

## **OIL ANALYSIS REPORT**

Sample Rating Trend



NORMAL

# (SPG405637) Air Gas - Tractor [Air Gas - Tractor] 314A314003

**Diesel Engine** 

Fluid PETRO CANADA DURON SHP 10W30 (11 GAL)

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

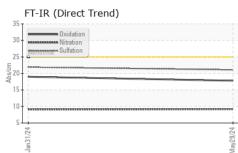
There is no indication of any contamination in the oil.

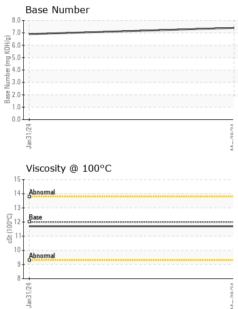
### Fluid Condition

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

SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0120036	PCA0096893	
Sample Date		Client Info		29 May 2024	31 Jan 2024	
Machine Age	mls	Client Info		110729	79406	
Oil Age	mls	Client Info		31323	31482	
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	29	36	
Chromium	ppm	ASTM D5185m	>5	2	3	
Nickel	ppm	ASTM D5185m	>2	<1	<1	
Titanium	ppm	ASTM D5185m		<1	0	
Silver	ppm	ASTM D5185m	>3	<1	<1	
Aluminum	ppm	ASTM D5185m	>30	10	11	
Lead	ppm	ASTM D5185m	>30	0	0	
Copper	ppm	ASTM D5185m	>150	22	26	
Tin	ppm	ASTM D5185m	>5	<1	1	
Vanadium	ppm	ASTM D5185m		<1	0	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron						
DOIOII	ppm	ASTM D5185m	2	0	10	
Barium	ppm ppm	ASTM D5185m ASTM D5185m	2 0	0	10 0	
			_			
Barium	ppm	ASTM D5185m ASTM D5185m	0	0	0	
Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m	0 50	0 65	0 60	
Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0 50 0	0 65 <1	0 60 1	
Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 50 0 950	0 65 <1 1011	0 60 1 921	 
Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 50 0 950 1050	0 65 <1 1011 1228	0 60 1 921 1184	
Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 50 0 950 1050 995	0 65 <1 1011 1228 1123	0 60 1 921 1184 1061	
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	0 50 0 950 1050 995 1180	0 65 <1 1011 1228 1123 1365	0 60 1 921 1184 1061 1351	   
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	0 50 0 950 1050 995 1180 2600	0 65 <1 1011 1228 1123 1365 2317	0 60 1 921 1184 1061 1351 2453	    
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	0 50 0 950 1050 995 1180 2600	0 65 <1 1011 1228 1123 1365 2317 current	0 60 1 921 1184 1061 1351 2453 history1	     history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm <b>TS</b>	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 50 0 950 1050 995 1180 2600 Limit/base >20	0 65 <1 1011 1228 1123 1365 2317 current 4	0 60 1 921 1184 1061 1351 2453 history1 4	     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 ASTM D5185m	0 50 0 950 1050 995 1180 2600 Limit/base >20	0 65 <1 1011 1228 1123 1365 2317 current 4 <	0 60 1 921 1184 1061 1351 2453 history1 4 3	     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	ASTM D5185m ASTM D5185m	0 50 950 1050 995 1180 2600 <i>limit/base</i> >20 <i>limit/base</i> >20	0 65 <1 1011 1228 1123 1365 2317 current 4 <1 21	0 60 1 921 1184 1061 1351 2453 history1 4 3 22 history1 0.8	     history2  
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m	0 50 950 1050 995 1180 2600 <i>limit/base</i> >20 <i>limit/base</i> >20	0 65 <1 1011 1228 1123 1365 2317 current 4 <1 21 current	0 60 1 921 1184 1061 1351 2453 history1 4 3 22 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	0 50 950 1050 995 1180 2600 <i>limit/base</i> >20 <i>limit/base</i> >20	0 65 <1 1011 1228 1123 1365 2317 current 4 <1 21 21 current 0.9	0 60 1 921 1184 1061 1351 2453 history1 4 3 22 history1 0.8	     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 ppm t ppm ppm	ASTM D5185m ASTM D5185m	0 50 950 1050 995 1180 2600 <i>limit/base</i> >20 <i>limit/base</i> >20	0 65 <1 1011 1228 1123 1365 2317 current 4 <1 21 current 0.9 9.2	0 60 1 921 1184 1061 1351 2453 history1 4 3 22 history1 0.8 9.1	     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 ppm t ppm ppm	ASTM D5185m ASTM D5185m	0 50 950 1050 995 1180 2600 <i>limit/base</i> >20 <i>limit/base</i> >20 <i>limit/base</i> >20	0 65 <1 1011 1228 1123 1365 2317 current 4 <1 21 current 0.9 9.2 21.1	0 60 1 921 1184 1061 1351 2453 history1 4 3 22 history1 0.8 9.1 21.9	     history2   history2







## **OIL ANALYSIS REPORT**

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ecipitate t abris and/Dirt opearance dor nulsified Water ee Water FLUID PROP sc @ 100°C GRAPHS Ferrous Alloys Ferrous Alloys Non-ferrous Met	scalar scalar scalar scalar scalar scalar scalar ERTIES cSt	*Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual <b>method</b>	NONE NONE NONE NORML NORML >0.2 Iimit/base 12.00	NONE NONE NONE NORML NORML NEG NEG	NONE NONE NONE NORML NORML NEG NEG history1	      history2
t ebris and/Dirt opearance dor nulsified Water ee Water FLUID PROP sc @ 100°C GRAPHS Ferrous Alloys	scalar scalar scalar scalar scalar scalar <b>ERTIES</b> cSt	*Visual *Visual *Visual *Visual *Visual *Visual *Visual <b>method</b>	NONE NONE NORML NORML >0.2 Iimit/base 12.00	NONE NONE NORML NORML NEG NEG	NONE NONE NORML NORML NEG NEG history1	     history2
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dor nulsified Water ee Water FLUID PROP sc @ 100°C GRAPHS Ferrous Alloys	scalar scalar scalar ERTIES cSt	*Visual *Visual *Visual method	NORML >0.2 limit/base 12.00	NORML NEG NEG current	NORML NEG NEG history1	  history2
Anulsified Water ee Water FLUID PROP sc @ 100°C GRAPHS Ferrous Alloys Ferrous Alloys	scalar scalar ERTIES cSt	*Visual *Visual method	>0.2 limit/base 12.00	NEG NEG current	NEG NEG history1	  history2
ee Water FLUID PROP sc @ 100°C GRAPHS Ferrous Alloys Ferrous Alloys Non-ferrous Met	scalar ERTIES cSt	*Visual method	limit/base 12.00	NEG current	NEG history1	 history2
FLUID PROP sc @ 100°C GRAPHS Ferrous Alloys	ERTIES cSt	method	12.00	current	history1	history2
sc @ 100°C GRAPHS Ferrous Alloys	cSt		12.00			
GRAPHS Ferrous Alloys		ASTM D445		11.7	11.7	
Ferrous Alloys	als		(29/24			
sopper	als		12924			
Non-ferrous Met	als		29/24			
Non-ferrous Met	als		29724			
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Non-ferrous Met	als		/29/24			
Non-ferrous Met	als		52			
Non-ferrous Met	als		R0			
copper	als		2			
lead						
tin						
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Abnormal						
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Abnormal			B 2 (	1		
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Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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