

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id 130178M Component

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

DIAGNOSIS

Recommendation

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

Wear

Metal levels are typical for a new component breaking in.

Contamination

There is no indication of any contamination in the oil.

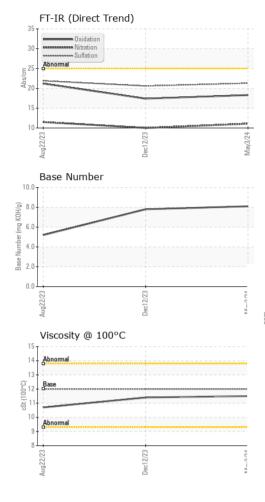
Fluid Condition

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

SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0121036	PCA0113649	PCA0100939
Sample Date		Client Info		03 May 2024	12 Dec 2023	22 Aug 2023
Machine Age	mls	Client Info		55768	0	6736
Oil Age	mls	Client Info		13069	0	6736
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	ABNORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	42	56	116
Chromium	ppm	ASTM D5185m	>20	42 <1	0	2
Nickel	ppm	ASTM D5185m	>4	0	0	<1
Titanium	ppm	ASTM D5185m	- 1	0	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m		3	5	15
Lead	ppm	ASTM D5185m	>40	1	2	3
Copper	ppm	ASTM D5185m		17	142	299
Tin	ppm	ASTM D5185m	>15	1	0	6
Vanadium	ppm	ASTM D5185m	210	<1	0	<1
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES	ppm					-
		mothod			hietory1	hietory2
		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	2	8	48
Boron Barium	ppm	ASTM D5185m ASTM D5185m	2 0	2 0	8 0	48 5
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50	2 0 67	8 0 63	48 5 10
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0	2 0 67 <1	8 0 63 <1	48 5 10 5
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950	2 0 67 <1 1080	8 0 63 <1 890	48 5 10 5 85
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050	2 0 67 <1 1080 1264	8 0 63 <1 890 1463	48 5 10 5 85 1290
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 9 950 1050 995	2 0 67 <1 1080 1264 1102	8 0 63 <1 890 1463 1151	48 5 10 5 85 1290 897
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180	2 0 67 <1 1080 1264 1102 1408	8 0 63 <1 890 1463 1151 1473	48 5 10 5 85 1290 897 1237
Boron Barium Molybdenum 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 ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600	2 0 67 <1 1080 1264 1102 1408 3440	8 0 63 <1 890 1463 1151 1473 3553	48 5 10 5 85 1290 897 1237 3190
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600	2 0 67 <1 1080 1264 1102 1408 3440 current	8 0 63 <1 890 1463 1151 1473 3553 history1	48 5 10 5 85 1290 897 1237 3190 history2
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 ASTM D5185m	2 0 50 950 1050 995 1180 2600	2 0 67 <1 1080 1264 1102 1408 3440 current 6	8 0 63 <1 890 1463 1151 1473 3553 history1 15	48 5 10 5 85 1290 897 1237 3190 history2 ▲ 51
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 ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600 limit/base >25	2 0 67 <1 1080 1264 1102 1408 3440 <u>current</u> 6 3	8 0 63 <1 890 1463 1151 1473 3553 history1 15 3	48 5 10 5 85 1290 897 1237 3190 history2 ▲ 51 5
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	2 0 50 0 950 1050 995 1180 2600 imit/base >25 >20	2 0 67 <1 1080 1264 1102 1408 3440 current 6 3 3 <1	8 0 63 <1 890 1463 1151 1473 3553 history1 15 3 3 3	48 5 10 5 85 1290 897 1237 3190 history2 ▲ 51 5 8
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	2 0 50 0 950 1050 995 1180 2600 limit/base >25 -20 limit/base	2 0 67 <1 1080 1264 1102 1408 3440 current 6 3 <1 current	8 0 63 <1 890 1463 1151 1473 3553 history1 15 3 3 3 history1	48 5 10 5 85 1290 897 1237 3190 history2 ↓ 51 5 8 8 history2
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	2 0 50 0 950 1050 995 1180 2600 limit/base >25 >20 limit/base	2 0 67 <1 1080 1264 1102 1408 3440 <u>current</u> 6 3 <1 <u>current</u>	8 0 63 <1 890 1463 1151 1473 3553 history1 15 3 3 3 history1 0.7	48 5 10 5 85 1290 897 1237 3190 history2 5 5 8 8 history2 0.8
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	2 0 50 0 950 1050 995 1180 2600 <i>imit/base</i> >25 >20 <i>imit/base</i> >3 >20	2 0 67 <1 1080 1264 1102 1408 3440 <i>current</i> 6 3 <1 <i>current</i> 1 1 11.1	8 0 63 <1 890 1463 1151 1473 3553 history1 15 3 3 3 history1 0.7 10.0	48 5 10 5 85 1290 897 1237 3190 history2 5 5 8 history2 0.8 11.5
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	2 0 50 0 950 1050 995 1180 2600 limit/base >25 >20 limit/base	2 0 67 <1 1080 1264 1102 1408 3440 <u>current</u> 6 3 <1 <u>current</u>	8 0 63 <1 890 1463 1151 1473 3553 history1 15 3 3 3 history1 0.7	48 5 10 5 85 1290 897 1237 3190 history2 5 5 8 8 history2 0.8
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	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 <i>imit/base</i> >25 >20 <i>imit/base</i> >3 >20	2 0 67 <1 1080 1264 1102 1408 3440 <i>current</i> 6 3 <1 <i>current</i> 1 1 11.1	8 0 63 <1 890 1463 1151 1473 3553 history1 15 3 3 3 history1 0.7 10.0	48 5 10 5 85 1290 897 1237 3190 history2 5 5 8 history2 0.8 11.5
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	2 0 50 0 950 1050 995 1180 2600 <i>imit/base</i> >25 >20 <i>imit/base</i> >3 >20 >30	2 0 67 <1 1080 1264 1102 1408 3440 <u>current</u> 6 3 <1 <u>current</u> 1 1 11.1 21.3	8 0 63 <1 890 1463 1151 1473 3553 history1 15 3 3 3 history1 0.7 10.0 20.6	48 5 10 5 85 1290 897 1237 3190 bistory2 ↓ 51 5 8 bistory2 0.8 11.5 21.9
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	2 0 50 0 950 1050 995 1180 2600 <i>imit/base</i> >25 >20 <i>imit/base</i> >3 >20 >30	2 0 67 <1 1080 1264 1102 1408 3440 <i>current</i> 6 3 <1 <i>current</i> 1 1.1.1 21.3	8 0 63 <1 890 1463 1151 1473 3553 history1 15 3 3 3 history1 0.7 10.0 20.6 history1	48 5 10 5 85 1290 897 1237 3190 history2 5 5 8 history2 0.8 11.5 21.9 history2



OIL ANALYSIS REPORT



	method	limit/base	current	: history1	history2
scalar	*Visual	NONE	NONE	NONE	NONE
scalar	*Visual	NONE	NONE	NONE	NONE
scalar	*Visual	NONE	NONE	NONE	NONE
scalar	*Visual	NONE	NONE	NONE	NONE
scalar	*Visual	NONE	NONE	NONE	NONE
scalar	*Visual	NONE	NONE	NONE	NONE
scalar	*Visual	NORML	NORML	NORML	NORML
scalar	*Visual	NORML	NORML	NORML	NORML
scalar	*Visual	>0.2	NEG	NEG	NEG
scalar	*Visual		NEG	NEG	NEG
TIES	method	limit/base	current	: history1	history2
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* - 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)

Report Id: MILLOG [WUSCAR] 06202453 (Generated: 06/11/2024 13:32:10) Rev: 1

To discuss this sample report,

Certificate L2367

Laboratory

Sample No. Lab Number **Unique Number Test Package**

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