

WEARNORMALCONTAMINATIONNORMALFLUID CONDITIONNORMAL

FUEL Machine Id 333

Component Diesel Engine

PETRO CANADA DURON SHP 10W30 (--- GAL)

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		PCA0109986	PCA0066687	PCA80334058
	Sample Date		Client Info		16 Apr 2024	03 Mar 2023	30 Sep 2019
	Machine Age	mls	Client Info		207993	317612	317612
	Oil Age	mls	Client Info		6000	6000	
	Filter Age	mls	Client Info		6000	6000	
	Oil Changed		Client Info		Changed	Changed	N/A
	Filter Changed		Client Info		Changed	Changed	N/A
	Sample Status				NORMAL	NORMAL	SEVERE
WEAR	Iron	ppm	ASTM D5185m	>100	9	12	62
All component wear rates are normal.	Chromium	ppm	ASTM D5185m	>20	<1	<1	2
	Nickel	ppm	ASTM D5185m	>4	<1	0	0
	Titanium	ppm	ASTM D5185m		<1	<1	0
	Silver	ppm	ASTM D5185m	>3	0	0	1
	Aluminum	ppm	ASTM D5185m	>20	2	1	5
	Lead	ppm	ASTM D5185m		2	2	9
	Copper	ppm	ASTM D5185m	>330	<1	2	51
	Tin	ppm	ASTM D5185m	>15	<1	<1	1
	Vanadium	ppm	ASTM D5185m		0	<1	0
	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	7	5	10
	Potassium	ppm	ASTM D5185m	>20	3	<1	▲ 132
There is no indication of any contamination in the oil.	Fuel	1-1-	WC Method		<1.0	<1.0	<1.0
	Water		WC Method		NEG	NEG	NEG
	Glycol		WC Method		NEG	NEG	▲ 0.1
	Soot %	%	*ASTM D7844	>3	0.6	0.8	1.72
	Nitration	Abs/cm	*ASTM D7624	>20	9.9	12.0	
	Sulfation	Abs/.1mm	*ASTM D7415	>30	19.6	20.5	
	Silt	scalar	*Visual	NONE	NONE	NONE	
	Debris	scalar	*Visual	NONE	NONE	NONE	
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
	Appearance	scalar	*Visual	NORML	NORML	NORML	
	Odor	scalar	*Visual	NORML	NORML	NORML	
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	
FLUID CONDITION	Sodium	ppm	ASTM D5185m		13	4	1 01
	Boron	ppm	ASTM D5185m	2	10	8	18
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	1
	Molybdenum	ppm	ASTM D5185m		66	61	51
	Manganese	ppm	ASTM D5185m	0	<1	<1	
	Magnesium	ppm	ASTM D5185m	950	929	916	752
	Calcium	ppm	ASTM D5185m	1050	1097	1103	1369
	Phosphorus	ppm	ASTM D5185m		1035	944	1086
	Zinc	ppm	ASTM D5185m		1202	1212	1193
	Sulfur	ppm	ASTM D5185m	2600	3159	3288	
	Oxidation	Abs/.1mm	*ASTM D7414		17.7	18.8	
	Base Number (BN)				9.47	8.16	
		0	AOTHORIS	10.00		10 -	10.0

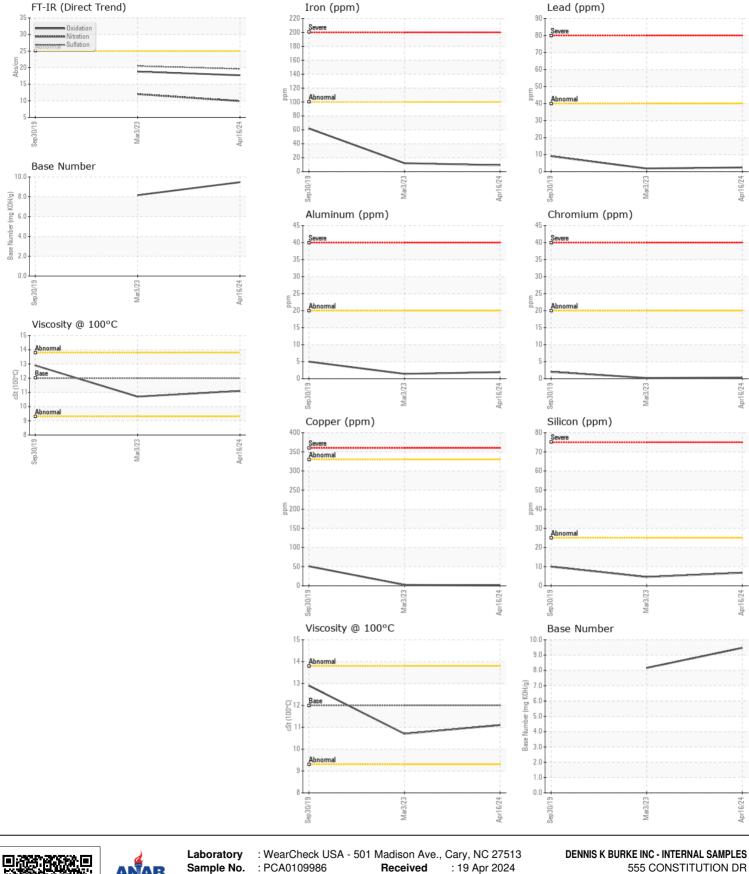
Visc @ 100°C cSt

ASTM D445 12.00

10.7

12.9

11.1



Sample No. Received : PCA0109986 : 19 Apr 2024 Lab Number : 06155255 : 22 Apr 2024 TAUNTON, MA Tested Unique Number : 10990678 : 22 Apr 2024 - Wes Davis Diagnosed Test Package : MOB 2 Contact: GREG DUNKER 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) F: (617)889-6422

Submitted By: JOHN MEDEIROS Page 2 of 2

US 02780

T: