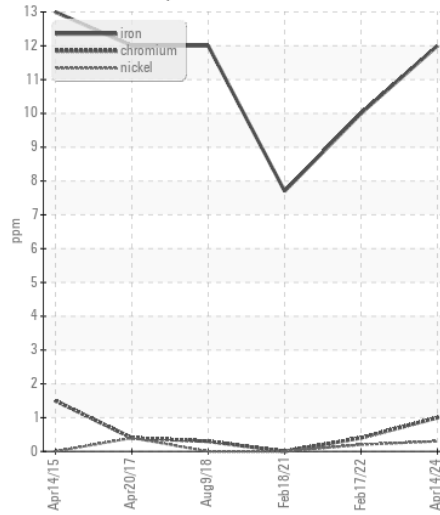
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>158	<b>7</b>	2	3
Boron	ppm	ASTM D5185m	250	<b>496</b>	344	344
Barium	ppm	ASTM D5185m	10	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	100	<b>128</b>	78	121
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	450	<b>779</b>	371	548
Calcium	ppm	ASTM D5185m	3000	<b>2114</b>	1587	1419
Phosphorus	ppm	ASTM D5185m	1150	<b>1625</b>	939	702
Zinc	ppm	ASTM D5185m	1350	<b>2034</b>	1134	875
Sulfur	ppm	ASTM D5185m	4250	<b>5706</b>	2619	2047
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>18.3</b>	20.2	22.9
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>7.7</b>	8.2	8.7
Visc @ 100°C	cSt	ASTM D445	14.4	<b>13.3</b>	13.9	13.3

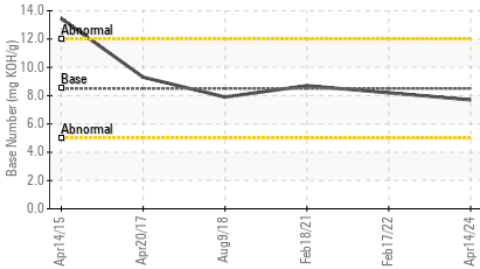
FT-IR (Direct Trend)



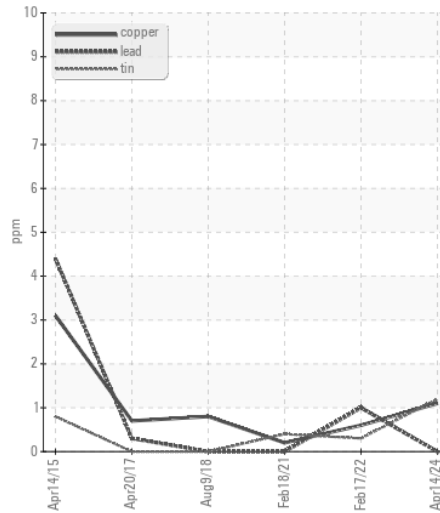
Ferrous Alloys



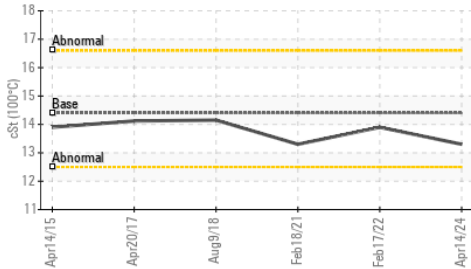
Base Number



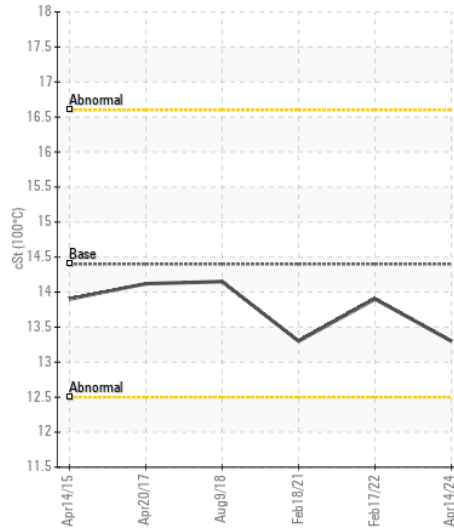
Non-ferrous Metals



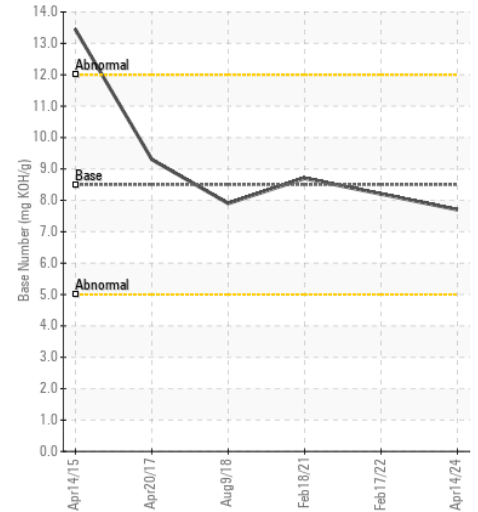
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : WC0911085

Lab Number : 06188469

Unique Number : 11045221

Test Package : FLEET

Received : 22 May 2024

Tested : 24 May 2024

Diagnosed : 24 May 2024 - Sean Felton

DOLE FRESH FRUIT

PO BOX 725, ATTN: MAINTENANCE AND REPAIR

NEW CASTLE, DE

US 19720

Contact: LUIS LAPIERRE

luis.lapierre@dole.com

T: (302)652-6344

F: (302)652-6061

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)