

OIL ANALYSIS REPORT

(89840X) Walgreens - Tractor [Walgreens - Tractor] 136A68099 Component

Diesel Engine

PETRO CANADA DURON SHP 10W30 (11 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

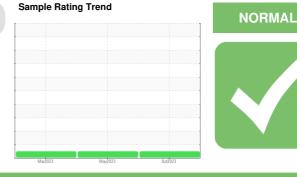
All component wear rates are normal.

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.





GAL)		Mar ² 023 Mar ² 023 Oct ² 023						
SAMPLE INFOR	RMATION	method	limit/base	current	history1	history2		
Sample Number		Client Info		PCA0094336	PCA0094359	PCA0094353		
Sample Date		Client Info		30 Oct 2023	22 May 2023	30 Mar 2023		
Machine Age	mls	Client Info		0	754526	730323		
Oil Age	mls	Client Info		0	730323	0		
Oil Changed		Client Info		N/A	N/A	N/A		
Sample Status				NORMAL	NORMAL	NORMAL		
CONTAMINA	TION	method	limit/base	current	history1	history2		
Fuel		WC Method	>5	<1.0	0.3	<1.0		
Glycol		WC Method		NEG	NEG	NEG		
WEAR META	LS	method	limit/base	current	history1	history2		
Iron	ppm	ASTM D5185m	>80	45	33	19		
Chromium	ppm	ASTM D5185m	>5	2	2	2		
Nickel	ppm	ASTM D5185m	>2	<1	0	<1		
Titanium	ppm	ASTM D5185m		<1	0	0		
Silver	ppm	ASTM D5185m	>3	0	0	0		
Aluminum	ppm	ASTM D5185m	>30	19	17	9		
Lead	ppm	ASTM D5185m	>30	<1	0	0		
Copper	ppm	ASTM D5185m	>150	5	4	2		
Tin	ppm	ASTM D5185m	>5	<1	<1	<1		
Vanadium	ppm	ASTM D5185m		<1	0	<1		
Cadmium	ppm	ASTM D5185m		0	0	0		
ADDITIVES		method	limit/base	current	history1	history2		
Boron	ppm	ASTM D5185m	2	0	0	0		
Barium	ppm	ASTM D5185m	0	<1	0	0		
Molybdenum	ppm	ASTM D5185m	50	68	62	60		
Manganese	ppm	ASTM D5185m	0	1	<1	<1		
Magnesium	ppm	ASTM D5185m	950	1159	984	950		
Calcium	ppm	ASTM D5185m	1050	1193	1205	1091		
Phosphorus	ppm	ASTM D5185m	995	1090	1021	1000		
Zinc	ppm	ASTM D5185m	1180	1505	1307	1260		
Sulfur	ppm	ASTM D5185m	2600	2955	3161	2952		
CONTAMINA	NTS	method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185m	>20	6	4	3		
Sodium	ppm	ASTM D5185m		2	2	2		
Potassium	ppm	ASTM D5185m	>20	7	2	1		
INFRA-RED		method	limit/base	current	history1	history2		
Soot %	%	*ASTM D7844	>3	1.1	0.8	0.4		
Nitration	Abs/cm	*ASTM D7624	>20	10.9	10.6	8.4		
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.4	24.3	19.9		
FLUID DEGRA	DATION	method	limit/base	current	history1	history2		
Ovidation	Abe/ dame:	*40714 07414	. 05	01.0	00.6	16.1		

21.0

5.4

Oxidation

Abs/.1mm *ASTM D7414 >25

Base Number (BN) mg KOH/g ASTM D2896

16.1

8.2

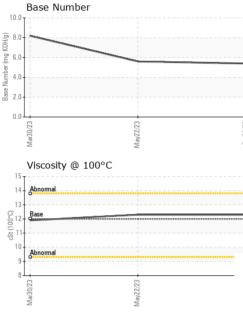
20.6

5.6



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
		Debris	scalar	*Visual	NONE	NONE	NONE	NONE
		Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
May22/23	0ct30/23	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
May	Oct	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	ERTIES	method	limit/base	current	history1	history2
		Visc @ 100°C	cSt	ASTM D445	12.00	12.3	12.3	11.9
		GRAPHS						
		Ferrous Alloys						
53		40 - iron		- Statement and	and a constant			
May22/23		35 - nickel		Contraction of Contra				
N		30						
		E 25 20						
		15						
		10-						
		5 -						
		0	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	************************************	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			
		Mar30/23	May22/23		0ct30/23			
			-		õ			
		Non-ferrous Meta	als					
		copper						
		8 - second lead						
		6-						
		E d d						
		4-	and the second se					
		2						
					m			
		Mar30/23	May22/23		0ct30/23			
		Ma			00			
		Viscosity @ 100°	'C			Base Number		
		, -	Ċ		9.0	T.		
		15	C		8.0			
		15 14 Abnormal 13	°C		8.0		<u> </u>	
		15 14 Abnormal 13	C		8.0 (P7.0 (HOX) 6.0 Bu 5		<u> </u>	
		15 14 Abnormal 13 (2) 12 Base 11	C		8.((6)(HOX) 6.(0)(HOX) 90(1) 10(1)(1)(1)(1)(1)(1)(1)(1)(1)(1)(1)(1)(1)(<u> </u>	
		15 14 13 13 13 12 12 4 5 12 5 12 4 5 11 12 4 Abnomal 13 12 4 Abnomal 13 12 4 Abnomal 13 12 4 Abnomal 13 13 12 4 4 13 13 13 12 13 13 13 13 13 13 13 13 13 13	C		8.0		<u> </u>	
		15 14 Abnomal 13 Control 12 Go 112 Go 112 10	C		8.((6)(HOX) 6.(0)(HOX) 90(1) 10(1)(1)(1)(1)(1)(1)(1)(1)(1)(1)(1)(1)(1)(
		Abnormal 13 14 13 12 12 12 12 11 10 9 8			1.8 (7.1) (8.04(10) (1.9) (1.9) (1.9) (1.9) (1.9) (1.0			
		Abnormal 13 14 13 12 12 12 12 11 10 9 8			1.8 (7.1) (8.04(10) (1.9) (1.9) (1.9) (1.9) (1.9) (1.0		4/22/23	
đ	Laboratory	Abnormal Base Abnormal Base Copper Copper	EZZZZIEW 501 Madis		8.1 (a)HOX BU b) 15.1 (b)HOX BU b) 15.1 (b)HOX BU b) 15.1 (c)HOX B) 15.1 (c	Mar30/23		
	Sample No.	Abnormal Abnormal Abnormal Abnormal Cooperations Coop	501 Madia Received	1 EO : L	8.1 (Hyp) 6.1 (Hyp) 0.5.1 (Hyp) 0.5.1 (Hyp	Mar30/23	ce - Shop 1363 -	5 Premier Ro
	Sample No. Lab Number	Abnomal Base Abnomal Base Cooper Cooper Base Cooper	501 Madia Received Diagnose	d : 03 M ed : 06 M	Ry, NC 27511 Nov 2023 Nov 2023	Mar30/23	ce - Shop 1363 -	5 Premier Ro Orlando,
tificate 12367	Sample No.	Base Abnomal Base Exercheck USA - PCA0094336 : 05997698 r : 10726058	501 Madia Received	d : 03 M ed : 06 M	8.1 (Hyp) 6.1 (Hyp) 0.5.1 (Hyp) 0.5.1 (Hyp	Mar30/23	ice - Shop 1363 - 245	5 Premier Ro

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