

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL

Area (50962Z) Walgreens - Tractor [Walgreens - Tractor] 136A63322

Diesel Engine

Fluid 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.

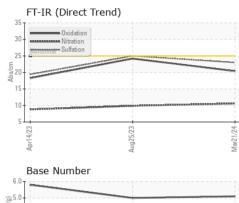
Fluid Condition

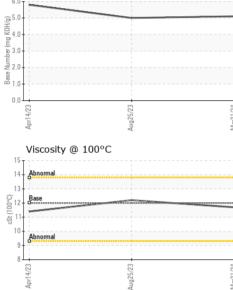
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0106549	PCA0094987	PCA0094969
Sample Date		Client Info		21 Mar 2024	25 Aug 2023	14 Apr 2023
Machine Age	mls	Client Info		198336	139378	81876
Oil Age	mls	Client Info		62336	57514	40000
Oil Changed		Client Info		Changed	N/A	Changed
Sample Status				NORMAL	NORMAL	NORMAL
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	20.L	NEG	NEG	NEG
-	0		limit/bass	-		
WEAR METAL		method	limit/base	current	history1	history2
Iron	ppm		>80	34	28	26
Chromium	ppm		>5	3	2	2
Nickel	ppm	ASTM D5185m	>2	<1	<1	<1
Titanium	ppm	ASTM D5185m	0	<1	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>30	14	11	15
Lead	ppm	ASTM D5185m	>30	0	<1	0
Copper	ppm	ASTM D5185m		38	45	106
Tin	ppm	ASTM D5185m	>5	<1	<1	2
Vanadium	ppm	ASTM D5185m		<1	<1	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 2	history1 2	history2 2
	ppm ppm					
Boron		ASTM D5185m	2	2	2	2 0 57
Boron Barium	ppm	ASTM D5185m ASTM D5185m	2 0	2 0	2 0	2 0
Boron Barium Molybdenum Manganese Magnesium	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950	2 0 59 <1 963	2 0 57 <1 929	2 0 57 1 869
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0	2 0 59 <1	2 0 57 <1	2 0 57 1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950	2 0 59 <1 963	2 0 57 <1 929 1133 912	2 0 57 1 869 1176 887
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 50 950 1050 995 1180	2 0 59 <1 963 1164	2 0 57 <1 929 1133	2 0 57 1 869 1176 887 1122
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	2 0 59 <1 963 1164 877	2 0 57 <1 929 1133 912	2 0 57 1 869 1176 887
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 50 950 1050 995 1180	2 0 59 <1 963 1164 877 1198	2 0 57 <1 929 1133 912 1197	2 0 57 1 869 1176 887 1122
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 0 950 1050 995 1180 2600	2 0 59 <1 963 1164 877 1198 2695	2 0 57 <1 929 1133 912 1197 2508	2 0 57 1 869 1176 887 1122 1863
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 59 <1 963 1164 877 1198 2695 current	2 0 57 <1 929 1133 912 1197 2508 history1	2 0 57 1 869 1176 887 1122 1863 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	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 limit/base >20	2 0 59 <1 963 1164 877 1198 2695 current 5	2 0 57 <1 929 1133 912 1197 2508 history1 5	2 0 57 1 869 1176 887 1122 1863 history2 5
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	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 limit/base >20	2 0 59 <1 963 1164 877 1198 2695 <u>current</u> 5 2	2 0 57 <1 929 1133 912 1197 2508 history1 5 2	2 0 57 1 869 1176 887 1122 1863 history2 5 3
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600 limit/base >20	2 0 59 <1 963 1164 877 1198 2695 <u>current</u> 5 2 2 27	2 0 57 <1 929 1133 912 1197 2508 history1 5 2 2 27	2 0 57 1 869 1176 887 1122 1863 history2 5 3 39
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 Imit/base >20 >20	2 0 59 <1 963 1164 877 1198 2695 current 5 2 2 27 27 current	2 0 57 <1 929 1133 912 1197 2508 history1 5 2 27 27 history1	2 0 57 1 869 1176 887 1122 1863 history2 5 3 3 39 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 ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >20 20 limit/base >20	2 0 59 <1 963 1164 877 1198 2695 <i>current</i> 5 2 27 27 <i>current</i> 0.8	2 0 57 <1 929 1133 912 1197 2508 history1 5 2 27 27 history1 0.8	2 0 57 1 869 1176 887 1122 1863 history2 5 3 39 history2 0.5
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 <i>imit/base</i> >20 <i>imit/base</i> >20	2 0 59 <1 963 1164 877 1198 2695 <i>current</i> 5 2 27 27 <i>current</i> 0.8 10.6	2 0 57 <1 929 1133 912 1197 2508 history1 5 2 27 27 history1 0.8 9.9	2 0 57 1 869 1176 887 1122 1863 history2 5 3 39 history2 0.5 8.8
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 50 950 1050 995 1180 2600 imit/base >20 imit/base >3 >20 >30	2 0 59 <1 963 1164 877 1198 2695 current 5 2 27 current 0.8 10.6 23.0 current	2 0 57 <1 929 1133 912 1197 2508 history1 5 2 27 27 history1 0.8 9.9 25.0	2 0 57 1 869 1176 887 1122 1863 history2 5 3 39 history2 0.5 8.8 19.4 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	2 0 0 50 0 950 1050 995 1180 2600 2600 20 20 20 20 20 3 20 20 20 3 3 20 20 20 20 20 20 20 20 20 20 20 20 20	2 0 59 <1 963 1164 877 1198 2695 current 5 2 27 27 current 0.8 10.6 23.0	2 0 57 <1 929 1133 912 1197 2508 history1 5 2 27 5 2 27 history1 0.8 9.9 25.0 history1	2 0 57 1 869 1176 887 1122 1863 history2 5 3 39 history2 0.5 8.8 19.4



