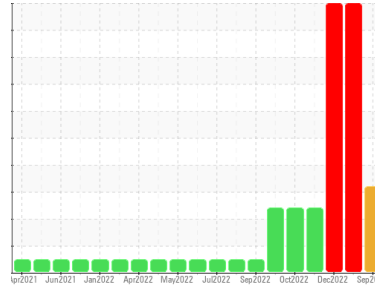




PROBLEM SUMMARY

Sample Rating Trend



DIRT



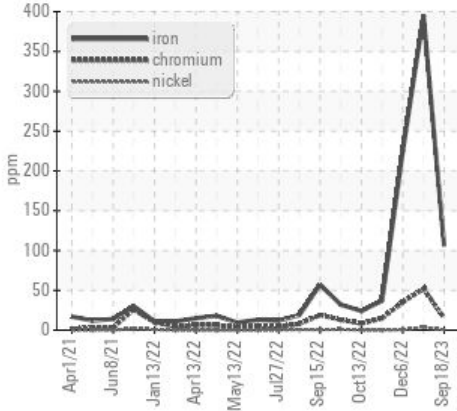
Machine Id
VAN AIR VIPER D70 9050 (S/N 30-20093947)

Component
Diesel Engine

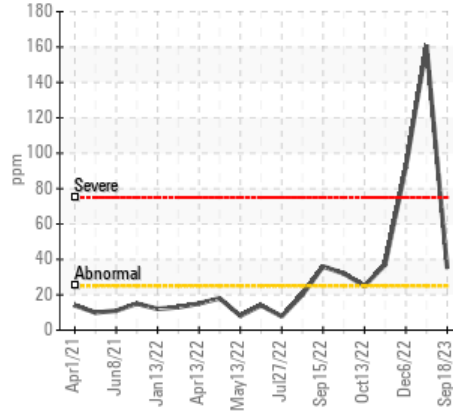
Fluid
PETRO CANADA DURON XL SYN BLEND 15W40 (--- GAL)

COMPONENT CONDITION SUMMARY

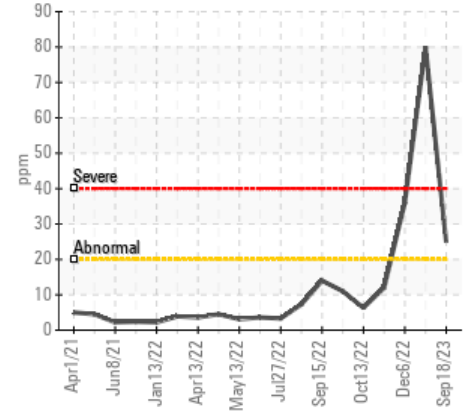
▲ Ferrous Alloys



▲ Silicon (ppm)



▲ Aluminum (ppm)



RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	SEVERE	SEVERE
Iron	ppm	ASTM D5185m	>100	▲ 106	● 395	● 225
Aluminum	ppm	ASTM D5185m	>20	▲ 25	▲ 80	▲ 36
Silicon	ppm	ASTM D5185m	>25	▲ 35	● 161	● 92

Customer Id: TRANEW
Sample No.: WC0831342
Lab Number: 05965065
Test Package: CONST



To manage this report scan the QR code

To discuss the diagnosis or test data:
Sean Felton +1 919-379-4092
sfelton@wearcheckusa.com

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.
Check Dirt Access	---	---	?	We advise that you check the air filter, air induction system, and any areas where dirt may enter the component.

