

Machine Id C220E310190 Component Left Final Drive Fluid SAE 80W90 (--- GAL)

RECOMMENDATION

We advise that you check for the source of water entry. We advise that you check all areas where dirt can enter the system. We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

WEAR

The iron and chrome levels are severe. Gear wear is indicated.

CONTAMINATION

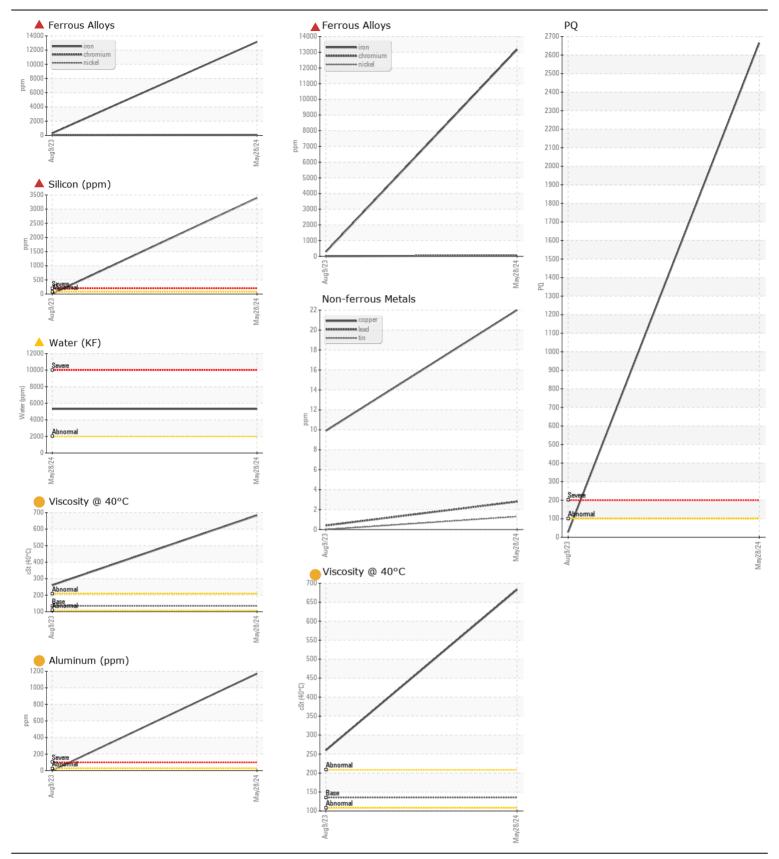
There is a moderate concentration of water present in the oil. Elemental levels of silicon (Si) and aluminum (AI) indicate aluminasilicate (coarse dirt) ingress.

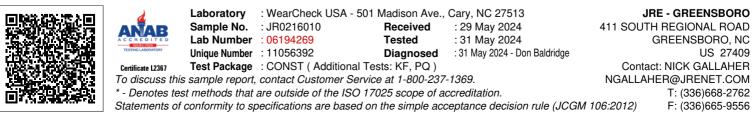
FLUID CONDITION

The oil viscosity is higher than normal. The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0216010	JR0177444	
Sample Date		Client Info		28 May 2024	09 Aug 2023	
Machine Age	hrs	Client Info		7482	7482	
Oil Age	hrs	Client Info		7482	7482	
Filter Age	hrs	Client Info		0	0	
Oil Changed		Client Info		N/A	Not Changd	
Filter Changed		Client Info		N/A	Not Changd	
Sample Status				SEVERE	NORMAL	
PQ		ASTM D8184		2664	27	
Iron	ppm	ASTM D5185m	>500	1 3161	288	
Chromium	ppm	ASTM D5185m	>10	4 55	2	
Nickel	ppm	ASTM D5185m	>10	5	0	
Titanium	ppm	ASTM D5185m		155	<1	
Silver	ppm	ASTM D5185m		0	<1	
Aluminum	ppm	ASTM D5185m	>25	e 1171	0	
Lead	ppm	ASTM D5185m	>25	3	<1	
Copper	ppm	ASTM D5185m	>50	22	10	
Tin	ppm	ASTM D5185m	>10	1	0	
Vanadium	ppm	ASTM D5185m		4	0	
White Metal	scalar	*Visual	NONE	NONE	NONE	
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
Silicon	ppm	ASTM D5185m	>75	3 396	8	
Potassium	ppm	ASTM D5185m	>20	156	<1	
Water	%	ASTM D6304	>0.2	A 0.531		
ppm Water	ppm	ASTM D6304	>2000	6 5310		
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	6.2%	NEG	
Sodium	ppm	ASTM D5185m	>50	87	0	
Boron	ppm	ASTM D5185m		163	180	
Barium	ppm	ASTM D5185m		6	2	
Molybdenum	ppm	ASTM D5185m		7	<1	
Manganese	ppm	ASTM D5185m		69	3	
Magnesium	ppm	ASTM D5185m		126	<1	
Calcium	ppm	ASTM D5185m		197	19	
Phosphorus	ppm	ASTM D5185m		926	1159	
Zinc	ppm	ASTM D5185m		26	18	
Sulfur	ppm	ASTM D5185m		42760	29781	
Visc @ 40°C	cSt	ASTM D445	135	683	260	

Submitted By: John Roberts





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