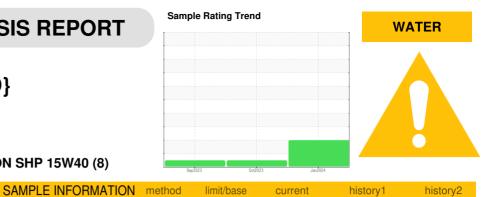


OIL ANALYSIS REPORT





DIAGNOSIS

A Recommendation

We advise that you check for the source of water entry. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is a light concentration of water present in the oil. Moderate concentration of visible dirt/debris present in the oil.

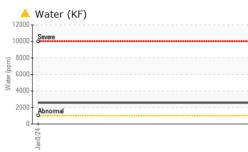
Fluid Condition

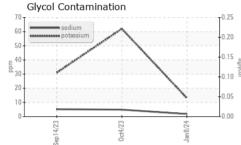
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

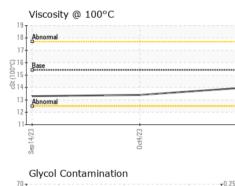
	-					
Sample Number		Client Info		GFL0107262	GFL0097885	GFL0094335
Sample Date		Client Info		08 Jan 2024	04 Oct 2023	14 Sep 2023
Machine Age	hrs	Client Info		746	293	147
Oil Age	hrs	Client Info		153	293	147
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				ABNORMAL	NORMAL	NORMAL
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	15	44	37
Chromium	ppm	ASTM D5185m	>4	<1	0	<1
Nickel	ppm	ASTM D5185m	>2	<1	0	<1
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>9	6	16	8
Lead	ppm	ASTM D5185m	>30	<1	0	<1
Copper	ppm	ASTM D5185m	>35	3	16	16
Tin	ppm	ASTM D5185m	>4	1	0	<1
Vanadium	ppm	ASTM D5185m		<1	0	<1
Cadmium	ppm	ASTM D5185m		<1	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	14	35
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	59	47	47
Manganese	ppm	ASTM D5185m	0	2	12	13
Magnesium	ppm	ASTM D5185m	1010	934	691	757
Calcium	ppm	ASTM D5185m	1070	1022	967	1103
Phosphorus	ppm	ASTM D5185m	1150	1000	682	761
Zinc	ppm	ASTM D5185m	1270		829	881
o 1/	ppiii		1210	1260	029	001
Sultur	ppm	ASTM D5185m	2060	1260 2981	2206	3054
Sulfur CONTAMINAN	ppm					
CONTAMINAN	ppm	ASTM D5185m	2060	2981	2206	3054
CONTAMINAN Silicon	ppm ITS	ASTM D5185m method	2060 limit/base	2981 current	2206 history1	3054 history2
CONTAMINAN Silicon Sodium	ppm ITS ppm	ASTM D5185m method ASTM D5185m	2060 limit/base	2981 current 7	2206 history1 32	3054 history2 32
CONTAMINAN Silicon Sodium Potassium	ppm ITS ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m	2060 limit/base >+100 >20	2981 current 7 2	2206 history1 32 5	3054 history2 32 5
CONTAMINAN Silicon Sodium Potassium Water	ppm ITS ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m	2060 limit/base >+100 >20	2981 current 7 2 13	2206 history1 32 5 62	3054 history2 32 5 31
CONTAMINAN Silicon Sodium Potassium Water	ppm JTS ppm ppm ppm %	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304	2060 limit/base >+100 >20 >0.1	2981 current 7 2 13 ▲ 0.256	2206 history1 32 5 62 	3054 history2 32 5 31
CONTAMINAN Silicon Sodium Potassium Water ppm Water INFRA-RED	ppm JTS ppm ppm ppm %	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304	2060 limit/base >+100 >20 >0.1 >1000	2981 current 7 2 13 ▲ 0.256 ▲ 2560	2206 history1 32 5 62 	3054 history2 32 5 31
CONTAMINAN Silicon Sodium Potassium Water ppm Water INFRA-RED Soot %	ppm JTS ppm ppm ppm % ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 method	2060 limit/base >+100 >20 >0.1 >1000 limit/base	2981 current 7 2 13 ▲ 0.256 ▲ 2560 current	2206 history1 32 5 62 history1	3054 history2 32 5 31 history2
CONTAMINAN Silicon Sodium Potassium Water ppm Water INFRA-RED Soot % Nitration	ppm JTS ppm ppm ppm % ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 Method *ASTM D7844	2060 limit/base >+100 >20 >0.1 >1000 limit/base	2981 current 7 2 13 ▲ 0.256 ▲ 2560 current 0	2206 history1 32 5 62 history1 0	3054 history2 32 5 31 history2 0.1
CONTAMINAN Silicon Sodium Potassium Water opm Water INFRA-RED Soot % Nitration	ppm JTS ppm ppm ppm % ppm % Abs/cm Abs/.1mm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 *ASTM D7844 *ASTM D7844 *ASTM D7415	2060 limit/base >+100 >20 >0.1 >1000 limit/base	2981 current 7 2 13 ▲ 0.256 ▲ 2560 current 0 7.7	2206 history1 32 5 62 history1 0 10.1	3054 history2 32 5 31 history2 0.1 8.3
Silicon Sodium Potassium Water ppm Water INFRA-RED Soot % Nitration Sulfation	ppm JTS ppm ppm ppm % ppm % Abs/cm Abs/.1mm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 *ASTM D7844 *ASTM D7844 *ASTM D7415	2060 limit/base >+100 >20 >0.1 >1000 limit/base >20 >30	2981 current 7 2 13 ▲ 0.256 ▲ 2560 current 0 7.7 18.2	2206 history1 32 5 62 history1 0 10.1 26.0	3054 history2 32 5 31 history2 0.1 8.3 25.8

