

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id 106410

Component Diesel Engine

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

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

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.

,			Aug2023	Jan2024		
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0115200	PCA0104304	
Sample Date		Client Info		08 Jan 2024	29 Aug 2023	
Machine Age	mls	Client Info		69014	64063	
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	
Water		WC Method	>0.2	NEG	NEG	
Glycol		WC Method		NEG	NEG	
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	14	13	
Chromium	ppm	ASTM D5185m	>20	0	<1	
Nickel	ppm	ASTM D5185m	>4	0	<1	
Titanium	ppm	ASTM D5185m	~7	0	0	
Silver	ppm	ASTM D5185m	>3	0	0	
Aluminum	ppm	ASTM D5185m	>20	1	1	
Lead		ASTM D5185m	>40	، <1	<1	
	ppm	ASTM D5185m	>330	2	2	
Copper Tin	ppm	ASTM D5185m	>330	2 <1	<1	
Vanadium	ppm	ASTM D5185m	>10	<1	0	
vanaulum	ppm	ASTIVI DOTODITI		U	0	
Codmium	nnm	ACTM DE10Em		0	0	
Cadmium	ppm	ASTM D5185m		0	0	
Cadmium ADDITIVES	ppm	ASTM D5185m method	limit/base	-	0 history1	history2
	ppm ppm		limit/base	-	-	
ADDITIVES		method		current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	2	current 31	history1 16	history2
ADDITIVES Boron Barium	ppm ppm	method ASTM D5185m ASTM D5185m	2 0 50	current 31 0	history1 16 0	history2
ADDITIVES Boron Barium Molybdenum	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50	current 31 0 49	history1 16 0 62	history2
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0	current 31 0 49 <1	history1 16 0 62 <1	history2
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 31 0 49 <1 615	history1 16 0 62 <1 871	history2
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 31 0 49 <1 615 1412	history1 16 0 62 <1 871 1092	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	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 31 0 49 <1 615 1412 1002	history1 16 0 62 <1 871 1092 1008	history2
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 31 0 49 <1 615 1412 1002 1188 2906	history1 16 0 62 <1 871 1092 1008 1215	history2
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 ASTM D5185m	2 0 50 950 1050 995 1180 2600	Current 31 0 49 <1 615 1412 1002 1188 2906	history1 16 0 62 <1 871 1092 1008 1215 3376	history2
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 31 0 49 <1 615 1412 1002 1188 2906 current	history1 16 0 62 <1 871 1092 1008 1215 3376 history1	history2 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	2 0 50 950 1050 995 1180 2600	Current 31 0 49 <1 615 1412 1002 1188 2906 Current 5	history1 16 0 62 <1 871 1092 1008 1215 3376 history1 4	history2 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	2 0 50 950 1050 995 1180 2600 limit/base	Current 31 0 49 <1 615 1412 1002 1188 2906 Current 5 3 0	history1 16 0 62 <1 871 1092 1008 1215 3376 history1 4 1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	2 0 50 950 1050 995 1180 2600 limit/base >25	Current 31 0 49 <1 615 1412 1002 1188 2906 Current 5 3 0	history1 16 0 62 <1 871 1092 1008 1215 3376 history1 4 1 <1	history2 history2
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 limit/base	Current 31 0 49 <1 615 1412 1002 1188 2906 current 5 3 0 current	history1 16 0 62 <1 871 1092 1008 1215 3376 history1 4 1 <1 +istory1 history1	history2 history2 history2 history2
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 >3	current 31 0 49 <1 615 1412 1002 1188 2906 current 5 3 0 current 0 current 0.5	history1 16 0 62 <1 871 1092 1008 1215 3376 history1 4 1 <1 history1 0.3	history2 history2 history2 history2 history2
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 imit/base >25 imit/base >3 >20	current 31 0 49 <1 615 1412 1002 1188 2906 current 5 3 0 current 0.5 8.2 20.3	history1 16 0 62 <1 871 1092 1008 1215 3376 history1 4 1 <1 history1 0.3 6.3 17.6	history2 history2 history2
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 TS ppm ppm ppm ppm	method ASTM D5185m ASTM D7185M ASTM D7624 *ASTM D7624 *ASTM D7415 method	2 0 0 50 0 950 1050 995 1180 2600 imit/base >25 20 imit/base >3 >20 >30	Current 31 0 49 <1 615 1412 1002 1188 2906 current 5 3 0 current 0.5 8.2 20.3 current	history1 16 0 62 <1 871 1092 1008 1215 3376 history1 4 1 <1 history1 4 1 <1 history1 0.3 6.3 17.6 history1	history2 history2 history2 history2 history2 history2 history2 history2
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 imit/base >25 imit/base >3 >20	current 31 0 49 <1 615 1412 1002 1188 2906 current 5 3 0 current 0.5 8.2 20.3	history1 16 0 62 <1 871 1092 1008 1215 3376 history1 4 1 <1 history1 0.3 6.3 17.6	history2 history2 history2



cSt (100°C) Ba

Abnorm

Aug29/23

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