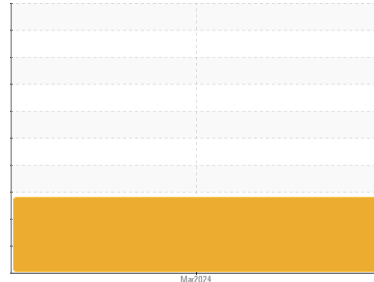




OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Area
SCHTRUCK
 Machine Id
7097 [SCHTRUCK]

Component
Front Center Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (10 GAL)

DIAGNOSIS

▲ Recommendation

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

▲ Wear

The copper level is abnormal. Cylinder, crank, or cam shaft wear is indicated. Elemental level of copper (Cu) probably due to leaching of copper from copper components (i.e. cooling core) by the oil additives.

Contamination

Fuel content negligible. 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.

● Fluid Condition

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	SBP0007063	---	---
Sample Date	Client Info	12 Mar 2024	---	---
Machine Age	hrs Client Info	39522	---	---
Oil Age	hrs Client Info	39522	---	---
Oil Changed	Client Info	Changed	---	---
Sample Status		ABNORMAL	---	---

CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >0.2	NEG	---	---
Glycol	WC Method	NEG	---	---

WEAR METALS

method	limit/base	current	history1	history2
Iron ppm ASTM D5185m	>65	▲ 71	---	---
Chromium ppm ASTM D5185m	>5	▲ 6	---	---
Nickel ppm ASTM D5185m	>3	2	---	---
Titanium ppm ASTM D5185m	>5	<1	---	---
Silver ppm ASTM D5185m	>2	0	---	---
Aluminum ppm ASTM D5185m	>35	64	---	---
Lead ppm ASTM D5185m	>10	<1	---	---
Copper ppm ASTM D5185m	>180	▲ 268	---	---
Tin ppm ASTM D5185m	>8	7	---	---
Vanadium ppm ASTM D5185m		0	---	---
Cadmium ppm ASTM D5185m		0	---	---

ADDITIVES

method	limit/base	current	history1	history2
Boron ppm ASTM D5185m	0	37	---	---
Barium ppm ASTM D5185m	0	0	---	---
Molybdenum ppm ASTM D5185m	60	58	---	---
Manganese ppm ASTM D5185m	0	4	---	---
Magnesium ppm ASTM D5185m	1010	580	---	---
Calcium ppm ASTM D5185m	1070	1767	---	---
Phosphorus ppm ASTM D5185m	1150	765	---	---
Zinc ppm ASTM D5185m	1270	929	---	---
Sulfur ppm ASTM D5185m	2060	2091	---	---

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon ppm ASTM D5185m	>15	9	---	---
Sodium ppm ASTM D5185m		6	---	---
Potassium ppm ASTM D5185m	>20	141	---	---
Fuel % ASTM D3524	>3.0	0.1	---	---

INFRA-RED

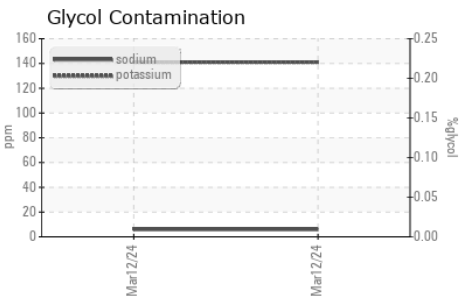
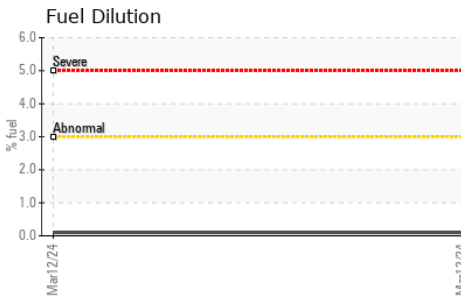
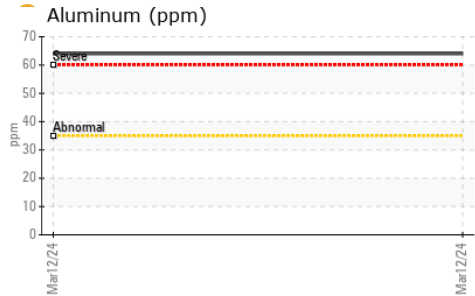
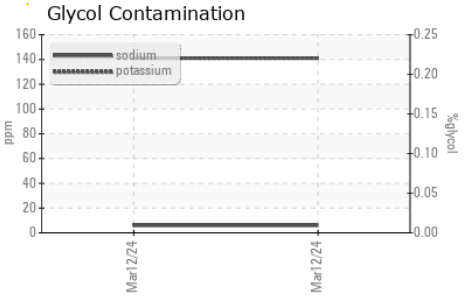
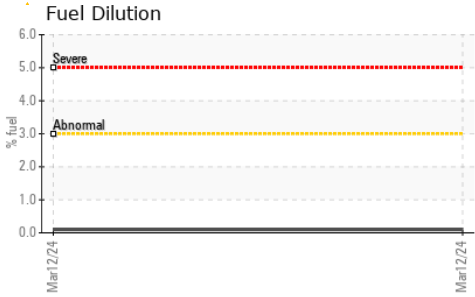
method	limit/base	current	history1	history2
Soot % *ASTM D7844	>3	0.4	---	---
Nitration Abs/cm *ASTM D7624	>20	11.3	---	---
Sulfation Abs/.1mm *ASTM D7415	>30	23.3	---	---

