

## WEAR NORMAL CONTAMINATION NORMAL FLUID CONDITION ATTENTION

100

RECOMMENDATION

Contracting Machine Id 5205 5205 Component Diesel Engine

## DIESEL ENGINE OIL SAE 15W40 (5 GAL)

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

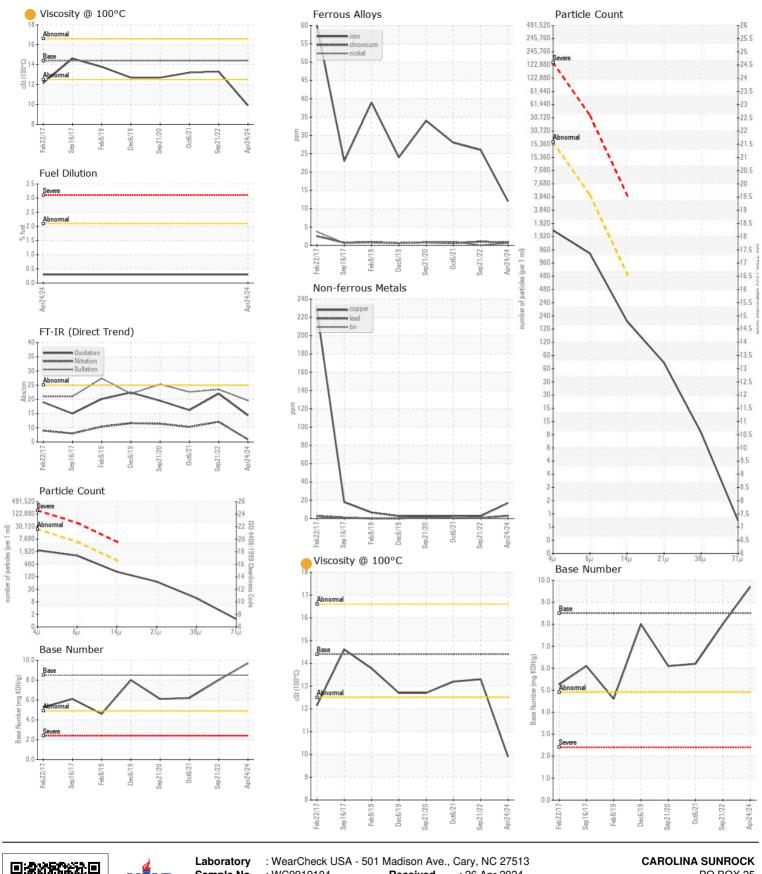
## CONTAMINATION

Fuel content negligible. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

## FLUID CONDITION

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Test UOM Method LimitAbn Current History1 History1 History1   Sample Number Client Info 24 Apr 2024 21 Sep 2022 06 Oct 2021   Machine Age hrs Client Info 5802 4613 3952   Oil Age hrs Client Info 5802 661 644   Filter Anged Client Info Changed Changed Changed Changed   Sample Number Client Info Changed Changed Changed Changed Changed   Silver ppm ASTM 5185m >51 12 26 28   Chromium ppm ASTM 5185m >51 1 1 <1 1   Silver ppm ASTM 5185m >51 6 4 4   Lead ppm ASTM 5185m >26 3 <1 <1   Vanadium ppm ASTM 5185m >26 17 3 3   Tin ppm ASTM 5185m							
Sample Date Client Info 24 Apr 2024 21 Sep 2022 06 Oct 2021   Machine Age hrs Client Info 580 4613 3952   Oil Age hrs Client Info 582 661 644   Oil Changed Client Info 582 661 644   Oil Changed Client Info Changed	Test	UOM	Method	Limit/Abn	Current	History1	History2
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Copper ppm ASTM D5185m >26 17 3 3   Tin ppm ASTM D5185m >4 3 <1 <1   Vanadium ppm ASTM D5185m >4 3 <1 <1   White Metal scalar *Visual NONE NONE NONE NONE   Yellow Metal scalar *Visual NONE NONE NONE NONE   Silicon ppm ASTM D5185m >20 17 2 3   Fuel % ASTM D5185m >20 17 2 3   Fuel % ASTM D5824 >2.1 0.3 <1.0 <1.0   Water WC Method >0.21 NEG NEG NEG NEG   Soot % % *ASTM D7647 >30 19.6 23.5 22.6 22.6   Particles >4µm ASTM D7647 >640 184 541 783 445   Particles >71µm ASTM D7647 <td< th=""><th></th><th></th><th></th><th></th><th>-</th><th>-</th><th></th></td<>					-	-	
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Sodium ppm ASTM D5185m >158 15 3 5   Boron ppm ASTM D5185m 250 <b>327</b> 27 29   Barium ppm ASTM D5185m 10 <b>3</b> 2 0   Molybdenum ppm ASTM D5185m 100 <b>247</b> 35 17   Manganese ppm ASTM D5185m 4 <1 <1   Magnesium ppm ASTM D5185m <b>4</b> <1 <1   Magnesium ppm ASTM D5185m <b>4</b> <1 <1   Phosphorus ppm ASTM D5185m 3000 <b>1335</b> 1570 1407   Phosphorus ppm ASTM D5185m 1150 <b>898</b> 679 716   Zinc ppm ASTM D5185m 1350 <b>1025</b> 857 833   Sulfur ppm ASTM D5185m 4250 <b>3355</b> 2841 2397   Oxidation Abs/.1mm< *ASTM D7414<>25 <b>14.4</b> 22.0 16.					-		
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Boron ppm ASTM D5185m 250 <b>327</b> 27 29   Barium ppm ASTM D5185m 10 <b>3</b> 2 0   Molybdenum ppm ASTM D5185m 100 <b>247</b> 35 17   Manganese ppm ASTM D5185m 100 <b>247</b> 35 17   Magnesium ppm ASTM D5185m <b>4</b> <1 <1   Calcium ppm ASTM D5185m <b>4</b> <1 <1   Phosphorus ppm ASTM D5185m 3000 <b>1335</b> 1570 1407   Phosphorus ppm ASTM D5185m 1150 <b>898</b> 679 716   Zinc ppm ASTM D5185m 1350 <b>1025</b> 857 833   Sulfur ppm ASTM D5185m 4250 <b>3355</b> 2841 2397   Oxidation Abs/.1mm<*ASTM D7414<>25 <b>14.4</b> 22.0 16.2   Base Number (BN) mg KOH/g ASTM D2896 8.5 <b>9.7</b>	Sodium	nnm	ASTM D5185m	<u>\158</u>	15	З	5
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Base Number (BN) mg KOH/g ASTM D2896 8.5 9.7 8.0 6.2							
Visc @ 100°C cSt ASTM D445 14.4 🤚 9.9 / 13.3 13.2		mg KOH/g	ASTM D2896	8.5	9.7		
	Visc @ 100°C	cSt	ASTM D445	14.4	9.9 🖉	13.3	13.2



PO BOX 25 Sample No. : WC0919104 Received : 26 Apr 2024 : 06161329 Lab Number Tested : 02 May 2024 BUTNER, NC : 02 May 2024 - Jonathan Hester Unique Number : 10996752 Diagnosed US 27509 Test Package : CONST (Additional Tests: FuelDilution, Glycol, PercentFuel, PrtCount, TBN) Contact: Leigh Dennis Certificate L2367 rdennis@thesunrockgroup.com 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. T: (919)575-4505 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (919)575-0162

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Contact/Location: Leigh Dennis - CARBUTNC Page 2 of 2