

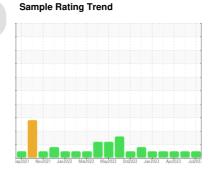
# **OIL ANALYSIS REPORT**



GUAY SON/Yavaros [CONHER] CATERPILLAR Pacifico Ind Admiralty Aux

**Auxiliary Engine** 

CHEVRON DELO 400 MULTIGRADE 15W40 (25 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

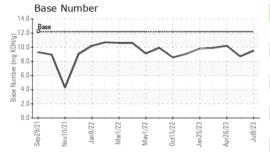
## **Fluid Condition**

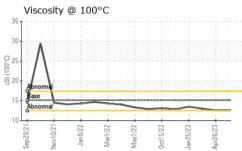
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		KL0012267	KL0012246	KL0012233
Sample Date		Client Info		08 Jul 2023	02 Jun 2023	26 Apr 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		412	350	230
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	V	method	limit/base	current	history1	history2
Fuel		WC Method	>4.0	<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	5	7	4
Chromium	ppm	ASTM D5185m	>20	<1	<1	<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	>20	2	2	3
Lead	ppm	ASTM D5185m	>40	0	0	<1
Copper	ppm	ASTM D5185m	>330	15	33	10
Tin	ppm	ASTM D5185m	>15	0	0	<1
Vanadium	ppm	ASTM D5185m		0	0	0
		AOTA DEADE		_		0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES	ppm	method	limit/base	current	0 history1	history2
	ppm		limit/base			
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 315	history1	history2
ADDITIVES Boron Barium	ppm	method ASTM D5185m ASTM D5185m	limit/base	current 315	history1 309	history2 307
ADDITIVES Boron Barium Molybdenum	ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 315 1 119	history1 309 0 131	history2 307 0 116
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 315 1 119 <1	history1 309 0 131 <1	history2 307 0 116 <1
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 315 1 119 <1 659	history1 309 0 131 <1 724	history2 307 0 116 <1 639
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		current 315 1 119 <1 659 1531	history1 309 0 131 <1 724 1613	history2 307 0 116 <1 639 1419
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus	ppm ppm ppm ppm ppm ppm	method ASTM D5185m	1360	current 315 1 119 <1 659 1531 679	history1 309 0 131 <1 724 1613 744	history2 307 0 116 <1 639 1419 631
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	1360	current 315 1 119 <1 659 1531 679 811	history1 309 0 131 <1 724 1613 744 895	history2 307 0 116 <1 639 1419 631 775
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m	1360 1480 limit/base	current 315 1 119 <1 659 1531 679 811 2740	history1 309 0 131 <1 724 1613 744 895 3073	history2 307 0 116 <1 639 1419 631 775 2528
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur  CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	1360 1480 limit/base	current  315 1 119 <1 659 1531 679 811 2740 current	history1 309 0 131 <1 724 1613 744 895 3073 history1	history2  307  0 116 <1 639 1419 631 775 2528 history2
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur  CONTAMINANTS  Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m	1360 1480 limit/base >25	current  315  1  119  <1  659  1531  679  811  2740  current  5	history1  309  0 131 <1 724 1613 744 895 3073 history1 6	history2  307  0 116 <1 639 1419 631 775 2528 history2
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur  CONTAMINANTS  Silicon  Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	1360 1480 limit/base >25	current  315  1 119 <1 659 1531 679 811 2740  current 5	history1 309 0 131 <1 724 1613 744 895 3073 history1 6 3	history2  307  0 116 <1 639 1419 631 775 2528 history2 5
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur  CONTAMINANTS  Silicon  Sodium  Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	1360 1480 limit/base >25 >20	current  315  1 119 <1 659 1531 679 811 2740  current 5 5 <1	history1 309 0 131 <1 724 1613 744 895 3073 history1 6 3 0	history2 307 0 116 <1 639 1419 631 775 2528 history2 5 1
ADDITIVES  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	method  ASTM D5185m	1360 1480 limit/base >25 >20 limit/base	current  315 1 119 <1 659 1531 679 811 2740 current 5 <1 current	history1 309 0 131 <1 724 1613 744 895 3073 history1 6 3 0	history2 307 0 116 <1 639 1419 631 775 2528 history2 5 1 2
ADDITIVES  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	method  ASTM D5185m  method  *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m  method	1360 1480 limit/base >25 >20 limit/base	current  315  1 119 <1 659 1531 679 811 2740 current 5 5 <1 current	history1 309 0 131 <1 724 1613 744 895 3073 history1 6 3 0 history1 0.3	history2 307 0 116 <1 639 1419 631 775 2528 history2 5 1 2 history2 0.1
ADDITIVES  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	method  ASTM D5185m  method  ASTM D5185m ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D5185m	1360 1480 limit/base >25 >20 limit/base	current  315 1 119 <1 659 1531 679 811 2740  current 5 5 <1 current 0.2 6.6	history1 309 0 131 <1 724 1613 744 895 3073 history1 6 3 0 history1 0.3 7.7	history2 307 0 116 <1 639 1419 631 775 2528 history2 5 1 2 history2 0.1 6.4
ADDITIVES  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	method  ASTM D5185m  METHOD  *ASTM D5185m ASTM D7844  *ASTM D7624  *ASTM D76145	1360 1480 limit/base >25 >20 limit/base >20 >30	current  315 1 119 <1 659 1531 679 811 2740 current 5 5 <1 current 0.2 6.6 22.9	history1 309 0 131 <1 724 1613 744 895 3073 history1 6 3 0 history1 0.3 7.7 24.4	history2 307 0 116 <1 639 1419 631 775 2528 history2 5 1 2 history2 0.1 6.4 23.0



# **OIL ANALYSIS REPORT**

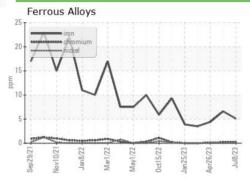


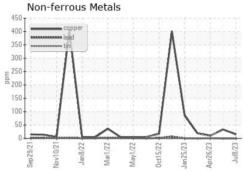


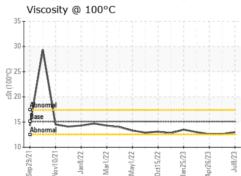
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
<b>Emulsified Water</b>	scalar	*Visual	>0.1	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG

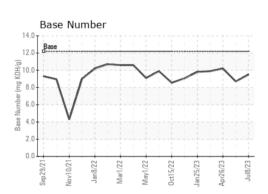
FLUID PROPERTIES		method				history2
Visc @ 100°C	cSt	ASTM D445	15.1	13.0	12.6	12.6

## **GRAPHS**













Certificate L2367

Laboratory

Sample No. Lab Number

: KL0012267 : 05904828 Unique Number : 10566184 Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 21 Jul 2023 Diagnosed : 25 Jul 2023 Diagnostician : Don Baldridge

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) **CONOR** 

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