

## **OIL ANALYSIS REPORT**

Sample Rating Trend

### NORMAL

## Area (SPG405639) Air Gas - Tractor [Air Gas - Tractor] 314A314005

Diesel Engine

PETRO CANADA DURON SHP 10W30 (11 GAL)

#### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

Metal levels are typical for a new component breaking in.

#### 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		PCA0120041	PCA0096896	
Sample Date		Client Info		08 Apr 2024	09 Jan 2024	
Machine Age	mls	Client Info		61232	46286	
Oil Age	mls	Client Info		14946	0	
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	
Water		WC Method	>0.2	NEG	NEG	
Glycol		WC Method		NEG	NEG	
WEAR METAL	s	method	limit/base	current	history1	history2
						· · · · ·
Iron	ppm	ASTM D5185m	>80	14	18	
Chromium	ppm		>5	<1	2	
Nickel	ppm	ASTM D5185m	>2	0	0	
Titanium	ppm	ASTM D5185m	0	0	<1	
Silver	ppm	ASTM D5185m	>3	<1	<1	
Aluminum	ppm		>30	11	10	
Lead	ppm	ASTM D5185m	>30	0	2	
Copper	ppm		>150	53	158	
Tin	ppm	ASTM D5185m	>5	<1	2	
Vanadium	ppm	ASTM D5185m		0	<1	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 2	history1 10	history2
	ppm ppm					
Boron		ASTM D5185m	2	2	10	
Boron Barium	ppm	ASTM D5185m ASTM D5185m	2 0	2 0	10 1	
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50	2 0 60	10 1 53	
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0	2 0 60 0	10 1 53 <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 60 0 942	10 1 53 <1 815	
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 60 0 942 1063	10 1 53 <1 815 1049	   
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 0 950 1050 995	2 0 60 0 942 1063 1019	10 1 53 <1 815 1049 905	
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 50 950 1050 995 1180	2 0 60 0 942 1063 1019 1233	10 1 53 <1 815 1049 905 1176	
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 0 950 1050 995 1180 2600	2 0 60 942 1063 1019 1233 2941	10 1 53 <1 815 1049 905 1176 2413	
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 60 942 1063 1019 1233 2941 current	10 1 53 <1 815 1049 905 1176 2413 history1	
Boron 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 ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 <b>limit/base</b>	2 0 60 0 942 1063 1019 1233 2941 current 3	10 1 53 <1 815 1049 905 1176 2413 history1 3	     history2
Boron 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 ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 <b>limit/base</b>	2 0 60 942 1063 1019 1233 2941 current 3 0	10 1 53 <1 815 1049 905 1176 2413 history1 3 3 3	     history2
Boron 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	2 0 50 950 1050 995 1180 2600 <b>limit/base</b> >20	2 0 60 942 1063 1019 1233 2941 current 3 0 20	10 1 53 <1 815 1049 905 1176 2413 history1 3 3 20	     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 ppm ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 <b>Imit/base</b> >20	2 0 60 942 1063 1019 1233 2941 <i>current</i> 3 0 20 <i>current</i>	10 1 53 <1 815 1049 905 1176 2413 history1 3 3 20 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 ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >20 20 limit/base >20	2 0 60 942 1063 1019 1233 2941 <i>current</i> 3 0 20 <i>current</i> 0.3	10 1 53 <1 815 1049 905 1176 2413 history1 3 3 20 history1 0.3	     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 50 950 1050 995 1180 2600 <i>imit/base</i> >20 <i>imit/base</i> >20	2 0 60 942 1063 1019 1233 2941 current 3 0 20 20 current 0.3 7.1	10 1 53 <1 815 1049 905 1176 2413 history1 3 3 20 history1 0.3 7.5	     history2   history2  
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRAE	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7415	2 0 0 50 0 950 1050 995 1180 2600 2600 20 20 20 20 20 3 20 20 20 3 3 20 20 20 20 20 20 20 20 20 20 20 20 20	2 0 60 942 1063 1019 1233 2941 <i>current</i> 3 0 20 <i>current</i> 0.3 7.1 19.4	10 1 53 <1 815 1049 905 1176 2413 history1 3 3 20 history1 0.3 7.5 19.7 history1	    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 50 950 1050 995 1180 2600 <b>imit/base</b> >20 <b>imit/base</b> >3 >20 >30	2 0 60 942 1063 1019 1233 2941 <u>current</u> 3 0 20 <u>current</u> 0.3 7.1 19.4	10 1 53 <1 815 1049 905 1176 2413 history1 3 3 20 history1 0.3 7.5 19.7	     history2  history2  history2  history2



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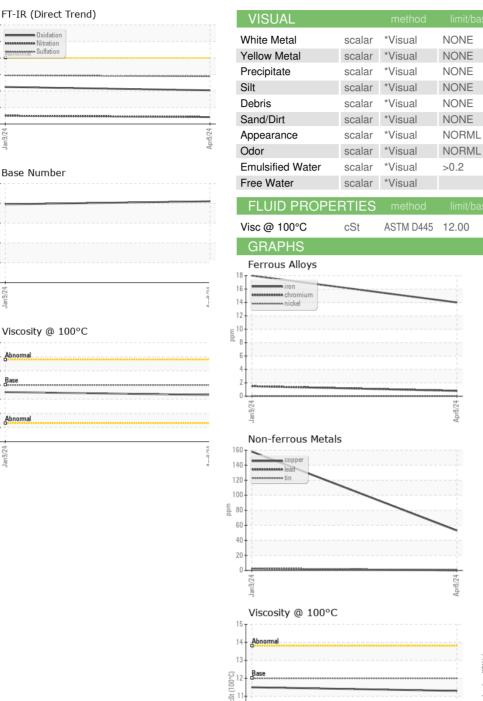
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(mg KOH/g)

aq 11 4.

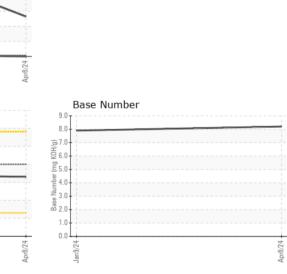
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# **OIL ANALYSIS REPORT**



Abnorma

Jan 9/24



NONE

NONE

NONE

NONE

NONE

NONE

NORML

NORML

NEG

NEG

11.3

NONE

NONE

NONE

NONE

NONE

NONE

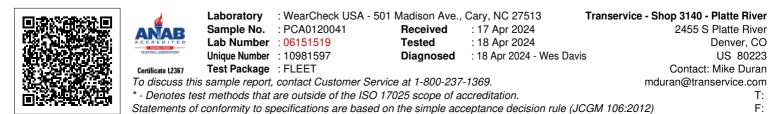
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11.5



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Submitted By: Mike Duran Page 2 of 2