

## **OIL ANALYSIS REPORT**

Sample Rating Trend







Machine Id 530245

Component **Diesel Engine** Fluid

PETRO CANADA DURON SHP 10W30 (--- 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.

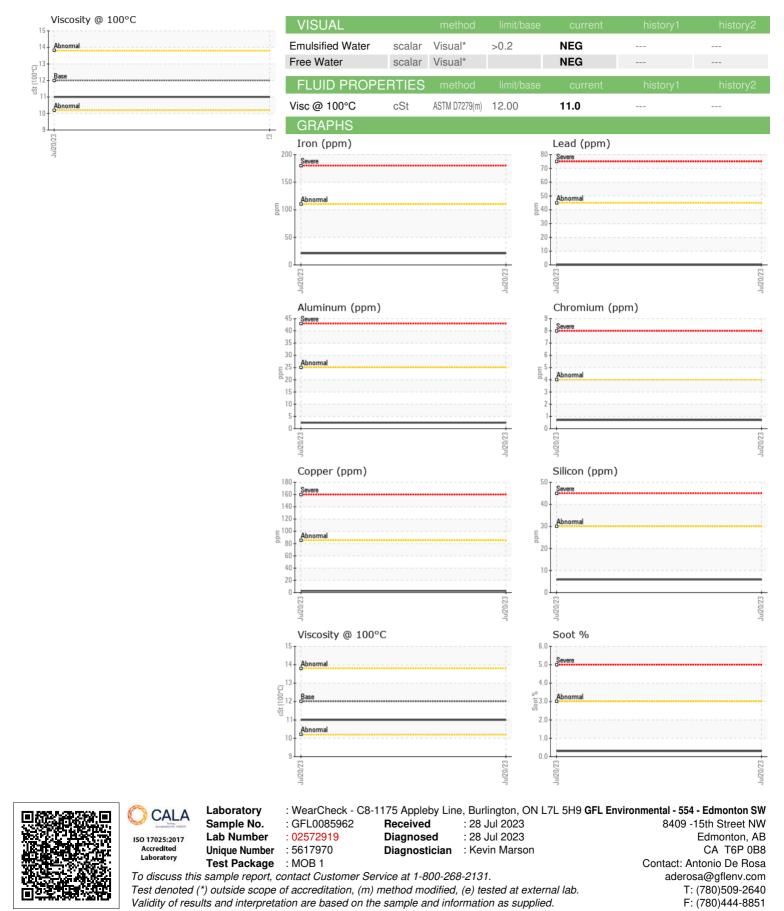
## Fluid Condition

The condition of the oil is acceptable for the time in service.

SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0085962		
Sample Date		Client Info		20 Jul 2023		
Machine Age	hrs	Client Info		1583		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		Changed		
Sample Status				NORMAL		
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0		
Glycol		WC Method		NEG		
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>110	21		
Chromium	ppm	ASTM D5185(m)	>4	<1		
Nickel	ppm	ASTM D5185(m)	>2	0		
Titanium	ppm	ASTM D5185(m)	~~	۰ <1		
Silver	ppm	ASTM D5185(m)	>2	0		
Aluminum	ppm	ASTM D5185(m)	>25	2		
Lead	ppm	ASTM D5185(m)	>45	0		
Copper	ppm	ASTM D5185(m)		3		
Tin	ppm	ASTM D5185(m)	>4	0		
Antimony	ppm	ASTM D5185(m)	24	0		
Vanadium	ppm	ASTM D5185(m)		0		
Beryllium	ppm	ASTM D5185(m)		0		
	ppin			U		
Cadmium	nnm	ASTM D5185(m)		0		
	ppm	ASTM D5185(m)	11 1. 11	0		
ADDITIVES	ppm	method	limit/base	current	 history1	history2
	ppm ppm	method ASTM D5185(m)	2	current		
ADDITIVES Boron Barium		method ASTM D5185(m) ASTM D5185(m)	2 0	current 10 0	history1	history2
ADDITIVES Boron Barium Molybdenum	ppm ppm ppm	method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	2 0 50	current 10 0 55	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm	method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	2 0 50 0	current 10 0 55 <1	history1 	history2 
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	2 0 50 0 950	current 10 0 55 <1 928	history1  	history2  
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	2 0 50 0 950 1050	current           10           0           55           <1           928           1119	history1   	history2   
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	2 0 50 0 950 1050 995	current           10           0           55           <1           928           1119           1074	history1   	history2   
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185(m)	2 0 50 0 950 1050 995 1180	current           10           0           55           <1           928           1119           1074           1201	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm	method           ASTM D5185(m)	2 0 50 0 950 1050 995 1180 2600	current           10           0           55           <1           928           1119           1074           1201           2333	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185(m)	2 0 50 0 950 1050 995 1180 2600	current           10           0           55           <1           928           1119           1074           1201	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185(m)	2 0 50 0 950 1050 995 1180 2600	current           10           0           55           <1           928           1119           1074           1201           2333	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185(m)	2 0 50 950 1050 995 1180 2600	current           10           0           55           <1           928           1119           1074           1201           2333           <1	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185(m)	2 0 50 950 1050 995 1180 2600 <b>limit/base</b>	current         10         0         55         <1         928         1119         1074         1201         2333         <1         current	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185(m)	2 0 50 950 1050 995 1180 2600 <b>limit/base</b>	current           10           0           555           <1           928           1119           1074           1201           2333           <1           current           6	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185(m)	2 0 50 950 1050 995 1180 2600 limit/base >30	current           10           0           55           <1           928           1119           1074           1201           2333           <1           current           6           3	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185(m)	2 0 50 950 1050 995 1180 2600 <b>limit/base</b> >30	current         10         0         55         <1         928         1119         1074         1201         2333         <1         current         6         3         <1	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185(m)	2 0 50 0 950 1050 995 1180 2600 imit/base >30 >20 imit/base >3	current         10         0         55         <1         928         1119         1074         1201         2333         <1         current         6         3         <1         current         courrent         current	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185(m)	2 0 50 0 950 1050 995 1180 2600 imit/base >30 >20 imit/base >3	current           10           0           55           <1           928           1119           1074           1201           2333           <1           current           6           3           <1           current           0.3	history1	history2 history2 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185(m)           ASTM D7844*           ASTM D7415*	2 0 50 0 950 1050 995 1180 2600 imit/base >30 imit/base >20 imit/base >3	current         10         0         55         <1         928         1119         1074         1201         2333         <1         current         6         3         <1         current         0.3         10.6	history1	history2   history2               history2            history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185(m)           ASTM D7844*           ASTM D7415*	2 0 50 0 950 1050 995 1180 2600 <b>imit/base</b> >30 <b>imit/base</b> >3 >20 >3	current           10           0           55           <1           928           1119           1074           1201           2333           <1           current           6           3           <1           current           0.3           10.6           25.7	history1   history1            history1	history2



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Contact/Location: Antonio De Rosa - GFL554