



# OIL ANALYSIS REPORT

Sample Rating Trend



**WEAR**



Area  
**SCHTRUCK**  
 Machine Id  
**6504 [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

Cylinder, crank, or cam shaft wear is indicated. Bearing and/or bushing wear is indicated.

### 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	<b>SBP0006500</b>	---	---
Sample Date	Client Info	<b>05 Jan 2024</b>	---	---
Machine Age	hrs Client Info	<b>36206</b>	---	---
Oil Age	hrs Client Info	<b>36206</b>	---	---
Oil Changed	Client Info	<b>Changed</b>	---	---
Sample Status		<b>ABNORMAL</b>	---	---

## CONTAMINATION

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

## WEAR METALS

method	limit/base	current	history1	history2
Iron ppm	ASTM D5185m >65	<b>▲ 69</b>	---	---
Chromium ppm	ASTM D5185m >5	<b>5</b>	---	---
Nickel ppm	ASTM D5185m >3	<b>1</b>	---	---
Titanium ppm	ASTM D5185m >5	<b>&lt;1</b>	---	---
Silver ppm	ASTM D5185m >2	<b>0</b>	---	---
Aluminum ppm	ASTM D5185m >35	<b>64</b>	---	---
Lead ppm	ASTM D5185m >10	<b>2</b>	---	---
Copper ppm	ASTM D5185m >180	<b>▲ 216</b>	---	---
Tin ppm	ASTM D5185m >8	<b>3</b>	---	---
Vanadium ppm	ASTM D5185m	<b>&lt;1</b>	---	---
Cadmium ppm	ASTM D5185m	<b>0</b>	---	---

## ADDITIVES

method	limit/base	current	history1	history2
Boron ppm	ASTM D5185m 0	<b>26</b>	---	---
Barium ppm	ASTM D5185m 0	<b>0</b>	---	---
Molybdenum ppm	ASTM D5185m 60	<b>47</b>	---	---
Manganese ppm	ASTM D5185m 0	<b>4</b>	---	---
Magnesium ppm	ASTM D5185m 1010	<b>580</b>	---	---
Calcium ppm	ASTM D5185m 1070	<b>1728</b>	---	---
Phosphorus ppm	ASTM D5185m 1150	<b>764</b>	---	---
Zinc ppm	ASTM D5185m 1270	<b>941</b>	---	---
Sulfur ppm	ASTM D5185m 2060	<b>1844</b>	---	---

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon ppm	ASTM D5185m >15	<b>9</b>	---	---
Sodium ppm	ASTM D5185m	<b>7</b>	---	---
Potassium ppm	ASTM D5185m >20	<b>161</b>	---	---
Fuel %	ASTM D3524 >3.0	<b>0.2</b>	---	---

## INFRA-RED

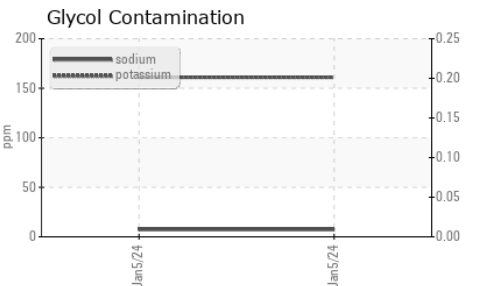
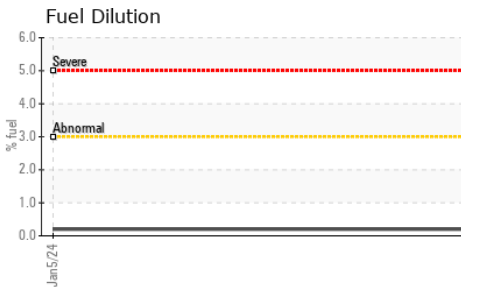
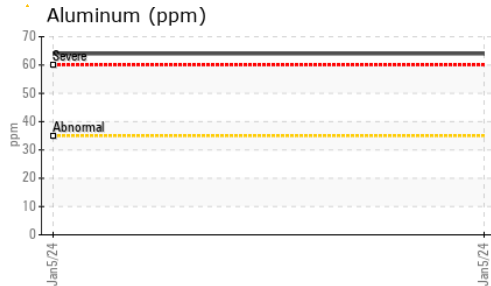
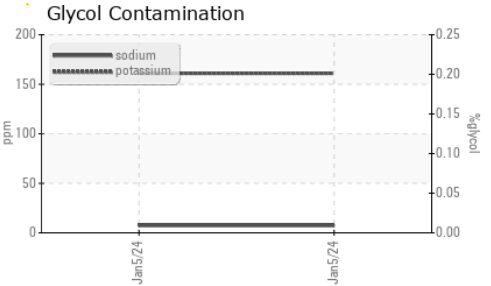
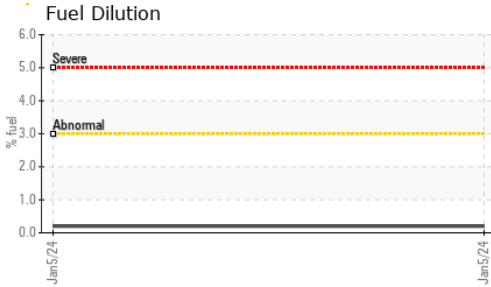
method	limit/base	current	history1	history2
Soot %	*ASTM D7844 >3	<b>0.4</b>	---	---
Nitration Abs/cm	*ASTM D7624 >20	<b>10.6</b>	---	---
Sulfation Abs/.1mm	*ASTM D7415 >30	<b>23.4</b>	---	---

