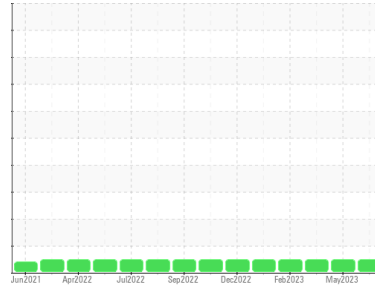


# OIL ANALYSIS REPORT

## Sample Rating Trend

**NORMAL**



Area  
**Plymouth & Brockton**  
Machine Id  
**440**

Component  
**Diesel Engine**  
Fluid

**PETRO CANADA DURON SHP 15W40 (36 QTS)**

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

All 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	history 1	history 2
Sample Number	Client Info		<b>PCA0090743</b>	PCA0090666	PCA0083262
Sample Date	Client Info		<b>21 Jun 2023</b>	11 May 2023	05 Apr 2023
Machine Age	mls	Client Info	<b>161471</b>	203578	138535
Oil Age	mls	Client Info	<b>12000</b>	12000	12000
Oil Changed	Client Info		<b>Not Chngd</b>	Not Chngd	Not Chngd
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

### CONTAMINATION

	method	limit/base	current	history 1	history 2
Fuel	WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Glycol	WC Method		<b>NEG</b>	NEG	NEG

### WEAR METALS

	method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m >165	<b>12</b>	21	9
Chromium	ppm	ASTM D5185m >5	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185m >4	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185m >2	<b>0</b>	<1	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >20	<b>&lt;1</b>	0	<1
Lead	ppm	ASTM D5185m >150	<b>0</b>	0	0
Copper	ppm	ASTM D5185m >90	<b>1</b>	<1	0
Tin	ppm	ASTM D5185m >5	<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

### ADDITIVES

	method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m 0	<b>13</b>	4	7
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>68</b>	61	58
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 1010	<b>980</b>	939	924
Calcium	ppm	ASTM D5185m 1070	<b>1191</b>	1071	1071
Phosphorus	ppm	ASTM D5185m 1150	<b>1096</b>	994	980
Zinc	ppm	ASTM D5185m 1270	<b>1305</b>	1218	1222
Sulfur	ppm	ASTM D5185m 2060	<b>3370</b>	3097	3256

### CONTAMINANTS

	method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m >35	<b>4</b>	3	3
Sodium	ppm	ASTM D5185m	<b>1</b>	2	<1
Potassium	ppm	ASTM D5185m >20	<b>&lt;1</b>	0	<1

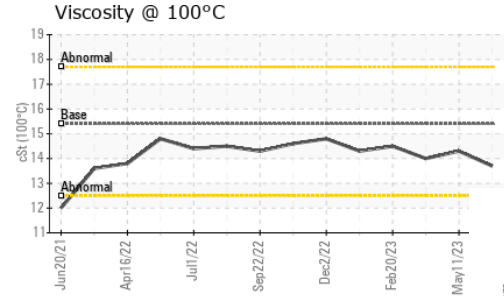
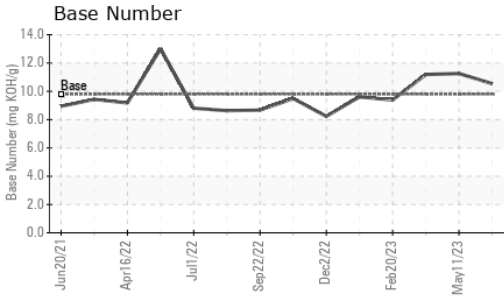
### INFRA-RED

	method	limit/base	current	history 1	history 2
Soot %	%	*ASTM D7844 >7.5	<b>1.3</b>	2.3	1.2
Nitration	Abs/cm	*ASTM D7624 >20	<b>7.5</b>	9.5	6.9
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>20.4</b>	22.9	19.6

### FLUID DEGRADATION

	method	limit/base	current	history 1	history 2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>15.2</b>	15.2	13.2
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>10.54</b>	11.26	11.19

