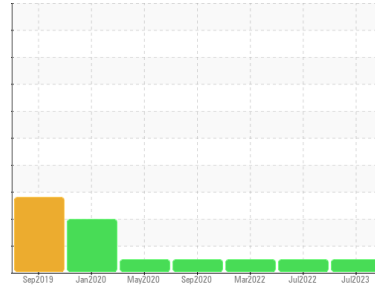


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
406356
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 10W30 (--- QTS)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

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			PCA0083827	PCA0071750	PCA0061086
Sample Date	Client Info			16 Jul 2023	26 Jul 2022	16 Mar 2022
Machine Age	mls	Client Info		225528	169113	148828
Oil Age	mls	Client Info		56415	51058	30773
Oil Changed	Client Info			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
Glycol	WC Method			NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	68	70	55
Chromium	ppm	ASTM D5185m	>20	4	7	6
Nickel	ppm	ASTM D5185m	>4	<1	0	0
Titanium	ppm	ASTM D5185m		48	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>20	29	43	33
Lead	ppm	ASTM D5185m	>40	<1	<1	<1
Copper	ppm	ASTM D5185m	>330	16	38	35
Tin	ppm	ASTM D5185m	>15	2	2	2
Antimony	ppm	ASTM D5185m		---	---	---
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		<1	0	0

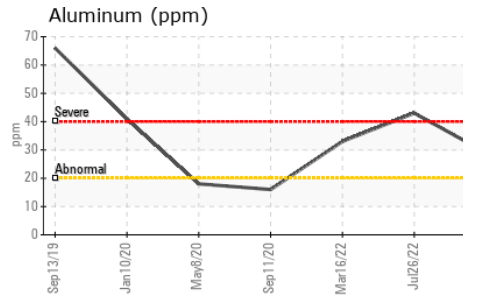
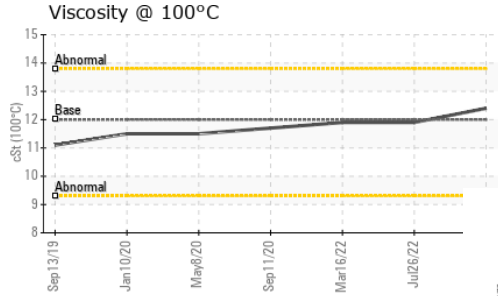
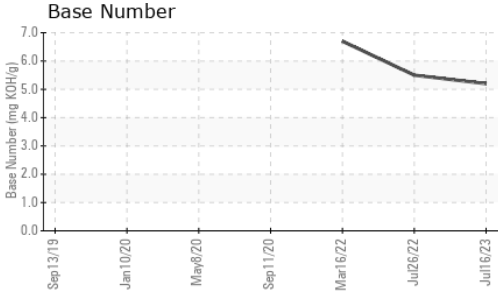
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	10	4	3
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	50	30	59	61
Manganese	ppm	ASTM D5185m	0	1	2	1
Magnesium	ppm	ASTM D5185m	950	616	917	957
Calcium	ppm	ASTM D5185m	1050	1482	1101	1120
Phosphorus	ppm	ASTM D5185m	995	960	912	976
Zinc	ppm	ASTM D5185m	1180	1209	1200	1291
Sulfur	ppm	ASTM D5185m	2600	2978	2205	2146

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	8	7	6
Sodium	ppm	ASTM D5185m		6	6	3
Potassium	ppm	ASTM D5185m	>20	33	60	54

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	2.2	2.4	1.6
Nitration	Abs/cm	*ASTM D7624	>20	12.7	15.5	13.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	28.3	30.7	26.3

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.9	24.5	20.6
Base Number (BN)	mg KOH/g	ASTM D2896		5.2	5.5	6.7

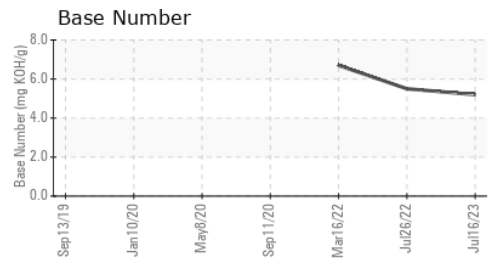
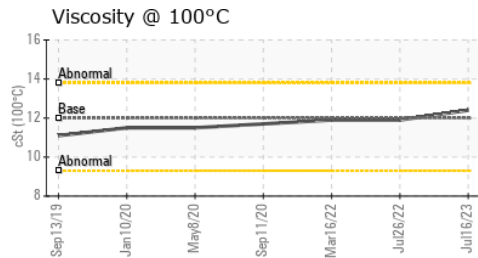
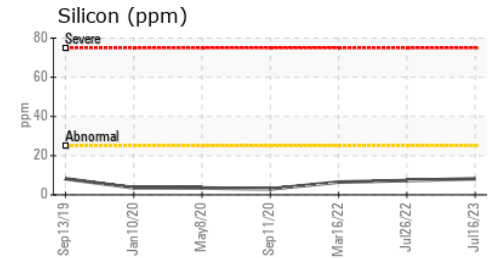
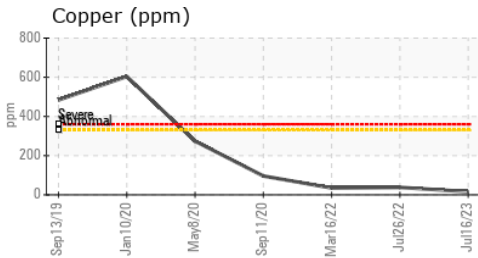
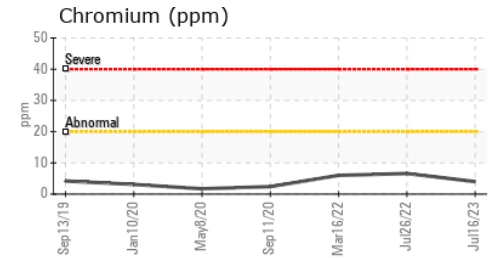
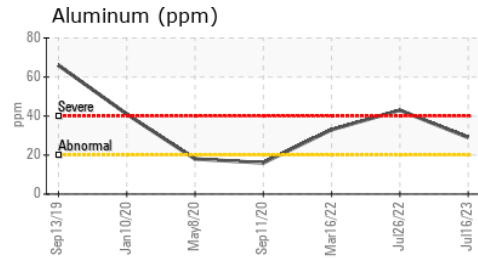
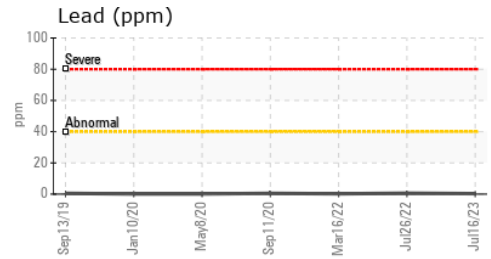
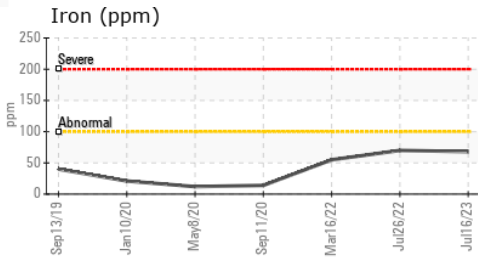
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
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
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	12.00	12.4	11.9

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0083827 **Received** : 20 Oct 2023
Lab Number : 05984533 **Diagnosed** : 23 Oct 2023
Unique Number : 10701828 **Diagnostician** : Sean Felton
Test Package : MOB 1 (Additional Tests: TBN)

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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