

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL

Area (89534X) Walgreens Machine Id [Walgreens] 136A66212 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

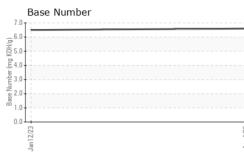
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

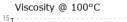
SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0101917	PCA0087982	
Sample Date		Client Info		04 Aug 2023	12 Jan 2023	
Machine Age	mls	Client Info		757900	207118	
Oil Age	mls	Client Info		50000	30000	
Oil Changed		Client Info		Changed	Changed	
Sample Status				NORMAL	NORMAL	
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	
Glycol		WC Method		NEG	NEG	
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>110	16	24	
Chromium	ppm	ASTM D5185m	>4	<1	1	
Nickel	ppm	ASTM D5185m	>2	0	<1	
Titanium	ppm	ASTM D5185m		0	<1	
Silver	ppm	ASTM D5185m	>2	0	0	
Aluminum	ppm	ASTM D5185m	>25	4	7	
Lead	ppm	ASTM D5185m	>45	0	2	
Copper	ppm	ASTM D5185m	>85	2	4	
Tin	ppm	ASTM D5185m	>4	_ <1	<1	
Vanadium	ppm	ASTM D5185m	21	0	<1	
Cadmium	ppm	ASTM D5185m		0	0	
	ppm				-	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	2	2	
Boron Barium	ppm	ASTM D5185m ASTM D5185m	2 0	2 0	2 4	
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50	2 0 64	2 4 61	
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0	2 0 64 <1	2 4 61 <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	2 0 64 <1 954	2 4 61 <1 870	
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	2 0 64 <1 954 1096	2 4 61 <1 870 1084	
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 50 950 1050 995	2 0 64 <1 954 1096 1009	2 4 61 <1 870 1084 956	
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 ASTM D5185m	2 0 50 0 950 1050 995 1180	2 0 64 <1 954 1096 1009 1268	2 4 61 <1 870 1084 956 1232	
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	2 0 50 950 1050 995	2 0 64 <1 954 1096 1009	2 4 61 <1 870 1084 956	
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	2 0 64 <1 954 1096 1009 1268	2 4 61 <1 870 1084 956 1232	
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	2 0 64 <1 954 1096 1009 1268 3553	2 4 61 <1 870 1084 956 1232 3133	
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 64 <1 954 1096 1009 1268 3553 current	2 4 61 <1 870 1084 956 1232 3133 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	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 50 950 1050 995 1180 2600 limit/base >30	2 0 64 <1 954 1096 1009 1268 3553 current 7	2 4 61 <1 870 1084 956 1232 3133 history1 13	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm 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 50 950 1050 995 1180 2600 limit/base >30	2 0 64 <1 954 1096 1009 1268 3553 current 7 2	2 4 61 <1 870 1084 956 1232 3133 history1 13 3	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 imit/base >30 -20 imit/base	2 0 64 <1 954 1096 1009 1268 3553 current 7 2 2 2	2 4 61 <1 870 1084 956 1232 3133 history1 13 3 2	 history2
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 >30 >20 imit/base	2 0 64 <1 954 1096 1009 1268 3553 current 7 2 2 2	2 4 61 <1 870 1084 956 1232 3133 history1 13 3 2 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 ppm TS ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 imit/base >30 >20 imit/base	2 0 64 <1 954 1096 1009 1268 3553 <i>current</i> 7 2 2 2 <i>current</i> 0.5	2 4 61 <1 870 1084 956 1232 3133 history1 13 3 2 history1 0.5	 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 0 950 1050 995 1180 2600 <i>limit/base</i> >30 20 <i>limit/base</i> >3 >20	2 0 64 <1 954 1096 1009 1268 3553 <i>current</i> 7 2 2 2 <i>current</i> 0.5 9.3	2 4 61 <1 870 1084 956 1232 3133 history1 13 3 2 history1 0.5 9.4	 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 0 950 1050 995 1180 2600 imit/base >30 >20 >30 >20 >30 >30 >30	2 0 64 <1 954 1096 1009 1268 3553 <u>current</u> 7 2 2 2 2 <u>current</u> 0.5 9.3 20.1	2 4 61 <1 870 1084 956 1232 3133 history1 13 3 2 history1 0.5 9.4 21.0	 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 0 950 1050 995 1180 2600 imit/base >30 >20 >30 >20 >30 >30 >30	2 0 64 <1 954 1096 1009 1268 3553 <i>current</i> 7 2 2 2 <i>current</i> 0.5 9.3 20.1 <i>current</i>	2 4 61 <1 870 1084 956 1232 3133 history1 13 3 2 history1 0.5 9.4 21.0 history1	 history2 history2 history2 history2

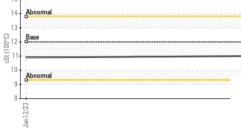


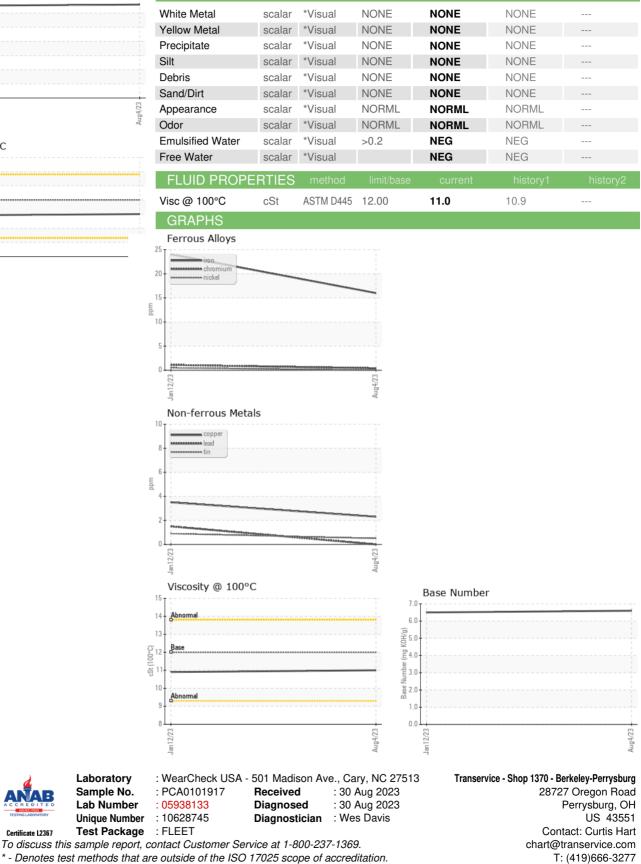
OIL ANALYSIS REPORT

VISUAL









* - 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)

Certificate L2367

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