

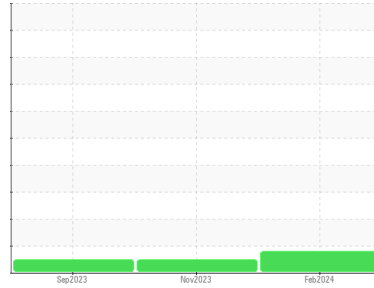
# OIL ANALYSIS REPORT

## Sample Rating Trend

**WEAR**



Machine Id  
**BM-119**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 10W30 (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

Valve wear is indicated. All other component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

### 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		<b>PCA0110729</b>	PCA0105217	PCA0105195
Sample Date	Client Info		<b>14 Feb 2024</b>	10 Nov 2023	07 Sep 2023
Machine Age	mls	Client Info	<b>217599</b>	203812	192940
Oil Age	mls	Client Info	<b>13787</b>	10821	10950
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>ABNORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<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

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >120	<b>33</b>	13	12
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185m >5	<b>▲ 10</b>	<1	0
Titanium	ppm	ASTM D5185m >2	<b>0</b>	0	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >20	<b>8</b>	4	4
Lead	ppm	ASTM D5185m >40	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m >330	<b>12</b>	2	2
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 2	<b>3</b>	2	0
Barium	ppm	ASTM D5185m 0	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m 50	<b>57</b>	57	62
Manganese	ppm	ASTM D5185m 0	<b>1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 950	<b>902</b>	946	1001
Calcium	ppm	ASTM D5185m 1050	<b>1033</b>	1036	1117
Phosphorus	ppm	ASTM D5185m 995	<b>992</b>	1011	1029
Zinc	ppm	ASTM D5185m 1180	<b>1205</b>	1253	1278
Sulfur	ppm	ASTM D5185m 2600	<b>2902</b>	2935	3158

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>9</b>	7	2
Sodium	ppm	ASTM D5185m	<b>5</b>	3	4
Potassium	ppm	ASTM D5185m >20	<b>8</b>	3	5

## INFRA-RED

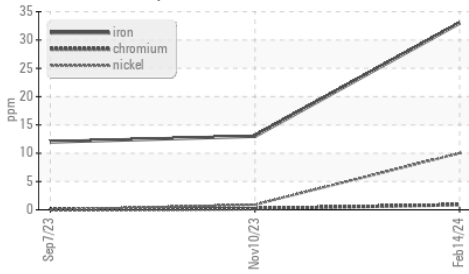
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	<b>0.7</b>	0.3	0.3
Nitration	Abs/cm	*ASTM D7624 >20	<b>8.7</b>	7.4	6.9
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>19.4</b>	18.4	18.2

## FLUID DEGRADATION

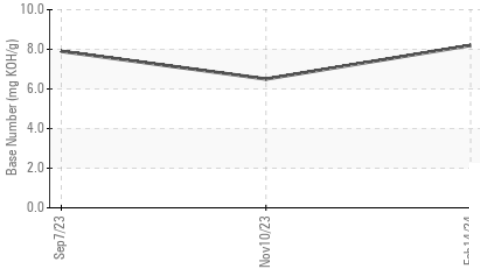
	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>15.1</b>	14.6	14.1
Base Number (BN)	mg KOH/g	ASTM D2896	<b>8.2</b>	6.5	7.9

# OIL ANALYSIS REPORT

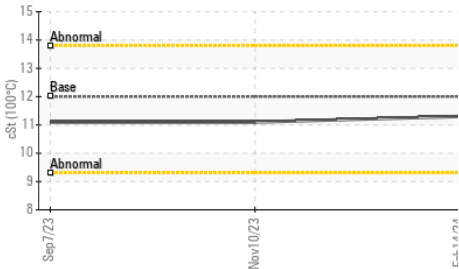
**▲ Ferrous Alloys**



**Base Number**



**Viscosity @ 100°C**

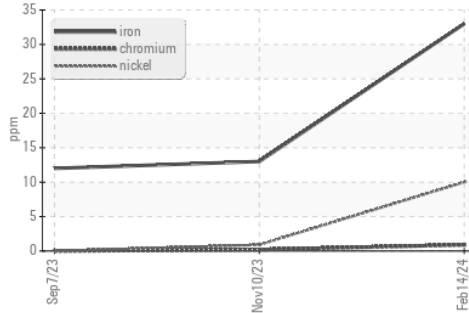


PARAMETER	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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

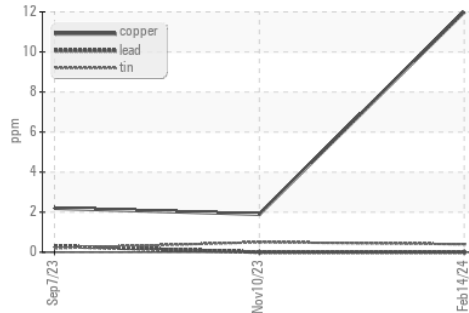
PARAMETER	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	12.00	11.3	11.1

**GRAPHS**

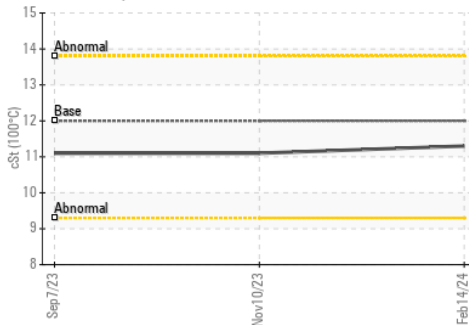
**▲ Ferrous Alloys**



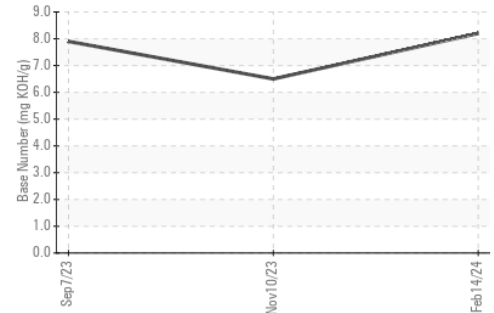
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0110729  
**Lab Number** : 06097568  
**Unique Number** : 10890421  
**Test Package** : FLEET

**Received** : 22 Feb 2024  
**Tested** : 23 Feb 2024  
**Diagnosed** : 24 Feb 2024 - Don Baldrige

**BLUE MAX TRUCKING**  
 1015 E. WESTINGHOUSE BLVD.  
 CHARLOTTE, NC  
 US 28273  
 Contact: Jody Greer  
 jgreer@bluemaxtrucking.com  
 T: (980)225-9968  
 F: (704)588-2901

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)