

## **OIL ANALYSIS REPORT**

### (97198X) Walgreens - Tractor [Walgreens - Tractor] 136A62109 Component

**Diesel Engine** 

PETRO CANADA DURON SHP 10W30 (11 GAL)

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

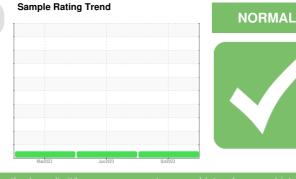
All component wear rates are normal.

#### 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.



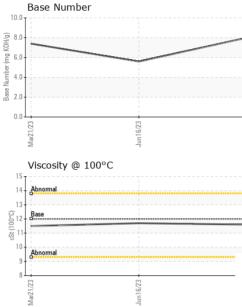
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0107369	PCA0100273	PCA0089817
Sample Date		Client Info		25 Oct 2023	16 Jun 2023	21 Mar 2023
Machine Age	mls	Client Info		500340	478127	453777
Oil Age	mls	Client Info		50000	54946	30596
Oil Changed		Client Info		Changed	Changed	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR METAL	.S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>80	27	33	22
Chromium	ppm	ASTM D5185m	>5	2	2	2
Nickel	ppm	ASTM D5185m	>2	0	<1	0
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>3	0	<1	0
Aluminum	ppm	ASTM D5185m	>30	11	15	14
Lead	ppm	ASTM D5185m	>30	0	1	0
Copper	ppm	ASTM D5185m	>150	6	7	5
Tin	ppm	ASTM D5185m	>5	<1	1	<1
Vanadium	ppm	ASTM D5185m		0	<1	0
Cadmium	ppm	ASTM D5185m		0	<1	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	4	0	2
Barium	ppm	ASTM D5185m	0	0	<1	0
Molybdenum	ppm	ASTM D5185m	50	61	67	64
Manganese	ppm	ASTM D5185m	0	<1	1	<1
Magnesium	ppm	ASTM D5185m	950	978	1067	1054
Calcium	ppm	ASTM D5185m	1050	1093	1247	1133
Phosphorus	ppm	ASTM D5185m	995	1093	1064	1098
Zinc	ppm	ASTM D5185m	1180	1313	1363	1360
Sulfur	ppm	ASTM D5185m	2600	2973	3140	3485

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	5	6	6
Sodium	ppm	ASTM D5185m		2	4	3
Potassium	ppm	ASTM D5185m	>20	<1	2	2

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.5	1	0.7
Nitration	Abs/cm	*ASTM D7624	>20	8.1	10.4	9.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.6	24.3	20.7
FLUID DEGRAD	<b>ATION</b>	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.9	20.5	16.6
Base Number (BN)	ma KOH/a	ASTM D2896		8.0	5.6	7.4



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	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
Jun 16/23 0ct25/23	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Jun	Cuol	scalar	*Visual	NORML	NORML	NORML	NORML
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
	Free Water	scalar	*Visual		NEG	NEG	NEG
	FLUID PROPI	ERTIES	method	limit/base	current	history1	history2
	Visc @ 100°C	cSt	ASTM D445	12.00	11.6	11.7	11.5
	GRAPHS						
	Ferrous Alloys						
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Jun 16/23	25						
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	Mar21/23	Jun 16/23		0ct25/23			
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	Non-ferrous Meta	als					
	copper						
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	Viscosity @ 100°	Jun16/23	These and the second	**************************************	Base Number		
	Viscosity @ 100°	Jun16/23	III II	9.0			
	Viscosity @ 100°	Jun16/23	IIIII Statut and a state of the	9.0			
	Viscosity @ 100°	Jun16/23		9.0			
	Viscosity @ 100°	Jun16/23		9.0			
	Viscosity @ 100°	Jun16/23		9.0			
	Viscosity @ 100°	Jun16/23		9.0 8.0 (0)(0)(0)(0,0 0)(0)(0,0 0)(0)(0,0 0)(0,0)(0,			
	Viscosity @ 100°	Jun16/23		9.0 8.0 (0)(0)(0)(0,0) 9.0 (0)(0)(0,0) 9.0 (0)(0,0) (0)(0,0) 9.0 (0)(0,0)(0,0) (0)(0,0)(0,0)(0,0)(0,0)(			
	Viscosity @ 100°	C اسال		9.0 8.0 (b)HOX 6.0 9.1 9.1 9.1 9.1 9.1 9.1 9.1 9.1 9.1 9.1			
	Viscosity @ 100°	Jun16/23		9.0 8.0 (0)(0)(0)(0,0) 9.0 (0)(0)(0,0) 9.0 (0)(0,0) (0)(0,0) 9.0 (0)(0,0)(0,0) (0)(0,0)(0,0)(0,0)(0,0)(		Junt6/23	
Laboratory Sample No. Lab Number Unique Number Test Package iscuss this sample report,	Viscosity @ 100° Viscosity @ 100° Base WearCheck USA - : PCA0107369 : 05998620 r : 10726980 = : FLEET	C 501 Madii Received Diagnos	son Ave., Ca d : 06 l ed : 06 l tician : We	9.0 8.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9	Mar21/23	EZgyung ice - Shop 1370 - Be 2872 I Cont	erkeley-Perrysbu 7 Oregon Roa Perrysburg, O US 4355 tact: Curtis Ha ranservice.co