OIL ANALYSIS REPORT





)	VISUAL		method				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
/24 -	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Aug25/23 Mar21/24	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
A 5	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
	Free Water	scalar	*Visual		NEG	NEG	NEG
	FLUID PROP	PERTIES	method	limit/base	current	history1	history2
	Visc @ 100°C	cSt	ASTM D445	12.00	11.7	12.2	11.4
	GRAPHS						
	Ferrous Alloys						
23	iron						
Aug25/23 Aug25/23	25						
4							
	E 20						
	10						
	5-		AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	Piersona a			
	2 2 2	23		24			
	Apr14/23	Aug25/23		Mar21/24			
		AL					
	Non-forrous Mot			2			
/23	Non-ferrous Met			2			
Aug25/23 -	120 copper			N			
Aug25/23 -	120 100 copper lead			2			
Aug25/23 -	120 100 80			2			
Aug25/23 -	120 100 copper lead			2			
Aug25/23 -	120 100 80						
Aug25/23 -	120 100 80 40			2			
Aug25/23 -	120 100 80 Eg 60						
Aug25/23 -	120 100 100 100 100 100 100 100	tals					
Aug25/23 -	120 100 100 100 100 100 100 100	tals					
Aug25/23 -	120 100 100 100 100 100 100 100	tals		Mai21/24			
Aug25/23 -	120 100 100 100 100 100 100 100	tals		Mai21/24	Base Number		
Aug25/23 -	Viscosity @ 100	tals		Mar21/24			
Aug25/23	Viscosity @ 100 ¹⁵	tals		6.0			
Aug25/23	Viscosity @ 100 ¹⁵	tals		6.0			
Aug25/23	Viscosity @ 100 ¹⁵	tals		6.0			
Aug25/23 -	Viscosity @ 100'	tals		6.0			
Aug25/23	120 100 100 100 100 100 100 100	tals		0.6 8368 Mumber (mg K0H(g) 8388 Mumber (mg K0H(g) 97 Mar21/24	D		
Aug25/23 -	120 100 100 100 100 100 100 100	tals		Mar21/24	D		
Aug25/23 -	Copper 100 100 100 100 100 100 100 10	c c c c		0.0 Mar21/24 0.1 Base Mumber (mg KOH(g) 1.2 1.1 1.0 0.0			
Aug25/23 -	Copper 100 100 100 100 100 100 100 10	c c c c		0.0 Mar21/24 0.1 Base Mumber (mg KOH(g) 1.2 1.1 1.0 0.0			
Aug25/23 -	120 100 100 100 100 100 100 100	tals		6.(5.(6)(HO) Buy 1.0 800 1.0		Aug25/23	
	Viscosity @ 100	tals		6.0 6.0 1.0 8 8 9 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	April 4/23	Aug25/23	
Laboratory	¹²⁰ ¹⁰ ¹	czuszone czo		6.0 (B)HOX Bull Jaguard Jaguar	April 4/23	EZISZÖNY ice - Shop 1369 - Be	erkeley-Waxahach
Laboratory Sample No.	¹²⁰ ¹⁰ ¹	tals €ZJS20my €ZJS20my 501 Madiso Recei	ived : 04	6.()))))))))))))	April 4/23	EZZSZÖDny ice - Shop 1369 - Be	710 Ovilla Roa
Laboratory Sample No. Lab Numbe	<pre></pre>	czuszone czo	ived : 04 ed : 05	6.0 (B)HOX Bull Jaguard Jaguar	Transerv	EZZSZÖDny ice - Shop 1369 - Be	erkeley-Waxahach

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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