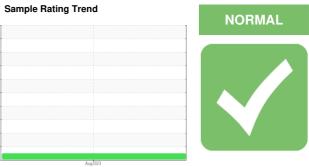


OIL ANALYSIS REPORT





DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Metal levels are typical for a new component breaking in.

Contamination

There is no indication of any contamination in the oil.

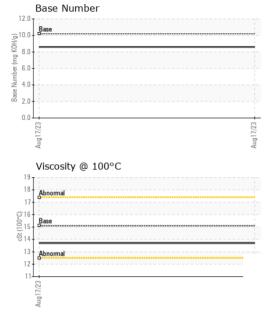
Fluid Condition

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 GFL0090640	CEO I D 15W40 /	CALV					
Sample Number Client Info GFL0090640	GEO LD 15W40 (-	GAL)			Aug2023		
Client Info	SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Machine Age	Sample Number		Client Info		GFL0090640		
Dil Age	Sample Date		Client Info		17 Aug 2023		
Coli Changed Client Info Not Changd Colimate	Machine Age	hrs	Client Info		499		
NORMAL	Oil Age	hrs	Client Info		0		
WEAR METALS method limit/base current history1 history2 ron ppm ASTM D5185m >50 36	Oil Changed		Client Info		Not Changd		
Part	Sample Status				NORMAL		
Chromium	WEAR METAL	S	method	limit/base	current	history1	history2
Strickel	ron	ppm	ASTM D5185m	>50	36		
ASTM D5185m >5 0	Chromium	ppm	ASTM D5185m	>5	<1		
Silver	Nickel	ppm	ASTM D5185m	>4	<1		
Silver	itanium			>5	0		
Astrophysical Research Astrophysical Resea					<1		
December December	Aluminum			>25			
Description							
Academium					-		
Vanadium ppm ASTM D5185m 0 Cadmium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 Boron ppm ASTM D5185m 50 39 Barium ppm ASTM D5185m 5 <1 Wolybdenum ppm ASTM D5185m 50 50 Manganese ppm ASTM D5185m 50 843 Magnesium ppm ASTM D5185m 560 843 Calcium ppm ASTM D5185m 780 810 Phosphorus ppm ASTM D5185m 870 958 Zinc ppm ASTM D5185m 2040 3063 CONTAMINANTS method limit/base current history1 history2	• •				_		
ADDITIVES							
Soron ppm ASTM D5185m 50 39							
Sarium	ADDITIVES		method	limit/base	current	history1	history2
Sarium	Boron	ppm	ASTM D5185m	50	39		
Molybdenum ppm ASTM D5185m 50 50 Manganese ppm ASTM D5185m 0 13 Magnesium ppm ASTM D5185m 560 843 Calcium ppm ASTM D5185m 560 843 Phosphorus ppm ASTM D5185m 780 810 Phosphorus ppm ASTM D5185m 870 958 Zinc ppm ASTM D5185m 2040 3063 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 34 Godium ppm ASTM D5185m 5 Potassium ppm ASTM D5185m 5 Potassium ppm ASTM D5185m 0	Barium		ASTM D5185m	5	<1		
Manganese ppm ASTM D5185m 0 13 Magnesium ppm ASTM D5185m 560 843 Calcium ppm ASTM D5185m 1510 1310 Phosphorus ppm ASTM D5185m 780 810 Zinc ppm ASTM D5185m 870 958 Sulfur ppm ASTM D5185m 2040 3063 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 34 Godium ppm ASTM D5185m 5 Potassium ppm ASTM D5185m >20 2 Potassium ppm ASTM D5185m >0 Potassium ppm ASTM D5185m >0	Molvbdenum			50	50		
Magnesium ppm ASTM D5185m 560 843 Calcium ppm ASTM D5185m 1510 1310 Phosphorus ppm ASTM D5185m 780 810 Zinc ppm ASTM D5185m 870 958 Sulfur ppm ASTM D5185m 2040 3063 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 34 Godium ppm ASTM D5185m 5 Potassium ppm ASTM D5185m >20 2 Potassium ppm ASTM D5185m >20 2 Potassium ppm ASTM D5185m >20 2 Soot % % *ASTM D7844 0	-			0	13		
Description	•			560	843		
Phosphorus ppm ASTM D5185m 780 810 Zinc ppm ASTM D5185m 870 958 Sulfur ppm ASTM D5185m 2040 3063 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 34 Godium ppm ASTM D5185m 5 Potassium ppm ASTM D5185m >20 2 Potassium ppm ASTM D5185m >20 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 0 Silicon Abs/:1mm *ASTM D7415 >30 20.4 FLUID DEGRADATION method limit/base current history1 history2							
Soulfur ppm ASTM D5185m 870 958 Sulfur ppm ASTM D5185m 2040 3063 Sulfur ppm ASTM D5185m 2040 3063 Sulfucon ppm ASTM D5185m >25 34 Sodium ppm ASTM D5185m 5 Sodium ppm ASTM D5185m 5 Soulfum ppm ASTM D5185m >20 2 Soulfum 2000							
Sulfur ppm ASTM D5185m 2040 3063 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 34 Sodium ppm ASTM D5185m 5 Potassium ppm ASTM D5185m >20 2 INFRA-RED method limit/base current history1 history2 Goot % % *ASTM D7844 0 Solfation Abs/cm *ASTM D7624 >20 8.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 18.1							
Silicon ppm ASTM D5185m >25 34							
Sodium	CONTAMINAN	TS	method	limit/base	current	history1	history2
Sodium	Silicon	ppm	ASTM D5185m	>25	34		
Potassium ppm ASTM D5185m >20 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 0 Nitration Abs/cm *ASTM D7624 >20 8.6 Sulfation Abs/.1mm *ASTM D7415 >30 20.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 18.1							
Soot % % *ASTM D7844 0 Nitration Abs/cm *ASTM D7624 >20 8.6 Sulfation Abs/.1mm *ASTM D7415 >30 20.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 18.1				>20			
Nitration Abs/cm *ASTM D7624 >20 8.6 Sulfation Abs/.1mm *ASTM D7415 >30 20.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 18.1	INFRA-RED		method	limit/base	current	history1	history2
Sulfation Abs/.1mm *ASTM D7415 >30 20.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 18.1	Soot %	%	*ASTM D7844		0		
Sulfation Abs/.1mm *ASTM D7415 >30 20.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 18.1	Nitration	Abs/cm	*ASTM D7624	>20	8.6		
Oxidation	Sulfation						
	FLUID DEGRA	OATION	method	limit/base	current	history1	history2
	Oxidation	Abs/.1mm	*ASTM D7414	>25	18.1		
	Base Number (BN)						



OIL ANALYSIS REPORT

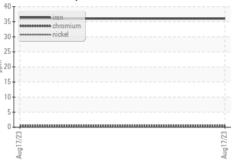


VISUAL		method	limit/base	current	history1	history2
VISUAL		memou	IIIIII/Dase	Current	HISTOLAL	HISTOLYZ
White Metal	scalar	*Visual	NONE	NONE		
Yellow Metal	scalar	*Visual	NONE	NONE		
Precipitate	scalar	*Visual	NONE	NONE		
Silt	scalar	*Visual	NONE	NONE		
Debris	scalar	*Visual	NONE	NONE		
Sand/Dirt	scalar	*Visual	NONE	NONE		
Appearance	scalar	*Visual	NORML	NORML		
Odor	scalar	*Visual	NORML	NORML		
Emulsified Water	scalar	*Visual	>0.1	NEG		
Free Water	scalar	*Visual		NEG		
	DTIEC	ام م ملاء م ما	li.ee it/le = = =		المستعددة	history.O
FLUID PROPE	RHES	method				history2

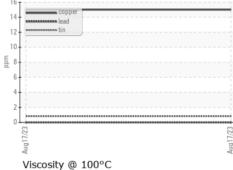
13.7

isc @ 100°C	cSt	ASTM D445	15.1

GRAPHS Ferrous Alloys

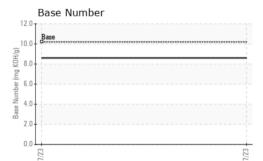














Certificate L2367

Laboratory Sample No. Lab Number Unique Number : 10619444

: GFL0090640 : 05934173 Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 24 Aug 2023 Diagnosed : 25 Aug 2023

Diagnostician : Wes Davis

GFL Environmental - 836 - Kansas City Hauling

7801 East Truman Road Kansas City, MO US 64126

Contact: Robert Hart rhart@gflenv.com T: (580)461-1509

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)