



OIL ANALYSIS REPORT

Sample Rating Trend

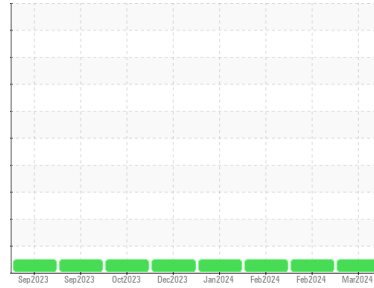
NORMAL



Area
BD SHOP
Machine Id
300180

Component
Diesel Engine
Fluid

PETRO CANADA DURON SHP 10W30 (40 LTR)



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			WC0888912	WC0888881	WC0888880
Sample Date	Client Info			16 Mar 2024	13 Feb 2024	12 Feb 2024
Machine Age	kms	Client Info		264742	250169	250168
Oil Age	kms	Client Info		14573	1	58702
Oil Changed	Client Info			Not Changed	Changed	Not Changed
Sample Status				NORMAL	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>5		<1.0	<1.0	<1.0
Water	WC Method	>0.2		NEG	NEG	NEG
Glycol	WC Method			NEG	NEG	0.0

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	10	4	30
Chromium	ppm	ASTM D5185(m)	>20	<1	0	1
Nickel	ppm	ASTM D5185(m)	>4	<1	0	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	6	3	19
Lead	ppm	ASTM D5185(m)	>40	<1	0	<1
Copper	ppm	ASTM D5185(m)	>330	2	<1	6
Tin	ppm	ASTM D5185(m)	>15	0	0	0
Antimony	ppm	ASTM D5185(m)		0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0

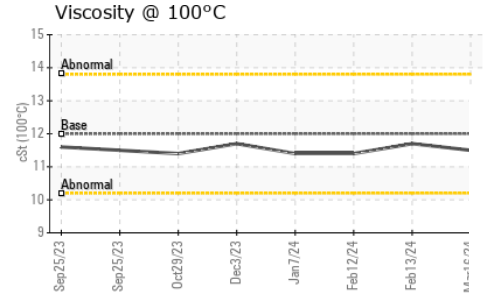
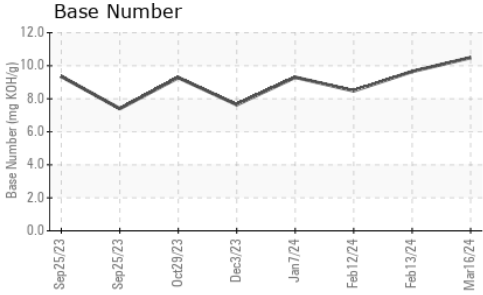
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	2	4	5	1
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	50	58	56	59
Manganese	ppm	ASTM D5185(m)	0	0	0	<1
Magnesium	ppm	ASTM D5185(m)	950	944	933	961
Calcium	ppm	ASTM D5185(m)	1050	1049	1018	1114
Phosphorus	ppm	ASTM D5185(m)	995	1005	990	967
Zinc	ppm	ASTM D5185(m)	1180	1133	1122	1166
Sulfur	ppm	ASTM D5185(m)	2600	2722	2757	2538
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	5	4	5
Sodium	ppm	ASTM D5185(m)		1	<1	2
Potassium	ppm	ASTM D5185(m)	>20	3	2	13

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	0.2	0	0.7
Nitration	Abs/cm	ASTM D7624*	>20	6.4	4.7	9.6
Nitration(Diff)	Abs/cm	ASTM E2412*		4.6	0.8	12.4
Sulfation	Abs.:1mm	ASTM D7415*	>30	18.6	18.1	21.4
Sulfation(Diff)	Abs/cm	ASTM E2412*		0.9	0	4.9



