



WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Machine Id  
**VOLVO VNR640 SLEEPER W/ELECTRIC APU 1926717**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 10W30 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>PCA0123635</b>	PCA0112325	PCA0088220
Sample Date		Client Info		<b>24 May 2024</b>	06 Dec 2023	12 Jan 2023
Machine Age	mls	Client Info		<b>96665</b>	96665	96665
Oil Age	mls	Client Info		<b>96665</b>	96665	96665
Filter Age	mls	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>80</b>	69	33
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	1	<1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>4</b>	5	5
Lead	ppm	ASTM D5185m	>40	<b>0</b>	<1	2
Copper	ppm	ASTM D5185m	>330	<b>9</b>	8	6
Tin	ppm	ASTM D5185m	>15	<b>1</b>	<1	1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

There is no indication of any contamination in the oil.

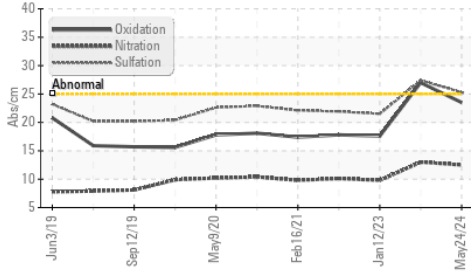
Silicon	ppm	ASTM D5185m	>25	<b>7</b>	7	6
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	3	1
Fuel		WC Method	>6.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.7</b>	0.8	0.7
Nitration	Abs/cm	*ASTM D7624	>20	<b>12.5</b>	13.0	9.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>25.3</b>	27.4	21.5
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

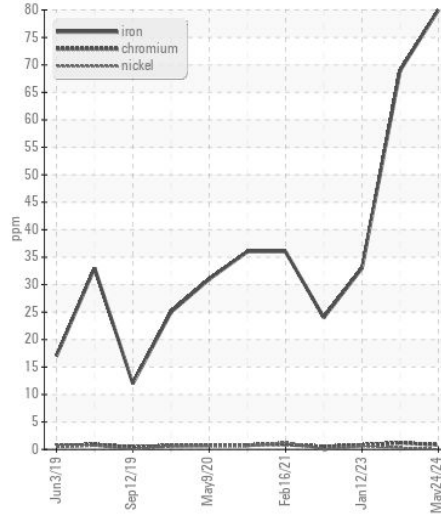
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>11</b>	14	12
Boron	ppm	ASTM D5185m	2	<b>4</b>	0	2
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	4
Molybdenum	ppm	ASTM D5185m	50	<b>60</b>	62	57
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	1	<1
Magnesium	ppm	ASTM D5185m	950	<b>901</b>	1018	814
Calcium	ppm	ASTM D5185m	1050	<b>1130</b>	1135	986
Phosphorus	ppm	ASTM D5185m	995	<b>985</b>	1290	847
Zinc	ppm	ASTM D5185m	1180	<b>1277</b>	1411	1099
Sulfur	ppm	ASTM D5185m	2600	<b>3204</b>	2929	2795
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>23.5</b>	27.0	17.6
Base Number (BN)	mg KOH/g	ASTM D2896		<b>4.6</b>	3.1	6.5
Visc @ 100°C	cSt	ASTM D445	12.00	<b>11.2</b>	12.8	10.9

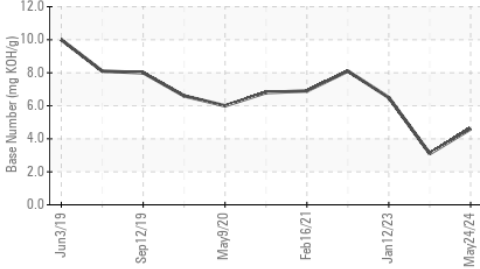
**FT-IR (Direct Trend)**



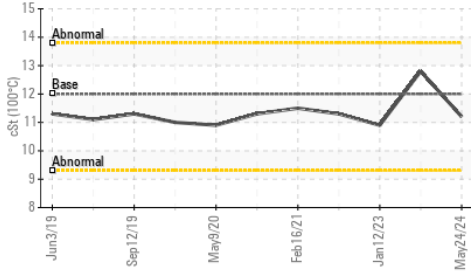
**Ferrous Alloys**



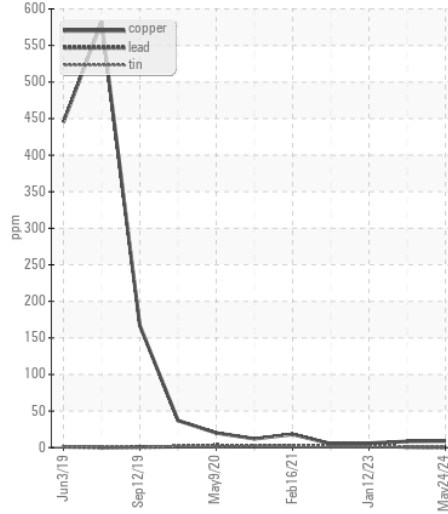
**Base Number**



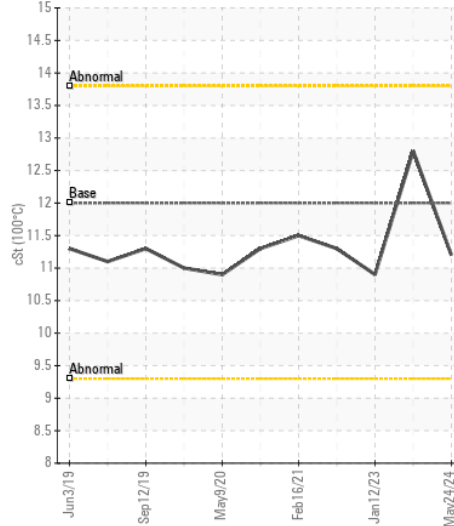
**Viscosity @ 100°C**



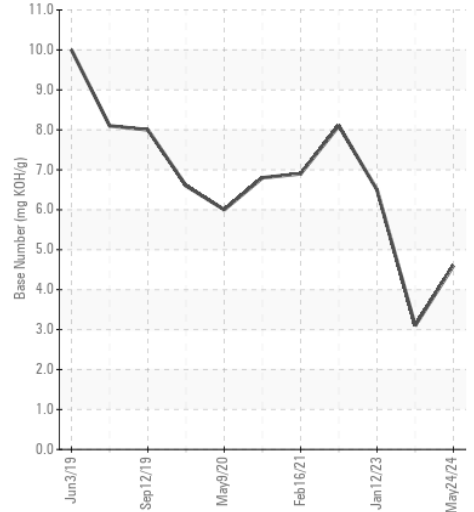
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0123635  
**Lab Number** : 06240050  
**Unique Number** : 11128884  
**Test Package** : FLEET  
**Received** : 18 Jul 2024  
**Tested** : 19 Jul 2024  
**Diagnosed** : 19 Jul 2024 - Wes Davis

**PERDUE FARMS - DILLON**  
 2047 HWY 9 WEST  
 DILLON, SC  
 US 29536  
 Contact: KEVIN HOOKS  
 kevin.hooks@perdue.com  
 T: (843)841-8069  
 F: (843)841-8070

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)