

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id V3614 Component

Diesel Engine

Fluid PETRO CANADA DURON SHP 10W30 (--- 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.

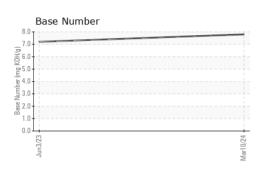
Fluid Condition

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

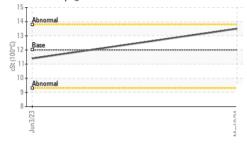
			Jun2023	Mar2024		
SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0099364	PCA0099400	
Sample Date		Client Info		10 Mar 2024	03 Jun 2023	
Machine Age	mls	Client Info		0	40477	
Oil Age	mls	Client Info		0	0	
Oil Changed		Client Info		N/A	Changed	
Sample Status				NORMAL	NORMAL	
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	
Water		WC Method	>0.2	NEG	NEG	
Glycol		WC Method		NEG	NEG	
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	22	26	
Chromium	ppm	ASTM D5185m	>20	1	1	
Nickel	ppm	ASTM D5185m	>20	، <1	0	
Titanium		ASTM D5185m	24	1	<1	
Silver	ppm	ASTM D5185m	>3	0	<1	
Aluminum	ppm			8	10	
	ppm	ASTM D5185m	>20			
Lead	ppm	ASTM D5185m	>40	0	0	
Copper	ppm	ASTM D5185m	>330	11	9	
Tin	ppm	ASTM D5185m	>15	<1	0	
Vanadium	ppm	ASTM D5185m		0	<1	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES	ррш	method	limit/base	current	0 history1	history2
	ppm		limit/base			
ADDITIVES		method		current	history1	
ADDITIVES Boron	ppm	method ASTM D5185m	2	current 2	history1 33	history2
ADDITIVES Boron Barium	ppm ppm	method ASTM D5185m ASTM D5185m	2 0	current 2 0	history1 33 0	history2
ADDITIVES Boron Barium Molybdenum	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50	current 2 0 64	history1 33 0 61	history2
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0	current 2 0 64 <1	history1 33 0 61 <1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950	current 2 0 64 <1 505	history1 33 0 61 <1 721	history2
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 2 0 64 <1 505 1652	history1 33 0 61 <1 721 1340	history2
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 2 0 64 <1 505 1652 1002	history1 33 0 61 <1 721 1340 766	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180	current 2 0 64 <1 505 1652 1002 1258	history1 33 0 61 <1 721 1340 766 912	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	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 0 950 1050 995 1180 2600	Current 2 0 64 <1 505 1652 1002 1258 3270	history1 33 0 61 <1 721 1340 766 912 2815	history2
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 ASTM D5185m	2 0 50 950 1050 995 1180 2600	current 2 0 64 <1 505 1652 1002 1258 3270 current	history1 33 0 61 <1 721 1340 766 912 2815 history1	history2 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	2 0 50 950 1050 995 1180 2600	current 2 0 64 <1 505 1652 1002 1258 3270 current 5	history1 33 0 61 <1 721 1340 766 912 2815 history1 5	history2 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base	current 2 0 64 <1 505 1652 1002 1258 3270 current 5 <1	history1 33 0 61 <1 721 1340 766 912 2815 history1 5 4	history2
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 >25	2 0 64 <1 505 1652 1002 1258 3270 current 5 <1 6	history1 33 0 61 <1 721 1340 766 912 2815 history1 5 4 8	history2 history2 history2
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 ppm	method ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >25 -20 limit/base	current 2 0 64 <1 505 1652 1002 1258 3270 current 5 <1 6 current	history1 33 0 61 <1 721 1340 766 912 2815 history1 5 4 8 history1	history2 history2 history2 history2
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 ppm	method ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >25 >20 limit/base >3	current 2 0 64 <1 505 1652 1002 1258 3270 current 5 <1 6 current 0.6	history1 33 0 61 <1 721 1340 766 912 2815 history1 5 4 8 history1 0.6	history2 history2 history2 history2 history2
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 D5185m	2 0 50 950 1050 995 1180 2600 <i>limit/base</i> >25 >20 <i>limit/base</i> >3 >20	current 2 0 64 <1 505 1652 1002 1258 3270 current 5 <1 6 current 0.6 8.2	history1 33 0 61 <1 721 1340 766 912 2815 history1 5 4 8 history1 0.6 9.9	history2
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 *ASTM D7415 method	2 0 0 50 0 950 1050 995 1180 2600 imit/base >25 >20 >20 >30 >30 imit/base	2 0 64 <1 505 1652 1002 1258 3270 current 5 <1 6 current 0.6 8.2 20.1	history1 33 0 61 <1 721 1340 766 912 2815 history1 5 4 8 history1 0.6 9.9 20.5 history1	history2 history2 history2
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 D5185m	2 0 50 0 950 1050 995 1180 2600 imit/base >25 imit/base >3 >20	current 2 0 64 <1 505 1652 1002 1258 3270 current 5 <1 6 current 0.6 8.2 20.1	history1 33 0 61 <1 721 1340 766 912 2815 history1 5 4 8 history1 0.6 9.9 20.5	history2 history2 history2 history2 history2 history2 history2



OIL ANALYSIS REPORT



Viscosity @ 100°C



VISUAL NONE *Visual NONE NONE White Metal scalar Yellow Metal *Visual NONE NONE NONE scalar Precipitate scalar *Visua NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE Debris *Visual NONE NONE scalar Sand/Dirt NONE scalar *Visual NONE NONE NORML Appearance scalar *Visual NORML NORML Odor NORML NORML scalar *Visual NORML **Emulsified Water** scalar *Visual >0.2 NEG NEG Free Water scalar *Visual NEG NEG **FLUID PROPERTIES** Visc @ 100°C cSt ASTM D445 12.00 13.5 11.4 GRAPHS Iron (ppm) Lead (ppm) 250 100 200 80 150 60 ppm ppm 100 40 50 20 0 Mar10/24 Aluminum (ppm) Chromium (ppm) 50 5 40 40 30 30 10 Mar10/24 Silicon (ppm) Copper (ppm) 400 80 300 6 la 200 ۲,40 100 20 Mar10/74 Viscosity @ 100°C Base Number 16 8 KOH/ 100 ja 4.0 , ts Ž 2 (Abnor 0.0 8 Mar10/24 -MILLER TRUCK LEASING #137 : WearCheck USA - 501 Madison Ave., Cary, NC 27513 : PCA0099364 361 ROUTE 312 Received : 19 Mar 2024 :06121998 BREWSTER, NY Tested : 19 Mar 2024



: 21 Mar 2024 - Don Baldridge US 10509 Unique Number : 10936149 Diagnosed Test Package : MOB 1 (Additional Tests: TBN) Contact: Robert Beckhusen Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. rbeckhusen@millertransgroup.com * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (845)779-1064 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Laboratory

Sample No.

Lab Number

F: