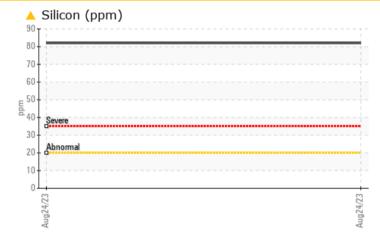


COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

PROBLEMATI	C TEST	RESULT	S		
Sample Status				ABNORMAL	
Silicon	ppm	ASTM D5185m	>20	<u> </u>	

Customer Id: GFL958A Sample No.: GFL0085362 Lab Number: 05940099 Test Package: FLEET



To discuss the diagnosis or test data: Sean Felton +1 919-379-4092 sfelton@wearcheckusa.com

To change component or sample information: Customer Service +1 1-800-237-1369 customerservice@wearcheck.com

RECOMMENDE	D ACTIONS			
Action	Status	Date	Done By	Description
Change Fluid			?	Oil and filter change at the time of sampling has been noted.
Change Filter			?	Oil and filter change at the time of sampling has been noted.
Check Dirt Access			?	We advise that you check the air filter, air induction system, and any areas where dirt may enter the component.

HISTORICAL DIAGNOSIS



OIL ANALYSIS REPORT

Sample Rating Trend

DIRT



Component Diesel Engine

PETRO CANADA DURON SHP 15W40 (--- GAL)

DIAGNOSIS

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

Metal levels are typical for a new component breaking in.

Contamination

Elemental level of silicon (Si) above normal indicating ingress of seal material.

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.

•	GAL)	-		Aug2023		
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0085362		
Sample Date		Client Info		24 Aug 2023		
Machine Age	hrs	Client Info		274		
Oil Age	hrs	Client Info		274		
Oil Changed		Client Info		Changed		
Sample Status				ABNORMAL		
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0		
Glycol		WC Method		NEG		
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>80	54		
Chromium	ppm	ASTM D5185m	>5	2		
Nickel	ppm	ASTM D5185m	>2	- <1		
Titanium	ppm	ASTM D5185m	_	<1		
Silver	ppm	ASTM D5185m	>3	0		
Aluminum	ppm	ASTM D5185m	>30	3		
Lead	ppm	ASTM D5185m	>30	0		
Copper	ppm	ASTM D5185m		4		
Tin	ppm	ASTM D5185m	>5	0		
Vanadium	ppm	ASTM D5185m	20	0		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	nnm	ASTM D5185m	0	0		
Barium	ppm ppm		0	0		
	ppm	AGTIVI DOTODITI		U		
Molybdonum	nnm	ACTM DE185m	60	56		
-	ppm	ASTM D5185m	60	56		
Molybdenum Manganese Magnosium	ppm	ASTM D5185m	0	1		
Manganese Magnesium	ppm ppm	ASTM D5185m ASTM D5185m	0 1010	1 884		
Manganese Magnesium Calcium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0 1010 1070	1 884 957		
Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 1010 1070 1150	1 884 957 919		
Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 1010 1070 1150 1270	1 884 957 919 1160		
Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 1010 1070 1150 1270 2060	1 884 957 919 1160 3156	 	
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	0 1010 1070 1150 1270 2060 limit/base	1 884 957 919 1160 3156 current		
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	0 1010 1070 1150 1270 2060 limit/base	1 884 957 919 1160 3156 current ▲ 82	 history1 	 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ITS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	0 1010 1070 1150 1270 2060 limit/base >20	1 884 957 919 1160 3156 <u>current</u> ▲ 82 4	 history1 	 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 1010 1070 1150 1270 2060 limit/base >20	1 884 957 919 1160 3156 current ▲ 82	 history1 	 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ITS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 1010 1070 1150 1270 2060 limit/base >20 >20 limit/base	1 884 957 919 1160 3156 current ▲ 82 4 <1 <1	 history1 	 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 1010 1070 1150 1270 2060 limit/base >20 limit/base >3	1 884 957 919 1160 3156 current ▲ 82 4 <1 current 0.7	 history1 	 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ITS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7844	0 1010 1070 1150 1270 2060 limit/base >20 limit/base >3 >20	1 884 957 919 1160 3156 current ▲ 82 4 <1 current 0.7 14.2	 history1 history1	 history2 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 1010 1070 1150 1270 2060 limit/base >20 limit/base >3 >20	1 884 957 919 1160 3156 current ▲ 82 4 <1 current 0.7	 history1 history1 history1	 history2 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7844 *ASTM D7844	0 1010 1070 1150 1270 2060 limit/base >20 limit/base >3 >20	1 884 957 919 1160 3156 current ▲ 82 4 <1 current 0.7 14.2	 history1 history1	 history2 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7844 *ASTM D7844	0 1010 1070 1150 1270 2060 imit/base >20 imit/base >3 >20 >30 imit/base	1 884 957 919 1160 3156 current ▲ 82 4 <1 current 0.7 14.2 28.9	 history1 history1 history1	 history2 history2



6.0

19 18

> 13 Abnorma 12

> > Aug24/23

Base

Viscosity @ 100°C

mbe 4.

Base

OIL ANALYSIS REPORT

scalar

scalar

scalar

method

*Visual

*Visual

*Visual

limit/base

NONE

NONE

NONE

current

NONE

NONE

NONE

history1

history2

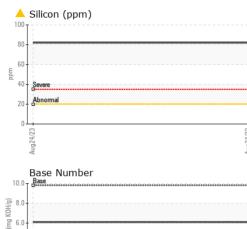
history2

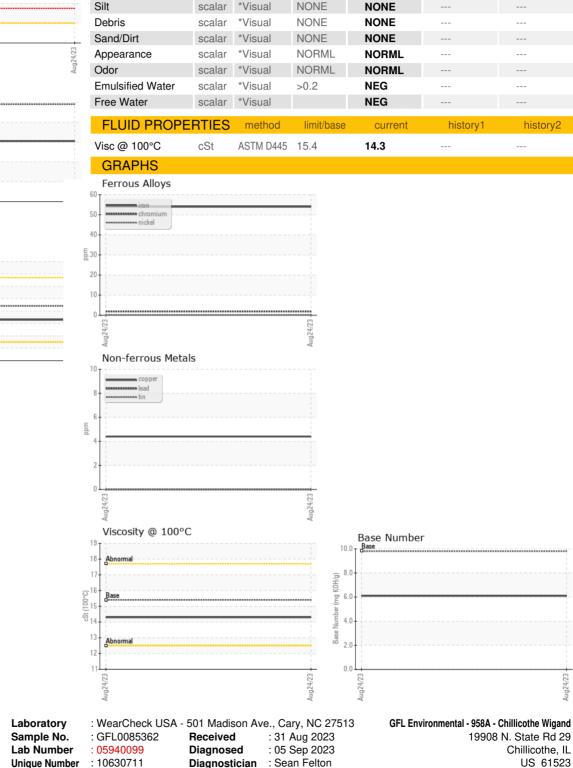
VISUAL

White Metal

Yellow Metal

Precipitate





Report Id: GFL958A [WUSCAR] 05940099 (Generated: 09/05/2023 17:17:15) Rev: 1

Test Package : FLEET 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) US 61523

T:

F:

Contact: Bryan Link

blink@gflenv.com