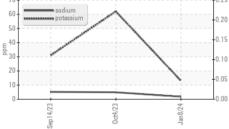


OIL ANALYSIS REPORT









		method	limit/base	current	history1	history
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE		NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	0.2%	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPE	ERTIES	method	limit/base	current	history1	history
Visc @ 100°C	cSt	ASTM D445	15.4	14.0	13.4	13.3
GRAPHS						
Ferrous Alloys						
iron						
And the second s						
5 - nickel						
10						
15						
15 - 10 -						
5						
0						
5-						
0						
0	t4/23		18/24			
1	0ct4/23		Jan 8/24			
Sep 14/23			Jan8/24 👼			
EZ/HIdds Non-ferrous Meta			Jan 8/24			
Non-ferrous Meta			Jan8/24 🚰			
Non-ferrous Meta			Jan8/24 👼			
Non-ferrous Meta			Jan 8/24 👼 💼			
Non-ferrous Meta			Jan8/24			
Non-ferrous Meta			Jan8/24			
Non-ferrous Meta			Jan8/24			
Non-ferrous Meta			Jan8/24			
Non-ferrous Meta			Jan8/24			
Non-ferrous Meta						
Non-ferrous Meta						
Non-ferrous Meta	als					
Non-ferrous Meta	als					
Non-ferrous Meta	alls C2(through the second sec					
Non-ferrous Meta	alls C2(4)00			Base Number	r	
Non-ferrous Meta	alls C2(4)00		Jan8/24	Base Number	r	
Non-ferrous Meta	alls C2(4)00		Jan8/24	Base Number	r	
Non-ferrous Meta	alls C2(4)00		10	.0 Base	r	
Non-ferrous Meta	alls C2(4)00		10	.0 Base	r	
Non-ferrous Meta	alls C2(4)00		10	.0 Base	r	
Non-ferrous Meta	alls C2(4)00		10	.0 - Base	r	
Non-ferrous Meta	alls C2(4)00		10	.0 - Base	r	
Non-ferrous Meta	alls C2(4)00		10	.0 - Base	r	
Non-ferrous Meta	alls C2(4)00		ase Mumber (mg K0H(g) 9 8 10 10 10 10 10 10 10 10 10 10	.0 - Base	r	
Non-ferrous Meta	alls C2(4)00		ase Mumber (mg K0H(g) 9 8 10 10 10 10 10 10 10 10 10 10	0 = Base 0 = 0 = 0 = 0 = 0 = 0 = 0 = 0 = 0 = 0 =	r	
Non-ferrous Meta	nls EC the second secon		10 +2/3 mper (Market	0 - Base 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 -		
Non-ferrous Meta	alls C2(4)00		10 6 8 6 10 10 10 10 10 10 10 10 10 10	0 - Base 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 -	r	

Sep14/23 Sep14/23 : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Laboratory Sample No. : GFL0107262 Recieved : 11 Jan 2024 Lab Number : 06057856 Diagnosed : 15 Jan 2024 Unique Number : 10829238 Diagnostician : Jonathan Hester Test Package : FLEET (Additional Tests: Glycol, KF) Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

GFL Environmental - 010 - Stockbridge 1280 Rum Creek Parkway Stockbridge, GA US 30281 Contact: JOSHUA TINKER joshuatinker@gflenv.com T: F:



Submitted By: JOSHUA TINKER

Page 2 of 2