

OIL ANALYSIS REPORT

Sample Rating Trend



[70412] CRN032

Area

Rear Left Final Drive

PETRO CANADA PRODURO TO-4 SAE 50 (--- GAL)

DIAGNOSIS

Recommendation

We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. (Customer Sample Comment: New purchase PM-4 changed fluid)

A Wear

The copper level is abnormal. All other component wear rates are normal.

Contamination

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Fluid Condition

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

	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0109354		
Sample Date		Client Info		11 Apr 2024		
	hrs	Client Info		3980		
-	hrs	Client Info		3980		
Oil Changed		Client Info		Changed		
Sample Status				ABNORMAL		
CONTAMINATIO		method	limit/base	ourropt	biotonut	history
Water		WC Method		current NEG	history1	history2
WEAR METALS	2	method	limit/base	current	history1	history2
	ppm	ASTM D5185m	>500	301		
	ppm	ASTM D5185m		2		
	ppm	ASTM D5185m	>10	1		
	ppm	ASTM D5185m		1		
	ppm	ASTM D5185m		0		
	ppm	ASTM D5185m	>25	<mark> </mark> 13		
	ppm	ASTM D5185m	>25	3		
	ppm	ASTM D5185m	>50	<u> </u>		
	ppm	ASTM D5185m	>10	2		
Vanadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	138		
Barium	ppm	ASTM D5185m	0	3		
Molybdenum	ppm	ASTM D5185m	0	0		
Manganese	ppm	ASTM D5185m	0	5		
Magnesium	ppm	ASTM D5185m	9	7		
O a la la ma	ppm	ASTM D5185m	3114	74		
Calcium	1. 1					
	ppm	ASTM D5185m	1099	905		
Phosphorus		ASTM D5185m ASTM D5185m	1099 1245	905 71		
Phosphorus Zinc	ppm					
Phosphorus Zinc	ppm ppm ppm	ASTM D5185m	1245	71		
Phosphorus Zinc Sulfur CONTAMINANT	ppm ppm ppm	ASTM D5185m ASTM D5185m method	1245 7086	71 24634		
Phosphorus Zinc Sulfur CONTAMINANT	ppm ppm ppm FS ppm	ASTM D5185m ASTM D5185m method	1245 7086 limit/base	71 24634 current		 history2
Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium	ppm ppm ppm FS	ASTM D5185m ASTM D5185m method ASTM D5185m	1245 7086 limit/base >75	71 24634 current ▲ 100	 history1	 history2
Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium	ppm ppm ppm ГS ppm ppm	ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m	1245 7086 limit/base >75	71 24634 current ▲ 100 3	 history1 	 history2
Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium VISUAL	ppm ppm ppm ГS ppm ppm	ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m	1245 7086 limit/base >75 >20	71 24634 current ▲ 100 3 4	 history1 	 history2
Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium VISUAL White Metal	ppm ppm ppm ГS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method	1245 7086 Iimit/base >75 >20 Iimit/base	71 24634	 history1 	 history2 history2
Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium VISUAL White Metal Yellow Metal	ppm ppm ppm S ppm ppm ppm scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method *Visual	1245 7086 imit/base >75 >20 imit/base NONE	71 24634 current ▲ 100 3 4 current NONE	 history1 history1 	 history2 history2
Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate	ppm ppm CS ppm ppm ppm scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method *Visual	1245 7086 imit/base >75 >20 imit/base NONE NONE	71 24634 current ▲ 100 3 4 current NONE NONE	 history1 history1 	 history2 history2
Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt	ppm ppm S ppm ppm ppm ppm scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual	1245 7086 imit/base >75 20 imit/base NONE NONE NONE NONE	71 24634 current ▲ 100 3 4 current NONE NONE NONE NONE	 history1 history1 	 history2 history2 history2
Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris	ppm ppm 7 5 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual	1245 7086 Iimit/base >75 20 20 Iimit/base NONE NONE NONE NONE	71 24634 current ▲ 100 3 4 current NONE NONE NONE LIGHT	 history1 history1 	 history2 history2
Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt	ppm ppm Ppm Ppm ppm ppm scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual	1245 7086 >75 >20 limit/base NONE NONE NONE NONE NONE NONE	71 24634 current 100 3 4 current NONE NONE NONE LIGHT NONE	 history1 history1 	 history2 history2
Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance	ppm ppm (S) ppm ppm ppm scalar scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	1245 7086 imit/base >75 20 imit/base NONE NONE NONE NONE NONE NONE	71 24634 current ▲ 100 3 4 Current NONE NONE NONE LIGHT NONE NONE NONE NONE NONE	 history1 history1 	 history2 history2 history2
Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor	ppm ppm ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	1245 7086 3 575 200 220 10015 NONE NONE NONE NONE NONE NONE NONE NON	71 24634 current ▲ 100 3 4 current NONE NONE LIGHT NONE LIGHT NONE NONE NONE NORE NORE NORE	 history1 history1 	 history2 history2
Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor Emulsified Water	ppm ppm (S) ppm ppm ppm scalar scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	1245 7086 imit/base >75 20 imit/base NONE NONE NONE NONE NONE NONE NONE NON	71 24634 current ▲ 100 3 4 Current NONE NONE NONE LIGHT NONE NONE NONE NONE NONE	 history1 history1 history1 	 history2 history2 history2 -

Report Id: KEMPRY [WUSCAR] 06156351 (Generated: 04/24/2024 15:07:10) Rev: 1



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