

OIL ANALYSIS REPORT

Sample Rating Trend





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.

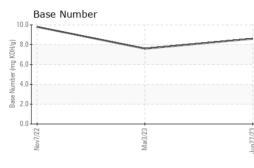
Fluid Condition

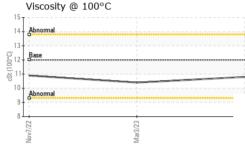
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

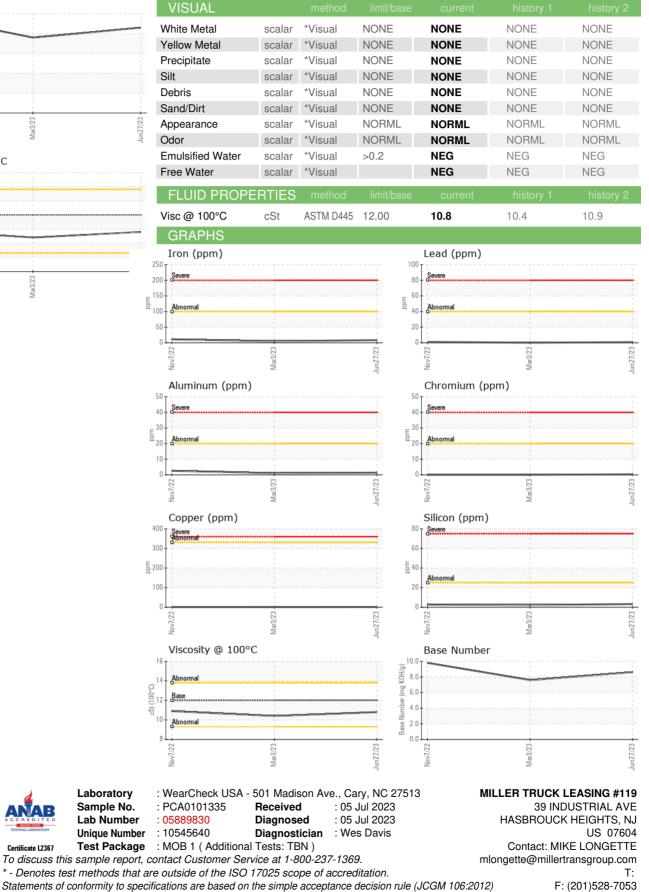
AL)		No	2022	Mar2023 Jun20	23	
SAMPLE INFORM	MATION	method	limit/base	current	history 1	history 2
Sample Number		Client Info		PCA0101335	PCA0094212	PCA0081933
Sample Date		Client Info		27 Jun 2023	03 Mar 2023	07 Nov 2022
Machine Age	mls	Client Info		223499	220089	215776
Oil Age	mls	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history 1	history 2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m	>100	8	5	11
Chromium	ppm	ASTM D5185m	>20	<1	0	0
Nickel	ppm	ASTM D5185m	>4	<1	0	0
Titanium	ppm	ASTM D5185m		0	<1	2
Silver	ppm	ASTM D5185m	>3	0	0	2
Aluminum	ppm	ASTM D5185m	>20	1	1	3
Lead	ppm	ASTM D5185m	>40	<1	0	1
Copper	ppm	ASTM D5185m		1	<1	<1
Tin		ASTM D5185m	>15	، <1	0	<1
Vanadium	ppm	ASTM D5185m	>15	<1	<1	< 1
	ppm			-		
	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m	2	6	9	6
Barium		ASTM D5185m	0	0	0	0
	ppm	AGTIVI DJ TOJITI				
Molybdenum	ppm ppm	ASTM D5185m	50	62	62	59
-				62 <1		59 <1
Manganese	ppm	ASTM D5185m		-	62	
Manganese Magnesium	ppm ppm	ASTM D5185m ASTM D5185m	0	<1	62 <1	<1
Manganese Magnesium Calcium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0 950	<1 876	62 <1 819	<1 813
Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 950 1050	<1 876 1094	62 <1 819 1151	<1 813 1148
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 950 1050 995	<1 876 1094 1022	62 <1 819 1151 923	<1 813 1148 982
Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 950 1050 995 1180	<1 876 1094 1022 1185	62 <1 819 1151 923 1124	<1 813 1148 982 1181
Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 950 1050 995 1180 2600 limit/base	<1 876 1094 1022 1185 3071	62 <1 819 1151 923 1124 3051	<1 813 1148 982 1181 3548
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	0 950 1050 995 1180 2600 limit/base	<1 876 1094 1022 1185 3071 current	62 <1 819 1151 923 1124 3051 history 1	<1 813 1148 982 1181 3548 history 2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	0 950 1050 995 1180 2600 limit/base >25	<1 876 1094 1022 1185 3071 current 3	62 <1 819 1151 923 1124 3051 history 1 2	<1 813 1148 982 1181 3548 history 2 3
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	0 950 1050 995 1180 2600 limit/base >25	<1 876 1094 1022 1185 3071 current 3 2	62 <1 819 1151 923 1124 3051 history 1 2 3	<1 <1 813 1148 982 1181 3548 history 2 3 1
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 950 1050 995 1180 2600 <i>limit/base</i> >25 >20	<1 876 1094 1022 1185 3071 current 3 2 2 2	62 <1 819 1151 923 1124 3051 history 1 2 3 0	<1 <1 813 1148 982 1181 3548 history 2 3 1 3
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m	0 950 1050 995 1180 2600 limit/base >25 >20 limit/base >3	<1 876 1094 1022 1185 3071 current 3 2 2 Current 0.5	62 <1 819 1151 923 1124 3051 history 1 2 3 0 history 1 0.5	<1 <1 813 1148 982 1181 3548 history 2 3 1 3 history 2 0.6
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m	0 950 1050 995 1180 2600 limit/base >25 >20 limit/base >3 >20	<1 876 1094 1022 1185 3071 current 3 2 2 2 current	62 <1 819 1151 923 1124 3051 history 1 2 3 0 history 1	<1 <1 813 1148 982 1181 3548 history 2 3 1 3 history 2
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	0 950 1050 995 1180 2600 limit/base >25 >20 limit/base >3 >20	<1 876 1094 1022 1185 3071 current 3 2 2 2 current 0.5 9.7	62 <1 819 1151 923 1124 3051 history 1 2 3 0 history 1 0.5 9.9	<1 <1 813 1148 982 1181 3548 history 2 3 1 3 history 2 0.6 9.6
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 950 1050 995 1180 2600 <i>limit/base</i> >25 20 <i>limit/base</i> >3 >20 >30 30 <i>limit/base</i>	<1 876 1094 1022 1185 3071 current 3 2 2 2 current 0.5 9.7 19.8	62 <1 819 1151 923 1124 3051 history 1 2 3 0 history 1 0.5 9.9 19.0	<1 813 1148 982 1181 3548 history 2 3 1 3 history 2 0.6 9.6 20.7



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Certificate L2367

Laboratory

Sample No.

Contact/Location: MIKE LONGETTE - MILRUT