

Machine Id 429057-402462 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		GFL0092591	GFL0092566	GFL0071925
	Sample Date	la con	Client Info		24 Apr 2024	06 Dec 2023	11 Aug 2023
	Machine Age	hrs	Client Info		12162	11292	10533
	Oil Age	hrs	Client Info		600	600	600
	Filter Age	hrs	Client Info		600	600 Okaman	600
	Oil Changed		Client Info		Changed	Changed	Changed
	Filter Changed		Client Info		Changed	Changed	Changed
	Sample Status				NORMAL	NORMAL	NORMAL
WEAR	Iron	ppm	ASTM D5185m	>110	0	8	8
All component wear rates are normal.	Chromium	ppm	ASTM D5185m	>4	0	<1	<1
	Nickel	ppm	ASTM D5185m	>2	0	0	0
	Titanium	ppm	ASTM D5185m		0	0	<1
	Silver	ppm	ASTM D5185m	>2	0	0	0
	Aluminum	ppm	ASTM D5185m	>25	0	1	5
	Lead	ppm	ASTM D5185m	>45	0	<1	0
	Copper	ppm	ASTM D5185m	>85	0	<1	<1
	Tin	ppm	ASTM D5185m	>4	<1	0	0
	Vanadium	ppm	ASTM D5185m		0	<1	0
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTAMINATION	Silicon	ppm	ASTM D5185m	>30	2	5	2
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m	>20	0	0	19
	Fuel		WC Method	>5	<1.0	<1.0	<1.0
	Water		WC Method	>0.2	NEG	NEG	NEG
	Glycol		WC Method		NEG	NEG	NEG
	Soot %	%	*ASTM D7844	>3	0.1	0.3	0.6
	Nitration	Abs/cm	*ASTM D7624	>20	4.8	7.5	7.4
	Sulfation	Abs/.1mm	*ASTM D7415	>30	16.4	19.6	19.2
	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
FLUID CONDITION	Sodium	ppm	ASTM D5185m		<1	2	4
	Boron	ppm	ASTM D5185m	0	1	3	<1
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Barium	ppm	ASTM D5185m	0	0	0	0
	Molybdenum	ppm	ASTM D5185m	60	43	60	62
	Manganese	ppm	ASTM D5185m	0	0	<1	<1
	Magnesium	ppm	ASTM D5185m	1010	739	947	978
	Calcium	ppm	ASTM D5185m	1070	1319	1117	1218
	Phosphorus	ppm	ASTM D5185m	1150	1033	1082	1058
	Zinc	ppm	ASTM D5185m	1270	1195	1297	1343
	Sulfur	ppm	ASTM D5185m	2060	3613	3018	3975
	Oxidation	Abs/.1mm	*ASTM D7414	>25	11.7	15.5	14.5
	Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.4	8.0	8.1
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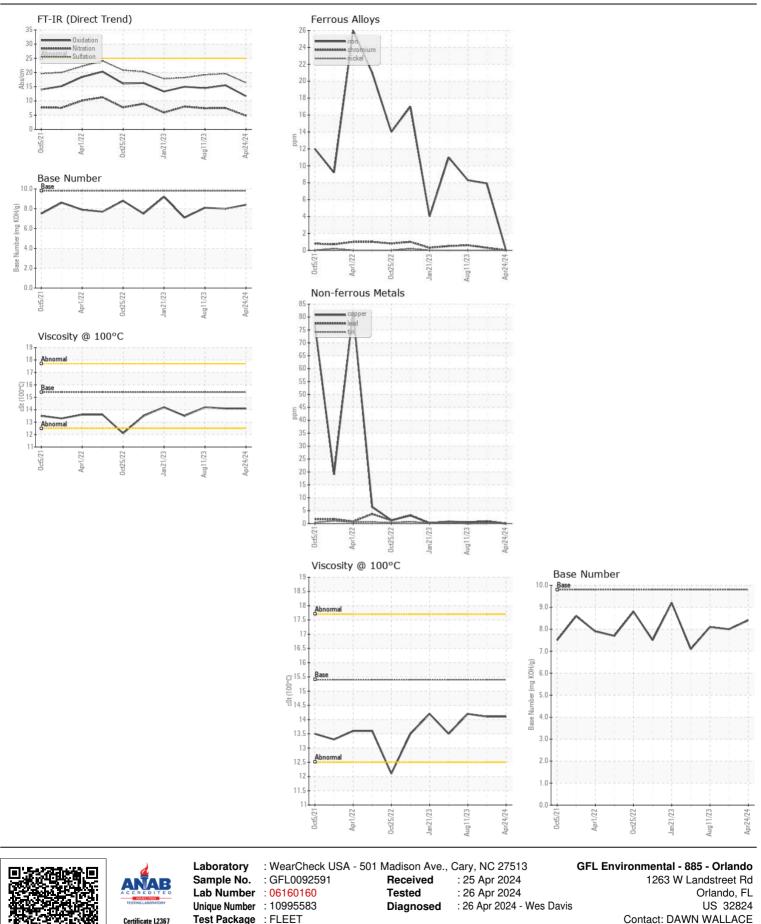
Visc @ 100°C cSt

ASTM D445 15.4

14.1

14.1

14.2



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)

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