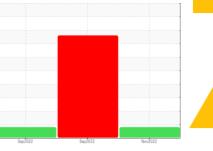


OIL ANALYSIS REPORT

SAMPLE INFORMATION method

Sample Rating Trend

limit/base



current

history1

FUEL

history2

Machine Id CPHU #02 Component Unknown Component Fluid

NOT GIVEN (--- GAL)

DIAGNOSIS

Recommendation

Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. No corrective action is recommended at this time. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear

All component wear rates are normal.

Contamination

Light fuel dilution occurring. No other contaminants were detected in the sample.

Fluid Condition

Viscosity of sample indicates oil is within ISO 68 range, advise investigate. The condition of the sample is acceptable for the time in service.

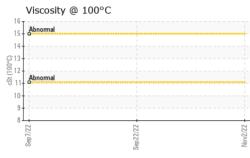
Commente Nivershow			IIIII/Dase	current	TIISTOLA	TIIStory2
Sample Number		Client Info		PP	WC	WC
Sample Date		Client Info		02 Nov 2022	22 Sep 2022	07 Sep 2022
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				MARGINAL	SEVERE	ATTENTION
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)		25	29	29
Chromium	ppm	ASTM D5185(m)		<1	<1	<1
Nickel	ppm	ASTM D5185(m)		1	2	2
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	0	0
Aluminum	ppm	ASTM D5185(m)		2	2	2
Lead	ppm	ASTM D5185(m)		12	17	15
Copper	ppm	ASTM D5185(m)		88	104	100
Tin	ppm	ASTM D5185(m)		<1	<1	<1
Antimony	ppm	ASTM D5185(m)		<1	0	0
Vanadium	ppm	ASTM D5185(m)		<1	<1	<1
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		<1	<1	<1
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		<1	1	<1
		. ,		<1	<1	<1
	nnm					
Barium	ppm	ASTM D5185(m)				
Molybdenum	ppm	ASTM D5185(m)		0	0	0
Molybdenum Manganese	ppm ppm	ASTM D5185(m) ASTM D5185(m)		0 <1	0 <1	0 <1
Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		0 <1 33	0 <1 26	0 <1 28
Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		0 <1 33 58	0 <1 26 51	0 <1 28 52
Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		0 <1 33 58 642	0 <1 26 51 632	0 <1 28 52 620
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		0 <1 33 58 642 517	0 <1 26 51 632 472	0 <1 28 52 620 464
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		0 <1 33 58 642 517 1866	0 <1 26 51 632 472 1964	0 <1 28 52 620 464 1954
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		0 <1 33 58 642 517	0 <1 26 51 632 472 1964 <1	0 <1 28 52 620 464 1954 <1
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	0 <1 33 58 642 517 1866 <1 current	0 <1 26 51 632 472 1964 <1 history1	0 <1 28 52 620 464 1954 <1 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m)	limit/base	0 <1 33 58 642 517 1866 <1 current 12	0 <1 26 51 632 472 1964 <1 history1 16	0 <1 28 52 620 464 1954 <1 <1 history2 14
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) Method ASTM D5185(m) ASTM D5185(m)		0 <1 33 58 642 517 1866 <1 current 12 6	0 <1 26 51 632 472 1964 <1 history1 16 8	0 <1 28 52 620 464 1954 <1 ×1 history2 14 5
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)		0 <1 33 58 642 517 1866 <1 current 12 6 <1	0 <1 26 51 632 472 1964 <1 history1 16 8 <1	0 <1 28 52 620 464 1954 <1 history2 14 5 1
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) Method ASTM D5185(m) ASTM D5185(m)		0 <1 33 58 642 517 1866 <1 current 12 6	0 <1 26 51 632 472 1964 <1 history1 16 8	0 <1 28 52 620 464 1954 <1 ×1 history2 14 5
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)		0 <1 33 58 642 517 1866 <1 current 12 6 <1	0 <1 26 51 632 472 1964 <1 history1 16 8 <1	0 <1 28 52 620 464 1954 <1 history2 14 5 1
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Fuel	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	>20	0 <1 33 58 642 517 1866 <1 current 12 6 <1 6 <1 3	0 <1 26 51 632 472 1964 <1 history1 16 8 <1 	0 <1 28 52 620 464 1954 <1 history2 14 5 1 1
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	>20	0 <1 33 58 642 517 1866 <1 current 12 6 <1 2 12 6 <1 3 3 current	0 <1 26 51 632 472 1964 <1 * 16 8 <1 16 8 <1 *	0 <1 28 52 620 464 1954 <1 * 1 * 14 5 1 1 5 1 1 * * *
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7593*	>20	0 <1 33 58 642 517 1866 <1 current 12 6 <1 2 6 <1 3 3 current 0	0 <1 26 51 632 472 1964 <1 history1 16 8 <1 history1 	0 <1 28 52 620 464 1954 <1 kistory2 14 5 1 1 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7593*	>20	0 <1 33 58 642 517 1866 <1 current 12 6 <1 6 <1 3 3 current 0 2.7	0 <1 26 51 632 472 1964 <1 history1 16 8 <1 history1 	0 <1 28 52 620 464 1954 <1 ***********************************

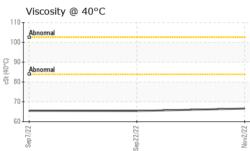


OIL ANALYSIS REPORT





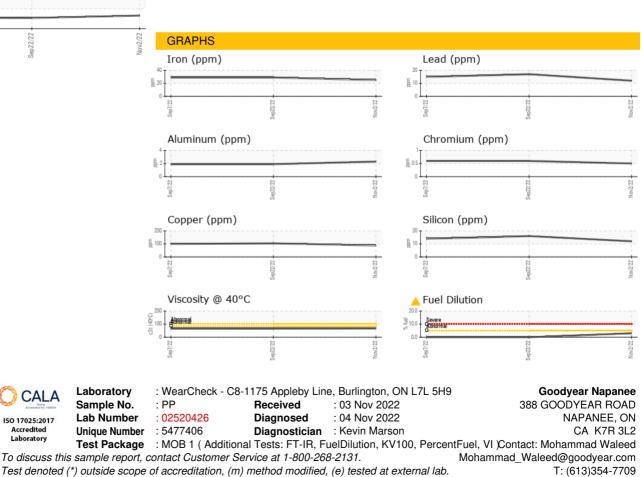


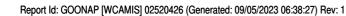


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*		NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)		66.6	65.4	65.5
Visc @ 100°C	cSt	ASTM D7279(m)		9.1		
Viscosity Index (VI)	Scale	ASTM D2270*		112		
SAMPLE IMAGES		method	limit/base	current	history1	history2
Color					([]) (]) (])	

Bottom

Validity of results and interpretation are based on the sample and information as supplied.





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