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation Abs/.1mm	*ASTM D7414 >25	<b>26.6</b>	---	---
Base Number (BN) mg KOH/g	ASTM D2896 9.8	<b>6.8</b>	---	---



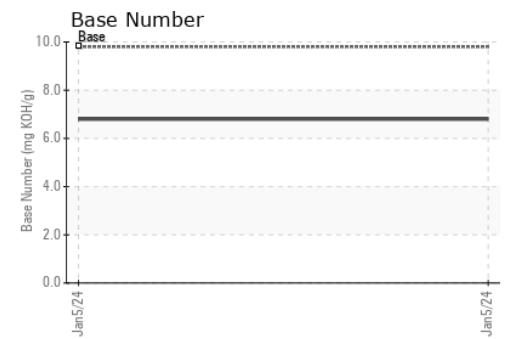
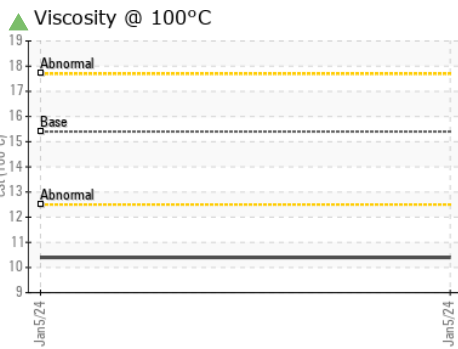
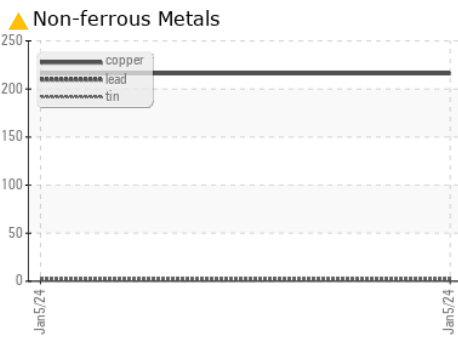
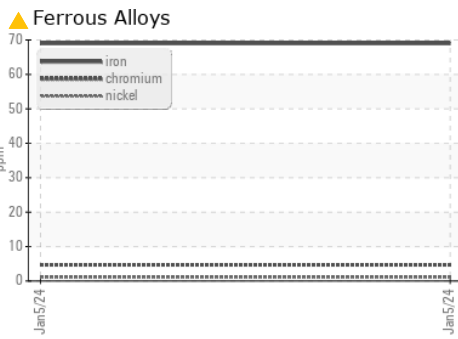
# OIL ANALYSIS REPORT



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

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

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : SBP0006500 **Recieved** : 16 Jan 2024  
**Lab Number** : **06061809** **Diagnosed** : 18 Jan 2024  
**Unique Number** : 10833191 **Diagnostician** : 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)