



# OIL ANALYSIS REPORT

Sample Rating Trend

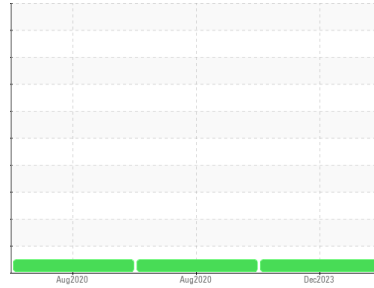
**NORMAL**



Machine Id  
**T001301 (S/N 20-M-01-2156)**

Component  
**Diesel Engine**

Fluid  
**DIESEL ENGINE OIL SAE 15W40 (--- GAL)**



## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### 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>WC0832176</b>	WC0348992	WC0486647
Sample Date	Client Info			<b>06 Dec 2023</b>	28 Aug 2020	28 Aug 2020
Machine Age	hrs	Client Info		<b>4581</b>	500	527
Oil Age	hrs	Client Info		<b>0</b>	100	250
Oil Changed	Client Info			<b>N/A</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
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	0.0

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	<b>17</b>	15	33
Chromium	ppm	ASTM D5185(m)	>20	<b>1</b>	<1	2
Nickel	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	<1	<1
Silver	ppm	ASTM D5185(m)	>3	<b>&lt;1</b>	<1	1
Aluminum	ppm	ASTM D5185(m)	>20	<b>2</b>	1	3
Lead	ppm	ASTM D5185(m)	>40	<b>&lt;1</b>	1	3
Copper	ppm	ASTM D5185(m)	>330	<b>&lt;1</b>	12	22
Tin	ppm	ASTM D5185(m)	>15	<b>&lt;1</b>	2	3
Antimony	ppm	ASTM D5185(m)		<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	<1	<1
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	0	0

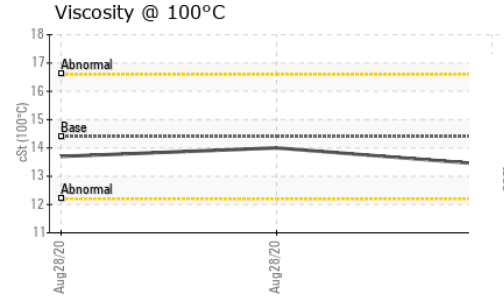
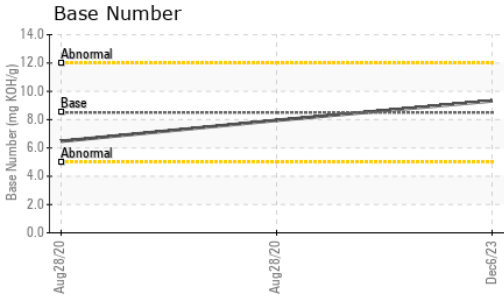
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	250	<b>47</b>	174	116
Barium	ppm	ASTM D5185(m)	10	<b>&lt;1</b>	6	6
Molybdenum	ppm	ASTM D5185(m)	100	<b>40</b>	8	12
Manganese	ppm	ASTM D5185(m)		<b>0</b>	5	7
Magnesium	ppm	ASTM D5185(m)	450	<b>506</b>	89	151
Calcium	ppm	ASTM D5185(m)	3000	<b>1704</b>	2106	2150
Phosphorus	ppm	ASTM D5185(m)	1150	<b>721</b>	1030	1032
Zinc	ppm	ASTM D5185(m)	1350	<b>882</b>	1176	1236
Sulfur	ppm	ASTM D5185(m)	4250	<b>2003</b>	3101	2978
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>10</b>	34	46
Sodium	ppm	ASTM D5185(m)	>158	<b>4</b>	4	5
Potassium	ppm	ASTM D5185(m)	>20	<b>2</b>	10	10

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	<b>0.1</b>	0	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>7.3</b>	6.3	9.0
Sulfation	Abs./1mm	ASTM D7415*	>30	<b>23.2</b>	20.4	22.0



