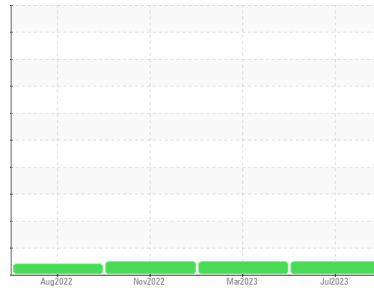




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**115728**

Component  
**Diesel Engine**

Fluid  
**SHELL ROTELLA T 15W40 (--- QTS)**

## 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>IL0027482</b>	IL0027427	IL0027706
Sample Date	Client Info			<b>10 Jul 2023</b>	08 Mar 2023	18 Nov 2022
Machine Age	mls Client Info			<b>85726</b>	62658	38520
Oil Age	mls Client Info			<b>23068</b>	24138	18583
Oil Changed	Client Info			<b>Changed</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
Glycol	WC Method			<b>NEG</b>	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>90	<b>34</b>	42	38
Chromium	ppm	ASTM D5185m	>20	<b>3</b>	4	3
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>34</b>	35	62
Lead	ppm	ASTM D5185m	>40	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>330	<b>2</b>	2	5
Tin	ppm	ASTM D5185m	>15	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	316	<b>26</b>	33	36
Barium	ppm	ASTM D5185m	0.0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	1.2	<b>39</b>	80	89
Manganese	ppm	ASTM D5185m		<b>1</b>	2	1
Magnesium	ppm	ASTM D5185m	24	<b>149</b>	64	89
Calcium	ppm	ASTM D5185m	2292	<b>2206</b>	2035	2146
Phosphorus	ppm	ASTM D5185m	1064	<b>988</b>	886	964
Zinc	ppm	ASTM D5185m	1160	<b>1264</b>	1151	1177
Sulfur	ppm	ASTM D5185m	4996	<b>4009</b>	3533	3730

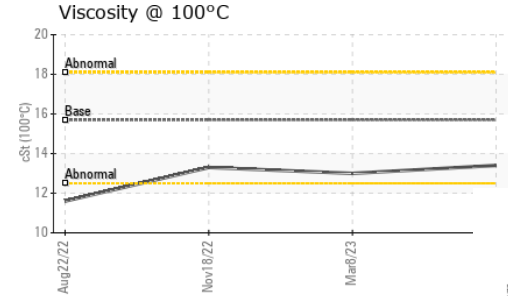
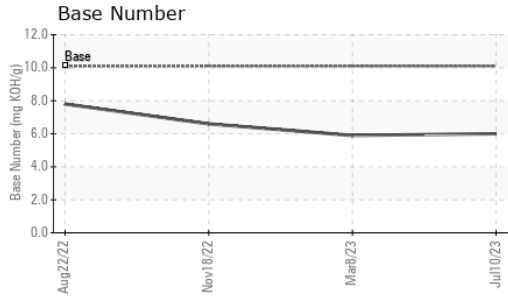
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>9</b>	11	12
Sodium	ppm	ASTM D5185m		<b>2</b>	3	2
Potassium	ppm	ASTM D5185m	>20	<b>48</b>	40	120

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>6	<b>0.7</b>	0.8	0.6
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.6</b>	11.1	12.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>23.6</b>	22.8	23.4

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>19.7</b>	18.3	17.8
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	<b>6</b>	5.9	6.6



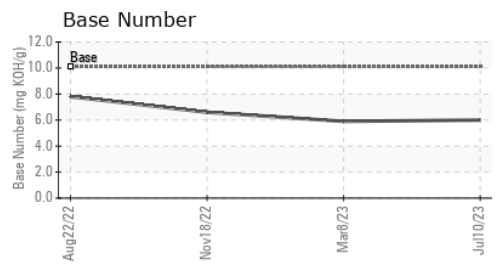
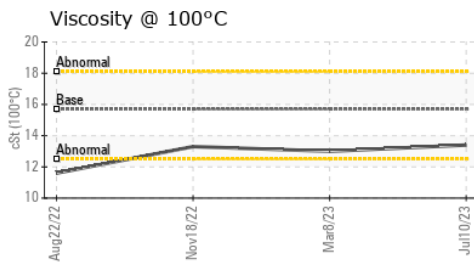
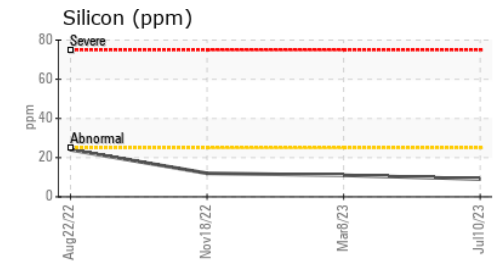
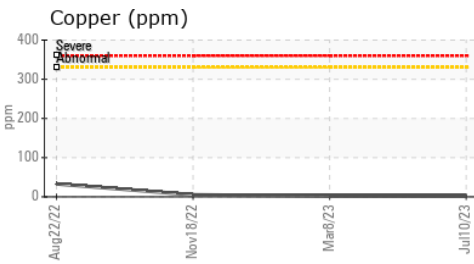
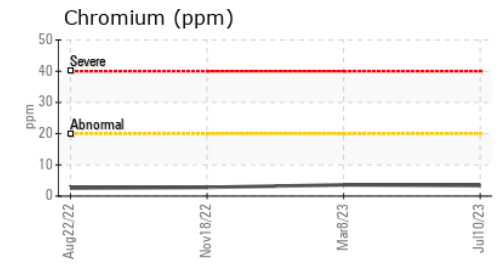
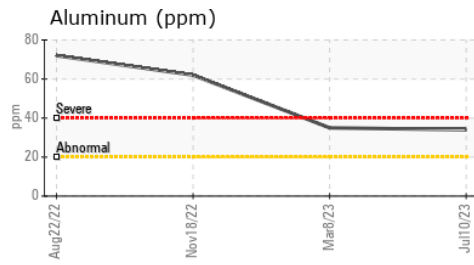
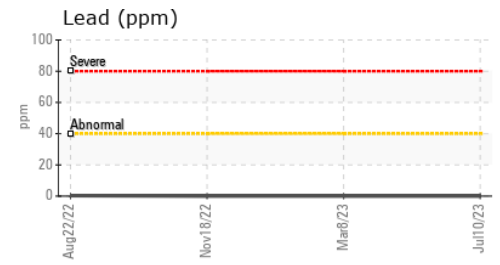
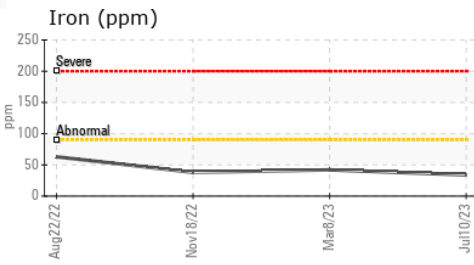
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.7	13.4	13.0

### GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : IL0027482 **Received** : 18 Jul 2023  
**Lab Number** : 05901014 **Diagnosed** : 19 Jul 2023  
**Unique Number** : 10562370 **Diagnostician** : Don Baldrige  
**Test Package** : MOB1+

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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)