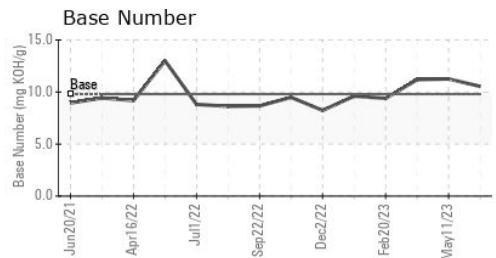
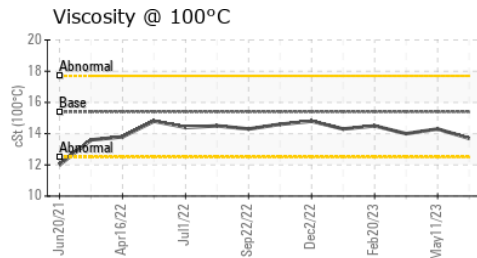
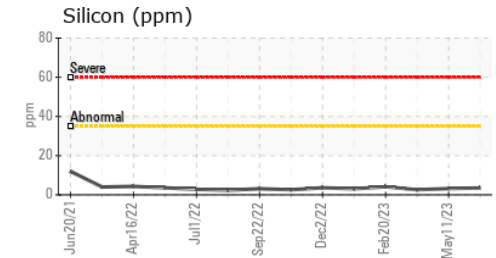
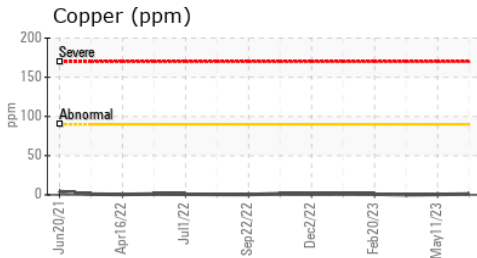
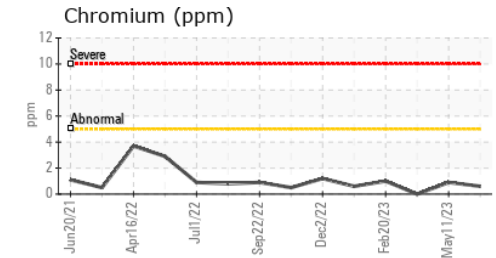
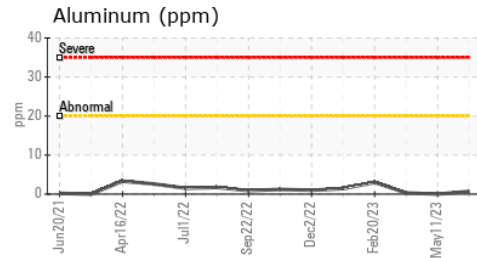
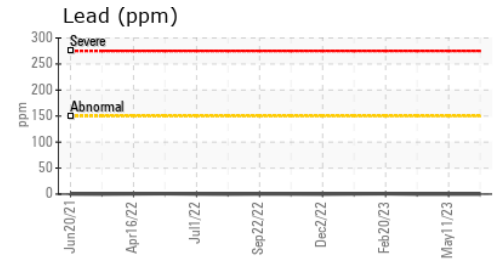
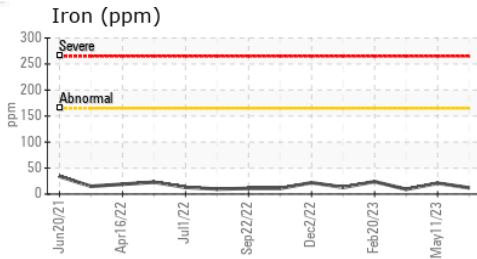
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history 1	history 2
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	history 1	history 2	
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.7</b>	14.3	14.0

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0090743 **Received** : 05 Jul 2023  
**Lab Number** : 05890405 **Diagnosed** : 06 Jul 2023  
**Unique Number** : 10546215 **Diagnostician** : Wes Davis  
**Test Package** : MOB 2

**PLYMOUTH & BROCKTON**  
 8 INDUSTRIAL PARK RD  
 PLYMOUTH, MA  
 US 02360  
 Contact: Donald Pelquin  
 Dpelquin@P-B.com  
 T: (508)732-6039  
 F: (508)732-6091

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)