

OIL ANALYSIS REPORT

Area (89688X) Walgreens Machine Id [Walgreens] 136A67127 Component

Diesel Engine

PETRO CANADA DURON SHP 10W30 (11 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. (Customer Sample Comment: Class A \mbox{pm})

Wear

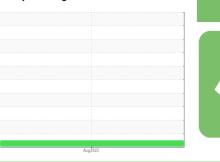
All component wear rates are normal.

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 Rating Trend



NORMAL

SAMPLE INFORI	MATION	method	limit/base	current	history 1	history 2
Sample Number		Client Info		PCA0078498		
Sample Date		Client Info		10 Aug 2022		
Machine Age	mls	Client Info		410075		
Oil Age	mls	Client Info		3812		
Oil Changed		Client Info		Not Changd		
Sample Status				NORMAL		
CONTAMINAT	ION	method	limit/base	current	history 1	history 2
Fuel		WC Method	>5	<1.0		
Glycol		WC Method		NEG		
WEAR METAL	S	method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m	>110	16		
Chromium	ppm	ASTM D5185m	>4	<1		
Nickel	ppm	ASTM D5185m	>2	4		
Titanium	ppm	ASTM D5185m		0		
Silver	ppm	ASTM D5185m	>2	<1		
Aluminum	ppm	ASTM D5185m	>25	4		
Lead	ppm	ASTM D5185m	>45	0		
Copper	ppm	ASTM D5185m	>85	13		
Tin	ppm	ASTM D5185m	>4	<1		
Vanadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		0		
	1010			U U		
ADDITIVES	le le con	method	limit/base	current	history 1	history 2
	ppm		limit/base		history 1	history 2
ADDITIVES		method		current		
ADDITIVES Boron	ppm	method ASTM D5185m	2	current 21		
ADDITIVES Boron Barium	ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	2 0	current 21 <1		
ADDITIVES Boron Barium Molybdenum	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50	current 21 <1 61		
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0	current 21 <1 61 <1		
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950	current 21 <1 61 <1 778		
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050	current 21 <1 61 <1 778 1036	 	
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995	Current 21 <1 61 <1 778 1036 917	 	
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	2 0 50 0 950 1050 995 1180	current 21 <1 61 <1 778 1036 917 1058	 	
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	2 0 50 950 1050 995 1180 2600	Current 21 <1 61 <1 778 1036 917 1058 2942		
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600	21 <1 61 <1 778 1036 917 1058 2942 current	 history 1	 history 2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Chosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	2 0 50 950 1050 995 1180 2600 limit/base >30	current 21 <1 61 <1 778 1036 917 1058 2942 current 4	 history 1	 history 2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	2 0 50 950 1050 995 1180 2600 limit/base >30	current 21 <1 61 <1 778 1036 917 1058 2942 current 4 <1	 history 1	 history 2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	2 0 50 950 1050 995 1180 2600 limit/base >30	21 <1 61 <1 778 1036 917 1058 2942 current 4 <1 1	 history 1 	 history 2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	method ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 imit/base >30 -20 imit/base	current 21 <1 61 <1 778 1036 917 1058 2942 current 4 <1 1 current	 history 1 history 1	 history 2 history 2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	method ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >30 >20 limit/base	current 21 <1 61 <1 778 1036 917 1058 2942 current 4 <1 1 current 0.4	 history 1 history 1 	 history 2 history 2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D7844 *ASTM D7624	2 0 50 0 950 1050 995 1180 2600 <i>limit/base</i> >30 20 <i>limit/base</i> >3 >20	current 21 <1 61 <1 778 1036 917 1058 2942 current 4 <1 1 current 0.4 8.8	history 1 history 1 history 1	 history 2 history 2 history 2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D7844 *ASTM D7624	2 0 50 950 1050 995 1180 2600 imit/base >30 imit/base >3 >20 >30	current 21 <1 61 <1 778 1036 917 1058 2942 current 4 <1 1 current 0.4 8.8 19.4	 history 1 history 1 history 1	 history 2 history 2 history 2



cSt (100°C) 11 Base

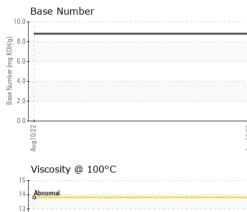
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8 Aug10/22

