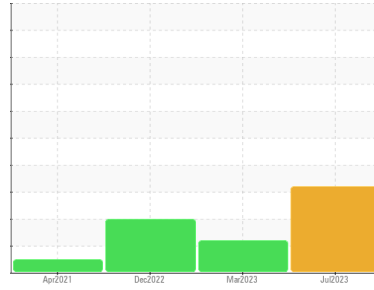




PROBLEM SUMMARY

Sample Rating Trend



DEGRADATION

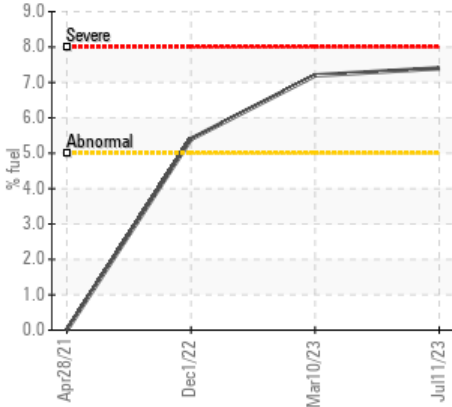


Area
SCHTRUCK
Machine Id
6249 [SCHTRUCK]

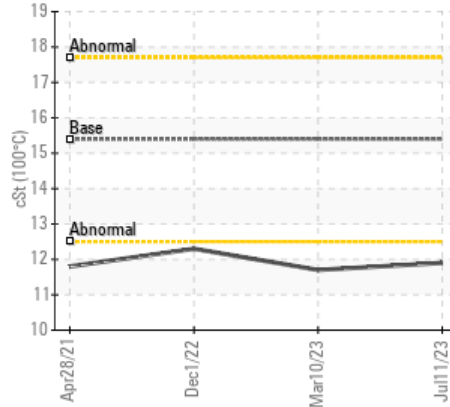
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

COMPONENT CONDITION SUMMARY

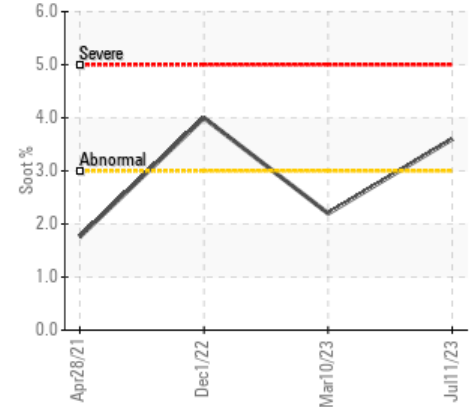
▲ Fuel Dilution



▲ Viscosity @ 100°C



▲ Soot %



RECOMMENDATION

We advise that you check for faulty combustion, plugged air filters, or aftercoolers. We advise that you check the fuel injection system. 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	ABNORMAL	ABNORMAL
Fuel	%	ASTM D3524	>5	▲ 7.4	▲ 7.2	▲ 5.4
Soot %	%	*ASTM D7844	>3	▲ 3.6	2.2	▲ 4
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	▲ 2.1	4.9	5.1
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 11.9	▲ 11.7	▲ 12.3

Customer Id: SCHPLA
Sample No.: SBP0004693
Lab Number: 05899230
Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldrige +1
don.b505@comcast.net

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 Combustion	---	---	?	We advise that you check for faulty combustion, plugged air filters, or aftercoolers.
Check Fuel/injector System	---	---	?	We advise that you check the fuel injection system.

