

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id 603929

Component Diesel Engine Fluid PETRO CANADA DURON SHP 10W30 (----

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.

ITS)		Mar2020 Jun	12020 May2021 May2022 A	Aug2022 Jan2023 Apr2023 Aug202	23 Sep2023	
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0104288	PCA0103050	PCA0095906
Sample Date		Client Info		02 Sep 2023	07 Aug 2023	26 Apr 2023
Machine Age	mls	Client Info		91584	166494	151371
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	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	10	8	8
Chromium	ppm	ASTM D5185m	>20	1	1	1
Nickel	ppm	ASTM D5185m	>4	<1	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	5	6	6
Lead	ppm	ASTM D5185m	>40	0	<1	0
Copper	ppm	ASTM D5185m	>330	10	5	5
Tin	ppm	ASTM D5185m	>15	<1	<1	0
Vanadium	ppm	ASTM D5185m		0	<1	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	10	9	10
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	50	68	62	64
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	950			939
Calcium				912	953	939
Oalolulli	ppm	ASTM D5185m	1050	912 1093	953 1163	1075
Phosphorus	ppm ppm	ASTM D5185m ASTM D5185m	1050 995	-		
				1093	1163	1075
Phosphorus	ppm	ASTM D5185m	995	1093 1035	1163 1000	1075 1029
Phosphorus Zinc	ppm ppm ppm	ASTM D5185m ASTM D5185m	995 1180	1093 1035 1284	1163 1000 1271	1075 1029 1264
Phosphorus Zinc Sulfur	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	995 1180 2600	1093 1035 1284 3416	1163 1000 1271 3587	1075 1029 1264 3773
Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method	995 1180 2600 limit/base	1093 1035 1284 3416 current	1163 1000 1271 3587 history1	1075 1029 1264 3773 history2
Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm NTS ppm	ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m	995 1180 2600 limit/base	1093 1035 1284 3416 current 3	1163 1000 1271 3587 history1 3	1075 1029 1264 3773 history2 3
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm VTS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m	995 1180 2600 limit/base >25	1093 1035 1284 3416 current 3 1	1163 1000 1271 3587 history1 3 2	1075 1029 1264 3773 history2 3 1
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm VTS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m	995 1180 2600 limit/base >25 >20	1093 1035 1284 3416 current 3 1 10	1163 1000 1271 3587 history1 3 2 9	1075 1029 1264 3773 history2 3 1 5
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm VTS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m Method	995 1180 2600 limit/base >25 >20 limit/base >3	1093 1035 1284 3416 current 3 1 10 current	1163 1000 1271 3587 history1 3 2 9 history1	1075 1029 1264 3773 history2 3 1 5 history2
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm VTS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method *ASTM D7844	995 1180 2600 limit/base >25 >20 limit/base >3 >20	1093 1035 1284 3416 current 3 1 10 current 0.3	1163 1000 1271 3587 history1 3 2 9 9 history1 0.4	1075 1029 1264 3773 history2 3 1 5 history2 0.3
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm VTS ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7824	995 1180 2600 limit/base >25 >20 limit/base >3 >20	1093 1035 1284 3416 current 3 1 10 current 0.3 7.5	1163 1000 1271 3587 history1 3 2 9 history1 0.4 6.7	1075 1029 1264 3773 history2 3 1 5 history2 0.3 6.3
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm VTS ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7824	995 1180 2600 limit/base >25 >20 limit/base >3 >20 >30	1093 1035 1284 3416 current 3 1 10 current 0.3 7.5 18.6	1163 1000 1271 3587 history1 3 2 9 history1 0.4 6.7 18.2	1075 1029 1264 3773 history2 3 1 5 history2 0.3 6.3 16.7



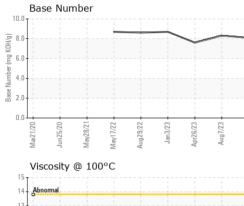
cSt (100°C) B

Abnorm

17/8/21 CC/LIVEN

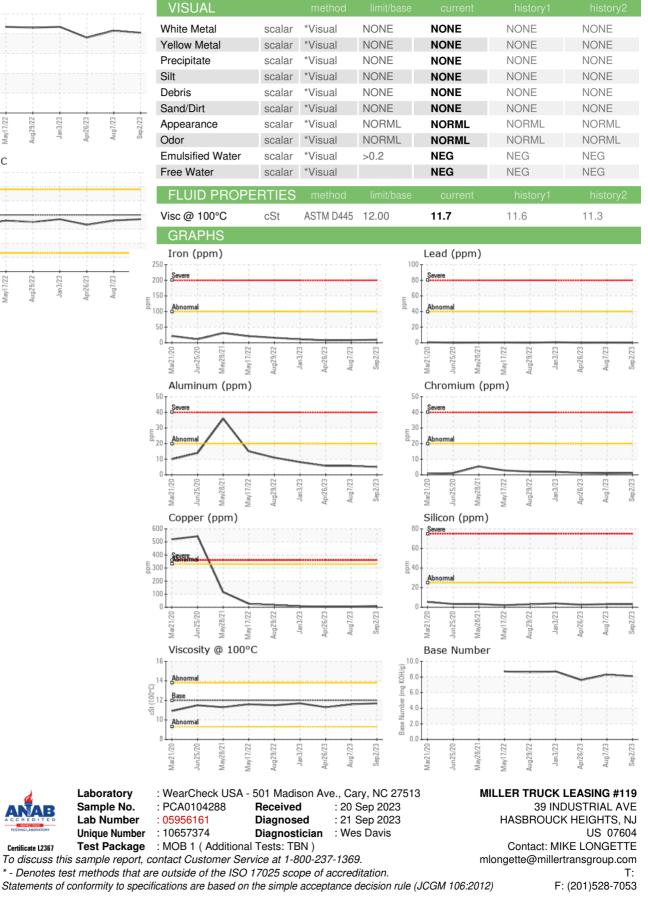
Mar21/20 Jun25/20

OIL ANALYSIS REPORT



Aug29/22 Jan3/23

vpr26/23



Certificate L2367

Contact/Location: MIKE LONGETTE - MILRUT