

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id 365179

Component Diesel Engine

Fluid PETRO CANADA DURON SHP 10W30 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

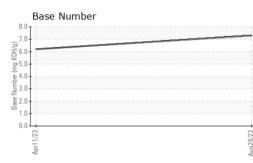
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

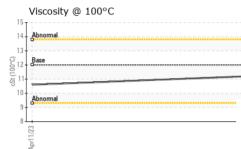
AL)			Apr2023	Aug2023		
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0019372	PCA0095919	
Sample Date		Client Info		28 Aug 2023	11 Apr 2023	
Machine Age	mls	Client Info		319050	312542	
Oil Age	mls	Client Info		0	0	
Oil Changed		Client Info		Changed	Changed	
Sample Status				NORMAL	NORMAL	
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	
Glycol		WC Method		NEG	NEG	
WEAR METAL	S	method	limit/base	current	history1	history2
ron	ppm	ASTM D5185m	>100	11	15	
Chromium	ppm	ASTM D5185m	>20	<1	<1	
Nickel	ppm	ASTM D5185m	>4	<1	0	
Titanium	ppm	ASTM D5185m		0	0	
Silver	ppm	ASTM D5185m	>3	0	0	
Aluminum	ppm	ASTM D5185m	>20	2	2	
Lead	ppm	ASTM D5185m	>40	2	<1	
Copper	ppm	ASTM D5185m	>330	<1	<1	
Tin	ppm	ASTM D5185m	>15	<1	0	
Vanadium	ppm	ASTM D5185m		0	0	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	6	8	
Barium	ppm	ASTM D5185m	0	0	1	
	ppm ppm	ASTM D5185m ASTM D5185m	0 50	0 66	1 63	
Molybdenum			50	-		
Molybdenum Manganese	ppm	ASTM D5185m	50	66	63	
Molybdenum Manganese Magnesium	ppm ppm	ASTM D5185m ASTM D5185m	50 0	66 <1	63 <1	
Molybdenum Manganese Magnesium Calcium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	50 0 950	66 <1 899	63 <1 848	
Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 0 950 1050	66 <1 899 1106	63 <1 848 1068	
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 0 950 1050 995	66 <1 899 1106 1038	63 <1 848 1068 927	
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 0 950 1050 995 1180	66 <1 899 1106 1038 1278	63 <1 848 1068 927 1155	
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 0 950 1050 995 1180 2600	66 <1 899 1106 1038 1278 3298	63 <1 848 1068 927 1155 3046	
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	50 0 950 1050 995 1180 2600 limit/base	66 <1 899 1106 1038 1278 3298 current	63 <1 848 1068 927 1155 3046 history1	 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	50 0 950 1050 995 1180 2600 limit/base >25	66 <1 899 1106 1038 1278 3298 current 4	63 <1 848 1068 927 1155 3046 history1 4	 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	50 0 950 1050 995 1180 2600 limit/base >25	66 <1 899 1106 1038 1278 3298 current 4 6	63 <1 848 1068 927 1155 3046 history1 4 4	 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 0 950 1050 995 1180 2600 limit/base >25 >20	66 <1 899 1106 1038 1278 3298 current 4 6 1	63 <1 848 1068 927 1155 3046 history1 4 4 0	 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	50 0 950 1050 995 1180 2600 limit/base >25 >20 limit/base >3	66 <1 899 1106 1038 1278 3298 current 4 6 1 2	63 <1 848 1068 927 1155 3046 history1 4 4 0 history1	 history2 history2
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	ASTM D5185m ASTM D5185m	50 0 950 1050 995 1180 2600 limit/base >25 >20 limit/base >3	66 <1 899 1106 1038 1278 3298 current 4 6 1 1 current 0.7	63 <1 848 1068 927 1155 3046 history1 4 4 0 history1 0.8	 history2 history2
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	ASTM D5185m ASTM D5185m	50 0 950 1050 995 1180 2600 limit/base >25 >20 limit/base >3 >20	66 <1 899 1106 1038 1278 3298 current 4 6 1 1 current 0.7 11.2	63 <1 848 1068 927 1155 3046 history1 4 4 4 0 bistory1 0.8 10.9	 history2 history2 history2
Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	50 0 950 1050 995 1180 2600 limit/base >25 >20 limit/base >3 >20	66 <1 899 1106 1038 1278 3298 current 4 6 1 1 current 0.7 11.2 21.0	63 <1 848 1068 927 1155 3046 history1 4 4 4 0 history1 0.8 10.9 19.3	 history2 history2 history2



OIL ANALYSIS REPORT

VISUAL





*Visual NONE NONE NONE White Metal scalar Yellow Metal NONE NONE NONE scalar *Visual Precipitate scalar *Visual NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE Debris *Visual NONE NONE scalar NONE Sand/Dirt scalar *Visual NONE NONE NORML Appearance *Visual NORML NORML scalar 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 11.2 10.6 GRAPHS Iron (ppm) Lead (ppm) 100 200 80 150 60 ppm ppm 100 40 50 20 Aug28/23 lor] Aluminum (ppm) Chromium (ppm) 50 5 40 40 30 30 pr] Apr1 Silicon (ppm) Copper (ppm) 400 80 30 6 la 200 ۲,40 100 20 Aug28/23 lor] Apr1 Viscosity @ 100°C Base Number 16 8 (OH/g St (100° Bas 4.0 2 (Abnormal 0.0 8 Aug28/23 -Apr1 Apr1 **MILLER TRUCK LEASING #119** : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 20 Sep 2023 **39 INDUSTRIAL AVE** : PCA0019372 : 21 Sep 2023 HASBROUCK HEIGHTS, NJ : 05956184 Diagnosed Diagnostician : Wes Davis Unique Number : 10657397 US 07604 Test Package : MOB 1 (Additional Tests: TBN) Contact: MIKE LONGETTE mlongette@millertransgroup.com To discuss this sample report, contact Customer Service at 1-800-237-1369.

Certificate L2367

Laboratory

Sample No.

Lab Number

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Contact/Location: MIKE LONGETTE - MILRUT

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