

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id 215007

Component Diesel Engine

Eluid

PETRO CANADA DURON SHP 15W40 (--- 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

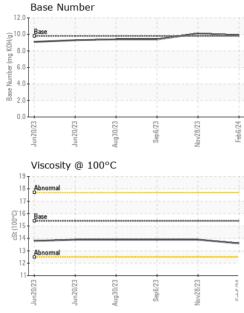
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sample Date Client Info 06 Feb 2024 28 Nov 2023 06 Sep 2023 Machine Age mis Client Info 99182 7822 7742 Dil Age mis Client Info 0 7822 7742 Dil Changed Client Info Not Changd Not Changd Not Changd Not Changd Sample Status Client Info Nor Changd Nor Changd Nor Changd Nor Changd CONTAMINATION method imit/base current history1 history2 Fuel WC Method >5 <1.0 <1.0 <1.0 Water WC Method >0.2 NEG NEG NEG Machine ppm ASTM 05165m >100 29 30 27 Chromium ppm ASTM 05165m >20 0 <1 0 Nickel ppm ASTM 05165m >3 0 0 0 Silver ppm ASTM 05165m >30 2 3 2	SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
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FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.4 17.0 14.6	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 2060 225 >25	6 0 61 <1 936 1151 1032 1299 3153 current 3 4 1 2 1299 3153	6 0 55 <1 839 1065 932 1095 2747 history1 3 3 0 history1 1.7	7 0 59 <1 983 1183 1018 1261 3761 history2 4 1 1 <1 history2 1.2
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Base Number (BN) mg KOH/g ASTM D2896 9.8 9.9 10.1 9.4	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	ASTM D5185m ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 imit/base >25 imit/base >3 >20	6 0 61 <1 936 1151 1032 1299 3153 current 3 4 1 1 current 1.4 10.7 20.9	6 0 55 <1 839 1065 932 1095 2747 history1 3 3 3 0 <u>history1</u> 1.7 1.2 22.1	7 0 59 <1 983 1183 1018 1261 3761 history2 4 1 <1 <1 history2 1.2 9.3 19.9
	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 TS ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7415	0 0 0 1010 1070 1150 1270 2060 2060 225 20 220 220 20 3 20 20 20 3 3 20 20 20 20 20 20 20 20 20 20 20 20 20	6 0 61 <1 936 1151 1032 1299 3153 Current 3 4 1 1 Current 1.4 10.7 20.9 Current	6 0 55 <1 839 1065 932 1095 2747 history1 3 3 3 0 history1 1.7 11.2 22.1 history1	7 0 59 <1 983 1183 1018 1261 3761 history2 4 1 <1 ×1 history2 1.2 9.3 19.9 history2



OIL ANALYSIS REPORT

VISUAL



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						Se N	4.0			
			18 Abnormal 17 Base 19 Base 10 Base			(B/H	8.0 - 6.0 -			
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			2- 0 52002ung 52002ung	lug30/23 +	Vov28/23	Feb6/24				
			6- 4-							
			10 copper	als						
			Jun20/23	Aug30/23	Nov28/23	Feb6/24				
Sep	Nav2	-	20 <u>E</u> 15- 10							
36/23 -	28/23	100	Ferrous Alloys							
			Visc @ 100°C GRAPHS	cSt	ASTM D445	15.4	13.6	10	3.9	13.9
					method	limit/base				history2
			Emulsified Water Free Water	scalar scalar	*Visual *Visual	>0.2	NEG NEG			NEG NEG
Sep6/2	Nov28/2	Feb6/2	Appearance Odor	scalar	*Visual *Visual	NORML				NORML NORML
	53	54	Sand/Dirt	scalar	*Visual	NONE	NONE	Ν		NONE
					*Visual *Visual					NONE
			Precipitate	scalar	*Visual	NONE	NONE	N	ONE	NONE
	Sep6/23 +		Septo.723	White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor Emulsified Water Free Water Fluid PROPE Visc @ 100°C GRAPHS Ferrous Alloys Otor Brerous Alloys Coor Example Non-ferrous Metal Non-ferrous Metal Coor Example Visc @ 100°C Cor Example Visc @ 100°C Cor Example Cor Example Cor Example Visc @ 100°C Cor Example Cor	White Metal scalar Yellow Metal scalar Precipitate scalar Sit scalar Sand/Dirt scalar Appearance scalar Odor scalar Free Water scalar Free Water scalar Free Water scalar Free Water scalar From Salloys Official States Visc @ 100°C cSt GRAPHS Ferrous Alloys On-ferrous Metals Non-ferrous Metals Viscosity @ 100°C	White Metal scalar *Visual Yellow Metal scalar *Visual Precipitate scalar *Visual Sitt scalar *Visual Sitt scalar *Visual Sand/Dirt scalar *Visual Appearance scalar *Visual Odor scalar *Visual Codor scalar *Visual Precipitate scalar *Visual Appearance scalar *Visual Free Water scalar *Visual Process Alloys Ferrous Alloys Non-ferrous Metals Viscosity @ 100°C Viscosity @ 100°C State State Stat	Yellow Metal scalar Visual NONE Scalar Visual NONE Sand/Dirt Scalar Visual NONE Sand/Dirt Scalar Visual NONE Sand/Dirt Scalar Visual NORML Odor Scalar Visual NORML Debris Scalar Visual NORML Odor Scalar Visual NORML Debris Scalar Visual NORML Emulsified Water Scalar Visual NORML Dimit/base Visc @ 100°C C St ASTM D445 15.4 GRAPHS Ferrous Alloys Otopped Non-ferrous Metals Viscosity @ 100°C Viscosity @ 100°C	White Metal scalar Visual NONE NONE Precipitate scalar Visual NONE NONE Sitt scalar Visual NONE NONE Solar Visual NONE NONE Sand/Dirt scalar Visual NONE NONE Appearance scalar Visual NORM NORM Odor scalar Visual NORM NORM Odor scalar Visual NORM NORM Core scalar Visual NORM NORM Mone termusified Water scalar Visual NORM NORM Core scalar Visual NORM Norm Core scalar Visual NORM NORM Norm Core scalar Visual NORM NORM Norm Core scalar Visual NORM NORM NORM NORM NORM NORM NORM NORM	Yellow Metal scalar Visual NONE NONE NONE NONE NONE NONE NONE NON	White Metal scalar 'Visual NONE NONE NONE NONE Precipitale scalar 'Visual NONE NONE NONE NONE Precipitale scalar 'Visual NONE NONE NONE NONE Siti scalar 'Visual NONE NONE NONE NONE Sand/Dirit scalar 'Visual NONE NONE NONE NONE Appearance scalar 'Visual NORML NORML NORML Odo'r scalar 'Visual NORML

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