

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id **19** Component **Diesel Engine** Fluid

PETRO CANADA DURON HP 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

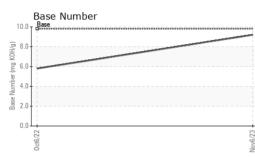
Fluid Condition

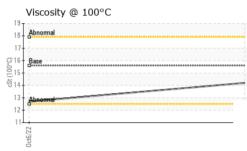
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

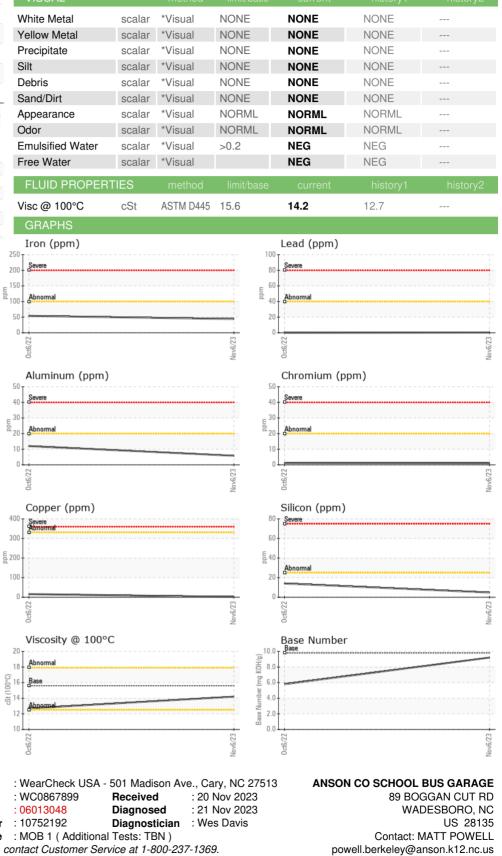
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SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0867899	WC0740575	
Sample Date		Client Info		06 Nov 2023	06 Oct 2022	
Machine Age	mls	Client Info		139528	124905	
Oil Age	mls	Client Info		0	5000	
Oil Changed		Client Info		Not Changd	N/A	
Sample Status				NORMAL	NORMAL	
CONTAMINATIO	N	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 METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	44	54	
Chromium	ppm	ASTM D5185m	>20	1	1	
Nickel	ppm	ASTM D5185m	>4	0	0	
Titanium	ppm	ASTM D5185m		<1	0	
Silver	ppm	ASTM D5185m	>3	0	0	
Aluminum	ppm	ASTM D5185m	>20	6	12	
Lead	ppm	ASTM D5185m	>40	<1	0	
Copper	ppm	ASTM D5185m	>330	2	16	
Tin	ppm	ASTM D5185m	>15	<1	<1	
Vanadium	ppm	ASTM D5185m		<1	0	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron	nom	ASTM D5185m		11	3	
BOIOII	ppm	AGTIVI DOTODITI				
Barium	ppm	ASTM D5185m		0	0	
				0 62	0 60	
Barium	ppm	ASTM D5185m		-	÷	
Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m		62	60	
Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		62 <1	60 2	
Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		62 <1 793	60 2 831	
Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		62 <1 793 1303	60 2 831 1181	
Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		62 <1 793 1303 977	60 2 831 1181 864	
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	limit/base	62 <1 793 1303 977 1259	60 2 831 1181 864 1165	
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		62 <1 793 1303 977 1259 3146	60 2 831 1181 864 1165 3152	
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		62 <1 793 1303 977 1259 3146 current	60 2 831 1181 864 1165 3152 history1	
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	>25	62 <1 793 1303 977 1259 3146 current 5	60 2 831 1181 864 1165 3152 history1 14	 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	>25	62 <1 793 1303 977 1259 3146 current 5 2	60 2 831 1181 864 1165 3152 history1 14 2	 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	>25 >20	62 <1 793 1303 977 1259 3146 <u>current</u> 5 2 7	60 2 831 1181 864 1165 3152 history1 14 2 36	 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	>25 >20 limit/base >3	62 <1 793 1303 977 1259 3146 current 5 2 7 7 current	60 2 831 1181 864 1165 3152 history1 14 2 36 history1	 history2 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	>25 >20 limit/base >3 >20	62 <1 793 1303 977 1259 3146 current 5 2 7 7 current 1	60 2 831 1181 864 1165 3152 history1 14 2 36 history1 0.7	 history2 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	>25 >20 limit/base >3 >20	62 <1 793 1303 977 1259 3146 <u>current</u> 5 2 7 2 7 <i>current</i> 1 7.8	60 2 831 1181 864 1165 3152 history1 14 2 36 history1 0.7 12.4	 history2 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	>25 >20 limit/base >3 >20 >30	62 <1 793 1303 977 1259 3146 current 5 2 7 current 1 7.8 20.0	60 2 831 1181 864 1165 3152 history1 14 2 36 history1 0.7 12.4 26.1	 history2 history2 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7624	>25 >20 limit/base >3 >20 >30 limit/base	62 <1 793 1303 977 1259 3146 current 5 2 7 current 1 7.8 20.0 current	60 2 831 1181 864 1165 3152 history1 14 2 36 history1 0.7 12.4 26.1 history1	 history2 history2 history2 history2

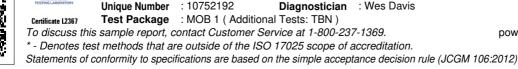


OIL ANALYSIS REPORT









Laboratory

Sample No.

Lab Number

T:

F: