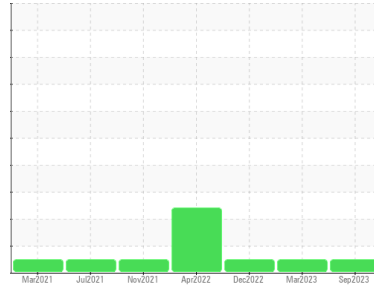


# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**8559**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 10W30 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

### 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	history1	history2
Sample Number	Client Info			<b>PCA0088665</b>	PCA0088495	PCA0051834
Sample Date	Client Info			<b>05 Sep 2023</b>	21 Mar 2023	15 Dec 2022
Machine Age	mls Client Info			<b>299461</b>	251114	213245
Oil Age	mls Client Info			<b>299461</b>	37899	33116
Oil Changed	Client Info			<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>5		<b>&lt;1.0</b>	<1.0	<1.0
Glycol	WC Method			<b>NEG</b>	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	<b>31</b>	27	30
Chromium	ppm	ASTM D5185m	>20	<b>2</b>	1	1
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>4</b>	3	3
Lead	ppm	ASTM D5185m	>40	<b>1</b>	0	2
Copper	ppm	ASTM D5185m	>330	<b>5</b>	1	4
Tin	ppm	ASTM D5185m	>15	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

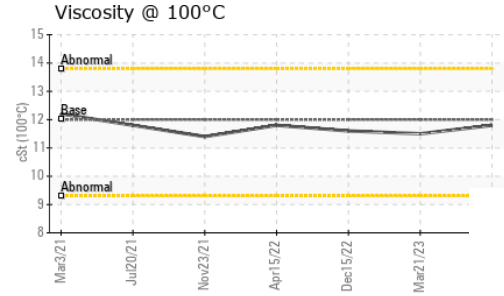
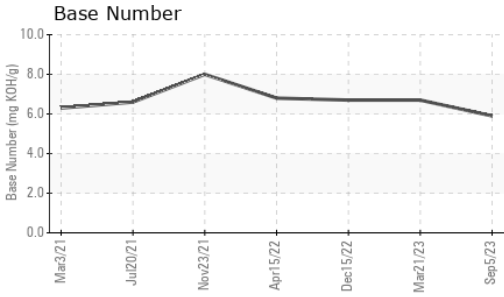
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	<b>2</b>	0	<1
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	50	<b>55</b>	65	62
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	950	<b>850</b>	1007	902
Calcium	ppm	ASTM D5185m	1050	<b>1162</b>	1179	1154
Phosphorus	ppm	ASTM D5185m	995	<b>948</b>	1004	918
Zinc	ppm	ASTM D5185m	1180	<b>1126</b>	1324	1185
Sulfur	ppm	ASTM D5185m	2600	<b>2702</b>	3298	3041

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>11</b>	8	9
Sodium	ppm	ASTM D5185m		<b>9</b>	3	3
Potassium	ppm	ASTM D5185m	>20	<b>13</b>	1	0

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	<b>1.4</b>	1.3	1.9
Nitration	Abs/cm	*ASTM D7624	>20	<b>11.1</b>	9.9	11.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>24.4</b>	22.5	24.9

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>19.5</b>	17.1	18.9
Base Number (BN)	mg KOH/g	ASTM D2896		<b>5.9</b>	6.7	6.7

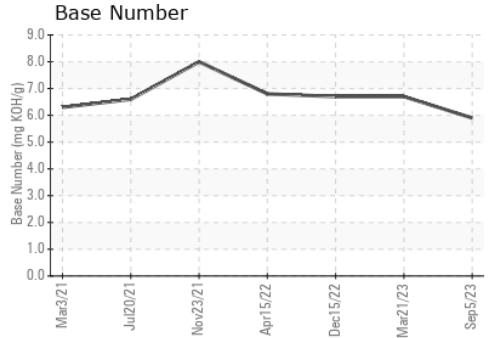
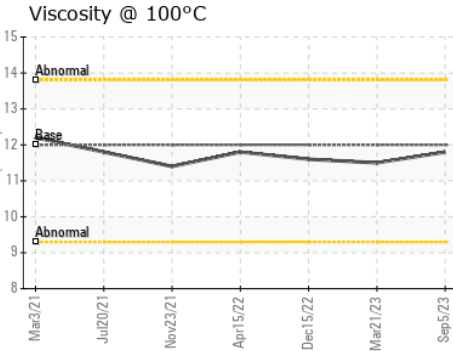
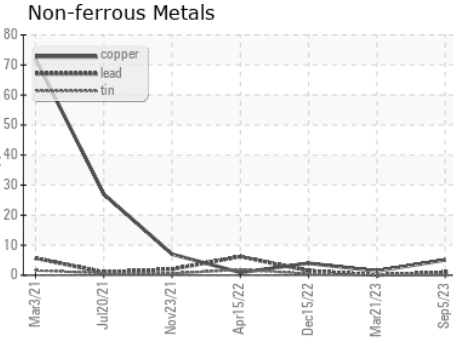
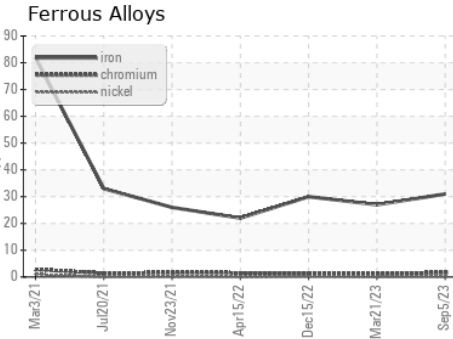
# OIL ANALYSIS REPORT



VISUAL	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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	12.00	11.8	11.5

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0088665 **Received** : 31 Oct 2023  
**Lab Number** : 05994047 **Diagnosed** : 31 Oct 2023  
**Unique Number** : 10722407 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**MIDWEST MOTOR EXPRESS**  
 2169 MUSTANG DR  
 MOUNDS VIEW, MN  
 US 55112  
 Contact: FRANK DIETZ  
 frank.dietz@mmeinc.com  
 T: (763)225-6382  
 F: x:

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)