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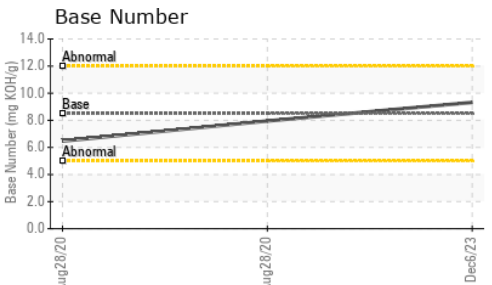
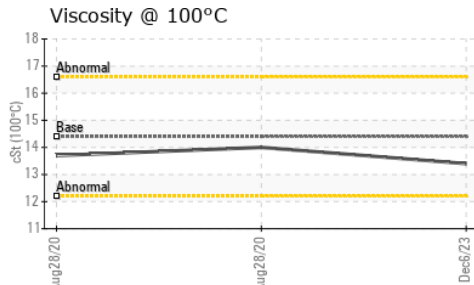
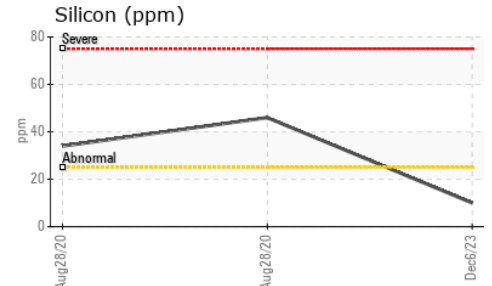
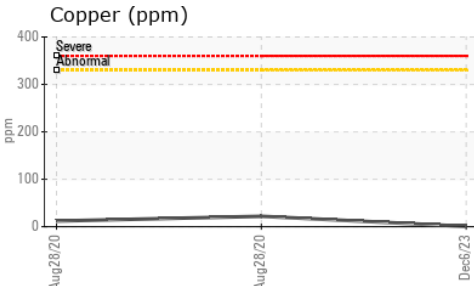
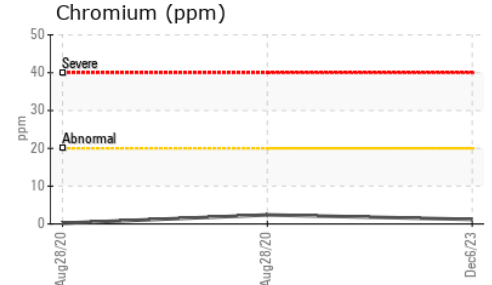
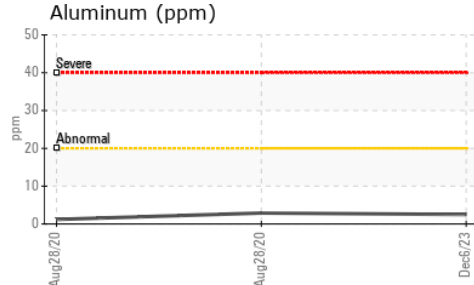
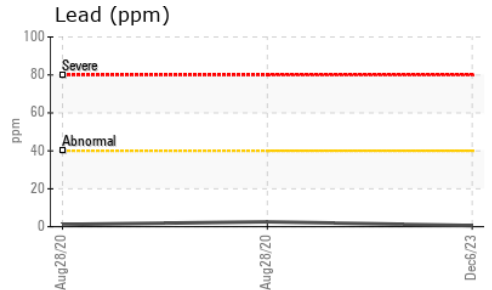
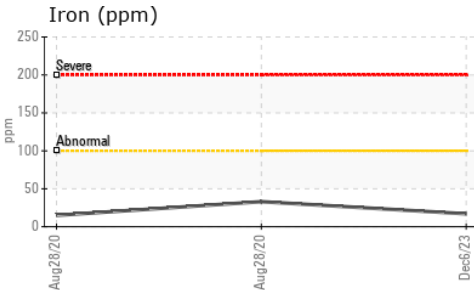


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	<b>21.6</b>	16.7	18.1
Base Number (BN)	mg KOH/g	ASTM D2896*	8.5	<b>9.32</b>	7.95	6.47

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>13.4</b>	14.0	13.7

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0832176 **Received** : 08 Dec 2023  
**Lab Number** : 02601773 **Diagnosed** : 13 Dec 2023  
**Unique Number** : 5694858 **Diagnostician** : Wes Davis  
**Test Package** : MOB 2

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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.