

OIL ANALYSIS REPORT

Sample Rating Trend





WL0424 Component Front Differential Fluid CAT TDTO TRANS-DRIVE SAE 30 (--- GAL)

DIAGNOSIS

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.

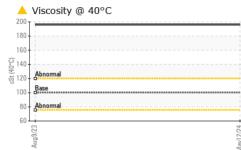
Fluid Condition

Viscosity of sample indicates oil is within SAE 50 range, advise investigate. The condition of the oil is acceptable for the time in service.

SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0100653	GFL0077020	
Sample Date		Client Info		12 May 2024	09 Aug 2023	
Machine Age	kms	Client Info		6447	5470	
Oil Age	kms	Client Info		0	0	
Oil Changed		Client Info		Changed	Not Changd	
Sample Status				ABNORMAL	NORMAL	
CONTAMINATI	ON	method	limit/base	current	history1	history2
Water		WC Method	>.2	NEG	NEG	
WEAR METALS	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>500	92	80	
Chromium	ppm	ASTM D5185(m)	>3	<1	<1	
Nickel	ppm	ASTM D5185(m)	>3	0	0	
Titanium	ppm	ASTM D5185(m)	>2	0	0	
Silver	ppm	ASTM D5185(m)	>2	0	0	
Aluminum	ppm	ASTM D5185(m)	>30	2	2	
Lead	ppm	ASTM D5185(m)	>13	0	<1	
Copper	ppm	ASTM D5185(m)	>103	14	14	
Tin	ppm	ASTM D5185(m)	>5	0	0	
Antimony	ppm	ASTM D5185(m)	>5	0	0	
Vanadium	ppm	ASTM D5185(m)		0	0	
Beryllium	ppm	ASTM D5185(m)		0	0	
Cadmium	ppm	ASTM D5185(m)		0	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		4	5	
Barium	ppm	ASTM D5185(m)		<1	0	
Molybdenum	ppm	ASTM D5185(m)		6	6	
Manganese	ppm	ASTM D5185(m)		2	2	
Magnesium	ppm	ASTM D5185(m)		15	16	
Calcium	ppm	ASTM D5185(m)	2980	3209	3260	
Phosphorus	ppm	ASTM D5185(m)	1100	924	1013	
Zinc	ppm	ASTM D5185(m)	1270	1120	1144	
Sulfur	ppm	ASTM D5185(m)		4685	5034	
Lithium	ppm	ASTM D5185(m)		<1	<1	
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>100	10	11	
Sodium	ppm	ASTM D5185(m)		<1	<1	
Potassium	ppm	ASTM D5185(m)	>20	0	<1	



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White Metal		method	limit/base	current	history1	history
	scalar	Visual*	NONE	NONE	NONE	
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	
Precipitate	scalar	Visual*	NONE	NONE	NONE	
Silt	scalar	Visual*	NONE	NONE	NONE	
Debris	scalar	Visual*	NONE	NONE	VLITE	
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	
Appearance	scalar	Visual*	NORML	NORML	NORML	
Odor	scalar	Visual*	NORML	NORML	NORML	
Emulsified Water	scalar	Visual*	>.2	NEG	NEG	
Free Water	scalar	Visual*		NEG	NEG	
FLUID PROP	ERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	100	<mark>人</mark> 196	196	
SAMPLE IMA	GES	method	limit/base	current	history1	history2
Color						no image
Bottom				((°s_043)))	(EP 0 8)	no image
GRAPHS						
Iron (ppm)				Lead (ppm)		
1000 Severe			3	0 October		
500 - Abnormal				0 +		
			E ²	Abnormal		
0						
0						
Aug9/23			May12/24	Aug9/23		
0)			Chromium (p	pm)	
Aluminum (ppm)		May12/24	Chromium (p	pm)	
Aluminum (ppm)		May12/24	Chromium (p	pm)	
Aluminum (ppm)		May12/24	Chromium (p	pm)	
Aluminum (ppm)		May12/24	Chromium (p	pm)	
Aluminum (ppm)		May12/24	Chromium (p	pm)	
Aluminum (ppm)		May12/24	Chromium (p	pm)	
Aluminum (ppm ⁶⁰ Severe ⁴⁰ Abnormal ²⁰ Copper (ppm) ²⁰⁰ Severe)		+b221/veW +b221/veW 20	Chromium (p Severe Silicon (ppm) Severe	pm)	
Aluminum (ppm ⁶⁰ Anormal ⁶⁰ Copper (ppm) ²⁰⁰ Anormal ²⁰⁰ Copper (ppm))		1 mdd 5021/JeW 20 mdd	Chromium (p	pm)	
Aluminum (ppm Aluminum (ppm ⁶⁰)		1 mdd 20 mdd 20 mdd	Chromium (p	pm)	
Aluminum (ppm Aluminum (ppm Anormal Copper (ppm) Abnormal)		1 mdd 5021/JeW 20 mdd	Chromium (p	pm)	
Aluminum (ppm Aluminum (ppm Aluminum (ppm Aluminum (ppm) Copper (ppm) Copper (ppm) Copper (ppm) Viscosity @ 40°			May12/24 May	Chromium (p	pm)	
Aluminum (ppm Aluminum (ppm ⁴⁰ ²⁰			+b221/leW 1 udd +b221/leW 20 udd 10 400	Chromium (p Chromium (p Severe Ahnomal Silicon (ppm) Silicon (ppm) Anomal CCR Ahnomal Ahnomal CCR Ahnomal Ahnom		
Aluminum (ppm Aluminum (ppm Abnomal Copper (ppm) Severe Copper (ppm) Severe Copper (ppm) Severe Copper (ppm) Severe Copper (ppm) Severe Copper (ppm) Copper			May12/24 May	Chromium (p Chromium (p Severe Ahnomal Silicon (ppm) Silicon (ppm) Anomal CCR Ahnomal Ahnomal CCR Ahnomal Ahnom	13	
Aluminum (ppm Aluminum (ppm bevere Abnormal Copper (ppm) Copper (ppm) Copper (ppm) Viscosity @ 40°0 Construction Copper (ppm) Copper			+2721/keW 1 und +2721/keW 20 und 400 und 200	Chromium (p Chromium (p Severe Abnomal Silicon (ppm) Severe Abnomal Cacum phosphore phosphore		
Aluminum (ppm Aluminum (ppm) Aluminum (ppm)			+7221/keW 1 wdd +7221/keW 20 wdd 400 wdd 200	Chromium (p Chromium (p Severe Abnormal Silicon (ppm) Severe Abnormal Chromium (p Severe Abnormal Calcium phosphon phosphon Severe Calcium	13	

To discuss this sample re Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. Validity of results and interpretation are based on the sample and information as supplied.

T: F: Submitted By: Jonas Araujo Page 2 of 2

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