

WEAR NORMAL CONTAMINATION ABNORMAL FLUID CONDITION ABNORMAL

Machine Id Kaiser France - Crankcase Component Reciprocating Compressor Fluid PETRO CANADA SENTRON ASHLESS 40 (--- GAL)

RECOMMENDATION

We advise that you check the fuel injection system. We advise that you check for the source of water entry. We recommend an early resample to monitor this condition. (Customer Sample Comment: Suspected water or other fluid contamination)



All component wear rates are normal.

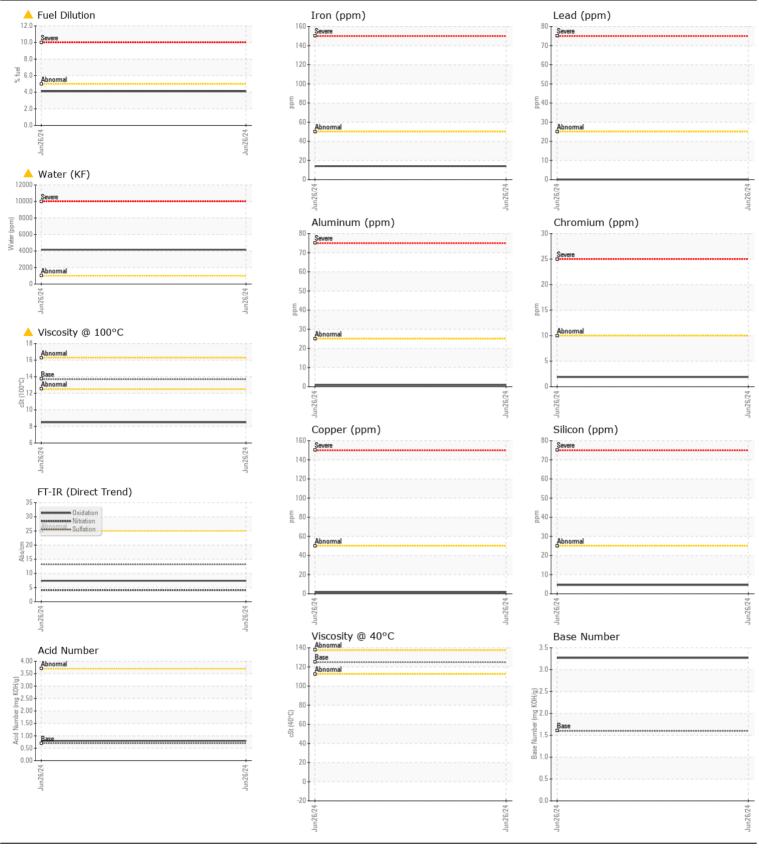
CONTAMINATION

There is a moderate amount of fuel present in the oil. There is a moderate concentration of water present in the oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PCA0130763		
Sample Date		Client Info		26 Jun 2024		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0		
Filter Age	hrs	Client Info		0		
Oil Changed		Client Info		N/A		
Filter Changed		Client Info		N/A		
Sample Status				ABNORMAL		
Iron	ppm	ASTM D5185m	>50	14		
Chromium	ppm	ASTM D5185m	>10	2		
Nickel	ppm	ASTM D5185m		0		
Titanium	ppm	ASTM D5185m		0		
Silver	ppm	ASTM D5185m	. OF	0		
Aluminum	ppm	ASTM D5185m	>25	<1		
Lead	ppm	ASTM D5185m	>25	0		
Copper Tin	ppm	ASTM D5185m ASTM D5185m	>50 >15	2 1		
Vanadium	ppm	ASTM D5185m ASTM D5185m	<1<	1		
White Metal	ppm scalar	*Visual	NONE	U NONE		
Yellow Metal	scalar	*Visual	NONE	NONE		
	Scalal	visual	INOINE	NONE		
Silicon	ppm	ASTM D5185m	>25	5		
Potassium	ppm	ASTM D5185m	>20	0		
Fuel	%	ASTM D3524		4.1		
Water	%	ASTM D6304	>0.1	0.416		
ppm Water	ppm	ASTM D6304	>1000	4160		
Soot %	%	*ASTM D7844		0		
Nitration	Abs/cm	*ASTM D7624		4.1		
Sulfation	Abs/.1mm	*ASTM D7415		13.2		
	7 10 0/			13.2		
Silt	scalar	*Visual	NONE	NONE		
Silt Debris			NONE NONE	-		
	scalar	*Visual		NONE		
Debris	scalar scalar	*Visual *Visual	NONE	NONE NONE		
Debris Sand/Dirt	scalar scalar scalar	*Visual *Visual *Visual	NONE NONE	NONE NONE NONE		
Debris Sand/Dirt Appearance	scalar scalar scalar scalar scalar	*Visual *Visual *Visual *Visual	NONE NONE NORML	NONE NONE NONE NORML		
Debris Sand/Dirt Appearance Odor Emulsified Water	scalar scalar scalar scalar scalar scalar	*Visual *Visual *Visual *Visual *Visual *Visual	NONE NONE NORML NORML	NONE NONE NORML NORML 0.2%	 	
Debris Sand/Dirt Appearance Odor Emulsified Water Sodium	scalar scalar scalar scalar scalar scalar ppm	*Visual *Visual *Visual *Visual *Visual ASTM D5185m	NONE NORML NORML >0.1	NONE NONE NORML NORML 0.2%	 	
Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron	scalar scalar scalar scalar scalar scalar ppm ppm	*Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m	NONE NORML NORML >0.1	NONE NONE NORML NORML 0.2% 2 32	 	
Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium	scalar scalar scalar scalar scalar scalar ppm ppm	*Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m	NONE NORML NORML >0.1 106 <1	NONE NONE NORML NORML 0.2% 2 32 0		
Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum	scalar scalar scalar scalar scalar scalar ppm ppm ppm ppm	*Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m	NONE NORML NORML >0.1 106 <1 <1	NONE NONE NORML NORML 0.2% 2 32 0 3		
Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese	scalar scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	*Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	NONE NORML NORML >0.1 106 <1 <1 <1	NONE NONE NORML 0.2% 2 32 0 3 3 0 3 0		
Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium	scalar scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm	*Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	NONE NORML NORML >0.1 106 <1 <1	NONE NONE NORML 0.2% 2 32 0 3 3 0 3 0 9		
Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	scalar scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm	*Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	NONE NORML NORML >0.1 106 <1 <1 <1 <1 <1	NONE NONE NORML 0.2% 2 32 0 32 0 3 9 9		
Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm	*Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	NONE NORML NORML >0.1 106 <1 <1 <1 <1 <1	NONE NONE NORML 0.2% 2 32 0 33 0 3 9 9 949 444		
Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	scalar scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm ppm	*Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	NONE NORML NORML >0.1 106 <1 <1 <1 <1 <1 <1 657	NONE NONE NORML 0.2% 2 32 0 32 0 3 3 0 9 949 444 248		
Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm ppm ppm	*Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	NONE NORML NORML >0.1 106 <1 <1 <1 <1 <1	NONE NONE NORML 0.2% 2 32 0 32 0 33 0 9 949 444 248 2846		
Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Oxidation	scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm ppm ppm pp	*Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7144	NONE NORML NORML >0.1 106 <1 <1 <1 <1 <1 657 255	NONE NONE NORML 0.2% 2 32 0 32 0 3 3 0 9 9 949 444 248 2846 7.4		
Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Oxidation Acid Number (AN)	scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm ppm ppm Abs/.tmm mg KOH/g	*Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D5185m *ASTM D7414 ASTM D8045	NONE NORML NORML >0.1 106 <1 <1 <1 <1 <1 <1 657 657 255 0.7	NONE NONE NORML 0.2% 2 32 0 33 0 9 949 444 248 2846 7.4 0.80		
Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Oxidation	scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm ppm ppm pp	*Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7144	NONE NORML NORML >0.1 106 <1 <1 <1 <1 <1 657 255	NONE NONE NORML 0.2% 2 32 0 32 0 3 3 0 9 9 949 444 248 2846 7.4		

FLUID CONDITION

Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.



PETRO-CANADA LUBRICANTS - GARRETT BAPP Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. Received : PCA0130763 : 01 Jul 2024 2416 N 12TH ST : 06225323 Lab Number Tested **BROKEN ARROW, OK** : 03 Jul 2024 Unique Number : 11103520 : 03 Jul 2024 - Jonathan Hester US 74012 Diagnosed Test Package : MOB 2 (Additional Tests: FT-IR, FuelDilution, KF, KV100, PercentFuel, TBNCpntact: GARRETT BAPP Certificate L2367 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. T: F: Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Submitted By: Garrett Bapp Page 2 of 2