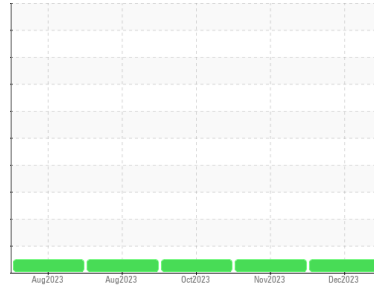




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
BD SHOP
 Machine Id
200287

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

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. 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		WC0864706	WC0864688	WC0852040
Sample Date	Client Info		10 Dec 2023	14 Nov 2023	01 Oct 2023
Machine Age	kms	Client Info	169693	151919	139746
Oil Age	kms	Client Info	47160	29386	17233
Oil Changed	Client Info		Not Changed	Not Changed	Not Changed
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<1.0	<1.0	<1.0
Water	WC Method	>0.2	NEG	NEG	NEG
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>200	24	19	16
Chromium	ppm	ASTM D5185(m)	>6	1	1	1
Nickel	ppm	ASTM D5185(m)	>3	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	<1	<1	<1
Aluminum	ppm	ASTM D5185(m)	>50	9	8	7
Lead	ppm	ASTM D5185(m)	>10	3	2	2
Copper	ppm	ASTM D5185(m)	>50	100	99	74
Tin	ppm	ASTM D5185(m)	>6	<1	0	<1
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	4	4
Barium	ppm	ASTM D5185(m)	0	<1	<1	<1
Molybdenum	ppm	ASTM D5185(m)	50	61	58	63
Manganese	ppm	ASTM D5185(m)	0	<1	0	0
Magnesium	ppm	ASTM D5185(m)	950	967	949	996
Calcium	ppm	ASTM D5185(m)	1050	1114	1076	1119
Phosphorus	ppm	ASTM D5185(m)	995	958	974	1027
Zinc	ppm	ASTM D5185(m)	1180	1193	1158	1235
Sulfur	ppm	ASTM D5185(m)	2600	2022	2075	2401
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

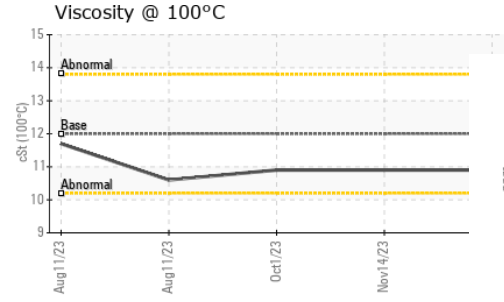
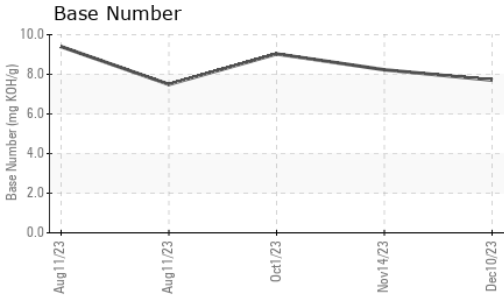
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>50	4	4	4
Sodium	ppm	ASTM D5185(m)		2	2	2
Potassium	ppm	ASTM D5185(m)	>20	21	19	17

INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	0.6	0.4	0.3
Nitration	Abs/cm	ASTM D7624*	>20	8.2	7.8	6.6
Sulfation	Abs./1mm	ASTM D7415*	>30	20.5	20.4	19.7