HISTORICAL DIAGNOSIS

09 Jan 2023 Diag: Jonathan Hester

WEAR



We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. Piston, ring and cylinder wear is indicated. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

view report



06 Dec 2022 Diag: Jonathan Hester

WEAR



We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. Piston, ring and cylinder wear is indicated. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

view report



09 Nov 2022 Diag: Angela Borella

DIRT



We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

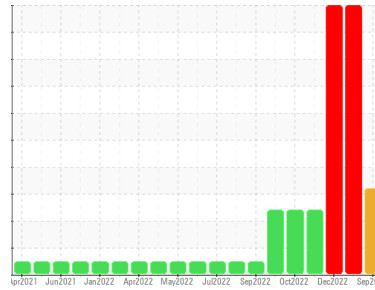
view report





OIL ANALYSIS REPORT

Sample Rating Trend



DIRT



Machine Id
VAN AIR VIPER D70 9050 (S/N 30-20093947)

Component
Diesel Engine

Fluid
PETRO CANADA DURON XL SYN BLEND 15W40 (--- GAL)

DIAGNOSIS

Recommendation

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

Cylinder, crank, or cam shaft wear is indicated.

Contamination

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

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		WC0831342	WC0751122	WC0755146
Sample Date	Client Info		18 Sep 2023	09 Jan 2023	06 Dec 2022
Machine Age	hrs	Client Info	1836	1670	1555
Oil Age	hrs	Client Info	118	115	114
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			ABNORMAL	SEVERE	SEVERE

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	▲ 106	395	225
Chromium	ppm	ASTM D5185m >20	15	52	35
Nickel	ppm	ASTM D5185m >4	<1	4	<1
Titanium	ppm	ASTM D5185m	<1	3	2
Silver	ppm	ASTM D5185m >3	0	0	0
Aluminum	ppm	ASTM D5185m >20	▲ 25	80	36
Lead	ppm	ASTM D5185m >40	0	2	<1
Copper	ppm	ASTM D5185m >330	4	11	4
Tin	ppm	ASTM D5185m >15	<1	2	<1
Vanadium	ppm	ASTM D5185m	0	<1	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 1	0	37	31
Barium	ppm	ASTM D5185m 1	0	0	0
Molybdenum	ppm	ASTM D5185m 60	79	85	72
Manganese	ppm	ASTM D5185m 1	1	4	2
Magnesium	ppm	ASTM D5185m 1010	1170	1368	1045
Calcium	ppm	ASTM D5185m 1070	1338	1867	1372
Phosphorus	ppm	ASTM D5185m 1150	1180	1290	1105
Zinc	ppm	ASTM D5185m 1270	1506	1655	1338
Sulfur	ppm	ASTM D5185m 2060	3686	3917	3845

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	▲ 35	161	92
Sodium	ppm	ASTM D5185m	2	8	4
Potassium	ppm	ASTM D5185m >20	3	6	5

INFRA-RED

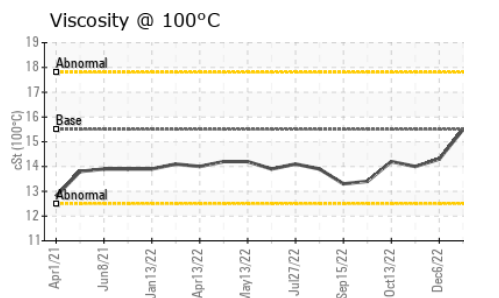
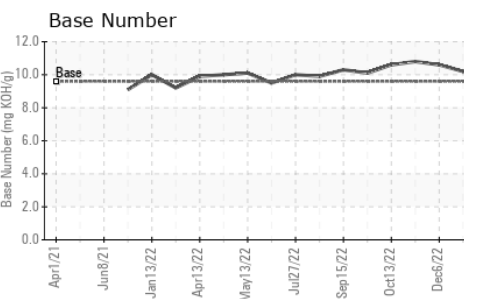
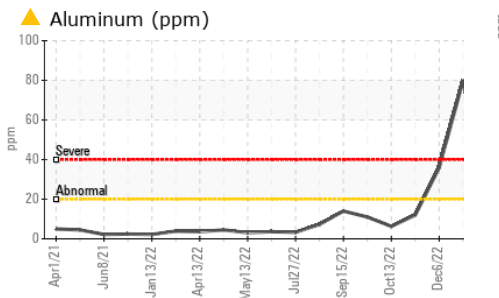
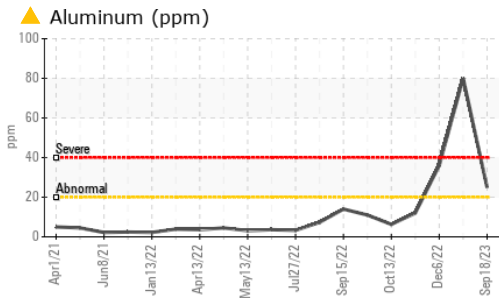
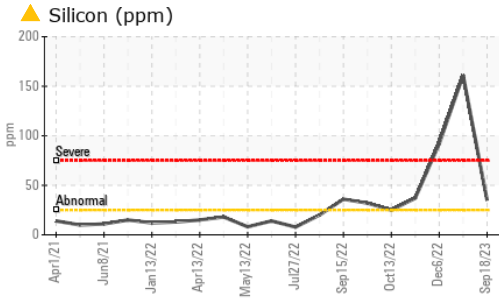
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.3	0.4	0.2
Nitration	Abs/cm	*ASTM D7624 >20	9.5	12.0	8.2
Sulfation	Abs/.1mm	*ASTM D7415 >30	22.7	23.8	21.6