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Abnormal

OIL ANALYSIS REPORT



							history '
	VISUAL		method	limit/base	current	history 1	history 2
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
	Precipitate	scalar	*Visual	NONE	NONE		
	Silt	scalar	*Visual	NONE	NONE		
	Debris	scalar	*Visual	NONE	NONE		
	Sand/Dirt	scalar	*Visual	NONE	NONE		
10.02 20	Appearance	scalar	*Visual	NORML	NORML		
		scalar	*Visual	NORML	NORML		
	Emulsified Water	scalar	*Visual	>0.2	NEG		
	Free Water	scalar	*Visual		NEG		
	FLUID PROPE	ERTIES	method	limit/base	current	history 1	history
*****	Visc @ 100°C	cSt	ASTM D445	12.00	10.8		
	GRAPHS						
	Ferrous Alloys						
	16 iron						
	4 chromium						
	10- E o						
	Ed. 8-						
	6 -						
	4		******				
	2						
	Aug10/22			Aug10/22			
				A			
		1					
	Non-ferrous Meta	als					
	14 copper	als					
	14 12 12	als					
	14 12	als					
	14 12 10	als					
	14 12 12	als					
	14 12 10	als					
	14 12 10	als					
	14 12 10	als					
	14 12 10 E 8 6 4 2	als					
	14 12 10	als		Aug10/22			
	Viscosity @ 100°				Base Number		
	14 12 10 10 10 10 10 10 10 10 10 10				Base Number		
	Viscosity @ 100°			9.0 3.8	I		
	Viscosity @ 100°			9.0 3.8	I		
	Viscosity @ 100°			9.0 3.8	I		
	Viscosity @ 100°			0.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0			
	Copper lead 10 5000 Wiscosity @ 100° 514 Abnomal 13 6 6 6 7 7 7 8 8 6 6 7 7 7 7 8 8 6 7 7 7 8 8 6 7 7 7 8 8 6 7 7 7 7			0.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0			
	Copper 10 10 10 10 10 10 10 10 10 10			9.0 3.8			
	14 12 10 10 10 10 10 10 10 10 10 10			0.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0			
	Viscosity @ 100° Abnormal Base Abnormal Base			9.0 8.0 9.1 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0			
	Viscosity @ 100° Abnormal Base Abnormal Base			9.0 8.0 9.1 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0			
	Copper 10 10 10 10 10 10 10 10 10 10			9.0 8.0 1.0 1.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9			
laboratory	Viscosity @ 100°	C		Aug10/22 Aug10/	Aug10/22	- Shon 1272 - Baskalau	. Andercon/Donders
Laboratory Sample No.	Viscosity @ 100° Viscosity @ 100° is defined and in the second se	C 501 Madi:		9.0 8.0 (a)HO3 000 9.0 (b)HO3 00 90 90 90 90 90 90 90 90 90 90 90 90 9	Aug10/22	- Shop 1373 - Berkeley-	
Laboratory Sample No. Lab Number	Viscosity @ 100° Viscosity @ 100° Uiscosity @ 100° Viscosity @ 100° Viscosity @ 100° Viscosity @ 100°	C 501 Madia Received	d : 29 /	22001 Bmy 22001 Bmy 22001 Bmy 22001 Bmy 22001 Bmy 2001 Bmy 2	Aug10/22	101 A	lliance Parkv
Sample No. Lab Number	Viscosity @ 100%	C 501 Madi:	d : 29 / ed : 30 /	9.0 8.0 (a)HO3 000 9.0 (b)HO3 00 90 90 90 90 90 90 90 90 90 90 90 90 9	Aug10/22	101 A	lliance Parkv Willamston,
Sample No. Lab Number	Viscosity @ 100% Viscosity @ 100% is a comparison Viscosity @ 100%	C 501 Madia Received Diagnos Diagnos	d : 29 / ed : 30 / tician : Dor	22010 22001 22001 200	Aug10/22	101 A	-Anderson/Penderg lliance Parkw Willamston, i US 296 Sonny Boucl transervice.c

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