

## **OIL ANALYSIS REPORT**

Sample Rating Trend



#### Area (THG7557) Machine Id 733028

Component Natural Gas Engine

PETRO CANADA DURON GEO LD 15W40 (--- 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

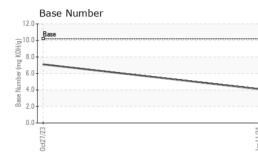
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

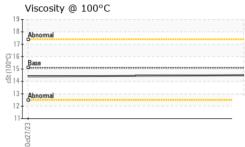
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0103959	GFL0093323	
Sample Date		Client Info		11 Jan 2024	27 Oct 2023	
Machine Age	hrs	Client Info		1192	654	
Oil Age	hrs	Client Info		1192	654	
Oil Changed		Client Info		Changed	Not Changd	
Sample Status				NORMAL	NORMAL	
CONTAMINAT	ION	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	16	15	
Chromium	ppm	ASTM D5185m	>4	<1	<1	
Nickel	ppm	ASTM D5185m	>2	<1	<1	
Titanium	ppm	ASTM D5185m		0	0	
Silver	ppm	ASTM D5185m	>3	0	<1	
Aluminum	ppm	ASTM D5185m	>9	2	1	
Lead	ppm	ASTM D5185m	>30	<1	<1	
Copper	ppm	ASTM D5185m	>35	3	5	
Tin	ppm	ASTM D5185m	>4	<1	<1	
Vanadium	ppm	ASTM D5185m		<1	0	
Cadmium	ppm	ASTM D5185m		0	<1	
ADDITIVES		method	limit/base	current	history1	history2
Boron	0.00	ASTM D5185m	50	7	32	
Doron	ppm	ASTIVI DOTODITI			52	
Barium	ppm	ASTM D5185m	5	<1	6	
		ASTM D5185m ASTM D5185m	5 50	-		
Barium	ppm	ASTM D5185m	5	<1	6	
Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m	5 50 0 560	<1 55	6 44	
Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	5 50 0	<1 55 2	6 44 7 642 1240	
Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	5 50 0 560	<1 55 2 638	6 44 7 642	
Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	5 50 0 560 1510	<1 55 2 638 1545	6 44 7 642 1240	
Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	5 50 0 560 1510 780	<1 55 2 638 1545 762	6 44 7 642 1240 653	
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	5 50 0 560 1510 780 870	<1 55 2 638 1545 762 1039	6 44 7 642 1240 653 814	   
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	5 50 0 560 1510 780 870 2040	<1 55 2 638 1545 762 1039 2544	6 44 7 642 1240 653 814 1971	   
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	5 50 0 560 1510 780 870 2040 <b>limit/base</b>	<1 55 2 638 1545 762 1039 2544 current	6 44 7 642 1240 653 814 1971 history1	     history2
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	5 50 0 560 1510 780 870 2040 <b>limit/base</b> >+100	<1 55 2 638 1545 762 1039 2544 <i>current</i> 10	6 44 7 642 1240 653 814 1971 history1 28	     history2
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	5 50 0 560 1510 780 870 2040 <b>limit/base</b> >+100	<1 55 2 638 1545 762 1039 2544 current 10 8	6 44 7 642 1240 653 814 1971 history1 28 2	     history2
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 ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	5 50 0 560 1510 780 870 2040 <b>limit/base</b> >+100	<1 55 2 638 1545 762 1039 2544 current 10 8 5	6 44 7 642 1240 653 814 1971 history1 28 2 2 7	    history2  
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	5 50 0 560 1510 780 870 2040 2040 2040 >+100 >20 20 20	<1 55 2 638 1545 762 1039 2544 <b>current</b> 10 8 5 5	6 44 7 642 1240 653 814 1971 history1 28 2 2 7 history1	    history2   history2
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 ppm	ASTM D5185m ASTM D5185m	5 50 0 560 1510 780 870 2040 2040 2040 >+100 >20 20 20	<1 55 2 638 1545 762 1039 2544 <i>current</i> 10 8 5 5 <i>current</i> 0	6 44 7 642 1240 653 814 1971 history1 28 2 2 7 history1 0	    history2   history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	5 50 0 560 1510 780 870 2040 <b>imit/base</b> >+100 >20 <b>imit/base</b>	<1 55 2 638 1545 762 1039 2544  current 10 8 5 current 0 11.5	6 44 7 642 1240 653 814 1971 <u>history1</u> 28 2 2 7 <u>history1</u> 0 7.1	    history2   history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	5 50 0 560 1510 780 870 2040 2040 2040 2040 2040 220 200 220 200 220 200 220 200	<1 55 2 638 1545 762 1039 2544 Current 10 8 5 Current 0 11.5 21.7	6 44 7 642 1240 653 814 1971 history1 28 2 2 7 history1 0 7.1 23.8	    history2   history2  history2

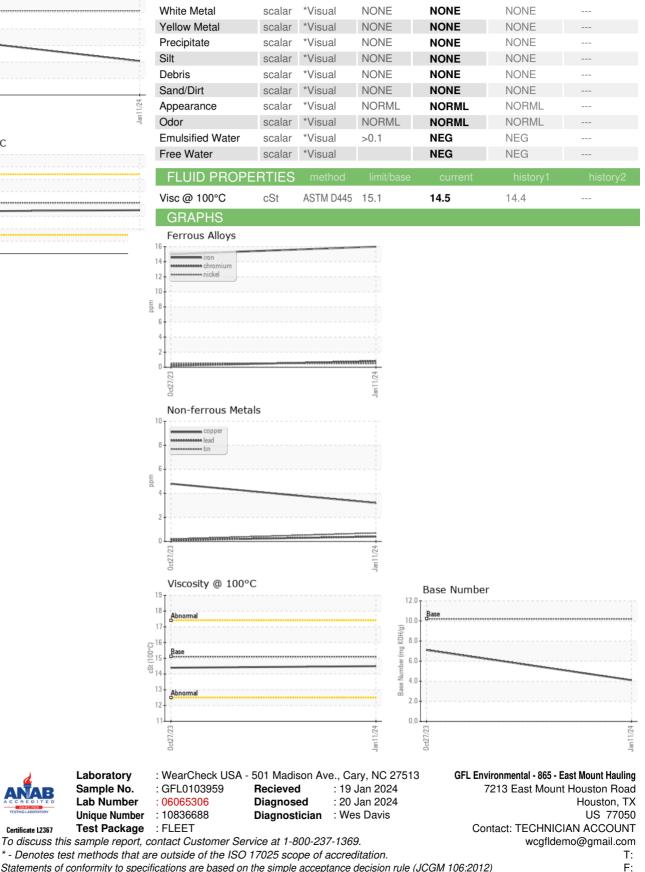


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VISUAL







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

Certificate L2367

Submitted By: TECHNICIAN ACCOUNT