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation Abs/.1mm *ASTM D7414	>25	27.6	---	---
Base Number (BN) mg KOH/g ASTM D2896	9.8	6.1	---	---



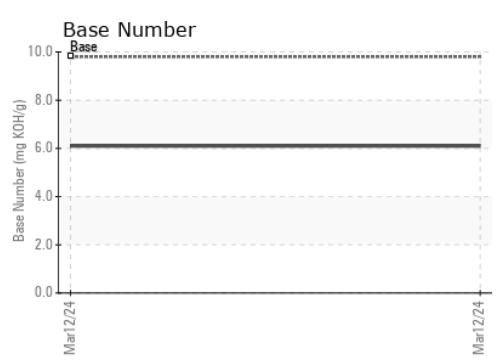
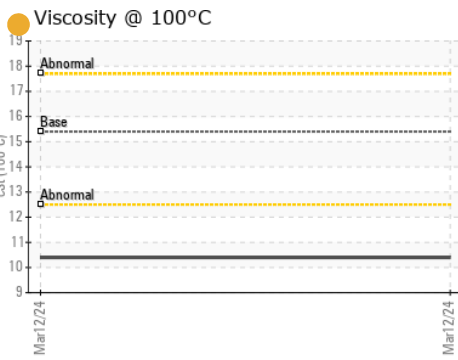
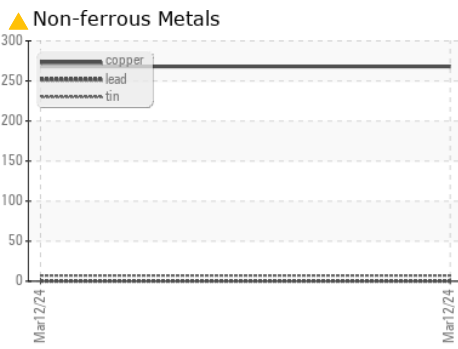
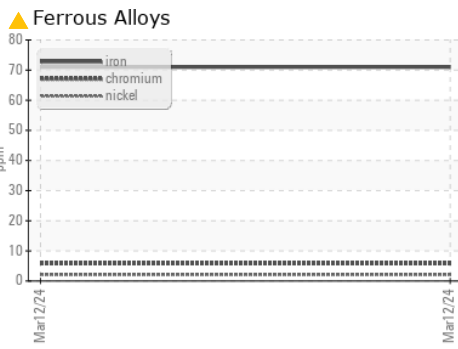
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	10.4	---

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : SBP0007063 **Received** : 18 Mar 2024
Lab Number : 06121448 **Tested** : 22 Mar 2024
Unique Number : 10930281 **Diagnosed** : 22 Mar 2024 - Don Baldrige
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

SCHMIDT TRANSPORTATION - 605449
 108 E Bay Road
 Plattsmouth, NE
 US 68048
 Contact: CASEY WILKIE
 casey@liquidtrucking.com

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)