

OIL ANALYSIS REPORT









Machine Id
913124
Component
Diesel Engine
Fluid

PETRO CANADA DURON SHP 15W40 (28 GAL

DIAGNOSIS

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. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

Fuel content negligible. Elemental level of silicon (Si) above normal indicating ingress of dirt/seal material.

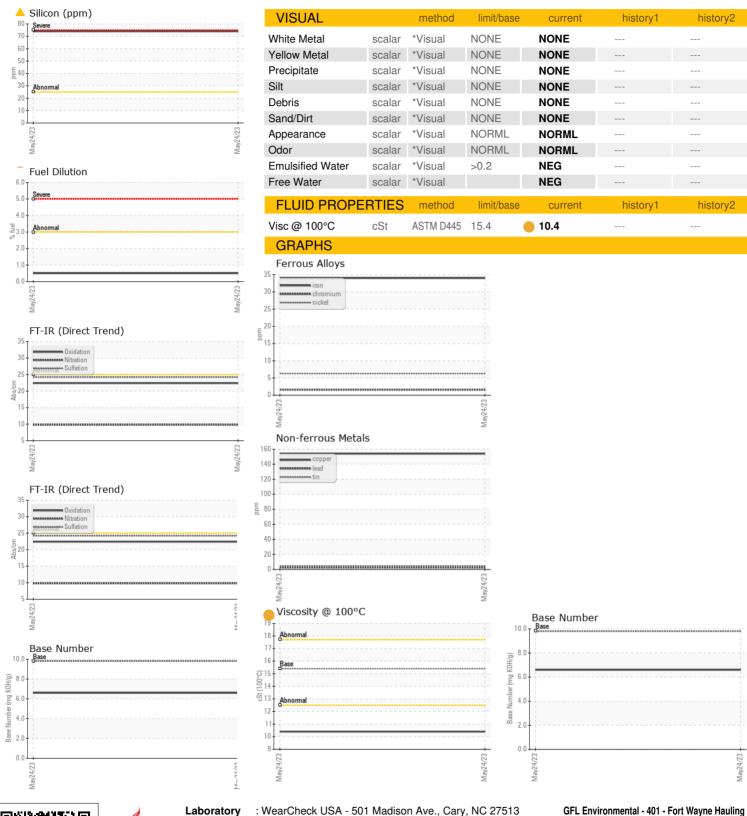
Fluid Condition

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

N SHP 15W40 (2	8 GAL)			May2023		
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0084017		
Sample Date		Client Info		24 May 2023		
Machine Age	hrs	Client Info		0		
Dil Age	hrs	Client Info		600		
Oil Changed	1110	Client Info		Changed		
Sample Status				ABNORMAL		
CONTAMINAT	ION	method	limit/base	current	history1	history2
Nater		WC Method	>0.2	NEG		
Glycol		WC Method		NEG		
WEAR METAL	.S	method	limit/base	current	history1	history2
ron	ppm	ASTM D5185m	>120	34		
Chromium	ppm	ASTM D5185m	>20	2		
Nickel	ppm	ASTM D5185m	>5	6		
Titanium	ppm	ASTM D5185m		<1		
Silver	ppm	ASTM D5185m	>2	1		
Aluminum	ppm	ASTM D5185m		4		
_ead		ASTM D5185m	>40	2		
	ppm		>330	154		
Copper Fin	ppm		>15	4		
	ppm	ASTM D5185m	>15	-		
/anadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	220		
Barium	ppm	ASTM D5185m	0	0		
Molybdenum	ppm	ASTM D5185m	60	121		
Manganese	ppm	ASTM D5185m	0	5		
Magnesium	ppm	ASTM D5185m	1010	794		
Calcium	ppm	ASTM D5185m	1070	1576		
Phosphorus	ppm	ASTM D5185m	1150	792		
Zinc	ppm	ASTM D5185m	1270	1013		
Sulfur	ppm	ASTM D5185m	2060	2751		
CONTAMINAN	ITS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<u>^</u> 74		
Sodium	ppm	ASTM D5185m		4		
Potassium	ppm	ASTM D5185m	>20	7		
-uel	%	ASTM D3524	>3.0	0.5		
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>4	0.4		
Nitration	Abs/cm	*ASTM D7624	>20	9.8		
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.2		
FLUID DEGRAI	DATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	22.4		
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	6.6		
Dasc Number (DIN)	my Normy	AUTIVI DZ000	0.0	0.0		



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Laboratory Sample No.

Lab Number : 05858945

: GFL0084017 Unique Number : 10493410

Received **Tested** Diagnosed

: 30 May 2023 : 31 May 2023

: 31 May 2023 - Don Baldridge Test Package: FLEET (Additional Tests: FuelDilution, PercentFuel)

US 46806 Contact: Stephanie Burton stephanieburton@gflenv.com T: (260)747-5037

4429 ALLEN MARTIN DR

FORT WAYNE, IN

Certificate 12367

To discuss this sample report, contact Customer Service at 1-800-237-1369. st - 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)