

## Machine Id 429054-402459 Component Diesel Engine Fluid PETRO CANADA DURON SHP 15W40 (--- LTR)

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		GFL0092594	GFL0092583	GFL0092555
	Sample Date		Client Info		23 Apr 2024	03 Jan 2024	27 Sep 2023
	Machine Age	hrs	Client Info		12659	12082	11562
	Oil Age	hrs	Client Info		600	600	600
	Filter Age	hrs	Client Info		600	600	600
	Oil Changed		Client Info		Changed	Changed	Changed
	Filter Changed		Client Info		Changed	Changed	Changed
	Sample Status				NORMAL	NORMAL	NORMAL
WEAR All component wear rates are normal.	Iron	ppm	ASTM D5185m	>110	3	8	13
	Chromium	ppm	ASTM D5185m	>4	0	<1	<1
	Nickel	ppm	ASTM D5185m	>2	0	<1	0
	Titanium	ppm	ASTM D5185m		0	0	0
	Silver	ppm	ASTM D5185m	>2	0	0	0
	Aluminum	ppm	ASTM D5185m	>25	<1	5	<1
	Lead	ppm	ASTM D5185m	>45	0	<1	2
	Copper	ppm	ASTM D5185m	>85	0	2	3
	Tin	ppm	ASTM D5185m	>4	<1	<1	<1
	Vanadium	ppm	ASTM D5185m		0	0	0
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTAMINATION	Silicon	ppm	ASTM D5185m	<b>\</b> 30	3	4	9
OONTAMINATION	Potassium	ppm	ASTM D5185m		2	2	4
There is no indication of any contamination in the oil.	Fuel	PPIII	WC Method		- <1.0	<1.0	<1.0
	Water		WC Method		NEG	NEG	NEG
	Glycol		WC Method	20.L	NEG	NEG	NEG
	Soot %	%	*ASTM D7844	>3	0.2	0.2	0.5
	Nitration	Abs/cm	*ASTM D7624	>20	5.5	6.9	9.2
	Sulfation	Abs/.1mm	*ASTM D7415		17.2	19.5	20.9
	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
	Debris	scalar	*Visual	NONE	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	>0.2	NEG	NEG	NEG
	0				•		
FLUID CONDITION	Sodium	ppm	ASTM D5185m	0	2	4	4
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Boron	ppm	ASTM D5185m		2	4	113
	Barium	ppm	ASTM D5185m		0	0	0
	Molybdenum	ppm	ASTM D5185m		48	59	73
	Manganese	ppm	ASTM D5185m		0	<1	1
	Magnesium	ppm	ASTM D5185m		808	856	920
	Calcium	ppm	ASTM D5185m		1231	1065	1430
	Phosphorus	ppm	ASTM D5185m		1034	991	1208
	Zinc	ppm	ASTM D5185m		1215	1210	1462
	Sulfur	ppm	ASTM D5185m		3546	3045	3570
	Oxidation	Abs/.1mm	*ASTM D7414		12.6	15.1	16.6
	Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.3	7.4	8.0

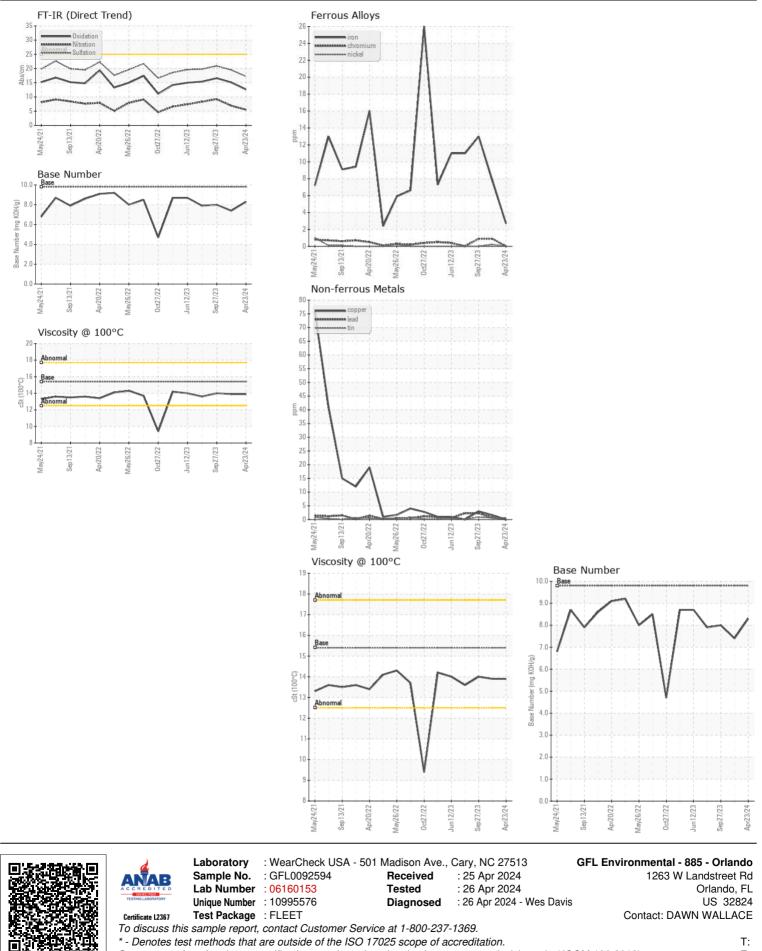
Visc @ 100°C cSt

ASTM D445 15.4

13.9

13.9

14.0



Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Submitted By: TIMOTHY MOURER Page 2 of 2

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