

## **OIL ANALYSIS REPORT**

Sample Rating Trend

DIRT

### 195 DEERFIELD RD Component

**Diesel Engine** 

PETRO CANADA XR 4 SAE 15W40 (--- LTR)

#### DIAGNOSIS

#### Recommendation

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We recommend that you drain the oil from the component if this has not already been done. We advise that you flush the component thoroughly before re-filling with oil. We recommend you service the filters on this component. Confirm the source of the lubricant being utilized for topup/fill. We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample.

#### Wear

All component wear rates are normal. We have assumed that this component is not breaking in (age of component not reported).

#### Contamination

Fuel content negligible. High concentration of dirt present in the oil.

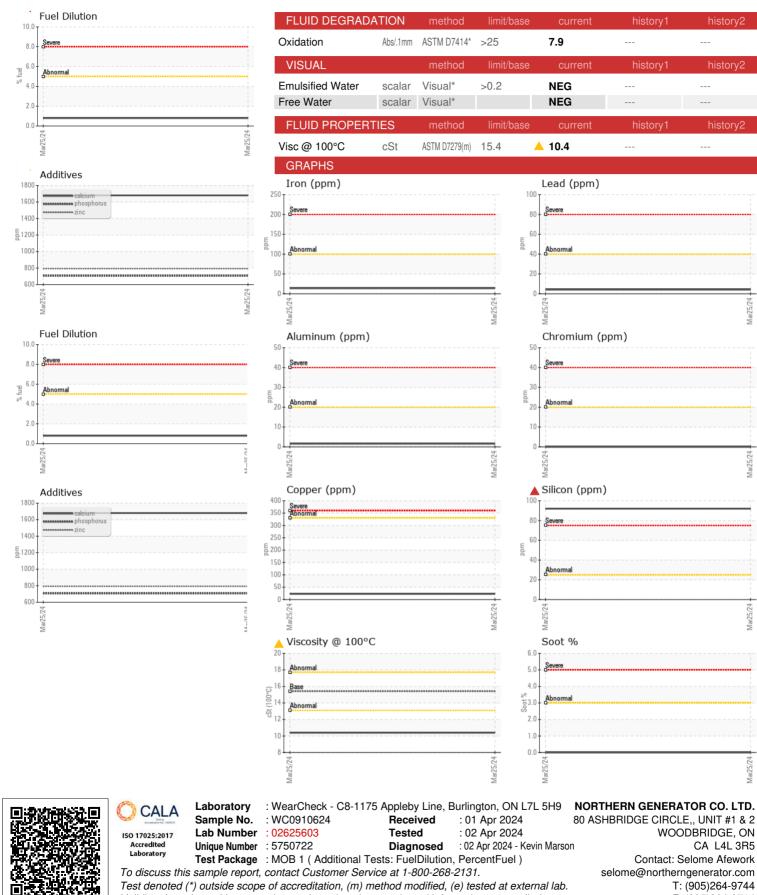
#### Fluid Condition

Viscosity of sample indicates oil is within SAE 30 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The oil is no longer serviceable due to the presence of contaminants.

				Mar2024		
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0910624		
Sample Date		Client Info		25 Mar 2024		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				SEVERE		
CONTAMINATIC	N	method	limit/base	current	history1	history2
Water			>0.2	NEG		
Glycol		WC Method		NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	14		
Chromium	ppm	ASTM D5185(m)	>20	0		
Nickel	ppm	ASTM D5185(m)	>4	0		
Titanium	ppm	ASTM D5185(m)		<1		
Silver	ppm	ASTM D5185(m)	>3	0		
Aluminum	ppm	ASTM D5185(m)	>20	2		
Lead	ppm	ASTM D5185(m)	>40	4		
Copper	ppm	ASTM D5185(m)	>330	23		
Tin	ppm	ASTM D5185(m)	>15	2		
Antimony	ppm	ASTM D5185(m)		0		
Vanadium	ppm	ASTM D5185(m)		0		
Beryllium	ppm	ASTM D5185(m)		0		
Cadmium	ppm	ASTM D5185(m)		0		
ADDITIVES		method	limit/base	current	history1	history2
<b>-</b>			4	162		
Boron	ppm	ASTM D5185(m)	1			
	ppm ppm	ASTM D5185(m) ASTM D5185(m)	1	2		
Barium	ppm	( )		-		
Barium Molybdenum		ASTM D5185(m)	1	2		
Barium Molybdenum Manganese	ppm ppm	ASTM D5185(m) ASTM D5185(m)	1	2 73		
Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	1	2 73 0		
Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	1 1 10	2 73 0 413		
Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	1 1 10 3032	2 73 0 413 1680		
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	1 1 10 3032 1054	2 73 0 413 1680 706	  	
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	1 1 10 3032 1054 1332	2 73 0 413 1680 706 793	  	  
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	1 1 10 3032 1054 1332	2 73 0 413 1680 706 793 2704	    	   
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANT	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	1 1 10 3032 1054 1332 3985	2 73 0 413 1680 706 793 2704 <1		
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANT Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	1 1 10 3032 1054 1332 3985 imit/base	2 73 0 413 1680 706 793 2704 <1 Current	      history1	     history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANT Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) <b>method</b> ASTM D5185(m)	1 1 10 3032 1054 1332 3985 imit/base	2 73 0 413 1680 706 793 2704 <1 <1 current	     history1	     history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANT Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm S	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) <b>method</b> ASTM D5185(m) ASTM D5185(m)	1 1 10 3032 1054 1332 3985 imit/base >25	2 73 0 413 1680 706 793 2704 <1 2704 <1 2704 <1 92 6	      history1	     history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANT Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	1 1 1 10 3032 1054 1332 3985 bit	2 73 0 413 1680 706 793 2704 <1 2704<1	      history1	    history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	1 1 10 3032 1054 1332 3985 <b>limit/base</b> >25 >20 >5	2 73 0 413 1680 706 793 2704 <1 2704<1	      history1	     history2   
Silicon Sodium Potassium Fuel	ppm ppm ppm ppm ppm ppm ppm ppm ppm s ppm ppm	ASTM D5185(m) ASTM D5185(m)	1 1 1 1 3032 1054 1332 3985 imit/base >25 >20 >5 imit/base	2 73 0 413 1680 706 793 2704 <1 2704<1	      history1    history1	      history2     i  history2



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Validity of results and interpretation are based on the sample and information as supplied.

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historv2

history?