HISTORICAL DIAGNOSIS

10 Mar 2023 Diag: Angela Borella

FUEL



We advise that you check for faulty combustion, plugged air filters, or aftercoolers. We advise that you check the fuel injection system. 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. There is a moderate amount of fuel present in the oil. Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

view report



01 Dec 2022 Diag: Jonathan Hester

SOOT



We advise that you check for faulty combustion, plugged air filters, or aftercoolers. We advise that you check the fuel injection system. 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. There is an abnormal amount of solids and carbon present in the oil. There is a moderate amount of fuel present in the oil. Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

view report



28 Apr 2021 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

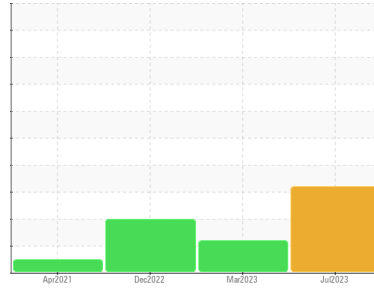
view report





OIL ANALYSIS REPORT

Sample Rating Trend



DEGRADATION



Area
SCHTRUCK
 Machine Id
6249 [SCHTRUCK]

Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

DIAGNOSIS

Recommendation

We advise that you check for faulty combustion, plugged air filters, or aftercoolers. We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is an abnormal amount of solids and carbon present in the oil. There is a moderate amount of fuel present in the oil.

Fluid Condition

Fuel is present in the oil and is lowering the viscosity. The BN level is low.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	SBP0004693	SBP0003906	SBP0002448
Sample Date	Client Info	11 Jul 2023	10 Mar 2023	01 Dec 2022
Machine Age	mls	629695	604794	580916
Oil Age	mls	24901	23878	23793
Oil Changed	Client Info	Changed	Changed	Changed
Sample Status		ABNORMAL	ABNORMAL	ABNORMAL

CONTAMINATION

method	limit/base	current	history1	history2
Glycol	WC Method	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >80	52	41	53
Chromium	ppm	ASTM D5185m >5	2	1	<1
Nickel	ppm	ASTM D5185m >2	<1	<1	0
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m >3	0	0	0
Aluminum	ppm	ASTM D5185m >30	2	2	<1
Lead	ppm	ASTM D5185m >30	20	19	10
Copper	ppm	ASTM D5185m >150	1	1	<1
Tin	ppm	ASTM D5185m >5	2	1	<1
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m 0	1	2	27
Barium	ppm	ASTM D5185m 0	0	2	0
Molybdenum	ppm	ASTM D5185m 60	59	61	42
Manganese	ppm	ASTM D5185m 0	<1	<1	<1
Magnesium	ppm	ASTM D5185m 1010	968	854	421
Calcium	ppm	ASTM D5185m 1070	1149	1164	1601
Phosphorus	ppm	ASTM D5185m 1150	948	910	615
Zinc	ppm	ASTM D5185m 1270	1220	1148	793
Sulfur	ppm	ASTM D5185m 2060	3503	2489	2454

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >20	3	<1	2
Sodium	ppm	ASTM D5185m	9	5	3
Potassium	ppm	ASTM D5185m >20	4	4	3
Chlorine	ppm	ASTM D5185m	---	---	---
Fuel	%	ASTM D3524 >5	▲ 7.4	▲ 7.2	▲ 5.4

INFRA-RED

method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844 >3	▲ 3.6	2.2	▲ 4
Nitration	Abs/cm	*ASTM D7624 >20	12.2	10.9	12.3
Sulfation	Abs/.1mm	*ASTM D7415 >30	34.5	28.3	35.2

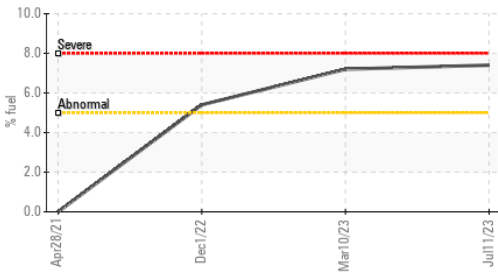
FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	33.1	28.2	35.3
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	▲ 2.1	4.9	5.1

