

## **OIL ANALYSIS REPORT**

### (89612X) Walgreens - Tractor [Walgreens - Tractor] 136A68 Component

**Diesel Engine** 

PETRO CANADA DURON SHP 10W30 (11 GAL

#### 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.

or 68000						
AL)		Ma	2023	Sep2023 Mar20	24	
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0110606	PCA0093478	PCA0093504
Sample Date		Client Info		04 Mar 2024	21 Sep 2023	19 May 2023
Machine Age	mls	Client Info		225717	214767	204688
Oil Age	mls	Client Info		10950	10079	204688
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method		NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron		ASTM D5185m	>80	28	73	25
Chromium	ppm ppm	ASTM D5185m	>5	1	5	<1
Nickel	ppm	ASTM D5185m	>2	<1	<1	0
Titanium	ppm	ASTM D5185m	22	7	1	4
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>30	3	4	2
Lead	ppm	ASTM D5185m	>30	<1	0	0
Copper	ppm	ASTM D5185m	>150	2	103	2
Tin	ppm	ASTM D5185m	>5	<1	1	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	14	19	9
Barium	ppm	ASTM D5185m	0	0	12	0
Molybdenum	ppm	ASTM D5185m	50	56	32	53
Vanganese	ppm	ASTM D5185m	0	<1	2	<1
Magnesium	ppm	ASTM D5185m	950	859	271	871
Calcium	ppm	ASTM D5185m	1050	1187	1999	1276
Phosphorus	ppm	ASTM D5185m	995	982	913	1038
Zinc Sulfur	ppm	ASTM D5185m	1180	1183	1179	1283
	ppm	ASTM D5185m	2600	3233	3482	3795
CONTAMINAN	IIS	method	limit/base		history1	history2
Silicon	ppm	ASTM D5185m	>20	6	16	6
	ppm	ASTM D5185m	00	8	9	2
			>20	4	12	<1
Potassium	ppm	ASTM D5185m	220			
	ppm	method	limit/base	current	history1	history2
Potassium INFRA-RED	ppm %			current 0.7	history1 1	history2 0.6
Potassium INFRA-RED Soot %		method	limit/base			
Sodium Potassium INFRA-RED Soot % Nitration Sulfation	%	method *ASTM D7844	limit/base >3	0.7	1	0.6
Potassium INFRA-RED Soot % Nitration	% Abs/cm Abs/.1mm	method *ASTM D7844 *ASTM D7624 *ASTM D7415	limit/base >3 >20	0.7 10.2 20.6	1 10.5	0.6 9.8
Potassium INFRA-RED Soot % Nitration Sulfation	% Abs/cm Abs/.1mm	method *ASTM D7844 *ASTM D7624 *ASTM D7415	limit/base >3 >20 >30	0.7 10.2 20.6	1 10.5 22.3	0.6 9.8 21.2

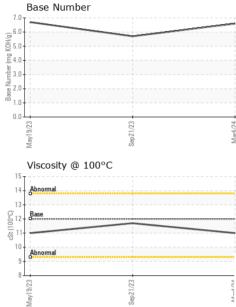
Sample Rating Trend

NORMAL



# **OIL ANALYSIS REPORT**

VISUAL



	White Metal						
1		scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
1	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
Mart/24	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Mar	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
	Free Water	scalar	*Visual		NEG	NEG	NEG
	FLUID PROPI		method	limit/base	current	history1	history
	Visc @ 100°C	cSt	ASTM D445		11.0	11.7	11.0
	GRAPHS						
р. Г	Ferrous Alloys						
	80 70						
	60 - nickel	$^{\prime}$					
	50						
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	30						
	20						
	10						
		23		57			
	May19/23	Sep21/23		Mar4/24			
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		1-					
	Non-ferrous Meta	als					
	Non-ferrous Meta	als					
	Non-ferrous Meta	als					
	Non-ferrous Meta	als					
	Non-ferrous Meta						
	Non-ferrous Meta						
	Non-ferrous Meta						
	Non-ferrous Meta						
	Non-ferrous Meta	$\wedge$					
	Non-ferrous Meta	$\wedge$		a4/24			
	Non-ferrous Meta	alls		Mark/24			
	Non-ferrous Meta	Sep21/23		Mar4/24	Base Numbe	er	
	Non-ferrous Meta	Sep21/23		+ZCHERW 7.0	Base Numbe	21	
	Non-ferrous Meta	Sep21/23			Base Numbe	21	
	Non-ferrous Meta	Sep21/23		7.0 <sup>-</sup>	Base Numbe	2r	
	Non-ferrous Meta	Sep21/23		7.0 <sup>-</sup>	Base Numbe	er	
	Non-ferrous Meta	Sep21/23		7.0 <sup>-</sup>	Base Numbe	21	
	Non-ferrous Meta	Sep21/23		7.0 <sup>-</sup>	Base Numbe	21.	
	Non-ferrous Meta	Sep21/23		7.0	Base Numbe	21	
	Non-ferrous Meta	Sep21/23		7.0 <sup>-</sup>	Base Numbe	2r	
	Non-ferrous Meta	C		7.0 6.0 (0)HOX 5.0 100 Jac 4.0 9 Jac			
	Non-ferrous Meta	C		7.0 6.0 (0)HOX 5.0 100 Jac 4.0 9 Jac			
	Non-ferrous Meta	Sep21/23		7.0 6.0 (0)HOX 00 HOX 00 4.0 4.0 4.0 4.0 9 8 8 8 2.0 1.0	Base Numbe	Sep 21/23	
У	Non-ferrous Meta	Sep21/23	n Ave., Car	7.0 6.0 (0)HOX 00 July Jan quury see 3.0 1.0 + 72/+per W	May19/23	EVVICE - Shop 1376	
y 5.	Non-ferrous Meta	Sep21/23	<b>ved</b> : 1	7.0 6.0 1000 000 4.0 9000 000 4.0 9000 000 4.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1	May19/23	EVVICE - Shop 1376	mley Point R
o. er	Non-ferrous Meta Copper Inder Source State Viscosity @ 100° Source State Viscosity @ 100° Source State Source State Sou	C C C C C C C C C C C C C C C C C C C	ved :1 d :1	7.0. 6.0. (9H0) 5.0. 9U 4.0. 9 A0. 1.0. 4.0. 1.0. 4.0. 1.0. 0.0. 9 Mar 2024 9 Mar 2024	EZ/61/AEW	EVVICE - Shop 1376	nley Point R Linden
o. er ber	Non-ferrous Meta Copper Inder Source State Viscosity @ 100° Source State Source	C C D1 Madiso Recei	ved :1 d :1	7.0 6.0 1000 000 4.0 9000 000 4.0 9000 000 4.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1	EZOGIAREM Transe es Davis	EVVICE - Shop 1376	nley Point R Linden US 07

To discuss this sample re \* - 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)

Certificate L2367

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