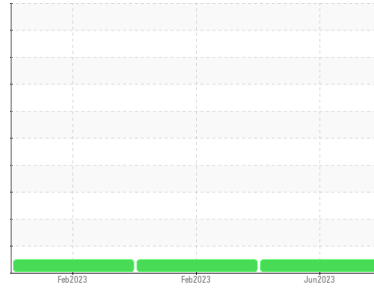




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Area  
**Snubbing**  
 Machine Id  
**G04**

Component  
**Diesel Engine**  
 Fluid

**DIESEL ENGINE OIL SAE 15W40 (42 LTR)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.  
 Please specify the brand, type, and viscosity of the oil on your next sample.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

### 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.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>WC0792199</b>	WC0792188	WC0792165
Sample Date	Client Info			<b>01 Jun 2023</b>	23 Feb 2023	23 Feb 2023
Machine Age	hrs	Client Info		<b>8385</b>	7707	7435
Oil Age	hrs	Client Info		<b>228</b>	0	0
Oil Changed	Client Info			<b>Not Chngd</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>3.0		<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

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>90	<b>6</b>	9	8
Chromium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	0	0
Nickel	ppm	ASTM D5185(m)	>2	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>2</b>	2	1
Lead	ppm	ASTM D5185(m)	>40	<b>1</b>	6	<1
Copper	ppm	ASTM D5185(m)	>330	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185(m)	>15	<b>&lt;1</b>	<1	<1
Antimony	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	0	0

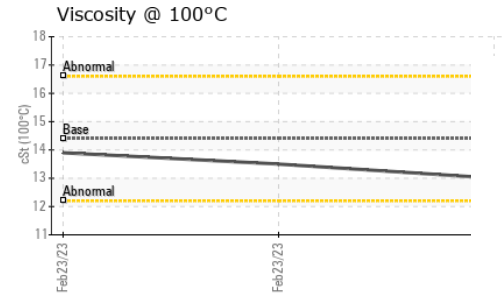
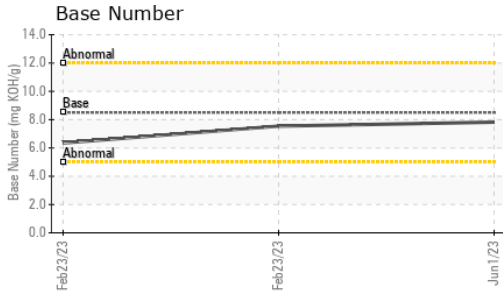
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	250	<b>47</b>	20	133
Barium	ppm	ASTM D5185(m)	10	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	100	<b>44</b>	54	10
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)	450	<b>570</b>	902	204
Calcium	ppm	ASTM D5185(m)	3000	<b>1698</b>	1309	2154
Phosphorus	ppm	ASTM D5185(m)	1150	<b>834</b>	1091	988
Zinc	ppm	ASTM D5185(m)	1350	<b>897</b>	1232	1125
Sulfur	ppm	ASTM D5185(m)	4250	<b>2120</b>	2720	2926
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	<b>6</b>	3	5
Sodium	ppm	ASTM D5185(m)	>158	<b>2</b>	2	3
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	2	6

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>6	<b>0</b>	0	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>8.6</b>	8.6	8.3
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>24.5</b>	21.5	21.7



# OIL ANALYSIS REPORT

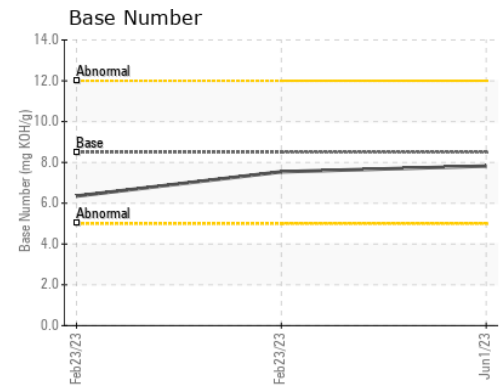
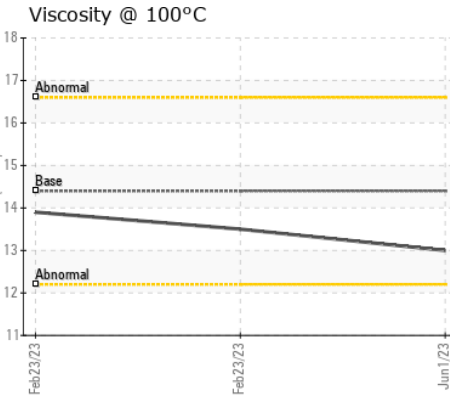
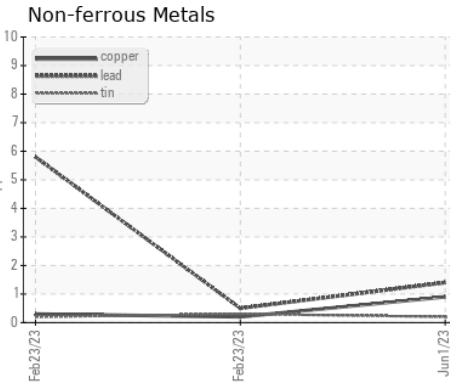
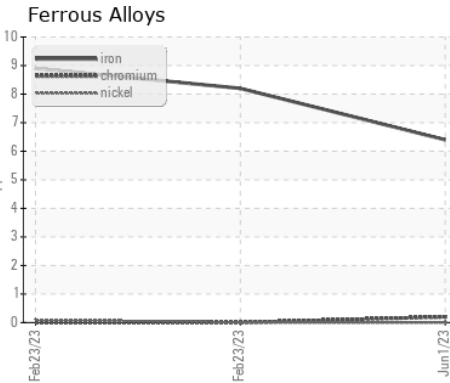


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	<b>23.9</b>	19.3	18.1
Base Number (BN)	mg KOH/g	ASTM D2896*	8.5	<b>7.82</b>	7.54	6.35

VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG
Free Water	scalar	Visual*		<b>NEG</b>	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	<b>13.0</b>	13.5	13.9

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0792199      **Received** : 06 Jun 2023  
**Lab Number** : **02562134**      **Diagnosed** : 07 Jun 2023  
**Unique Number** : 5591175      **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GOLIATH ENERGY GROUP**  
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 kurt@goliathenergy.com  
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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.