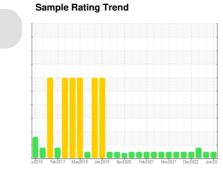


OIL ANALYSIS REPORT



NORMAL



KEMP QUARRIES / PRYOR STONE [70115] WL103 Component Transmission (Manual) Fluid PETRO CANADA PRODURO TO-4 SAE 30 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. (Customer Sample Comment: Pm3 performed. All oil samples taken. Engine oil, engine oil filters, fuel filters, air filters, and cabin air filters changed.)

Area

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

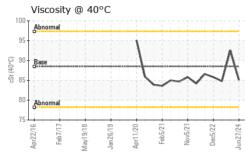
Fluid Condition

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

SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0108888	PCA0086595	PCA0084389
Sample Date		Client Info		27 Jun 2024	23 Feb 2024	02 Dec 2023
Machine Age	hrs	Client Info		40814	40226	39780
Oil Age	hrs	Client Info		588	977	531
Oil Changed		Client Info		Oil Added	Changed	Oil Added
Sample Status				NORMAL	NORMAL	ABNORMAL
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	>200	6	7	61
Chromium	ppm	ASTM D5185m	>5	<1	<1	0
Nickel	ppm	ASTM D5185m	>5	<1	0	0
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>7	<1	0	0
Aluminum	ppm	ASTM D5185m	>25	2	2	7
Lead	ppm	ASTM D5185m	>45	<1	0	13
Copper	ppm	ASTM D5185m	>225	2	3	A 213
Tin	ppm	ASTM D5185m	>10	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		<1	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	3	2	<1
Boron Barium	ppm ppm	ASTM D5185m ASTM D5185m	2 0	3 0	2	<1 0
Barium	ppm	ASTM D5185m	0	0	0	0
Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m	0	0 1	0 3	0 2
Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0 0 9	0 1 <1	0 3 0	0 2 <1
Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 9 1	0 1 <1 15	0 3 0 22	0 2 <1 38
Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 9 1 3131	0 1 <1 15 3693	0 3 0 22 2761	0 2 <1 38 3039
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 0 9 1 3131 1194	0 1 <1 15 3693 951	0 3 0 22 2761 902	0 2 <1 38 3039 861
Barium 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	0 0 9 1 3131 1194 1281	0 1 <1 15 3693 951 1242 3991 current	0 3 0 22 2761 902 1083 3739 history1	0 2 <1 38 3039 861 993 3698 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	0 0 9 1 3131 1194 1281 3811	0 1 <1 15 3693 951 1242 3991 current 9	0 3 0 22 2761 902 1083 3739 history1 8	0 2 <1 38 3039 861 993 3698 history2 39
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 0 9 1 3131 1194 1281 3811 limit/base	0 1 <1 15 3693 951 1242 3991 current	0 3 0 22 2761 902 1083 3739 history1	0 2 <1 38 3039 861 993 3698 history2
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 method ASTM D5185m	0 0 9 1 3131 1194 1281 3811 limit/base >125	0 1 <1 15 3693 951 1242 3991 current 9	0 3 0 22 2761 902 1083 3739 history1 8	0 2 <1 38 3039 861 993 3698 history2 39
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	0 0 9 1 3131 1194 1281 3811 limit/base >125	0 1 <1 3693 951 1242 3991 current 9 0	0 3 0 22 2761 902 1083 3739 history1 8 0	0 2 <1 38 3039 861 993 3698 history2 39 1
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 9 1 3131 1194 1281 3811 limit/base >125 >20	0 1 <1 15 3693 951 1242 3991 current 9 0 2	0 3 0 22 2761 902 1083 3739 history1 8 0 2	0 2 <1 38 3039 861 993 3698 history2 39 1 0
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m Yisual	0 0 9 1 3131 1194 1281 3811 <i>limit/base</i> >125 >20 <i>limit/base</i> NONE NONE	0 1 <1 15 3693 951 1242 3991 current 9 0 2 current NONE NONE NONE	0 3 0 22 2761 902 1083 3739 history1 8 0 2 2 history1 NONE NONE	0 2 <1 38 3039 861 993 3698 history2 39 1 0 0 history2
Barium 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 TS	ASTM D5185m ASTM D5185m Yisual *Visual	0 0 9 1 3131 1194 1281 3811 imit/base >125 >20 imit/base NONE	0 1 <1 15 3693 951 1242 3991 current 9 0 2 current NONE	0 3 0 22 2761 902 1083 3739 history1 8 0 2 history1 NONE NONE NONE NONE	0 2 <1 38 3039 861 993 3698 history2 39 1 0 0 history2 NONE NONE NONE NONE
