

## **OIL ANALYSIS REPORT**

### Galv Line [Galv Line] 695210-TENSION REEL # 1 (Delivery) Component Gearbox

Fluid PETRO CANADA ENDURATEX EP 460 (--- GAL)

#### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

#### Wear

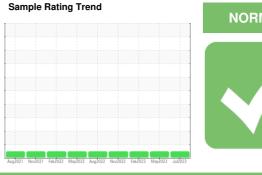
All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil.

#### Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0101540	PCA0095490	PCA0089474
Sample Date		Client Info		01 Jul 2023	23 May 2023	01 Feb 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL
WEAR METAL	S	method	limit/base	current	history1	history2
PQ		ASTM D8184		14	12	7
Iron	ppm	ASTM D5185m	>200	3	3	<1
Chromium	ppm	ASTM D5185m	>15	0	0	0
Nickel	ppm	ASTM D5185m	>15	<1	0	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m		0	0	6
Aluminum	ppm	ASTM D5185m	>25	0	<1	0
Lead	ppm	ASTM D5185m	>100	<1	0	<1
Copper	ppm	ASTM D5185m	>200	0	0	<1
Tin	ppm	ASTM D5185m	>25	0	0	0
Vanadium	ppm	ASTM D5185m		0	<1	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	55	52	62	67
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	0	0	0	0
Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m	0	0 0	0	0
					0	
Manganese Magnesium Calcium	ppm	ASTM D5185m	0	0	0	0
Manganese Magnesium	ppm ppm	ASTM D5185m ASTM D5185m	0 2	0 <1	0	0 <1
Manganese Magnesium Calcium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0 2 6	0 <1 1	0 2 0	0 <1 <1 225 13
Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 2 6 240	0 <1 1 232	0 2 0 246	0 <1 <1 225
Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 2 6 240 3 10310 limit/base	0 <1 1 232 3	0 2 0 246 0	0 <1 <1 225 13 6993 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m	0 2 6 240 3 10310 limit/base	0 <1 1 232 3 6605 current 6	0 2 0 246 0 7540 history1 11	0 <1 <1 225 13 6993 history2 8
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 2 6 240 3 10310 limit/base	0 <1 1 232 3 6605 current	0 2 0 246 0 7540 history1	0 <1 <1 225 13 6993 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 2 6 240 3 10310 <i>limit/base</i> >50	0 <1 1 232 3 6605 current 6	0 2 0 246 0 7540 history1 11 11 <1 4	0 <1 <1 225 13 6993 history2 8
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID DEGRAD	ppm ppm ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 2 6 240 3 10310 <i>limit/base</i> >50	0 <1 1 232 3 6605 <u>current</u> 6 0	0 2 0 246 0 7540 history1 11 <1 4 history1	0 <1 <1 225 13 6993 history2 8 0 0 0 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 2 6 240 3 10310 <b>limit/base</b> >50 >20	0 <1 1 232 3 6605 <u>current</u> 6 0 <1	0 2 0 246 0 7540 history1 11 11 <1 4	0 <1 <1 225 13 6993 history2 8 0 0
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID DEGRAD	ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 2 40 3 10310 <i>limit/base</i> >20 <i>limit/base</i> 0.5 <i>limit/base</i>	0 <1 1 232 3 6605 <i>current</i> 6 0 <1 <i>current</i> 0.47 <i>current</i>	0 2 0 246 0 7540 history1 11 <1 4 history1	0 <1 <1 225 13 6993 history2 8 0 0 0 history2 0.43 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID DEGRAD Acid Number (AN)	ppm ppm ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m	0 2 6 240 3 10310 <i>limit/base</i> >50 >20 <i>limit/base</i> 0.5	0 <1 1 232 3 6605 <i>current</i> 6 0 <1 <i>current</i> 0.47 <i>current</i> NONE	0 2 0 246 0 7540 history1 11 <1 4 4 history1 0.43	0 <1 <1 225 13 6993 history2 8 0 0 0 history2 0.43
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID DEGRAD Acid Number (AN) VISUAL	ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 2 40 3 10310 <i>limit/base</i> >20 <i>limit/base</i> 0.5 <i>limit/base</i>	0 <1 1 232 3 6605 <i>current</i> 6 0 <1 <i>current</i> 0.47 <i>current</i>	0 2 0 246 0 7540 history1 11 11 <1 4 history1 0.43 history1	0 <1 <1 225 13 6993 history2 8 0 0 0 history2 0.43 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID DEGRAN Acid Number (AN) VISUAL White Metal Yellow Metal Precipitate	ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 2 40 3 10310 imit/base >50 >20 imit/base 0.5 imit/base	0 <1 1 232 3 6605 current 6 0 <1 current 0.47 current 0.47 current NONE NONE NONE NONE	0 2 0 246 0 7540 history1 11 <1 4 11 4 0.43 history1 0.43 history1 NONE	0 <1 <1 225 13 6993 history2 8 0 0 0 history2 0.43 history2 LIGHT
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID DEGRAD Acid Number (AN) VISUAL White Metal Yellow Metal	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 D8045 ASTM D8045 ASTM D8045 ASTM D8045	0 2 2 40 3 10310 //////////////////////////////	0 <1 1 232 3 6605 current 6 0 <1 current 0.47 current NONE NONE NONE	0 2 0 246 0 7540 history1 11 <1 4 history1 0.43 history1 0.43 history1 NONE NONE	0 <1 <1 225 13 6993 history2 8 0 0 0 history2 0.43 history2 0.43 LIGHT NONE
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID DEGRAN Acid Number (AN) VISUAL White Metal Yellow Metal Precipitate	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 D8045 ASTM D8045 ASTM D8045 Visual *Visual	0 2 2 40 3 10310 imit/base >50 20 imit/base 0.5 imit/base NONE NONE NONE NONE	0 <1 1 232 3 6605 current 6 0 <1 current 0.47 current 0.47 current NONE NONE NONE NONE	0 2 0 246 0 7540 history1 11 <1 4 history1 0.43 history1 0.43 history1 NONE NONE NONE NONE	0 <1 <1 225 13 6993 history2 8 0 0 0 history2 0.43 history2 LIGHT NONE NONE NONE

Appearance

**Emulsified Water** 

Odor

\*Visual

\*Visual

scalar \*Visual

scalar \*Visual

scalar

scalar

NORML

NORML

>0.2

NORML

NORML

NEG

NEG

NORML

NORML

NEG

NEG

ocation GRAD ELLISIE GDITER

NORML

NORML





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