

OIL ANALYSIS REPORT

Sample Rating Trend

ISO

Machine Id OE192 Component Hydraulic System Fluid NOT GIVEN (--- GAL)

DIAGNOSIS

Recommendation

The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is a light amount of silt (particulates < 14 microns in size) present in the oil.

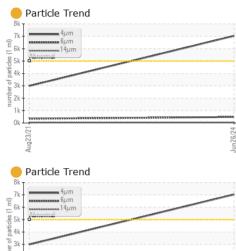
Fluid Condition

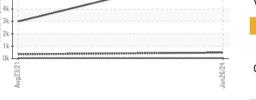
The condition of the oil is acceptable for the time in service.

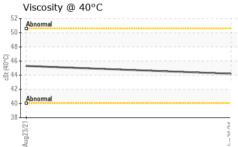
SAMPLE INFORM	NATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0124530	GFL0030463	
Sample Date		Client Info		26 Jun 2024	23 Aug 2021	
Machine Age	hrs	Client Info		1659	599	
Oil Age	hrs	Client Info		300	599	
Oil Changed		Client Info		Not Changd	Not Changd	
Sample Status				ATTENTION	NORMAL	
CONTAMINAT	ION	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	5	2	
Chromium	ppm	ASTM D5185(m)	>10	0	0	
Nickel	ppm	ASTM D5185(m)	>10	<1	<1	
Titanium	ppm	ASTM D5185(m)		0	0	
Silver	ppm	ASTM D5185(m)		0	0	
Aluminum	ppm	ASTM D5185(m)	>10	<1	0	
Lead	ppm	ASTM D5185(m)	>10	0	<1	
Copper	ppm	ASTM D5185(m)	>75	3	2	
Tin	ppm	ASTM D5185(m)	>10	0	0	
Antimony	ppm	ASTM D5185(m)		0	<1	
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
				carronte		,
Boron	ppm	ASTM D5185(m)		0	<1	
	ppm ppm					
Boron		ASTM D5185(m)		0	<1	
Boron Barium	ppm	ASTM D5185(m) ASTM D5185(m)		0 <1	<1	
Boron Barium Molybdenum	ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		0 <1 0	<1 0 <1	
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		0 <1 0 0	<1 0 <1 0	
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		0 <1 0 0 1	<1 0 <1 0 2	
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		0 <1 0 1 43	<1 0 <1 0 2 63	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		0 <1 0 1 43 483	<1 0 <1 0 2 63 590	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		0 <1 0 1 43 483 644	<1 0 <1 0 2 63 590 700	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	0 <1 0 1 43 483 644 1177 <1	<1 0 <1 0 2 63 590 700 1334	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		0 <1 0 1 43 483 644 1177 <1	<1 0 <1 0 2 63 590 700 1334 <1	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	0 <1 0 1 43 483 644 1177 <1 current	<1 0 <1 0 2 63 590 700 1334 <1 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m)	limit/base >20	0 <1 0 1 43 483 644 1177 <1 current 0	<1 0 <1 0 2 63 590 700 1334 <1 history1 <1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185(m) ASTM D5185(m)	limit/base >20	0 <1 0 1 43 483 644 1177 <1 current 0 <1 <1	<1 0 <1 0 2 63 590 700 1334 <1 history1 <1 <1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185(m) ASTM D5185(m)	limit/base >20 >20	0 <1 0 1 43 483 644 1177 <1 current 0 <1 <1	<1 0 <1 0 2 63 590 700 1334 <1 history1 <1 <1 <1 <1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185(m) ASTM D5185(m)	limit/base >20 >20 limit/base >5000	0 <1 0 1 43 483 644 1177 <1 <i>current</i> 0 <1 <1 <1 <i>current</i>	<1 0 <1 0 2 63 590 700 1334 <1 *1 *1 <1 <1 <1 <1 <1 <1 *1 *1 *1 *1 *1 *1	 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium FLUID CLEANL Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185(m) ASTM D5185(m)	limit/base >20 >20 limit/base >5000	0 <1 0 1 43 483 644 1177 <1 current 0 <1 <1 <1 current 0 7030	<1 0 <1 0 2 63 590 700 1334 <1 history1 <1 <1 <1 <1 <1 <1 2992	 history2 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium FLUID CLEANL Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185(m) ASTM D7647	limit/base >20 >20 limit/base >5000 >1300 >160	0 <1 0 1 43 483 644 1177 <1 current 0 <1 <1 current 0 7030 481	<1 0 <1 0 2 63 590 700 1334 <1 history1 <1 <1 <1 <1 <1 <1 2992 344	 history2 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium FLUID CLEANL Particles >4µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647	limit/base >20 >20 limit/base >5000 >1300 >160	0 <1 0 1 43 483 644 1177 <1 current 0 <1 <1 <1 current 7030 481 26	<1 0 <1 0 2 63 590 700 1334 <1 history1 <1 <1 <1 <1 <1 <1 <1 2992 344 35	 history2 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium FLUID CLEANL Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	limit/base >20 >20 >20 limit/base >5000 >1300 >160 >40 >10	0 <1 0 1 43 483 644 1177 <1 current 0 <1 <1 <1 current 0 <2 1 <1 2 0 481 26 9	<1 0 <1 0 2 63 590 700 1334 <1 history1 <1 <1 <1 <1 2992 344 35 12	 history2 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium FLUID CLEANL Particles >4µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	limit/base >20 >20 >20 limit/base >5000 >1300 >160 >40 >10	0 <1 0 1 43 483 644 1177 <1 current 0 <1 <1 <1 current 0 <1 <1 <1 2 6 9 1	<1 0 <1 0 2 63 590 700 1334 <1 1334 <1 1 1334 <1 1 1 21 2 1 2992 344 35 12 0	 history2 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium FLUID CLEANL Particles >4µm Particles >14µm Particles >38µm Particles >71µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	limit/base >20 >20 limit/base >20 limit/base >20 limit/base >5000 >1300 >160 >40 >10 >3	0 <1 0 1 43 483 644 1177 <1 current 0 <1 <1 <1 current 0 0 <1 <1 <1 current 0 1 1 1	<1 0 <1 0 2 63 590 700 1334 <1 1334 <1 1 <1 <1 <1 <1 2992 344 35 12 0 0 0</th <th> history2 history2 history2 </th>	 history2 history2 history2



