

## **OIL ANALYSIS REPORT**

Sample Rating Trend





Component Hydraulic System Fluid AW HYDRAULIC OIL ISO 46 (--- GAL)

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

#### Wear

All component wear rates are normal.

#### Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

#### Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

				Jan2024		
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0108151		
Sample Date		Client Info		18 Jan 2024		
Machine Age	hrs	Client Info		13405		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		- Not Changd		
Sample Status				NORMAL		
CONTAMINAT	ION	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG		
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	7		
Chromium	ppm	ASTM D5185m	>10	4		
Nickel	ppm		>10	0		
Titanium	ppm	ASTM D5185m	- 10	0		
Silver		ASTM D5185m		0		
	ppm		. 10	0		
Aluminum	ppm	ASTM D5185m	>10	-		
Lead	ppm	ASTM D5185m	>10	<1		
Copper	ppm	ASTM D5185m	>75	1		
Tin	ppm	ASTM D5185m	>10	0		
Vanadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	5	0		
Barium	ppm	ASTM D5185m	5	0		
Volybdenum	ppm	ASTM D5185m	5	0		
Vanganese	ppm	ASTM D5185m		<1		
Magnesium	ppm	ASTM D5185m	25	6		
Calcium	ppm	ASTM D5185m	200	82		
Phosphorus	ppm	ASTM D5185m	300	317		
Zinc	ppm	ASTM D5185m	370	404		
Sulfur	ppm	ASTM D5185m	2500	803		
CONTAMINAN	IS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	2		
Die alle une						
Soaium	ppm	ASTM D5185m		5		
	ppm ppm	ASTM D5185m ASTM D5185m	>20	5 1		
	ppm	ASTM D5185m	>20 limit/base			
Potassium FLUID CLEANL	ppm	ASTM D5185m		1		
Potassium FLUID CLEANL Particles >4µm	ppm	ASTM D5185m method	limit/base	1 current	 history1	 history2
Potassium FLUID CLEANL Particles >4µm Particles >6µm	ppm	ASTM D5185m method ASTM D7647	limit/base >5000	1 current 4147	 history1 	 history2 
Potassium FLUID CLEANL Particles >4µm Particles >6µm Particles >14µm	ppm	ASTM D5185m method ASTM D7647 ASTM D7647	limit/base >5000 >1300	1 current 4147 914	 history1 	 history2 
Potassium FLUID CLEANL Particles >4μm Particles >6μm Particles >14μm Particles >21μm	ppm	ASTM D5185m method ASTM D7647 ASTM D7647 ASTM D7647	limit/base >5000 >1300 >160	1 current 4147 914 30	 history1  	 history2  
Potassium FLUID CLEANL Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm	ppm	ASTM D5185m method ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	limit/base >5000 >1300 >160 >40	1 current 4147 914 30 6	 history1   	 history2  
Potassium FLUID CLEANL Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm Particles >71µm	ppm	ASTM D5185m method ASTM D7647 ASTM D7647 ASTM D7647	limit/base >5000 >1300 >160 >40 >10	1 current 4147 914 30 6 1	 history1   	 history2   
Sodium Potassium FLUID CLEANL Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm Particles >71µm Oil Cleanliness FLUID DEGRAD	ppm LINESS	ASTM D5185m method ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ISO 4406 (c)	limit/base >5000 >1300 >160 >40 >10 >3	1 current 4147 914 30 6 1 1 0	 history1    	 history2   
Potassium FLUID CLEANL Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm Particles >71µm Oil Cleanliness	ppm LINESS	ASTM D5185m method ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ISO 4406 (c)	limit/base >5000 >1300 >160 >40 >10 >3 >3 >19/17/14	1 current 4147 914 30 6 1 1 0 19/17/12	 history1       	 history2     

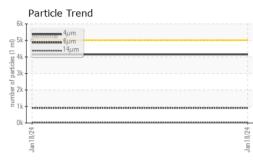
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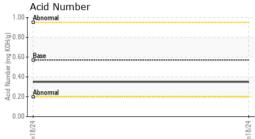
Contact/Location: BRYAN SWANSON - GFL837

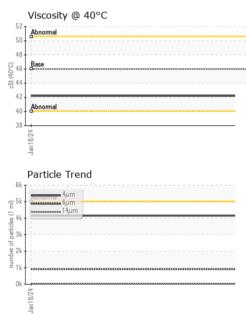


# **OIL ANALYSIS REPORT**

VISUAL







NONE White Metal \*Visual NONE scalar Yellow Metal \*Visual NONE NONE scalar NONE Precipitate scalar \*Visual NONE Silt scalar \*Visual NONE NONE Debris \*Visual NONE NONE scalar Sand/Dirt NONE NONE scalar \*Visual scalar NORML Appearance \*Visual NORML Odor \*Visual NORML NORML scalar **Emulsified Water** scalar \*Visual >0.1 NEG Free Water scalar \*Visual NEG **FLUID PROPERTIES** 42.2 Visc @ 40°C cSt ASTM D445 46 SAMPLE IMAGES Color no image no image Bottom no image no imade GRAPHS Ferrous Alloys Particle Count 491,52 122,88 30.72 7.68 ISC Jan 18/24 . (per 1 ml) 4406 1,920 :1999 Cle ŝ Non-ferrous Metals 480 120 14 30 n , ne 14 21µ 38 Viscosity @ 40°C Acid Number 55 1.00 (B/H0) 0.80 KOH Abn 50 (40°C) Ë 0.60 Ba 40 ŝ - <sup>20</sup> 0.40 Ab Acid Nu 0.20 35 0.00 Jan18/24 -Jan 18/24 Jan 1 GFL Environmental - 837 - Harrison TS Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. : GFL0108151 Recieved : 24 Jan 2024 22820 S State Route 291 Lab Number Diagnosed : 26 Jan 2024 Harrisonville, MO : 06069999 : 10846676 : Wes Davis US 64701 Unique Number Diagnostician Test Package : FLEET (Additional Tests: PrtCount) Contact: BRYAN SWANSON To discuss this sample report, contact Customer Service at 1-800-237-1369. bryanswanson@gflenv.com \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: F: Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Certificate L2367