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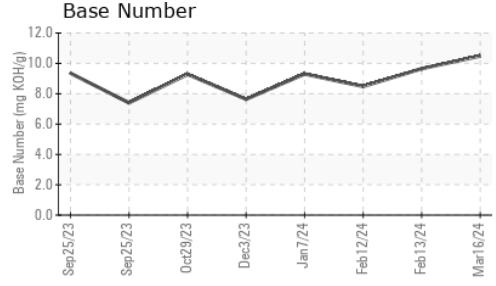
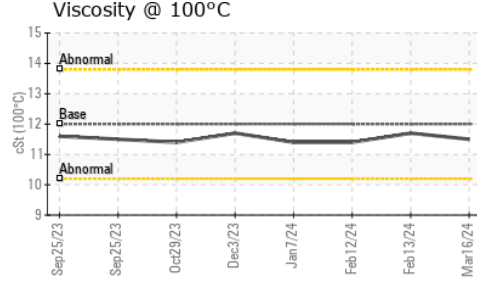
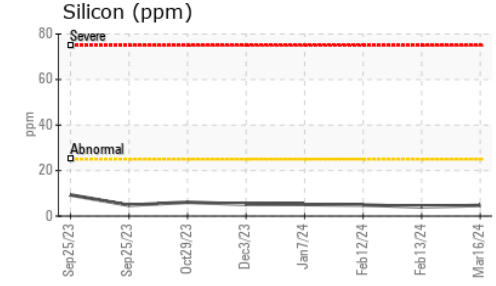
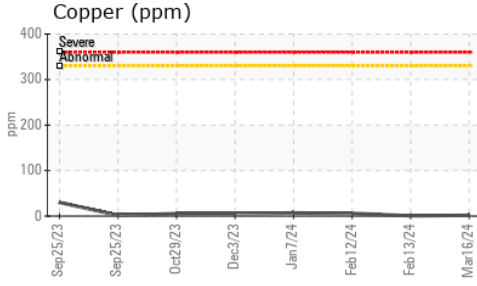
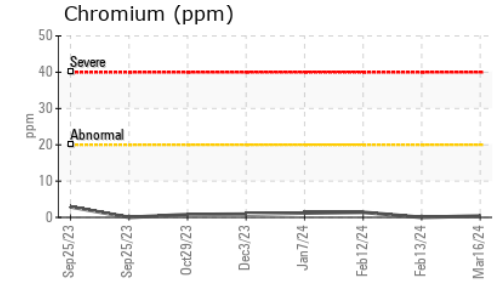
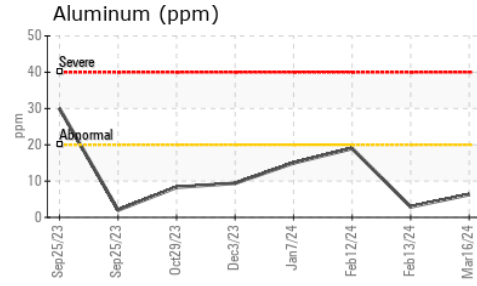
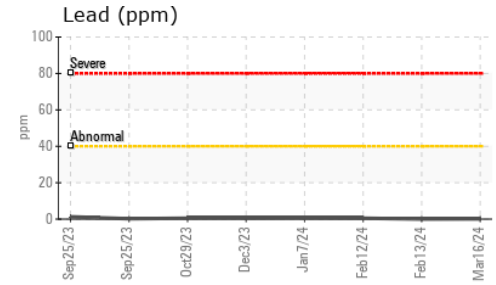
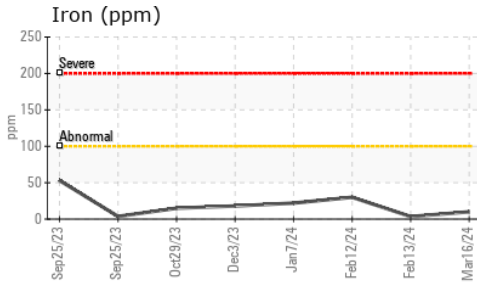


FLUID DEGRADATION	method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	14.3	13.1
Oxidation(Diff)	Abs/cm	ASTM E2412*		6.5	1.1
Base Number (BN)	mg KOH/g	ASTM D2896*		10.49	9.65

VISUAL	method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	12.00	11.5	11.7

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0888912 **Received** : 18 Mar 2024
Lab Number : 02622588 **Tested** : 18 Mar 2024
Unique Number : 5747707 **Diagnosed** : 19 Mar 2024 - Kevin Marson
Test Package : MOB 2 (Additional Tests: FT-IR(Diff))

WFR Technical Services
 5389 Riverside Drive
 Burlington, ON
 CA L7L 3Y1
 Contact: William Ridley
 wfr.technical.services@gmail.com

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.

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F: