

Machine Id **186** Component **Front Differential** Fluid **GEAR OIL LS 80W90 (--- GAL)**

RECOMMENDATION

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

Gear wear is indicated.

CONTAMINATION

Elemental levels of silicon (Si) and aluminum (AI) indicate aluminasilicate (coarse dirt) ingress.

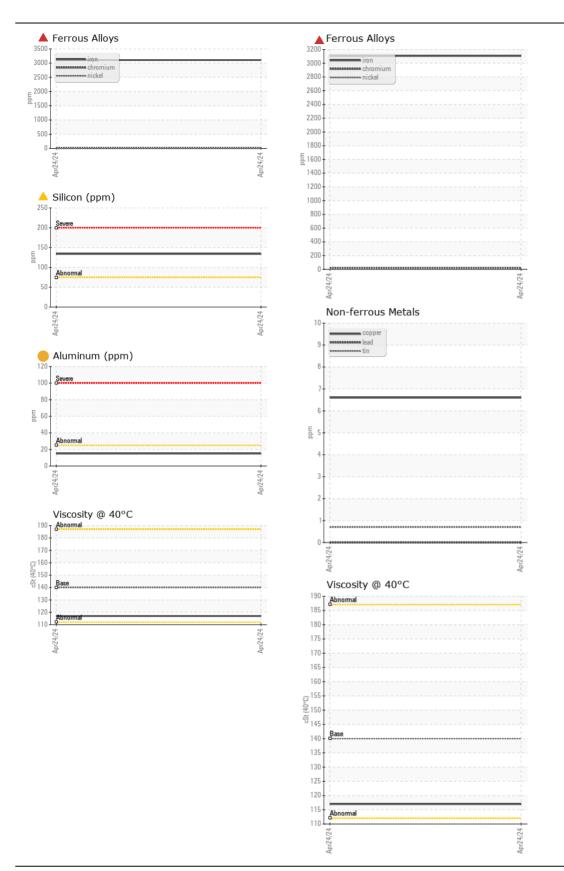
FLUID CONDITION

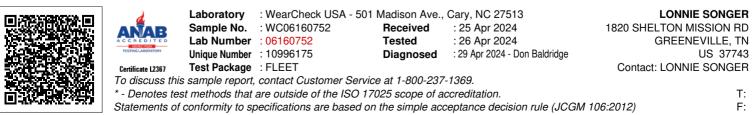
The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC06160752		
Sample Date		Client Info		24 Apr 2024		
Machine Age	mls	Client Info		0		
Oil Age	mls	Client Info		0		
Filter Age	mls	Client Info		0		
Oil Changed		Client Info		N/A		
Filter Changed		Client Info		N/A		
Sample Status				SEVERE		
Iron	ppm	ASTM D5185m	>500	▲ 3107		
Chromium	ppm	ASTM D5185m	>10	▲ 17		
Nickel	ppm	ASTM D5185m	>10	2		
Titanium	ppm	ASTM D5185m		3		
Silver	ppm	ASTM D5185m		0		
Aluminum	ppm	ASTM D5185m	>25	1 5		
Lead	ppm	ASTM D5185m	>25	0		
Copper	ppm	ASTM D5185m	>100	7		
Tin	ppm	ASTM D5185m	>10	<1		
Vanadium	ppm	ASTM D5185m		<1		
White Metal	scalar	*Visual	NONE	NONE		
Yellow Metal	scalar	*Visual	NONE	NONE		
Silicon	ppm	ASTM D5185m	>75	1 34		
Potassium	ppm	ASTM D5185m	>20	1444		
Water		WC Method	>.2	NEG		
Silt	scalar	*Visual	NONE	NONE		
Debris	scalar	*Visual				
O a sa al/Dist			NONE	NONE		
Sand/Dirt	scalar	*Visual	NONE	NONE NONE		
Sand/Dirt Appearance	scalar scalar	*Visual *Visual	_	-		
			NONE	NONE		
Appearance	scalar	*Visual	NONE	NONE NORML		
Appearance Odor Emulsified Water	scalar scalar	*Visual *Visual	NORML NORML	NONE NORML NORML		
Appearance Odor Emulsified Water Sodium	scalar scalar	*Visual *Visual *Visual ASTM D5185m	NONE NORML NORML >.2	NONE NORML NORML NEG 33		
Appearance Odor Emulsified Water Sodium Boron	scalar scalar scalar	*Visual *Visual *Visual ASTM D5185m ASTM D5185m	NORML NORML	NONE NORML NORML NEG		
Appearance Odor Emulsified Water Sodium Boron Barium	scalar scalar scalar ppm	*Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m	NONE NORML NORML >.2	NONE NORML NORML NEG 33	 	
Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum	scalar scalar scalar ppm ppm	*Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	NONE NORML NORML >.2	NONE NORML NORML NEG 33 1234 4 2		
Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese	scalar scalar scalar ppm ppm ppm	*Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	NONE NORML NORML >.2	NONE NORML NORML NEG 33 1234 4 2 60		
Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium	scalar scalar scalar ppm ppm ppm	*Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	NONE NORML NORML >.2	NONE NORML NORML NEG 33 1234 4 2 60 21		
Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	scalar scalar scalar ppm ppm ppm ppm	*Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	NONE NORML >.2 150 10 70	NONE NORML NORML NEG 33 1234 4 2 60		
Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium	scalar scalar ppm ppm ppm ppm ppm	*Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	NONE NORML NORML >.2 150	NONE NORML NORML NEG 33 1234 4 2 60 21		
Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	scalar scalar ppm ppm ppm ppm ppm ppm ppm	*Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	NONE NORML >.2 150 10 70	NONE NORML NEG 33 1234 4 2 60 21 125		
AppearanceOdorEmulsified WaterSodiumBoronBariumMolybdenumManganeseMagnesiumCalciumPhosphorus	scalar scalar ppm ppm ppm ppm ppm ppm ppm ppm	*Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	NONE NORML NORML >.2 150 10 70 2000	NONE NORML NEG 33 1234 4 2 60 21 125 554		

Contact/Location: LONNIE SONGER - LONGRETN

WEAR SEVERE CONTAMINATION ABNORMAL FLUID CONDITION NORMAL





Contact/Location: LONNIE SONGER - LONGRETN Page 2 of 2