OIL ANALYSIS REPORT

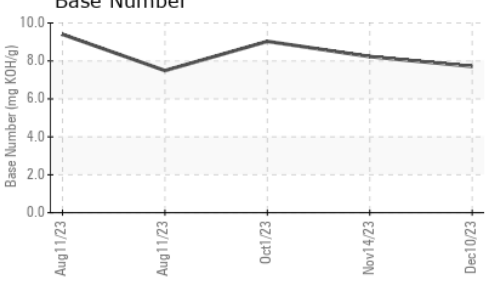
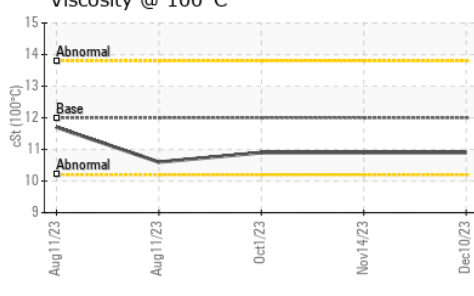
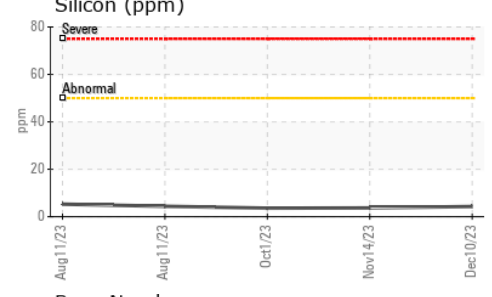
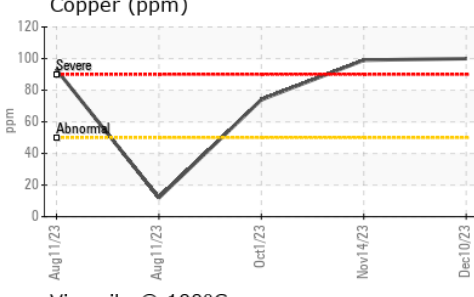
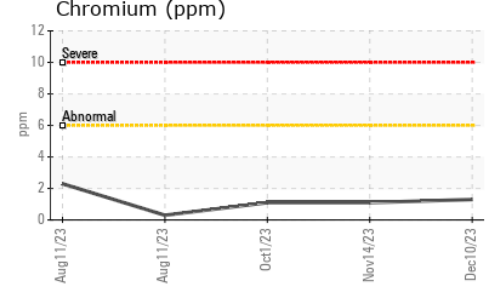
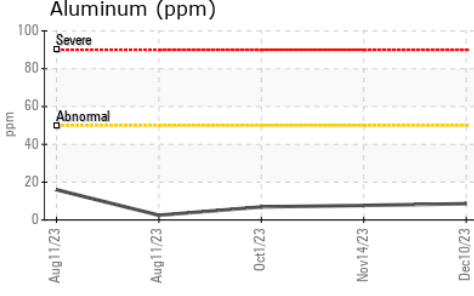
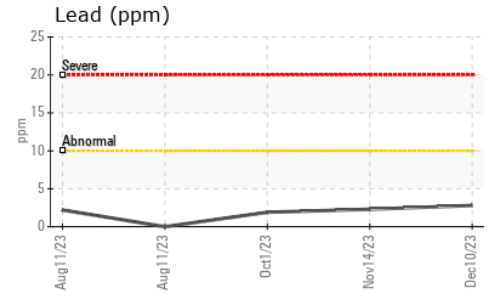
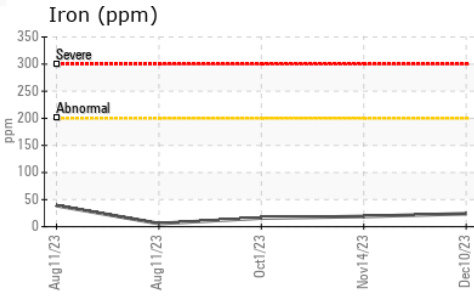


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	16.8	16.1	14.8
Base Number (BN)	mg KOH/g	ASTM D2896*		7.71	8.23	9.03

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

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	12.00	10.9	10.9	10.9

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0864706 **Received** : 11 Dec 2023
Lab Number : 02602220 **Diagnosed** : 14 Dec 2023
Unique Number : 5695305 **Diagnostician** : Wes Davis
Test Package : MOB 2

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

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.