

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id **5119** 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

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.

SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0128937	PCA0123896	PCA0120637
Sample Date		Client Info		02 Jul 2024	24 Apr 2024	05 Mar 2024
Machine Age	mls	Client Info		0	0	0
Oil Age	mls	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
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 METALS method limit/base current history1 history2						
Iron	ppm	ASTM D5185m	>100	38	40	1 24
Chromium	ppm	ASTM D5185m	>20	<1	<1	3
Nickel	ppm	ASTM D5185m	>4	0	0	<1
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	5	4	19
Lead	ppm	ASTM D5185m	>40	1	1	4
Copper	ppm	ASTM D5185m	>330	22	57	A 370
Tin	ppm	ASTM D5185m	>15	1	1	6
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		•	0	0
Caumum	ppin	ASTIVI DOTODITI		0	0	0
ADDITIVES	ppm	method	limit/base	0 current	0 history1	0 history2
	ppm		limit/base	-	-	-
ADDITIVES		method		current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	2	current 3	history1	history2 16
ADDITIVES Boron Barium	ppm ppm	method ASTM D5185m ASTM D5185m	2 0	current 3 0	history1 1 0	history2 16 <1
ADDITIVES Boron Barium Molybdenum	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50	current 3 0 66	history1 1 0 65	history2 16 <1 100
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0	current 3 0 66 <1	history1 1 0 65 <1	history2 16 <1 100 2
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 3 0 66 <1 988	history1 1 0 65 <1 1053	history2 16 <1 100 2 1354
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050	current 3 0 66 <1 988 1166	history1 1 0 65 <1 1053 1203	history2 16 <1 100 2 1354 1770
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm 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 3 0 66 <1 988 1166 1276	history1 1 0 65 <1 1053 1203 1117	history2 16 <1 100 2 1354 1770 1470
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 3 0 66 <1 988 1166 1276 1399	history1 1 0 65 <1 1053 1203 1117 1356	history2 16 <1 100 2 1354 1770 1470 1950
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 50 950 1050 995 1180 2600	Current 3 0 66 <1 988 1166 1276 1399 3085	history1 1 0 65 <1 1053 1203 1117 1356 3406	history2 16 <1 100 2 1354 1770 1470 1950 4002
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 3 0 66 <1 988 1166 1276 1399 3085 current	history1 1 0 65 <1 1053 1203 1117 1356 3406 history1	history2 16 <1 100 2 1354 1770 1470 1950 4002 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 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 3 0 66 <1 988 1166 1276 1399 3085 current 7	history1 1 0 65 <1 1053 1203 1117 1356 3406 history1 6	history2 16 <1 100 2 1354 1770 1470 1950 4002 history2 24
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm TS	method ASTM D5185m	2 0 50 950 1050 995 1180 2600 Limit/base	current 3 0 66 <1 988 1166 1276 1399 3085 current 7 1	history1 1 0 65 <1 1053 1203 1117 1356 3406 history1 6 2	history2 16 <1 100 2 1354 1770 1470 1950 4002 history2 24 4
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 TS	method ASTM D5185m	2 0 50 950 1050 995 1180 2600 limit/base >25	current 3 0 66 <1 988 1166 1276 1399 3085 current 7 1 4 current 0.8	history1 1 0 65 <1 1053 1203 1117 1356 3406 history1 6 2 0 history1 0 0.7	history2 16 <1 100 2 1354 1770 1470 1950 4002 history2 24 4 5 history2 1
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	current 3 0 66 <1 988 1166 1276 1399 3085 current 7 1 4 current 0.8 9.7	history1 1 0 65 <1 1053 1203 1117 1356 3406 history1 6 2 0 history1 0 0 0.7 9.4	history2 16 <1 100 2 1354 1770 1470 1950 4002 history2 24 4 5 history2 1 1.2.4
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	current 3 0 66 <1 988 1166 1276 1399 3085 current 7 1 4 current 0.8	history1 1 0 65 <1 1053 1203 1117 1356 3406 history1 6 2 0 history1 0 0.7	history2 16 <1 100 2 1354 1770 1470 1950 4002 history2 24 4 5 history2 1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7415	2 0 50 0 950 1050 995 1180 2600 limit/base >25 20 limit/base >3 >20	current 3 0 66 <1 988 1166 1276 1399 3085 current 7 1 4 current 0.8 9.7	history1 1 0 65 <1 1053 1203 1117 1356 3406 history1 6 2 0 history1 0 0 0.7 9.4	history2 16 <1 100 2 1354 1770 1470 1950 4002 history2 24 4 5 history2 1 1.2.4
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 50 950 1050 995 1180 2600 iimit/base >25 iimit/base >3 >20	current 3 0 66 <1 988 1166 1276 1399 3085 current 7 1 4 current 0.8 9.7 21.6	history1 1 0 65 <1 1053 1203 1117 1356 3406 history1 6 2 0 history1 0.7 9.4 20.9	history2 16 <1 100 2 1354 1770 1470 1950 4002 history2 24 4 5 history2 1 12.4 22.9



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10.0

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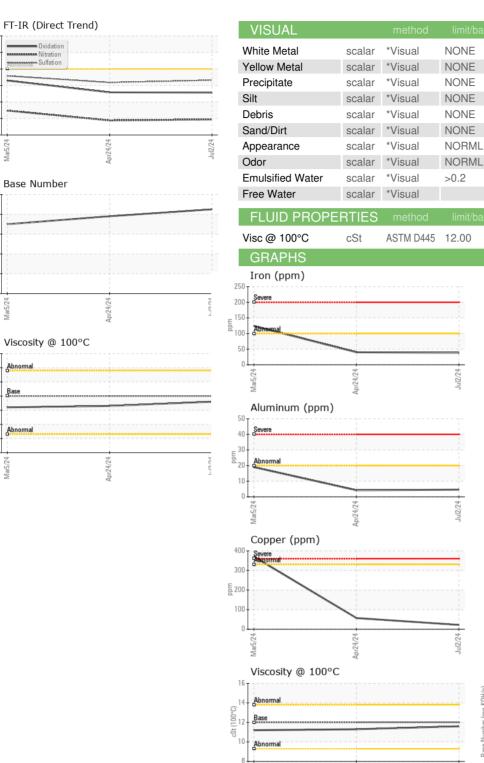
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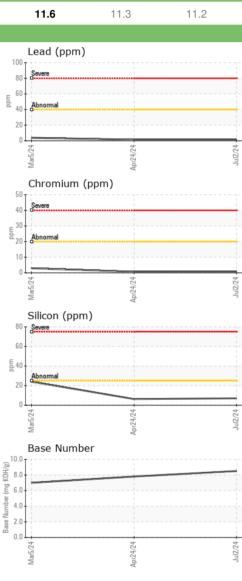
mg KOH/g)

-q 4.

ase 2.

OIL ANALYSIS REPORT





NONE

NONE

NONE

NONE

NONE

NONE

NORML

NORML

NEG

NEG

NONE

NONE

NONE

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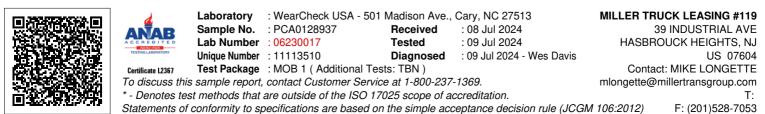
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Apr24/24

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