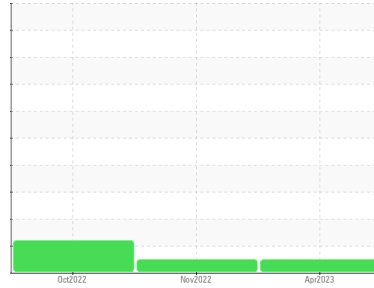


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
D-21
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON HP 15W40 (--- LTR)

DIAGNOSIS

Recommendation

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

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		PCA0094323	PCA0083716	PCA0066208
Sample Date	Client Info		20 Apr 2023	25 Nov 2022	03 Oct 2022
Machine Age	hrs	Client Info	12994	11937	11375
Oil Age	hrs	Client Info	500	500	1000
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			NORMAL	NORMAL	ATTENTION

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<1.0	<1.0	▲ 2.0
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	19	12	26
Chromium	ppm	ASTM D5185m >20	<1	<1	2
Nickel	ppm	ASTM D5185m >4	<1	<1	0
Titanium	ppm	ASTM D5185m	0	<1	<1
Silver	ppm	ASTM D5185m >3	0	0	0
Aluminum	ppm	ASTM D5185m >20	1	1	5
Lead	ppm	ASTM D5185m >40	1	5	14
Copper	ppm	ASTM D5185m >330	5	5	6
Tin	ppm	ASTM D5185m >15	<1	1	2
Vanadium	ppm	ASTM D5185m	0	0	<1
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	8	9	38
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	58	52	3
Manganese	ppm	ASTM D5185m	<1	<1	2
Magnesium	ppm	ASTM D5185m	954	851	22
Calcium	ppm	ASTM D5185m	1101	1206	2161
Phosphorus	ppm	ASTM D5185m	1051	946	794
Zinc	ppm	ASTM D5185m	1289	1192	1014
Sulfur	ppm	ASTM D5185m	3798	3443	3588

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	4	5	14
Sodium	ppm	ASTM D5185m	12	28	44
Potassium	ppm	ASTM D5185m >20	2	4	8

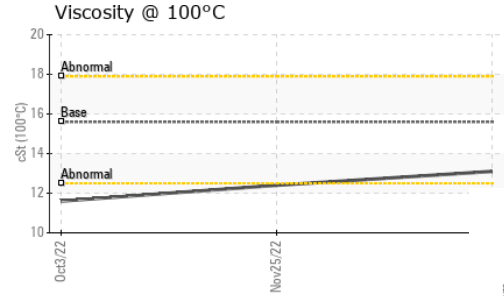
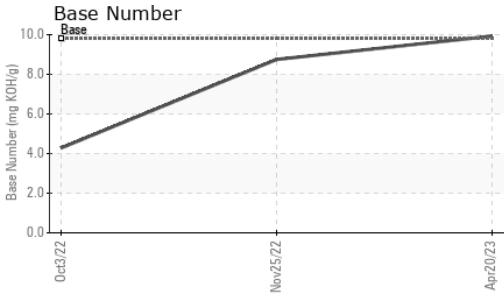
INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.3	0.3	0.5
Nitration	Abs/cm	*ASTM D7624 >20	8.8	9.7	14.0
Sulfation	Abs/.1mm	*ASTM D7415 >30	18.9	21	28.2

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	16.7	17.6	23.1
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	9.93	8.75	4.28

