

OIL ANALYSIS REPORT

(89736X) Walgreens - Tracto [Walgreens - Tractor] 136A6 Component

Diesel Engine

PETRO CANADA DURON SHP 10W30 (11 GA

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.

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iAL)			r2023	Aug2023 Dec20		
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SAMPLE INFOR			limit/base		history1	history2
Sample Number		Client Info		PCA0105860	PCA0091545	PCA0091470
Sample Date	and a	Client Info		28 Dec 2023	25 Aug 2023	17 Mar 2023
Machine Age Oil Age	mls mls	Client Info Client Info		641897 50000	579335 579335	579335 50000
Oil Changed	11115	Client Info		Changed	N/A	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT		method	limit/base	ourropt	history1	history2
	ION				,	
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method WC Method	>0.2	NEG NEG	NEG	NEG
Glycol	~					
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>110	8	7	11
Chromium	ppm	ASTM D5185m		0	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	0	<1
Titanium Silver	ppm	ASTM D5185m ASTM D5185m	>2	0	0	0
Aluminum	ppm ppm	ASTM D5185m	>2	0 3	0	3
Lead	ppm	ASTM D5185m	>45	0	0	<1
Copper	ppm	ASTM D5185m	>85	3	3	2
Tin	ppm	ASTM D5185m	>4	0	0	<1
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	2	0	<1
Barium	ppm	ASTM D5185m	0	0	0	<1
Molybdenum	ppm	ASTM D5185m	50	57	59	64
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	950	915	941	958
Calcium	ppm	ASTM D5185m	1050	1007	1055	1157
Phosphorus Zinc	ppm ppm	ASTM D5185m ASTM D5185m	995 1180	910 1190	1007 1208	1071 1289
Sulfur	ppm	ASTM D5185m	2600	2828	3489	3141
CONTAMINAN		method	limit/base		history1	history2
Silicon	ppm	ASTM D5185m	>30	21	22	5
Sodium Potassium	ppm ppm	ASTM D5185m ASTM D5185m	>20	2	1	0
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INFRA-RED		method	limit/base		history1	history2
Soot %	%	*ASTM D7844	>3	0.6	0.4	0.5
Nitration	Abs/cm	*ASTM D7624	>20	9.5	8.5	8.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.0	19.1	20.3
FLUID DEGRA		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.6	15.4	16.8
Base Number (BN)	mg KOH/g	ASTM D2896		6.9	8.0	7.4

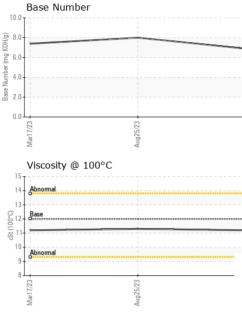
Sample Rating Trend

NORMAL



OIL ANALYSIS REPORT

VISUAL



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
						NONE
						NONE
						NORML
						NORML
			>0.2			NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPE	RTIES	method	limit/base	current	history1	history
Visc @ 100°C	cSt	ASTM D445	12.00	11.2	11.3	11.2
GRAPHS						
Ferrous Alloys						
iron						
10 - management chromium						
8						
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0 		Management and a second second				
7/23 -	5/23 -		8/23			
Marl	Aug2!		Dec2{			
– Non-ferrous Metal						
¹⁰ T						
copper						
8 - management tin	1					
6						
E dd						
4						
2						
	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~					
17/21	25/2:		28/2			
Mai	Aug		Dec			
				Base Number		
				1		
-						
			H 9.0	+		
			Ĕ 5.0			
평 11-				1		
10			2 3.0 ase	1		
9 -						
8				1		
7/23	Aug25/23 -				5/23 .	
Mar17/23	Aug2		Dec28/23	Mar17/23	Aug25/23	
0.00.00	Debris Sand/Dirt Appearance Odor Emulsified Water Free Water Fluid PROPE Visc @ 100°C GRAPHS Ferrous Alloys	Debris scalar Sand/Dirt scalar Appearance scalar Odor scalar Emulsified Water scalar Free Water scalar Free Water scalar FLUID PROPERTIES Visc @ 100°C cSt GRAPHS Ferrous Alloys Viscosity @ 100°C Viscosity @ 100°C Viscosity @ 100°C	Debris scalar *Visual Sand/Dirt scalar *Visual Appearance scalar *Visual Odor scalar *Visual Emulsified Water scalar *Visual Free Water scalar *Visual FlUID PROPERTIES method Visc @ 100°C cSt ASTM D445 GRAPHS Ferrous Alloys Viscosity @ 100°C Viscosity @ 100°C Viscosity @ 100°C	Debris scalar *Visual NONE Sand/Dirt scalar *Visual NONE Appearance scalar *Visual NORML Odor scalar *Visual NORML Emulsified Water scalar *Visual >0.2 Free Water scalar *Visual >0.2 Visc @ 100°C cSt ASTM D445 12.00 CRAPHS Ferrous Alloys Viscosity @ 100°C Viscosity @ 100°C	Debris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NONE NONE Appearance scalar *Visual NORML NORML Odor scalar *Visual NORML NORML Emulsified Water scalar *Visual >0.2 NEG Free Water scalar *Visual >0.2 NEG Free Water scalar *Visual >0.2 NEG Free Water scalar *Visual >0.2 NEG Ferrous Alloys Ferrous Alloys Conferrous Metals Viscosity @ 100°C Viscosity @ 100°C	Debris scalar *Visual NONE NONE NONE Sand/Dirt scalar *Visual NONE NORML NORML Odor scalar *Visual NORML NORML NORML Odor scalar *Visual NORML NORML NORML Emulsified Water scalar *Visual >0.2 NEG NEG Free Water scalar *Visual NORM NEG NEG Free Water scalar *Visual NORM NEG NEG Free Water scalar *Visual >0.2 NEG NEG Ferous Alloys Ferrous Alloys 000°C cst ASTM D445 12.00 11.2 11.3 CRAPHS Ferrous Alloys 000°C of the scalar

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