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	20.0	22.4	17.1
Base Number (BN)	mg KOH/g	ASTM D2896 9.6	10.0	10.2	10.6



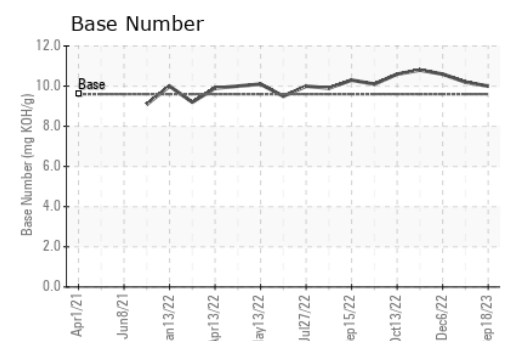
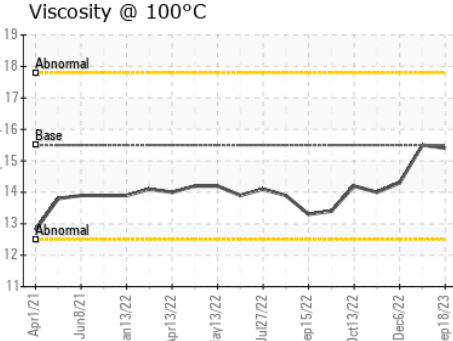
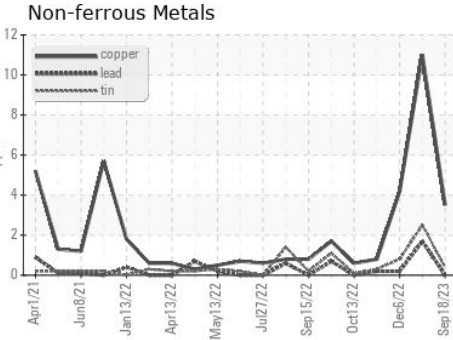
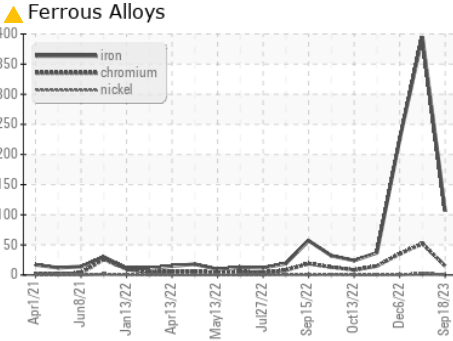
OIL ANALYSIS REPORT



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	15.5	15.4	15.5

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0831342 **Received** : 29 Sep 2023
Lab Number : 05965065 **Diagnosed** : 02 Oct 2023
Unique Number : 10671616 **Diagnostician** : Sean Felton
Test Package : CONST (Additional Tests: TBN)

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 NEW BERN, NC
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 mwyatt@traderconstruction.com
 T: (252)633-1399
 F: (252)638-4871

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)