OIL ANALYSIS REPORT







VISUAL		method	limit/base	current	history1	history2
White Metal	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	NONE	
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	
Appearance	scalar	Visual*	NORML	NORML	NORML	
Odor	scalar	Visual*	NORML	NORML	NORML	
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	
Free Water	scalar	Visual*		NEG	NEG	
FLUID PROPER	RTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)		44.2	45.3	
SAMPLE IMAG	ES	method	limit/base	current	history1	history2
Color						no image
Bottom						no image
GRAPHS						
Ferrous Alloys			491,520 122,880 30,720 7,680 1920 1920 1920 1920 1920 1920 1920 192	Severe		-26 -24 -22 -18 (50 406) -16 Gamine second -16 Gamine second -14 s
Non-ferrous Metals	;		pitted 480			-16 Clean
8 copper 6 4 2 0			30 			-14 eg -12 eg -10
Aug23/21			Jun26/24			
Viscosity @ 40°C			۳ ۲ 0	ί μ 6μ	14µ 21µ	38µ 71µ
55 50 - Abnormal 45 - Abnormal						
40 - Abnormal						
Aug23/21			Jun26/24 -			

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 720 - Lafleche - Landfill CALA Sample No. : GFL0124530 Received : 02 Jul 2024 17125 Lafleche Road, Lab Number : 02644921 Tested : 03 Jul 2024 Moose Creek, ON ISO 17025:2017 Accredited Laboratory Unique Number : 5802460 : 03 Jul 2024 - Wes Davis CA KOC 1W0 Diagnosed Test Package : MOB 1 (Additional Tests: PrtCount) Contact: Charles Bergeron To discuss this sample report, contact Customer Service at 1-800-268-2131. cbergeron@gflenv.com T: (613)538-4853 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. F:

Report Id: GFL720 [WCAMIS] 02644921 (Generated: 07/03/2024 09:52:36) Rev: 1

Submitted By: Charles Bergeron Page 2 of 2