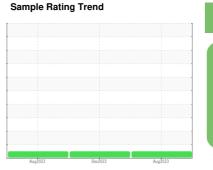


OIL ANALYSIS REPORT

DT623 Component **Diesel Engine**

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.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

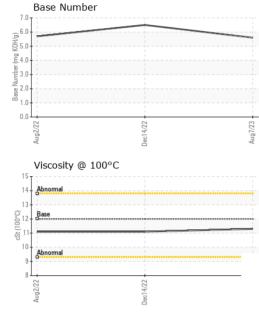
Fluid Condition

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

GAL)				Z Dec2022 Aug2023				
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2		
Sample Number		Client Info		PCA0101886	PCA0087517	PCA0070688		
Sample Date		Client Info		07 Aug 2023	14 Dec 2022	02 Aug 2022		
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	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	20	16	14		
Chromium	ppm	ASTM D5185m	>20	<1	1	<1		
Nickel	ppm	ASTM D5185m	>4	<1	0	<1		
Titanium	ppm	ASTM D5185m		<1	0	0		
Silver	ppm	ASTM D5185m	>3	0	1	<1		
Aluminum	ppm	ASTM D5185m	>20	<1	13	2		
Lead	ppm	ASTM D5185m	>40	1	<1	<1		
Copper	ppm	ASTM D5185m	>330	6	2	3		
Tin	ppm	ASTM D5185m	>15	<1	<1	<1		
Vanadium	ppm	ASTM D5185m		0	0	0		
Cadmium	ppm	ASTM D5185m		0	0	0		
ADDITIVES	''	method	limit/base	current	history1	history2		
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base			history2		
				current	history1			
Boron	ppm	ASTM D5185m	2	current 4	history1	5		
Boron Barium	ppm	ASTM D5185m ASTM D5185m	2 0 50	current 4 0	history1 4 <1	5		
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50	current 4 0 67	history1 4 <1 64	5 0 60		
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0	current 4 0 67 <1	history1 4 <1 64 <1	5 0 60 <1		
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950	current 4 0 67 <1 977	history1 4 <1 64 <1 875	5 0 60 <1 870		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050	current 4 0 67 <1 977 1226	history1 4 <1 64 <1 875 1135	5 0 60 <1 870 1093		
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 ASTM D5185m	2 0 50 0 950 1050 995	current 4 0 67 <1 977 1226 1010	history1 4 <1 64 <1 875 1135 948	5 0 60 <1 870 1093 866		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	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 0 950 1050 995 1180	current 4 0 67 <1 977 1226 1010 1317	history1 4 <1 64 <1 875 1135 948 1207	5 0 60 <1 870 1093 866 1136		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	2 0 50 0 950 1050 995 1180 2600	current 4 0 67 <1 977 1226 1010 1317 3256	history1 4 <1 64 <1 875 1135 948 1207 3548	5 0 60 <1 870 1093 866 1136 3007		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base	current 4 0 67 <1 977 1226 1010 1317 3256 current	history1 4 <1 64 <1 875 1135 948 1207 3548 history1	5 0 60 <1 870 1093 866 1136 3007 history2		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base	current 4 0 67 <1 977 1226 1010 1317 3256 current 5	history1 4 <1 64 <1 875 1135 948 1207 3548 history1 5	5 0 60 <1 870 1093 866 1136 3007 history2		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base	current 4 0 67 <1 977 1226 1010 1317 3256 current 5 7	history1 4 <1 64 <1 875 1135 948 1207 3548 history1 5	5 0 60 <1 870 1093 866 1136 3007 history2 4		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >25	current 4 0 67 <1 977 1226 1010 1317 3256 current 5 7 5	history1 4 <1 64 <1 875 1135 948 1207 3548 history1 5 7 26	5 0 60 <1 870 1093 866 1136 3007 history2 4 10		
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	ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >25	current 4 0 67 <1 977 1226 1010 1317 3256 current 5 7 5	history1 4 <1 64 <1 875 1135 948 1207 3548 history1 5 7 26 history1	5 0 60 <1 870 1093 866 1136 3007 history2 4 10 0		
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	ASTM D5185m Method *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >25 >20	current 4 0 67 <1 977 1226 1010 1317 3256 current 5 7 5 current 0.5	history1 4 <1 64 <1 875 1135 948 1207 3548 history1 5 7 26 history1 0.8	5 0 60 <1 870 1093 866 1136 3007 history2 4 10 0 history2		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm	ASTM D5185m Method *ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D76145	2 0 50 0 950 1050 995 1180 2600 limit/base >25 >20	current 4 0 67 <1 977 1226 1010 1317 3256 current 5 7 5 current 0.5 10.3	history1 4 <1 64 <1 875 1135 948 1207 3548 history1 5 7 26 history1 0.8 12.3	5 0 60 <1 870 1093 866 1136 3007 history2 4 10 0 history2		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm	ASTM D5185m Method *ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D76145	2 0 50 0 950 1050 995 1180 2600 limit/base >25 >20 limit/base >3 >20 >30	current 4 0 67 <1 977 1226 1010 1317 3256 current 5 7 5 10.3 21.8	history1 4 <1 64 <1 875 1135 948 1207 3548 history1 5 7 26 history1 0.8 12.3 21.9	5 0 60 <1 870 1093 866 1136 3007 history2 4 10 0 history2 0.7 11.6 23.9		



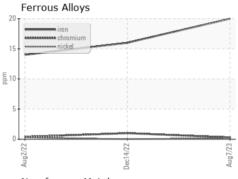
OIL ANALYSIS REPORT

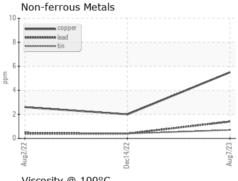


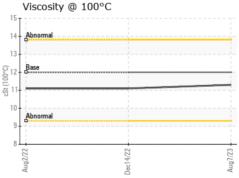
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG

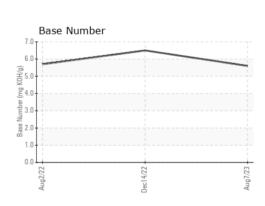
FLUID PROP	ERITES	method			flistory i	nistory∠
Visc @ 100°C	cSt	ASTM D445	12.00	11.3	11.1	11.1

GRAPHS













Laboratory Sample No. Lab Number Test Package : FLEET

: PCA0101886 : 05948678 Unique Number : 10644637

To discuss this sample report, contact Customer Service at 1-800-237-1369.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 12 Sep 2023 Diagnosed : 14 Sep 2023

Diagnostician : Wes Davis

NW WHITE & CO - BEAUFORT DIVISION 1491 YENMASSEE HIGHWAY

VARNVILLE, SC US 29944

Contact: VINCENT BULLOCK bullockvince514@gmail.com

* - 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) T:

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