WEAR CONTAMINATION **FLUID CONDITION**

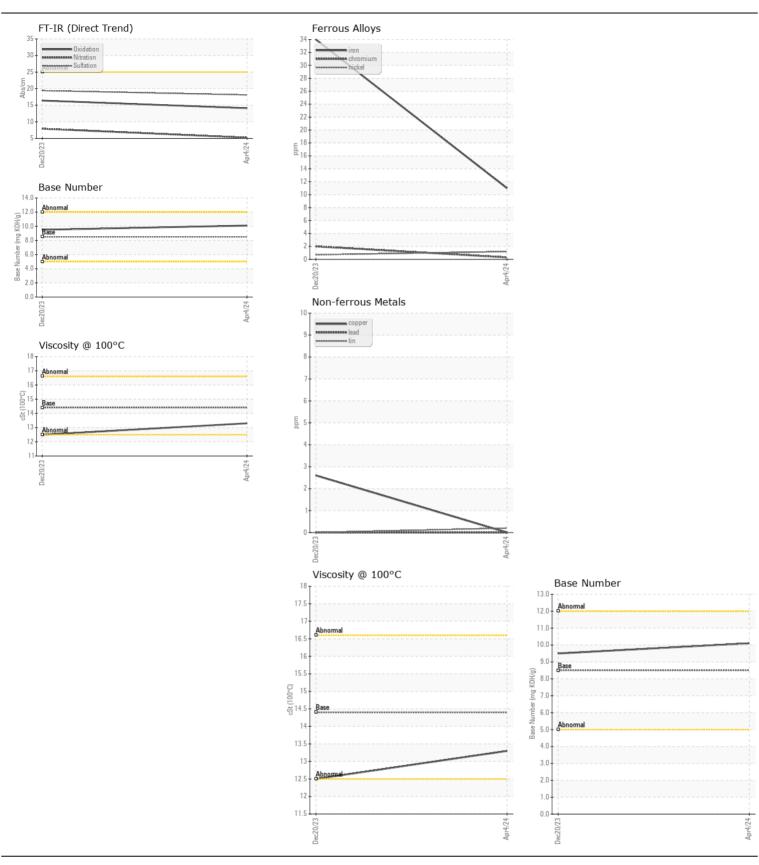
NORMAL NORMAL NORMAL

Machine Id

DFA25207

Component
Diesel Engine

Test	DIESEL ENGINE OIL SAE 15W40 (QTS)							
Resample at the next service interval to monitor. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the Machine Age Institute Oil or Oil	RECOMMENDATION	Toet	HOM	Method	Limit/Δhn	Current	History1	History2
Sample Date Client Info Component make and model with your next sample. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the brand, type, and viscosity of the oil	TECOMMENDATION		OOW		LIIIIU/ADII		,	
Machine Age hrs Client Info 20920 0	component make and model with your next sample. Please specify the							
Oil Age			hrs			· ·		
Filter Age		ū						
Oil Changed Client Info Changed Change						-		
Filter Changed Sample Status		J				-		
Normal N							_	
Chromium ppm ASTM D5185m >20 <1 2		•				_	U	
Chromium ppm ASTM D5185m >20 <1 2	WEAR	Iron	ppm	ASTM D5185m	>100	11	34	
Nickel ppm ASTM D5185m >4 1 <1		Chromium		ASTM D5185m	>20	<1	2	
Titanium ppm ASTM D5185m 0 0 0	All component wear rates are normal.	Nickel				1	<1	
Silver		Titanium		ASTM D5185m		0	0	
Aluminum ppm ASTM D5185m >20 3 3		Silver			>3		0	
Lead ppm ASTM D5185m >40 0 0 0 0 0 0 0 0 0		Aluminum		ASTM D5185m	>20	3	3	
Copper		Lead		ASTM D5185m	>40		0	
Tin		Copper		ASTM D5185m	>330	0	3	
White Metal Yellow Metal Scalar *Visual NONE NONE NONE NONE NONE NONE NONE NONE			ppm	ASTM D5185m	>15	<1	0	
Yellow Metal scalar *Visual NONE NON		Vanadium	ppm	ASTM D5185m		0	0	
Silicon ppm ASTM D5185m >25 6 13		White Metal	scalar	*Visual	NONE	NONE	NONE	
Potassium ppm ASTM D5185m >20 5 0		Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
Potassium ppm ASTM D5185m >20 5 0	CONTAMINATION	Silicon	mqq	ASTM D5185m	>25	6	13	
There is no indication of any contamination in the oil. Fuel								
Water WC Method >0.2 NEG NEG Glycol WC Method NEG NEG Soot % % *ASTM D7844 >3 0.1 0.2 Nitration Abs/cm *ASTM D7624 >20 5.2 7.9 Sulfation Abs/.1mm *ASTM D7415 >30 18.1 19.4 Silt scalar *Visual NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NORML NORML NORML NORML NORML NORML NORML NORML NORML			1-1-				<1.0	
Glycol WC Method NEG NEG Soot % % *ASTM D7844 >3 0.1 0.2 Nitration Abs/cm *ASTM D7624 >20 5.2 7.9 Sulfation Abs/.1mm *ASTM D7415 >30 18.1 19.4 Silt scalar *Visual NONE NONE NONE Debris scalar *Visual NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NORML NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML		Water		WC Method	>0.2		NEG	
Soot % % *ASTM D7844 >3 0.1 0.2 Nitration Abs/cm *ASTM D7624 >20 5.2 7.9 Sulfation Abs/.1mm *ASTM D7415 >30 18.1 19.4 Silt scalar *Visual NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE NONE Sand/Dirt scalar *Visual NONE NORML		Glycol				NEG	NEG	