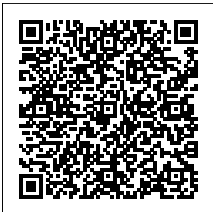
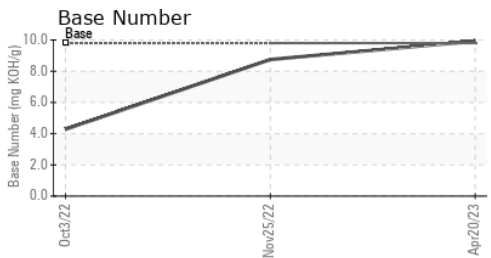
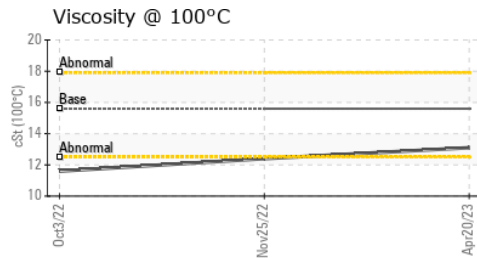
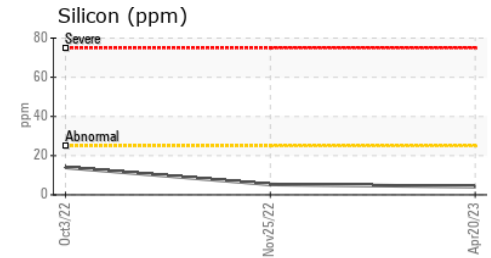
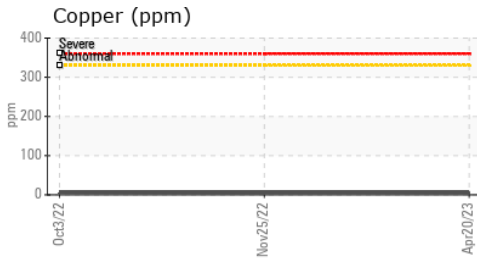
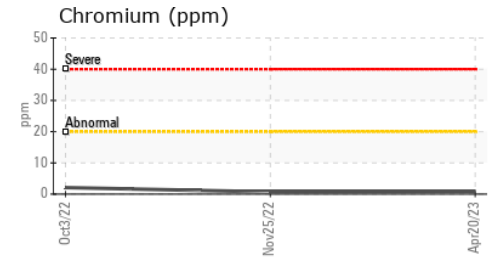
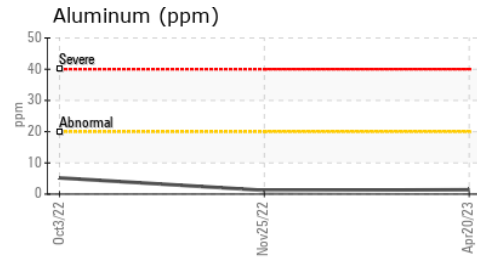
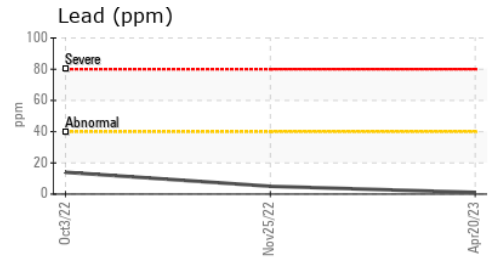
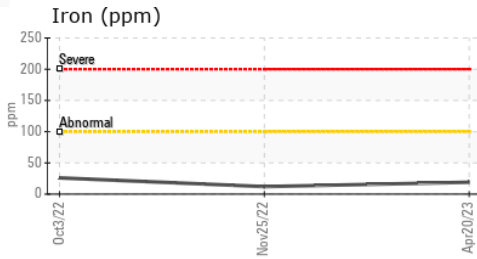
OIL ANALYSIS REPORT



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	15.6	13.1	12.4 ▲ 11.6

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0094323 **Received** : 03 May 2023
Lab Number : 05837267 **Diagnosed** : 04 May 2023
Unique Number : 10456070 **Diagnostician** : Wes Davis
Test Package : MOB 2

SCRAP METAL SERVICES (SMS Mill Services LLC)
 250 WEST U.S. HWY 12
 CHESTERTON, IN
 US 46304
 Contact: WALTER MURRAY
 wmurray@scrapmetalservices.com
 T: (219)787-1341
 F:

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)