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm scalar scalar	ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual	0 0 9 1 3131 1194 1281 3811 <i>limit/base</i> >125 >20 <i>limit/base</i> NONE NONE	0 1 <1 15 3693 951 1242 3991 current 9 0 2 current NONE NONE NONE NONE NONE NONE	0 3 0 22 2761 902 1083 3739 history1 8 0 2 2 history1 NONE NONE NONE NONE NONE	0 2 <1 38 3039 861 993 3698 history2 39 1 0 history2 NONE NONE NONE NONE NONE NONE
Barium 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 TS ppm ppm ppm ppm scalar scalar scalar	ASTM D5185m ASTM D5185m Yisual *Visual	0 0 9 1 3131 1194 1281 3811 125 >125 >20 limit/base NONE NONE NONE NONE	0 1 <1 15 3693 951 1242 3991 current 9 0 2 current NONE NONE NONE	0 3 0 22 2761 902 1083 3739 history1 8 0 2 history1 NONE NONE NONE NONE	0 2 <1 38 3039 861 993 3698 history2 39 1 0 0 history2 NONE NONE NONE NONE
Barium 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 ppm ppm ppm	ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual	0 0 9 1 3131 1194 1281 3811 1281 3811 10000000000000000000000000000000	0 1 <1 15 3693 951 1242 3991 current 9 0 2 current NONE NONE NONE NONE NONE NONE	0 3 0 22 2761 902 1083 3739 history1 8 0 2 2 history1 NONE NONE NONE NONE NONE	0 2 <1 38 3039 861 993 3698 history2 39 1 0 history2 NONE NONE NONE NONE NONE NONE
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Precipitate Silt Debris	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m Yuisual *Visual *Visual *Visual *Visual	0 0 9 1 3131 1194 1281 3811 <i>limit/base</i> >125 >20 <i>limit/base</i> NONE NONE NONE NONE NONE NONE	0 1 <1 15 3693 951 1242 3991 current 9 0 2 current NONE NONE NONE NONE NONE NONE NONE	0 3 0 22 2761 902 1083 3739 history1 8 0 2 <u>history1</u> 8 0 2 <u>history1</u> NONE NONE NONE NONE NONE NONE	0 2 <1 38 3039 861 993 3698 history2 39 1 0 history2 NONE NONE NONE NONE NONE NONE NONE
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m Visual *Visual *Visual *Visual *Visual *Visual *Visual	0 0 9 1 3131 1194 1281 3811 1281 3811 125 >125 >20 10000000000000000000000000000000000	0 1 <1 15 3693 951 1242 3991 current 9 0 2 current NONE NONE NONE NONE NONE NONE NONE NONE NONE	0 3 0 22 2761 902 1083 3739 history1 8 0 2 history1 8 NONE NONE NONE NONE NONE NONE NONE NO	0 2 <1 38 3039 861 993 3698 history2 39 1 0 NONE NONE NONE NONE NONE NONE NONE NO
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	0 0 9 1 3131 1194 1281 3811 1281 3811 125 >125 >20 10000000000000000000000000000000000	0 1 <1 15 3693 951 1242 3991 current 9 0 2 current NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE	0 3 0 22 2761 902 1083 3739 history1 8 0 2 history1 8 0 2 history1 NONE NONE NONE NONE NONE NONE NONE NON	0 2 <1 38 3039 861 993 3698 history2 39 1 0 history2 NONE NONE NONE NONE NONE NONE NONE NON
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	0 0 9 1 3131 1194 1281 3811 limit/base >125 20 limit/base NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE	0 1 <1 15 3693 951 1242 3991 current 9 0 2 current NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE	0 3 0 22 2761 902 1083 3739 history1 8 0 2 history1 NONE	0 2 <1 38 3039 861 993 3698 history2 39 1 0 NONE NONE NONE NONE NONE NONE NONE NO



OIL ANALYSIS REPORT



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	-	Apr11/20	Feb5/21-	Nov5/21	Dec5/22	
	-	Apr11/20	Feb5/21	Nov5/21	Dec5/22	
Apr22/16	-	Apr11/20	Feb5/21	Nov5/21	Dec5/22	
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To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Report Id: KEMPRY [WUSCAR] 06230645 (Generated: 07/10/2024 12:59:36) Rev: 1

Certificate L2367

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