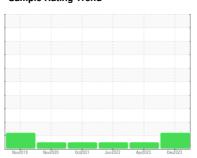


# **OIL ANALYSIS REPORT**

Sample Rating Trend



GLYCOL



Machine Id **303466** 

Component **Diesel Engine** 

PETRO CANADA DURON SHP 10W30 (--- GAL)

## DIAGNOSIS

### Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

## Contamination

Sodium and/or potassium levels are high. Test for glycol is negative.

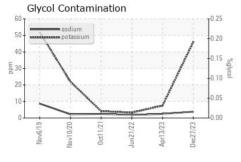
### **Fluid Condition**

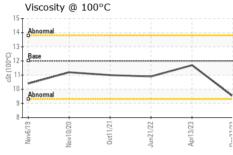
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

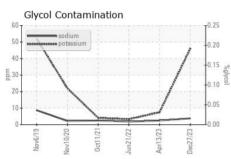
GAL)		Nov2019	Nov2020 Oct2021	Jun2022 Apr2023	Dec2023	
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0097338	PCA0083810	PCA0061073
Sample Date		Client Info		27 Dec 2023	13 Apr 2023	21 Jun 2022
Machine Age	mls	Client Info		166409	158080	134282
Oil Age	mls	Client Info		8329	23798	12173
Oil Changed		Client Info		Not Changd	Changed	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	30	30	38
Chromium	ppm	ASTM D5185m	>20	2	<1	1
Nickel	ppm	ASTM D5185m	>4	0	<1	<1
Titanium	ppm	ASTM D5185m		8	66	<1
Silver	ppm	ASTM D5185m	>3	<1	0	<1
Aluminum	ppm	ASTM D5185m	>20	8	10	11
Lead	ppm	ASTM D5185m	>40	0	0	<1
Copper	ppm	ASTM D5185m	>330	31	1	2
Tin	ppm	ASTM D5185m	>15	3	<1	<1
Antimony	ppm	ASTM D5185m	710			
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	85	25	16
Barium	ppm	ASTM D5185m	0	26	0	0
Molybdenum	ppm	ASTM D5185m	50	62	19	57
Manganese	ppm	ASTM D5185m	0	11	<1	<1
Magnesium	ppm	ASTM D5185m	950	718	545	878
Calcium	ppm	ASTM D5185m	1050	2235	1697	1125
Phosphorus	ppm	ASTM D5185m	995	1196	965	957
Zinc	ppm	ASTM D5185m	1180	1293	1133	1174
Sulfur	ppm	ASTM D5185m	2600	4278	3956	3609
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	18	4	4
Sodium	ppm	ASTM D5185m		4	2	2
Potassium	ppm	ASTM D5185m	>20	<b>46</b>	8	3
Glycol	%	*ASTM D2982		NEG	NEG	NEG
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.2	0.8	0.6
Nitration	Abs/cm	*ASTM D7624	>20	6.8	12.0	11.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.4	25.1	22.3
FLUID DEGRAI	DATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.7	22.1	18.1
Base Number (BN)	mg KOH/g	ASTM D2896	<i>&gt;</i> 20	9.6	5.2	8.6
Dase Mulliber (DIN)	ilig KOH/g	49 LIVI D5030		9.0	5.2	0.0



# **OIL ANALYSIS REPORT**

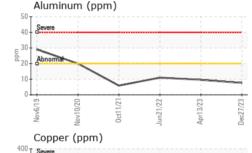


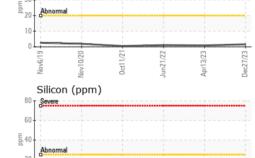


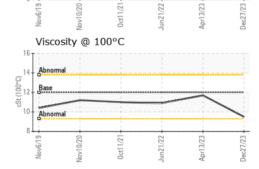


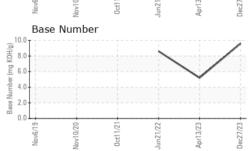
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual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

	Visc @ 1	100°C	cS	t AS	STM D445	12.00		9.5		11.7		10.9	
	GRAF	PHS											
25	Iron (ppm)						Lead (ppm)						
20	Severe						100 80	Severe					
udd 10	0						€ 60						
음 10	Abnormal					-	d 40	Abnormal					
5	0	-					20						
	Nov6/19	Nov10/20 +	Oct11/21	Jun21/22 -	Apr13/23 -	Dec27/23 +	01	Nov6/19	Nov10/20 -	Oct11/21-	Jun21/22 -	Apr13/23	Dec27/23
	Aluminum (ppm)							Chromium (ppm)					













Laboratory Sample No.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Lab Number : 06084558

E 200

100

: PCA0097338

Received **Tested** Unique Number : 10872003

: 12 Feb 2024 Diagnosed

Test Package: MOB 1 (Additional Tests: Glycol, TBN)

: 09 Feb 2024

: 12 Feb 2024 - Jonathan Hester

Contact: RON ROBERTS rroberts@millertransgroup.com T: (717)945-6205

Contact/Location: RON ROBERTS - MILLAN

**MILLER TRUCK LEASING #123** 

**66 KELLER AVENUE** 

LANCASTER, PA

US 17601

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) F: (717)945-5818