

OIL ANALYSIS REPORT

Sample Rating Trend





Area (P875192) YARD UNIT/STORAGE TRAILER 834042

Natural Gas Engine

Fluid PETRO CANADA DURON GEO LD 15W40 (28 QTS)

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 Number Client Info OFL0124438 GFL019679 Sample Date Client Info 09 Jul 2024 23 May 2024 Oil Age hrs Client Info 974 974 Oil Anged hrs Client Info 974 974 Sample Status I Client Info 974 974 Sample Status I Current HistoryI HistoryI CONTAMINATION method imit/base current HistoryI HistoryI WEAR METALS method imit/base current HistoryI HistoryI Inon ppm ASTM D5185m >50 45 50 Chornium ppm ASTM D5185m >50 41 Silver ppm ASTM D5185m >50 45 50 Silver ppm ASTM D5185m >50 41 -1< Contomimum ppm </th <th>SAMPLE INFOR</th> <th>MATION</th> <th>method</th> <th>limit/base</th> <th>current</th> <th>history1</th> <th>history2</th>	SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 1253 974 Oil Age hrs Client Info 974 974 Oil Changed Client Info 974 974 Sample Status Client Info 974 Changed CONTAMINATION method imit/base current NoRMAL NORMAL Water WC Method >0.1 NEG NEG Weter WC Method >0.1 NEG NEG Mickel ppm ASTM D5185m >50 45 50 Silver ppm ASTM D5185m >2 2 <1 Aluminum ppm ASTM D5185m >3 <1 <1 Aluminum ppm ASTM D5185m >3 <1 <1 Aluminum ppm ASTM D5185m >3 <1 <1 0 Copper	Sample Number		Client Info		GFL0124438	GFL0109579	
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Silver ppm ASTM D5185m >3 <1	Nickel	ppm	ASTM D5185m	>2	2	<1	
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Soot % % *ASTM D7844 0 0.1 Nitration Abs/cm *ASTM D7624 >20 12.8 12.7 Sulfation Abs/.1mm *ASTM D7415 >30 26.2 25.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 23.2 23.0	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	50 50 0 560 1510 780 870 2040 Iimit/base	6 <1 67 8 809 1691 929 1134 2352 current 12	10 <1 63 10 827 1533 848 1069 2726 history1 17	 history2
Nitration Abs/cm *ASTM D7624 >20 12.8 12.7 Sulfation Abs/.1mm *ASTM D7415 >30 26.2 25.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 23.2 23.0	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	50 50 0 560 1510 780 870 2040 limit/base >+100	6 <1 67 8 809 1691 929 1134 2352 current 12 5	10 <1 63 10 827 1533 848 1069 2726 history1 17 10	 history2
Sulfation Abs/.1mm *ASTM D7415 >30 26.2 25.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 23.2 23.0	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	50 50 0 560 1510 780 870 2040 limit/base >+100	6 <1 67 8 809 1691 929 1134 2352 current 12 5 15	10 <1 63 10 827 1533 848 1069 2726 history1 17 10 14	 history2
FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 23.2 23.0	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m	50 50 0 560 1510 780 870 2040 limit/base >+100	6 <1 67 8 809 1691 929 1134 2352 current 12 5 15 15 current	10 <1 63 10 827 1533 848 1069 2726 history1 17 10 14 history1	 history2 history2
Oxidation Abs/.1mm *ASTM D7414 >25 23.2 23.0	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	50 50 0 560 1510 780 870 2040 2040 >+100 >20 20 }	6 <1 67 8 809 1691 929 1134 2352 <u>current</u> 12 5 15 5 15 0	10 <1 63 10 827 1533 848 1069 2726 history1 17 10 14 14 history1 0.1	 history2 history2 history2
	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	50 50 0 560 1510 780 870 2040 <i>limit/base</i> >+100 20 <i>limit/base</i>	6 <1 67 8 809 1691 929 1134 2352 current 12 5 15 current 0 12.8	10 <1 63 10 827 1533 848 1069 2726 history1 17 17 10 14 14 history1 0.1 12.7	 history2 history2 history2
	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	50 50 560 1510 780 870 2040 Iinit/base >+100 520 Iinit/base >20	6 <1 67 8 809 1691 929 1134 2352 <u>current</u> 12 5 15 <u>current</u> 0 12.8 26.2	10 <1 63 10 827 1533 848 1069 2726 history1 17 10 14 17 10 14 14 0.1 12.7 25.6	 history2 history2 history2
	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 D7844 *ASTM D7844	50 50 560 1510 780 870 2040 >+100 >+100 20 imit/base >20 >20 >30	6 <1 67 8 809 1691 929 1134 2352 current 12 5 15 current 0 12.8 26.2 current	10 <1 63 10 827 1533 848 1069 2726 history1 17 10 14 17 10 14 0.1 12.7 25.6 history1	 history2 history2 history2 history2



OIL ANALYSIS REPORT

FT-IR (Direct Trend)	VISUAL		method	limit/base	current	history1	history2
35 - Oxidation		White Metal	scalar	*Visual	NONE	NONE	NONE	
30 - Sulfation		Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
g 25 - Abnormal		Precipitate	scalar	*Visual	NONE	NONE	NONE	
₹ 20		Silt	scalar	*Visual	NONE	NONE	NONE	
15		Debris	scalar	*Visual	NONE	NONE	NONE	
10		Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
	Jul9/24 -	Appearance	scalar	*Visual	NORML	NORML	NORML	
May23/24	Jul	Odor	scalar	*Visual	NORML	NORML	NORML	
Base Number		Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	
Base Number		Free Water	scalar	*Visual		NEG	NEG	
(B10.0 - Base		FLUID PROPE	ERTIES	method	limit/base	current	history1	history2
(510.0) Best (610.0) (Visc @ 100°C	cSt	ASTM D445	15.1	14.6	14.4	
4.0 -		GRAPHS						
⁸⁶ 2.0 -		Ferrous Alloys						
0.0 Hay23/24	<i>ис</i> .а1	40 - iron iron iron ickel						
≥ Viscosity @ 100°C		30 -						
19		B 20 -						
17		10-						
0 16 - Base		10						
© 16 0 15 8 14		42 0	*********		24			
13 - Abnormal		May23/24			Jul9/24			
12		≥ Non-ferrous Meta						
114	NC/ E	¹⁶ T						
May23/24		14 - copper						
		12						
		10						
		튭 8-						
		6						
		4	Constituentices to constitue	uitenitenstenstennit				
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