

NORMAL WEAR CONTAMINATION NORMAL FLUID CONDITION NORMAL

Machine Id 97064 ponen Diesel Engine

PETRO CANADA DURON SHP 15W40 (10 GAL)

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number	00111	Client Info		SBP0006322	SBP0001877	SBP0001887
	Sample Date		Client Info		27 Mar 2024	16 Aug 2023	19 Apr 2023
	Machine Age	mls	Client Info		153630	131720	121037
	Oil Age	mls	Client Info		10388	10685	10000
	Filter Age	mls	Client Info		10388	10685	10000
	Oil Changed		Client Info		N/A	Changed	Changed
	Filter Changed		Client Info		N/A	N/A	Changed
	Sample Status				NORMAL	NORMAL	NORMAL
WEAR	Iron	ppm	ASTM D5185m	>100	22	26	25
All component wear rates are normal.	Chromium	ppm	ASTM D5185m	>20	<1	<1	1
	Nickel	ppm	ASTM D5185m		0	0	<1
	Titanium	ppm	ASTM D5185m	>2	0	<1	<1
	Silver	ppm	ASTM D5185m		0	0	0
	Aluminum	ppm	ASTM D5185m		5	7	6
	Lead	ppm	ASTM D5185m		0	0	0
	Copper	ppm	ASTM D5185m		<1	2	3
	Tin	ppm	ASTM D5185m		<1	<1	<1
	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	>25	5	6	5
	Potassium	ppm	ASTM D5185m		4	9	5
There is no indication of any contamination in the oil.	Fuel	pp	WC Method		<1.0	<1.0	<1.0
	Water		WC Method		NEG	NEG	NEG
	Glycol		WC Method		NEG	NEG	NEG
	Soot %	%	*ASTM D7844	>3	0.5	0.6	0.4
	Nitration	Abs/cm	*ASTM D7624	>20	9.8	9.2	8.7
	Sulfation	Abs/.1mm	*ASTM D7415		19.0	19.1	17.5
	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	NORMI
	Odor	scalar	*Visual	NORML	NORML	NORML	NORMI
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
FLUID CONDITION	Sodium	ppm	ASTM D5185m		5	6	5
	Boron	ppm	ASTM D5185m	0	2	0	3
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
	Molybdenum	ppm	ASTM D5185m		63	60	60
	Manganese	ppm	ASTM D5185m		<1	<1	<1
	Magnesium	ppm	ASTM D5185m		1072	991	1025
	Calcium	ppm	ASTM D5185m		1136	1130	1223
	Phosphorus	ppm	ASTM D5185m		1171	1012	1075
	Zinc	ppm	ASTM D5185m		1397	1267	1339
	Sulfur	ppm	ASTM D5185m		3786	3519	3536
	Oxidation	Abs/.1mm	*ASTM D7414		16.2	15.5	15.6
	Base Number (BN)				8.0	8.4	7.7
		5					

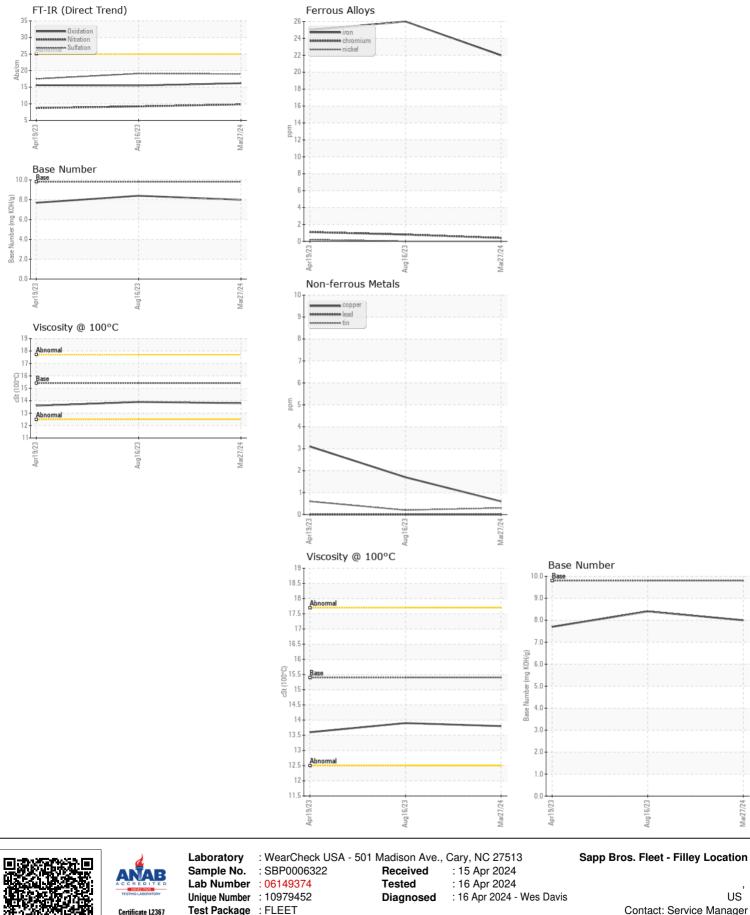
Visc @ 100°C cSt

ASTM D445 15.4

13.6

13.9

13.8



* - 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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