Nitration Abs/cm *ASTM D7624 >20 5.2 7.9 Sulfation Abs/.1mm *ASTM D7415 >30 18.1 19.4 Silt scalar *Visual NONE NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE NONE Sand/Dirt scalar *Visual NORM NORML NORML NORML NORML NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML		-	%	*ASTM D7844	>3	0.1	0.2	
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 NORML NORML Odor scalar *Visual NORML NORML NORML NORML		Nitration	Abs/cm			5.2	7.9	
Debrisscalar*VisualNONENONESand/Dirtscalar*VisualNONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORML		Sulfation	Abs/.1mm	*ASTM D7415	>30	18.1	19.4	
Sand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORML		Silt	scalar	*Visual	NONE	NONE	NONE	
Appearance scalar *Visual NORML NORML NORML Odor scalar *Visual NORML NORML NORML		Debris	scalar	*Visual	NONE	NONE	NONE	
Odor scalar *Visual NORML NORML NORML		Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
		Appearance	scalar	*Visual	NORML	NORML	NORML	
5 1 15 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Odor	scalar	*Visual	NORML	NORML	NORML	
Emulsified Water scalar *Visual >0.2 NEG NEG		Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	
FLUID CONDITION Sodium ppm ASTM D5185m >158 3 4	FLUID CONDITION	Sodium	ppm	ASTM D5185m	>158	3	4	
Boron ppm ASTM D5185m 250 <1 0	The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Boron	ppm	ASTM D5185m	250	<1	0	
Barium DDM ASIMUDIADM IU I U		Barium	ppm	ASTM D5185m	10	0	0	
Molybdenum ppm ASTM D5185m 100 56 60		Molybdenum	ppm	ASTM D5185m	100	56	60	
Manganese ppm ASTM D5185m <1		Manganese	ppm	ASTM D5185m		<1	<1	
Magnesium ppm ASTM D5185m 450 939 1062		Magnesium	ppm	ASTM D5185m	450	939	1062	
Calcium ppm ASTM D5185m 3000 1010 1131		Calcium	ppm	ASTM D5185m	3000	1010	1131	
Phosphorus ppm ASTM D5185m 1150 1055 1100		Phosphorus	ppm	ASTM D5185m	1150	1055	1100	
Zinc ppm ASTM D5185m 1350 1223 1358		Zinc	ppm			1223	1358	
Sulfur ppm ASTM D5185m 4250 3825 3441		Sulfur	ppm	ASTM D5185m	4250	3825	3441	
Oxidation		Oxidation	Abs/.1mm	*ASTM D7414	>25	14.1	16.4	
Base Number (BN) mg KOH/g ASTM D2896 8.5 10.1 9.5		Base Number (BN)	mg KOH/g	ASTM D2896	8.5	10.1	9.5	
Visc @ 100°C cSt ASTM D445 14.4 13.3 12.5		Visc @ 100°C	cSt	ASTM D445	14.4	13.3	12.5	







Certificate L2367

Laboratory Sample No.

Lab Number : 06145199 Unique Number : 10970007 Test Package : FLEET

: WC0925939

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 10 Apr 2024 **Tested** : 11 Apr 2024

Diagnosed : 11 Apr 2024 - Wes Davis

SALEM NATIONALEASE CORPORATION 198 PARK PLAZA DRIVE WINSTON SALEM, NC

US 27105 Contact: Audrey Hopkins Audrey.Hopkins@salemcorp.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: (336)767-9642 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: x: