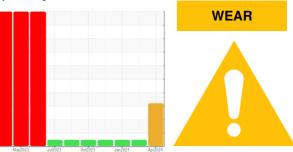


OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id

10699

Component Transmission (Auto)

Fluid PETRO CANADA DuraDrive HD Synthetic 668 (--- GAL)

DIAGNOSIS

A Recommendation

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

🔺 Wear

The aluminum level is abnormal. Clutch wear is indicated.

Contamination

There is no indication of any contamination in the fluid.

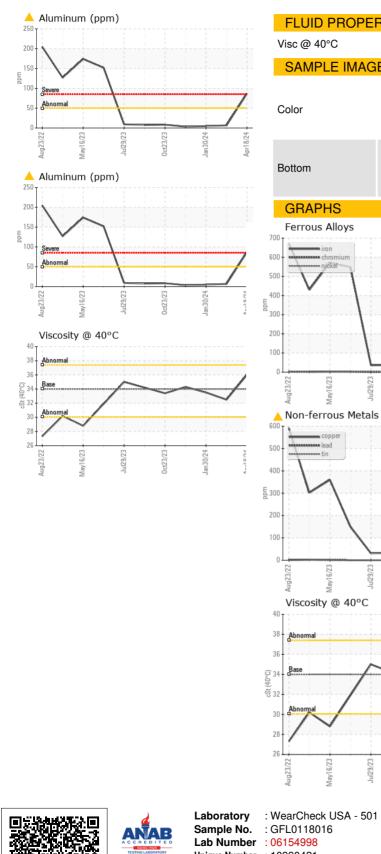
Fluid Condition

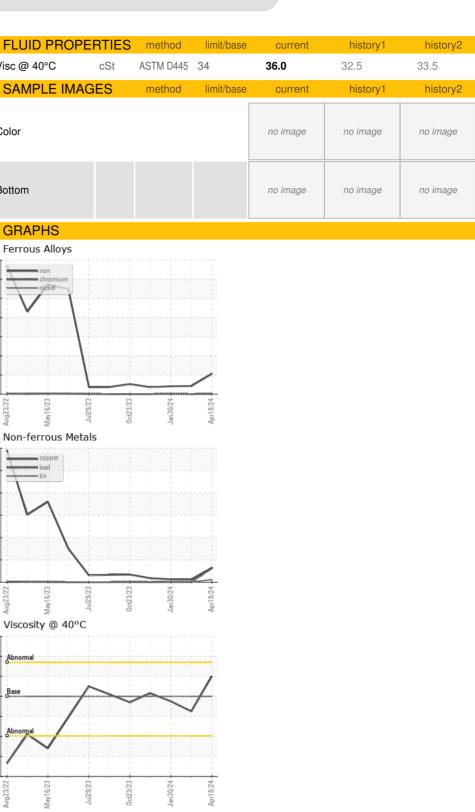
The condition of the fluid is acceptable for the time in service.

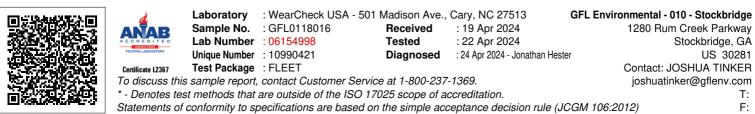
	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0118016	GFL0112379	GFL0107175
Sample Date		Client Info		18 Apr 2024	21 Feb 2024	30 Jan 2024
Machine Age	hrs	Client Info		1023	469	307
Oil Age	hrs	Client Info		1068	514	307
Oil Changed		Client Info		Changed	Not Changd	N/A
Sample Status				ABNORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>160	106	42	41
Chromium	ppm	ASTM D5185m	>5	<1	0	<1
Nickel	ppm	ASTM D5185m	>5	<1	0	<1
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>5	<1	0	0
Aluminum	ppm	ASTM D5185m	>50	<u> </u>	7	5
Lead	ppm	ASTM D5185m	>50	6 3	<1	1
Copper	ppm	ASTM D5185m	>225	<u> </u>	13	13
Tin	ppm	ASTM D5185m	>10	A 11	0	<1
Vanadium	ppm	ASTM D5185m		<1	<1	0
Cadmium	ppm	ASTM D5185m		<1	0	<1
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		87	82	78
						0
Barium	ppm	ASTM D5185m		0	0	0
Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m		0 1	0	1
Molybdenum	ppm	ASTM D5185m		1	0	1
Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m		1 2	0 <1	1 <1
Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		1 2 1	0 <1 2	1 <1 4
Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		1 2 1 58	0 <1 2 178	1 <1 4 180
Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		1 2 1 58 272	0 <1 2 178 297	1 <1 4 180 302
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	1 2 1 58 272 1	0 <1 2 178 297 2	1 <1 4 180 302 0
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		1 2 1 58 272 1 913	0 <1 2 178 297 2 1001	1 <1 4 180 302 0 897
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		1 2 1 58 272 1 913 current	0 <1 2 178 297 2 1001 history1	1 <1 4 180 302 0 897 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m	>20	1 2 1 58 272 1 913 current 10	0 <1 2 178 297 2 1001 history1 6	1 <1 4 180 302 0 897 history2 5
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20	1 2 1 58 272 1 913 current 10 7	0 <1 2 178 297 2 1001 history1 6 3	1 <1 4 180 302 0 897 history2 5 0
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	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	>20 >20	1 2 1 58 272 1 913 <u>current</u> 10 7 5	0 <1 2 178 297 2 1001 history1 6 3 0	1 <1 4 180 302 0 897 history2 5 0 2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >20 limit/base	1 2 1 58 272 1 913 <u>current</u> 10 7 5 5 <u>current</u>	0 <1 2 178 297 2 1001 history1 6 3 0 history1	1 <1 4 180 302 0 897 history2 5 0 2 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m XSTM D5185m	>20 >20 limit/base NONE	1 2 1 58 272 1 913 current 10 7 5 current NONE	0 <1 2 178 297 2 1001 history1 6 3 0 history1 NONE	1 <1 4 180 302 0 897 history2 5 0 2 2 history2 NONE
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm scalar scalar	ASTM D5185m ASTM D5185m	>20 >20 limit/base NONE NONE	1 2 1 58 272 1 913 current 10 7 5 5 current NONE NONE	0 <1 2 178 297 2 1001 history1 6 3 0 history1 NONE NONE	1 <1 4 180 302 0 897 history2 5 0 2 history2 NONE NONE
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	>20 >20 limit/base NONE NONE NONE	1 2 1 58 272 1 913 current 10 7 5 current NONE NONE NONE	0 <1 2 178 297 2 1001 history1 6 3 0 0 history1 NONE NONE NONE NONE	1 <1 4 180 302 0 897 history2 5 0 2 5 0 2 2 history2 NONE NONE NONE
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual	>20 >20 limit/base NONE NONE NONE NONE	1 2 1 58 272 1 913 current 10 7 5 current NONE NONE NONE NONE NONE	0 <1 2 178 297 2 1001 history1 6 3 0 history1 NONE NONE NONE NONE NONE	1 <1 4 180 302 0 897 history2 5 0 2 5 0 2 VONE NONE NONE NONE NONE NONE
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual	>20 >20 limit/base NONE NONE NONE NONE NONE	1 2 1 58 272 1 913 current 10 7 5 current NONE NONE NONE NONE NONE NONE	0 <1 2 178 297 2 1001 history1 6 3 0 history1 NONE NONE NONE NONE NONE NONE NONE	1 1 4 180 302 0 897 history2 5 0 2 history2 NONE
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual	>20 >20 limit/base NONE NONE NONE NONE NONE	1 2 1 58 272 1 913 current 10 7 5 current NONE NONE NONE NONE NONE NONE NONE	0 <1 2 178 297 2 1001 history1 6 3 0 history1 NONE NONE NONE NONE NONE NONE NONE NON	1 <1 <1 4 180 302 0 897 history2 5 0 2 history2 NONE
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAM Silicon Silicon Sodium Potassium VISUAL VISUAL VHIE Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	>20 limit/base NONE NONE NONE NONE NONE NONE NONE NON	1 2 1 58 272 1 913 current 10 7 5 current NONE NONE NONE NONE NONE NONE NONE NON	0 <1 2 178 297 2 1001 history1 6 3 0 history1 0 NONE NONE NONE NONE NONE NONE NONE NO	1 <1 4 180 302 0 897 history2 5 0 2 5 0 2 history2 NONE NONE NONE NONE NONE NONE NONE NON
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAM Silicon Sodium Potassium VISUAL Vhite Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm scalar scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	>20 Imit/base NONE NONE NONE NONE NONE NONE NONE NON	1 2 1 58 272 1 913 current 10 7 5 current NONE NONE NONE NONE NONE NONE NONE NON	0 <1 2 178 297 2 1001 history1 6 3 0 history1 6 6 3 0 NONE NONE NONE NONE NONE NONE NONE NO	1 <1 4 180 302 0 897 history2 5 0 2 5 0 2 2 history2 NONE NONE NONE NONE NONE NONE NONE NON



OIL ANALYSIS REPORT







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Submitted By: JOSHUA TINKER Page 2 of 2