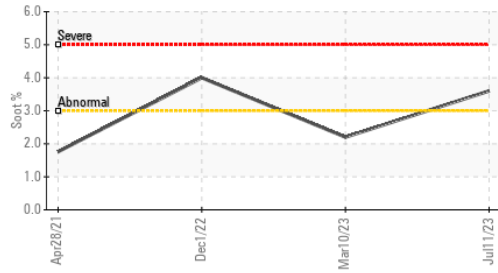


OIL ANALYSIS REPORT

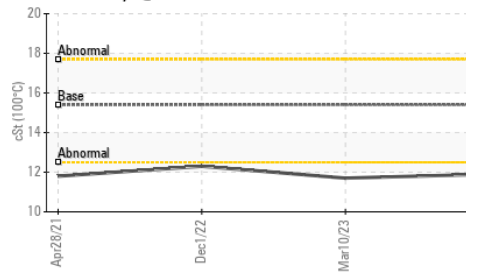
▲ Fuel Dilution



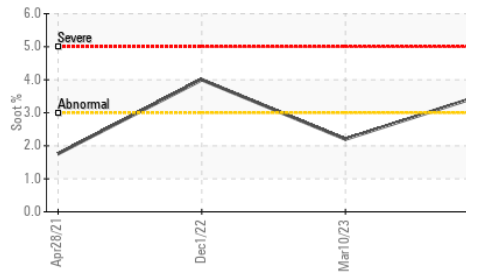
▲ Soot %



▲ Viscosity @ 100°C



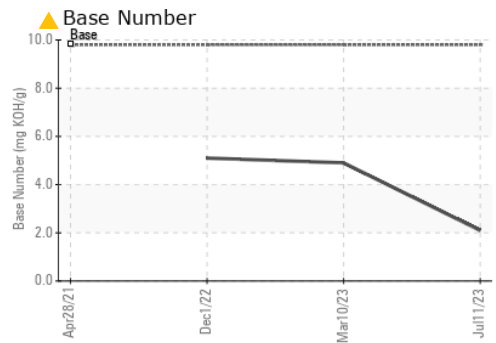
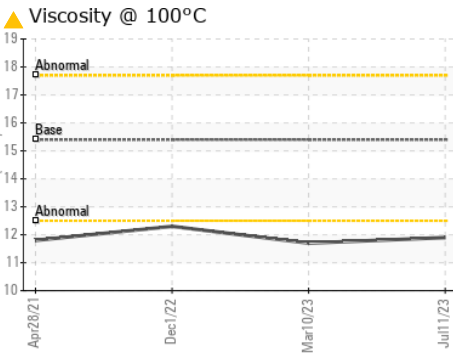
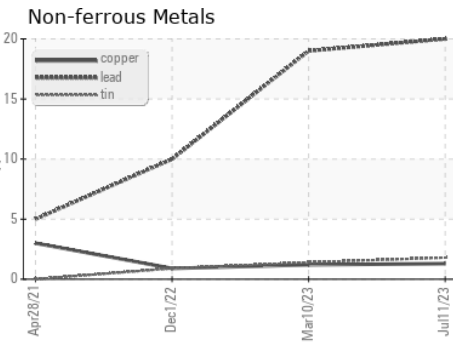
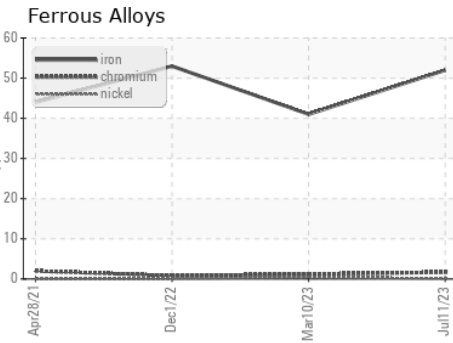
▲ Soot %



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	15.4 ▲ 11.9	▲ 11.7	▲ 12.3

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : SBP0004693 **Received** : 14 Jul 2023
Lab Number : 05899230 **Diagnosed** : 18 Jul 2023
Unique Number : 10560586 **Diagnostician** : Don Baldrige
Test Package : FLEET (Additional Tests: PercentFuel)

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 US 68048
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 doty@liquidtrucking.com
 T: (402)949-9398
 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)