



# OIL ANALYSIS REPORT

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

Machine Id  
**DFGS620000**  
 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>WC0949993</b>	WC0814713	WC0708310
Sample Date		Client Info		<b>20 Jun 2024</b>	22 Jun 2023	24 Jun 2022
Machine Age	hrs	Client Info		<b>0</b>	0	6600
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>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	ABNORMAL	ABNORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>12</b>	20	28
Chromium	ppm	ASTM D5185m	>20	<b>1</b>	2	6
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>4</b>	6	14
Lead	ppm	ASTM D5185m	>40	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	1	2
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</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.

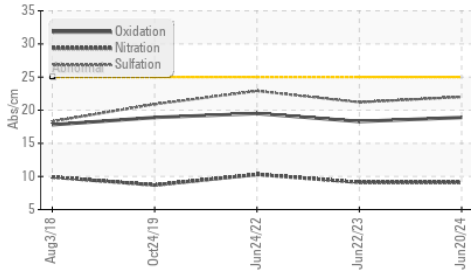
Silicon	ppm	ASTM D5185m	>25	<b>4</b>	5	6
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	3	4
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol	%	*ASTM D2982		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.2</b>	0.3	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.1</b>	9.1	10.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>22.0</b>	21.2	22.9
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

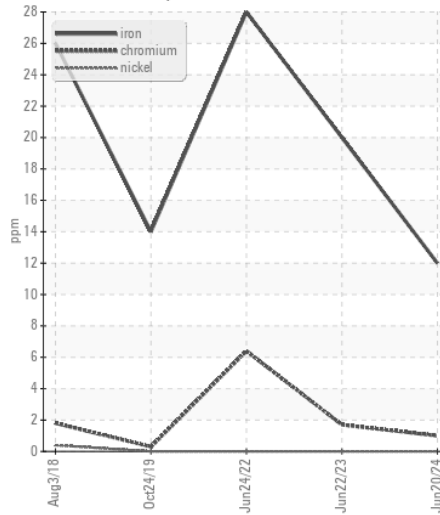
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>158	<b>69</b>	▲ 481	▲ 443
Boron	ppm	ASTM D5185m	250	<b>327</b>	354	367
Barium	ppm	ASTM D5185m	10	<b>0</b>	2	0
Molybdenum	ppm	ASTM D5185m	100	<b>85</b>	80	76
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m	450	<b>379</b>	401	334
Calcium	ppm	ASTM D5185m	3000	<b>1579</b>	1456	1522
Phosphorus	ppm	ASTM D5185m	1150	<b>1032</b>	951	936
Zinc	ppm	ASTM D5185m	1350	<b>1224</b>	1177	1188
Sulfur	ppm	ASTM D5185m	4250	<b>3671</b>	3281	3939
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>18.9</b>	18.3	19.5
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>7.7</b>	8.2	8.2
Visc @ 100°C	cSt	ASTM D445	14.4	<b>12.9</b>	13.1	13.2

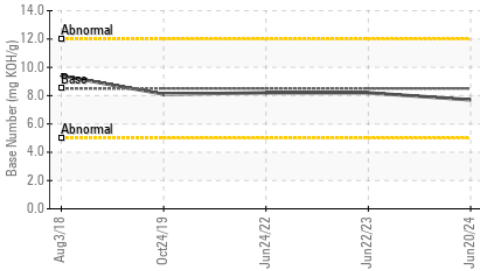
**FT-IR (Direct Trend)**



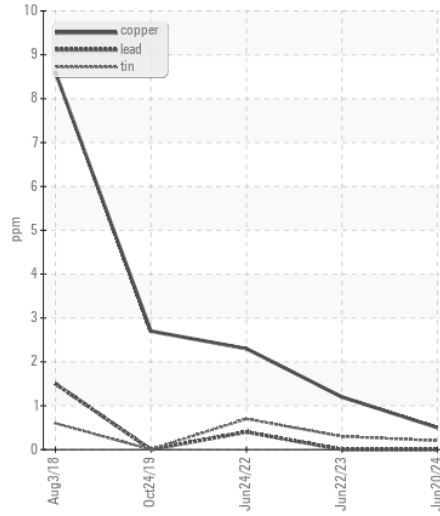
**Ferrous Alloys**



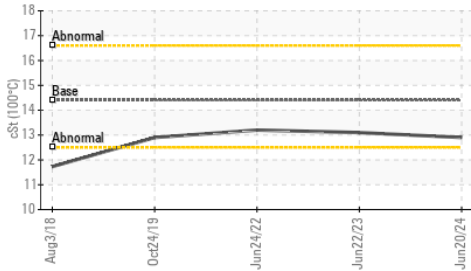
**Base Number**



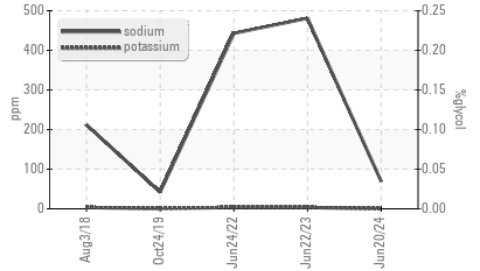
**Non-ferrous Metals**



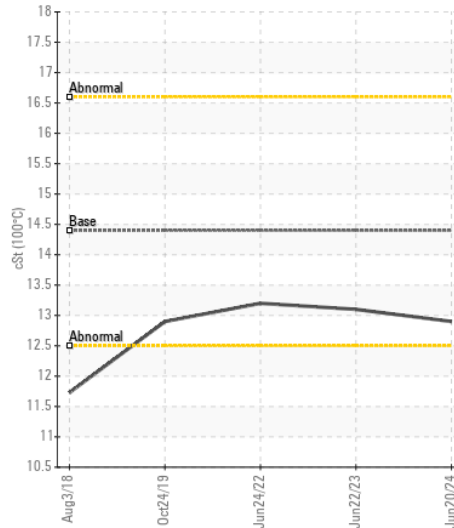
**Viscosity @ 100°C**



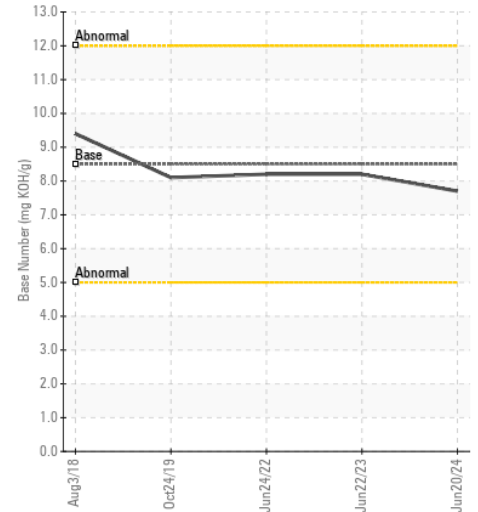
**Glycol Contamination**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

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

**Sample No.** : WC0949993

**Lab Number** : 06239737

**Unique Number** : 11128571

**Test Package** : FLEET ( Additional Tests: Glycol )

**Received** : 17 Jul 2024

**Tested** : 19 Jul 2024

**Diagnosed** : 19 Jul 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

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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)