

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL

Area (59087Z) Walgreens Machine Id [Walgreens] 136A624325 Component

Diesel Engine

PETRO CANADA DURON SHP 10W30 (11 GAL)

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.

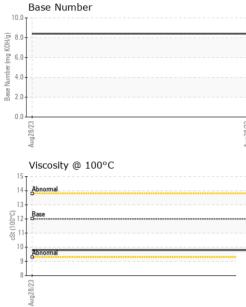
Fluid Condition

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

SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0093998		
Sample Date		Client Info		28 Aug 2023		
Machine Age	mls	Client Info		27137		
Oil Age	mls	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				NORMAL		
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0		
Glycol		WC Method		NEG		
WEAR METAL	0	method	limit/base	current	history1	history?
	3				Tilstory I	history2
Iron	ppm	ASTM D5185m	>80	55		
Chromium	ppm	ASTM D5185m	>5	3		
Nickel	ppm	ASTM D5185m	>2	<1		
Titanium	ppm	ASTM D5185m		0		
Silver	ppm	ASTM D5185m	>3	0		
Aluminum	ppm	ASTM D5185m	>30	31		
Lead	ppm	ASTM D5185m	>30	1		
Copper	ppm	ASTM D5185m	>150	167		
Tin	ppm	ASTM D5185m	>5	3		
Vanadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 45	history1	history2
	ppm ppm					
Boron		ASTM D5185m	2	45		
Boron Barium	ppm	ASTM D5185m ASTM D5185m	2 0 50	45 0		
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50	45 0 43		
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0	45 0 43 4		
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950	45 0 43 4 548		
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	45 0 43 4 548 1854	 	
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 0 950 1050 995	45 0 43 4 548 1854 724	 	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm 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	45 0 43 4 548 1854 724 879	 	
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	45 0 43 4 548 1854 724 879 2429		
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	45 0 43 4 548 1854 724 879 2429 2429		
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 0 950 1050 995 1180 2600 imit/base >20	45 0 43 4 548 1854 724 879 2429 2429 current 8	 history1	 history2
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 0 950 1050 995 1180 2600 imit/base >20	45 0 43 4 548 1854 724 879 2429 2429 current 8 5	 history1	 history2
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 50 950 1050 995 1180 2600 imit/base >20	45 0 43 4 548 1854 724 879 2429 2429 current 8 5 92	 history1 	 history2
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 ASTM D5185m	2 0 50 950 1050 995 1180 2600 imit/base >20 imit/base >20	45 0 43 4 548 1854 724 879 2429 current 8 5 92 current	 history1 history1	 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600 imit/base >20 imit/base >20	45 0 43 4 548 1854 724 879 2429 2429 current 8 5 92 current 0.3	 history1 history1	 history2 history2
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 50 950 1050 995 1180 2600 imit/base >20 20 imit/base >20	45 0 43 4 548 1854 724 879 2429 current 8 5 92 current 0.3 8.2	 history1 history1 	 history2 history2 history2
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 *ASTM D7844	2 0 50 950 1050 995 1180 2600 2600 220 220 220 imit/base >3 20 30 30	45 0 43 4 548 1854 724 879 2429 current 8 5 92 current 0.3 8.2 21.6 current	 history1 history1 history1 history1	 history2 history2 history2 history2
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 50 950 1050 995 1180 2600 imit/base >20 imit/base >3 >20 >30	45 0 43 4 548 1854 724 879 2429 current 8 5 92 current 0.3 8.2 21.6	 history1 history1 history1	 history2 history2 history2



OIL ANALYSIS REPORT



	VISUAL		method	limit/base	current	history1	history2
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
	Precipitate	scalar	*Visual	NONE	NONE		
	Silt	scalar	*Visual	NONE	NONE		
	Debris	scalar	*Visual	NONE	NONE		
	Sand/Dirt	scalar	*Visual	NONE	NONE		
		scalar	*Visual	NORML	NORML		
	Appearance Odor	scalar	*Visual	NORML	NORML		
	Emulsified Water	scalar	*Visual	>0.2	NEG		
	Free Water	scalar	*Visual	20.2	NEG		
	FLUID PROPE			limit/bass			history
	Visc @ 100°C	cSt	method ASTM D445	limit/base 12.00	current 9.8	history1	history2
	GRAPHS	COL	A3110 D443	12.00	9.0		
	Ferrous Alloys						
				1			
	50 - chromium						
	40 -						
	<u>특</u> 30 -						
	20 -						
	10						
	23	******		/23			
	Aug28/23			Aug28/23			
	⊲ Non-ferrous Meta	ale		A			
	180 _T						
	160- copper						
	140 - 140						
	120-						
	e ¹⁰⁰						
	80 - 60 -						
	40						
	20 -						
	Aug28/23			ug28/23			
	Aug			Aug			
	Viscosity @ 100°	С			Base Number		
	14 - Abnormal			9.0 8.0			
	13						
				(07.0- HO) 6.0- July 5.0- duu 4.0- W 33.0- 88 2.0-			
	री 12 - Base हेर्नु 11-	******		Ë 5.0-			
	रहु 11-			⁴ 4.0-			
	10			2 3.0-			
	Abnormal 9 -			± 2.0 1.0			
	8			0.0			
	8/23			8/23	0/23		
	Aug28/23			Aug28/23	Aug 28/23		
			Transervic	Transervice - Shop 1372 - Berkeley-Moreno Vall 17500 Perris Blv Moreno Valley, C US 9255			
Laborator Sample N Lab Num Unique Num	o. : PCA0093998 oer : 05949801 nber : 10645760	501 Made Received Diagnose Diagnose	d : 13 9 ed : 15 9	Sep 2023 Sep 2023 Sep 2023 Jela Borella	Tanservic	175 Moi	500 Perris Blvo reno Valley, C US 9255
Sample N Lab Num Unique Num ificate 12367 Test Pack	o. : PCA0093998 oer : 05949801 nber : 10645760 :age : FLEET	Received Diagnos Diagnos	d : 13 9 ed : 15 9 iician : Ang	Sep 2023 Sep 2023 Jela Borella	Transcrut	175 Mor Con	500 Perris Blvo reno Valley, C US 9255 tact: Ryan Cru
Sample N Lab Num Unique Nun ificate L2367 Test Pack discuss this sample rep	o. : PCA0093998 oer : 05949801 nber : 10645760	Received Diagnos Diagnost vice at 1-8	d : 13 9 ed : 15 9 ician : Ang 200-237-1369	Sep 2023 Sep 2023 Jela Borella 9.	Transervic	175 Mor Con rcruz@t	500 Perris Blvo reno Valley, C US 9255