

## **OIL ANALYSIS REPORT**

#### Sample Rating Trend





Component **Diesel Engine** Elui

## DIESEL ENGINE OIL SAE 15W40 (--- QTS)

### 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 INFORM	<b>NATION</b>	method	limit/base	current	history1	history2
Sample Number		Client Info		IL0023672		
Sample Date		Client Info		15 Aug 2023		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		Changed		
Sample Status				NORMAL		
CONTAMINATION	N	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0		
Glycol		WC Method		NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	52		
Chromium	ppm	ASTM D5185m	>20	2		
Nickel	ppm	ASTM D5185m	>4	0		
Titanium	ppm	ASTM D5185m	2.1	0		
Silver	ppm	ASTM D5185m	>3	0		
Aluminum	ppm	ASTM D5185m	>20	۰ <1		
Lead	ppm	ASTM D5185m	>40	0		
Copper	ppm	ASTM D5185m	>330	<1		
Tin		ASTM D5185m	>15	0		
Vanadium	ppm ppm	ASTM D5185m	>15	0		
Cadmium		ASTM D5185m		0		
	ppm	ASTIM D3103III		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	250	0		
Barium	ppm	ASTM D5185m	10	0		
Maluda al avaitar				<b>F</b> 4		
ivioiybaenum	ppm	ASTM D5185m	100	54		
-	ppm ppm	ASTM D5185m ASTM D5185m	100	54 <1		
Manganese			100 450	-		
Manganese Magnesium	ppm	ASTM D5185m		<1		
Manganese Magnesium Calcium	ppm ppm	ASTM D5185m ASTM D5185m	450	<1 917		
Manganese Magnesium Calcium Phosphorus	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	450 3000	<1 917 1000		
Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	450 3000 1150	<1 917 1000 900	 	
Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	450 3000 1150 1350	<1 917 1000 900 1156		  
Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	450 3000 1150 1350 4250 limit/base	<1 917 1000 900 1156 3381	  	   
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	450 3000 1150 1350 4250 limit/base >25	<1 917 1000 900 1156 3381 current	  	   
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m	450 3000 1150 1350 4250 imit/base >25 >158	<1 917 1000 900 1156 3381 current 4	    history1 	    history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m ASTM D5185m	450 3000 1150 1350 4250 imit/base >25 >158	<1 917 1000 900 1156 3381 <u>current</u> 4 <1	    history1 	   history2 
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	450 3000 1150 4250 <b>limit/base</b> >25 >158 >20	<1 917 1000 900 1156 3381 current 4 <1 0 current 2.7	    history1  	    history2  
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	450 3000 1150 1350 4250 <b>Imit/base</b> >25 >158 >20 <b>Imit/base</b> >3	<1 917 1000 900 1156 3381 current 4 <1 0 current	   history1   history1	<ul> <li></li> <li></li> <li></li> <li>history2</li> <li></li> <li></li> <li>history2</li> </ul>
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	450 3000 1150 1350 4250 <b>Imit/base</b> >25 >158 >20 <b>Imit/base</b> >3	<1 917 1000 900 1156 3381 current 4 <1 0 current 2.7	   history1   history1	   history2  history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	450 3000 1150 1350 4250 <b>ilmit/base</b> >25 >158 >20 <b>ilmit/base</b> >3 >20	<1 917 1000 900 1156 3381 <i>current</i> 4 <1 0 <i>current</i> 2.7 14.1	    history1   history1	<ul> <li></li> <li></li> <li></li> <li>history2</li> <li></li> <li>history2</li> <li></li> <li>history2</li> <li></li> </ul>
Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7844 *ASTM D7624	450 3000 1150 1350 4250 <b>Iimit/base</b> >25 >158 >20 <b>Iimit/base</b> >3 >20 >3 >20	<1 917 1000 900 1156 3381 <u>current</u> 4 <1 0 <u>current</u> 2.7 14.1 29.0	   history1  history1  history1	    history2   history2  history2



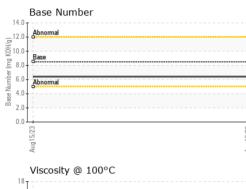
16 cSt (100°C)

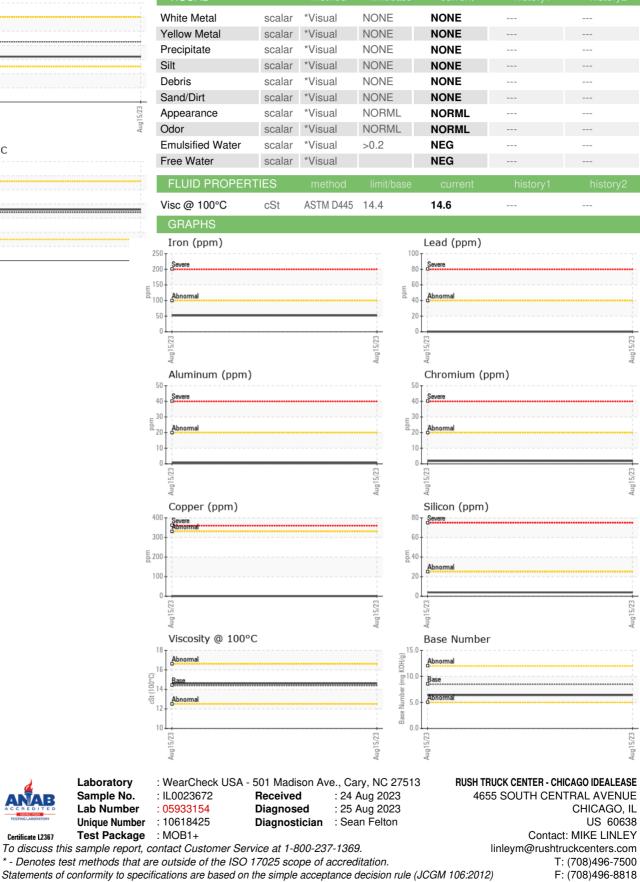
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Certificate L2367

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