



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**D/G #3**  
 Component  
**3 Diesel Engine**  
 Fluid  
**SHELL 15W40 (13 LTR)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0955559</b>	WC0722086	WC0722073
Sample Date		Client Info		<b>28 Jun 2024</b>	22 Apr 2023	13 Sep 2022
Machine Age	hrs	Client Info		<b>14407</b>	0	11334
Oil Age	hrs	Client Info		<b>260</b>	0	500
Filter Age	hrs	Client Info		<b>260</b>	0	500
Oil Changed		Client Info		<b>Not Changed</b>	N/A	Changed
Filter Changed		Client Info		<b>Not Changed</b>	N/A	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>51	<b>6</b>	10	10
Chromium	ppm	ASTM D5185(m)	>11	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>31	<b>1</b>	1	1
Lead	ppm	ASTM D5185(m)	>26	<b>1</b>	4	4
Copper	ppm	ASTM D5185(m)	>26	<b>2</b>	1	<1
Tin	ppm	ASTM D5185(m)	>4	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

## CONTAMINATION

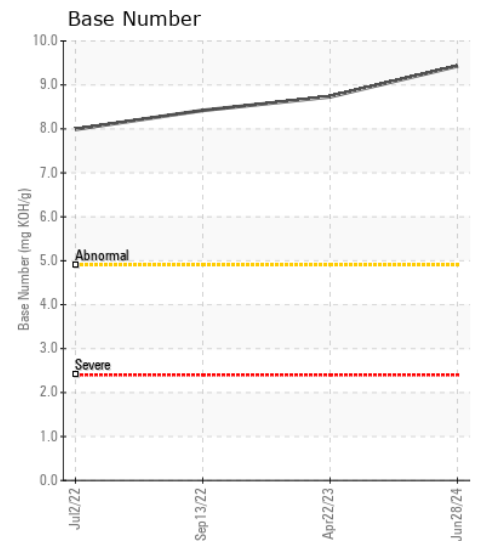
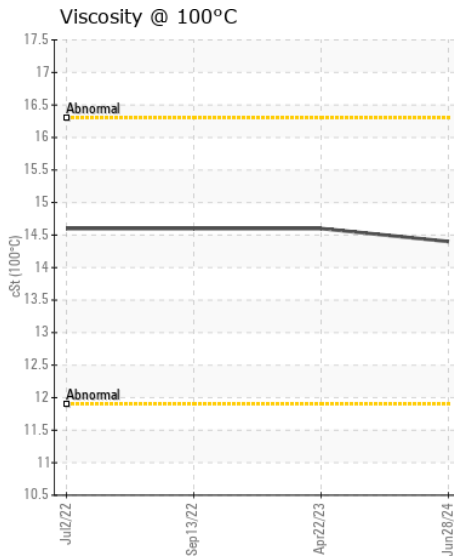
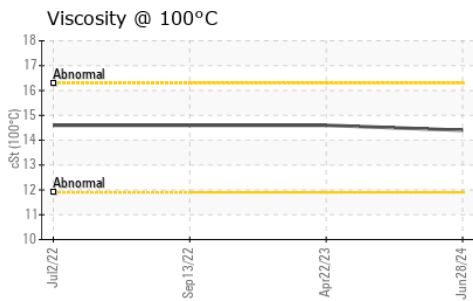
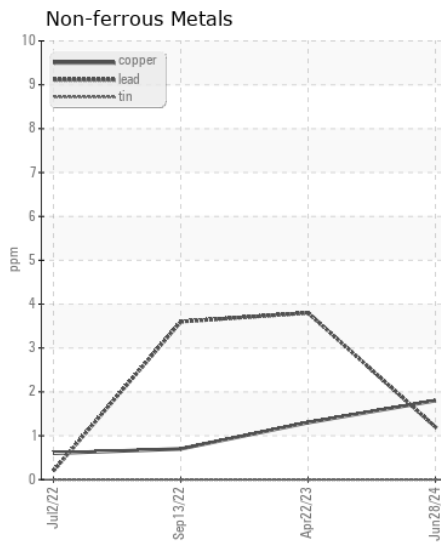
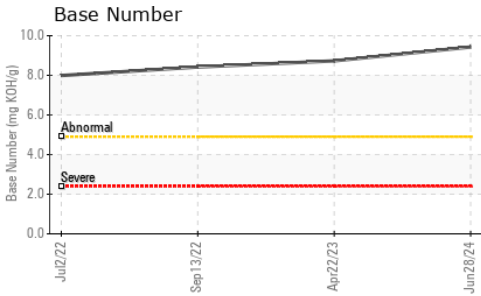
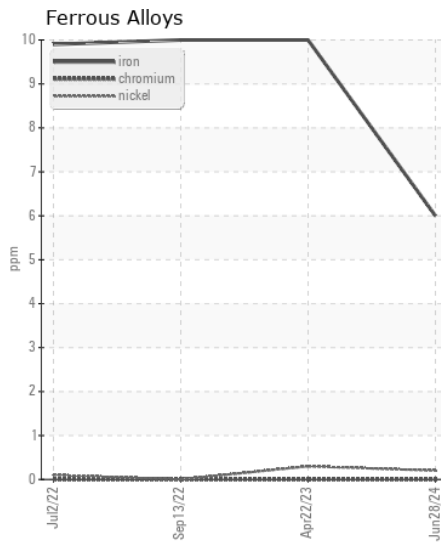
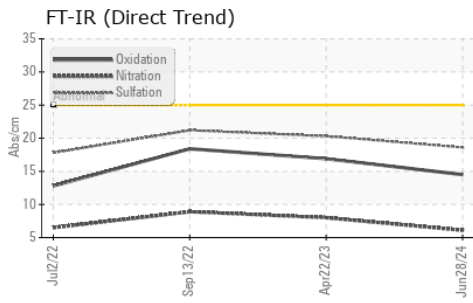
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>22	<b>2</b>	4	3
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	0	0
Fuel		WC Method	>2.1	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.21	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	ASTM D7844*	>3	<b>0</b>	0	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>6.1</b>	8.0	8.9
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>18.6</b>	20.3	21.2
Emulsified Water	scalar	Visual*	>0.21	<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 D5185(m)	>150	<b>4</b>	2	2
Boron	ppm	ASTM D5185(m)		<b>17</b>	17	19
Barium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)		<b>61</b>	64	63
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)		<b>868</b>	917	855
Calcium	ppm	ASTM D5185(m)		<b>1234</b>	1331	1408
Phosphorus	ppm	ASTM D5185(m)		<b>983</b>	1094	1084
Zinc	ppm	ASTM D5185(m)		<b>1192</b>	1244	1245
Sulfur	ppm	ASTM D5185(m)		<b>2780</b>	2773	2863
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>14.5</b>	16.9	18.4
Base Number (BN)	mg KOH/g	ASTM D2896*		<b>9.43</b>	8.73	8.42
Visc @ 100°C	cSt	ASTM D7279(m)		<b>14.4</b>	14.6	14.6



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0955559  
**Lab Number** : 02645378  
**Unique Number** : 5802917  
**Test Package** : MAR 2  
**Received** : 04 Jul 2024  
**Tested** : 04 Jul 2024  
**Diagnosed** : 04 Jul 2024 - Wes Davis

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To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.