

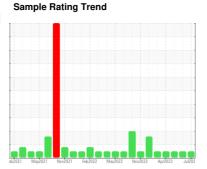
OIL ANALYSIS REPORT



GUAY SON/Yavaros [CONHER] CATERPILLAR Pacifico industrial PISA2 MP

Component **Diesel Engine**

CHEVRON DELO 400 SDE SAE 15W40 (100 LTR)





DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the

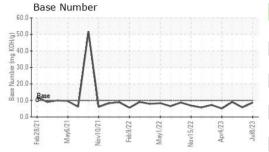
Fluid Condition

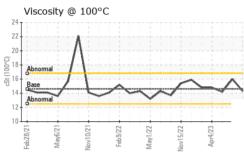
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORM	//ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		KL0012260	KL0012243	KL0012226
Sample Date		Client Info		08 Jul 2023	03 Jun 2023	26 Apr 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		240	1300	320
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATIO	V	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	32	74	26
Chromium	ppm	ASTM D5185m	>20	<1	2	<1
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m	>2	0	0	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	3	2	2
Lead	ppm	ASTM D5185m	>40	0	0	0
Copper	ppm	ASTM D5185m	>330	4	13	2
Tin	ppm	ASTM D5185m	>15	0	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 272	history1	history2 211
	ppm		limit/base			
Boron		ASTM D5185m	limit/base	272	81	211
Boron Barium	ppm	ASTM D5185m ASTM D5185m	limit/base	272 <1	81 0	211
Boron Barium Molybdenum	ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	272 <1 134	81 0 147	211 0 122
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	272 <1 134 <1	81 0 147	211 0 122 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	272 <1 134 <1 726	81 0 147 1 807	211 0 122 <1 648
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		272 <1 134 <1 726 1698	81 0 147 1 807 1803	211 0 122 <1 648 1500
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	760	272 <1 134 <1 726 1698 756	81 0 147 1 807 1803 834	211 0 122 <1 648 1500 690
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	760 800 3000 limit/base	272 <1 134 <1 726 1698 756 909	81 0 147 1 807 1803 834 1035	211 0 122 <1 648 1500 690 850
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	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	760 800 3000 limit/base	272 <1 134 <1 726 1698 756 909 3081	81 0 147 1 807 1803 834 1035 3334	211 0 122 <1 648 1500 690 850 2684
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	760 800 3000 limit/base	272 <1 134 <1 726 1698 756 909 3081 current	81 0 147 1 807 1803 834 1035 3334 history1	211 0 122 <1 648 1500 690 850 2684 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	760 800 3000 limit/base	272 <1 134 <1 726 1698 756 909 3081 current	81 0 147 1 807 1803 834 1035 3334 history1	211 0 122 <1 648 1500 690 850 2684 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	760 800 3000 limit/base	272 <1 134 <1 726 1698 756 909 3081 current 5	81 0 147 1 807 1803 834 1035 3334 history1 7	211 0 122 <1 648 1500 690 850 2684 history2 5 <1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	760 800 3000 limit/base >25 >20	272 <1 134 <1 726 1698 756 909 3081 current 5 2	81 0 147 1 807 1803 834 1035 3334 history1 7 2	211 0 122 <1 648 1500 690 850 2684 history2 5 <1 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	760 800 3000 limit/base >25 >20 limit/base >3	272 <1 134 <1 726 1698 756 909 3081 current 5 2 0 current	81 0 147 1 807 1803 834 1035 3334 history1 7 2 0	211 0 122 <1 648 1500 690 850 2684 history2 5 <1 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m Method *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	760 800 3000 limit/base >25 >20 limit/base >3	272 <1 134 <1 726 1698 756 909 3081 current 5 2 0 current	81 0 147 1 807 1803 834 1035 3334 history1 7 2 0 history1 3.6	211 0 122 <1 648 1500 690 850 2684 history2 5 <1 2 history2 1.6
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	760 800 3000 limit/base >25 >20 limit/base >3 >20	272 <1 134 <1 726 1698 756 909 3081 current 5 2 0 current 2 7.8	81 0 147 1 807 1803 834 1035 3334 history1 7 2 0 history1 3.6 11.2	211 0 122 <1 648 1500 690 850 2684 history2 5 <1 2 history2 1.6 7.9
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m Method *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D76145	760 800 3000 limit/base >25 >20 limit/base >3 >20 >30	272 <1 134 <1 726 1698 756 909 3081 current 5 2 0 current 2 7.8 25.3	81 0 147 1 807 1803 834 1035 3334 history1 7 2 0 history1 3.6 11.2 30.6	211 0 122 <1 648 1500 690 850 2684 history2 5 <1 2 history2 1.6 7.9 25.2



OIL ANALYSIS REPORT

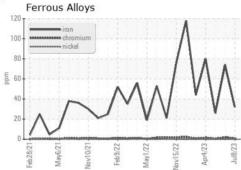


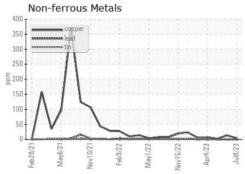


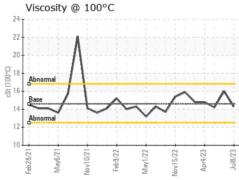
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG

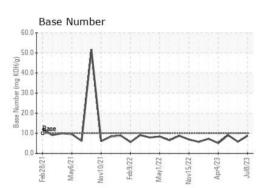
FLUID PROPERTIES		method				history2	
Visc @ 100°C	cSt	ASTM D445	14.6	14.3	16.0	14.2	

GRAPHS













Certificate L2367

Laboratory Sample No. Lab Number Unique Number : 10566189 Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : KL0012260 : 05904833

Received : 21 Jul 2023 Diagnosed Diagnostician : Don Baldridge

: 25 Jul 2023

JUAREZ 348 HERMOSILLO, MX 83140 Contact: EDUARDO GARCIA

egarcia.comsa@gmail.com T: (526)622-1581 x:81

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)

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CONOR