

# **OIL ANALYSIS REPORT**

## **DEGRADATION**

history2

# GUAY SON/Yavaros [CONHER] Pacifico Industrial - PISA2 Aux1

Component

**Diesel Engine** 

CHEVRON DELO 400 SDE SAE 15W40 (40 LTR)

# **DIAGNOSIS**

### Recommendation

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

### Wear

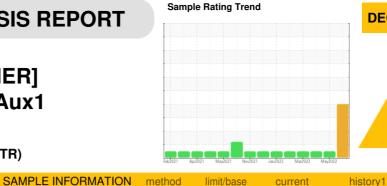
All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the

### Fluid Condition

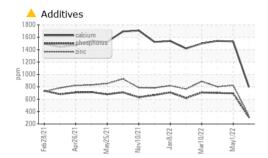
Additive levels indicate the addition of a different brand, or type of oil. The BN level is low.

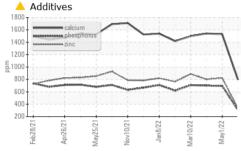


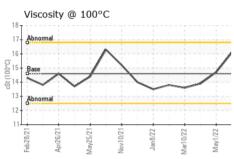
Sample Number		Client Info		KL0010186	KL0009246	KL0009228
Sample Date		Client Info		13 Jun 2022	01 May 2022	08 Apr 2022
Machine Age	hrs	Client Info		0	38066	37616
Oil Age	hrs	Client Info		0	450	1710
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	NORMAL	NORMAL
CONTAMINATION	V	method	limit/base	current	history1	history2
Fuel		WC Method		<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>250	36	20	15
Chromium	ppm	ASTM D5185m	>10	<1	<1	<1
Nickel	ppm	ASTM D5185m	>5	0	<1	<1
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m		<1	<1	0
Aluminum	ppm	ASTM D5185m	>35	1	4	4
Lead	ppm	ASTM D5185m	>100	7	4	3
Copper	ppm	ASTM D5185m	>60	8	8	6
Tin	ppm	ASTM D5185m	>5	<1	<1	1
Vanadium	ppm	ASTM D5185m		0	<1	<1
Cadmium	ppm	ASTM D5185m		<1	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current  ▲ 40	history1 148	history2 218
	ppm ppm		limit/base			
Boron		ASTM D5185m	limit/base	<b>4</b> 0	148	218
Boron Barium	ppm	ASTM D5185m ASTM D5185m	limit/base	<b>▲</b> 40 0	148	218
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	▲ 40 0 ▲ 13	148 0 105	218 0 105
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	▲ 40 0 ▲ 13 <1	148 0 105 <1	218 0 105 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	▲ 40 0 ▲ 13 <1 ▲ 84	148 0 105 <1 727	218 0 105 <1 703
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		▲ 40 0 ▲ 13 <1 ▲ 84 ▲ 797	148 0 105 <1 727 1531	218 0 105 <1 703 1541
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	760	▲ 40 0 ▲ 13 <1 ▲ 84 ▲ 797 ▲ 308	148 0 105 <1 727 1531 695	218 0 105 <1 703 1541 700
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	760 800	▲ 40 0 ▲ 13 <1 ▲ 84 ▲ 797 ▲ 308 ▲ 332	148 0 105 <1 727 1531 695 825	218 0 105 <1 703 1541 700 801
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	▲ 40 0     13     <1     84     797     308     332     1537	148 0 105 <1 727 1531 695 825 2166	218 0 105 <1 703 1541 700 801 2157
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	760 800 3000 limit/base	▲ 40 0	148 0 105 <1 727 1531 695 825 2166 history1	218 0 105 <1 703 1541 700 801 2157 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	▲ 40 0	148 0 105 <1 727 1531 695 825 2166 history1 7	218 0 105 <1 703 1541 700 801 2157 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 >35	▲ 40 0	148 0 105 <1 727 1531 695 825 2166 history1 7	218 0 105 <1 703 1541 700 801 2157 history2 7
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 >35 >20	▲ 40 0	148 0 105 <1 727 1531 695 825 2166 history1 7 4	218 0 105 <1 703 1541 700 801 2157 history2 7 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 >35 >20 limit/base >3	▲ 40 0	148 0 105 <1 727 1531 695 825 2166 history1 7 4 0	218 0 105 <1 703 1541 700 801 2157 history2 7 2 0
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	760 800 3000 limit/base >35 >20 limit/base >3	▲ 40 0	148 0 105 <1 727 1531 695 825 2166 history1 7 4 0 history1 1.6	218 0 105 <1 703 1541 700 801 2157 history2 7 2 0 history2 1.5
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	760 800 3000 limit/base >35 >20 limit/base >3 >20	▲ 40 0	148 0 105 <1 727 1531 695 825 2166 history1 7 4 0 history1 1.6 10.4	218 0 105 <1 703 1541 700 801 2157 history2 7 2 0 history2 1.5 10.3
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA	ppm	ASTM D5185m  Method  *ASTM D5185m ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D5185m  Method  *ASTM D7844  *ASTM D7624  *ASTM D7415  Method	760 800 3000 limit/base >35 >20 limit/base >3 >20 >30 limit/base	▲ 40 0	148 0 105 <1 727 1531 695 825 2166 history1 7 4 0 history1 1.6 10.4 27.9 history1	218 0 105 <1 703 1541 700 801 2157 history2 7 2 0 history2 1.5 10.3 28.7 history2
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 D7844 *ASTM D7624 *ASTM D76145	760 800 3000 limit/base >35 >20 limit/base >3 >20 >30	▲ 40 0	148 0 105 <1 727 1531 695 825 2166 history1 7 4 0 history1 1.6 10.4 27.9	218 0 105 <1 703 1541 700 801 2157 history2 7 2 0 history2 1.5 10.3 28.7



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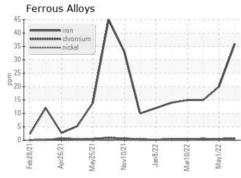


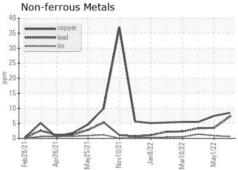


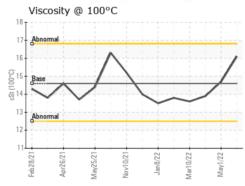
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual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

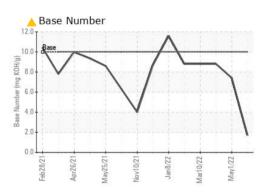
FLUID FNOFENTIES		memod	IIIIIIVDase	Current	HISTORY	HISTORYZ
Visc @ 100°C	cSt	ASTM D445	14.6	16.1	14.7	13.9

#### **GRAPHS**













Laboratory Sample No.

Lab Number : 05579601 Unique Number : 10034027

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : KL0010186

Received Tested Diagnosed

: 29 Jun 2022 : 01 Jul 2022

: 01 Jul 2022 - Jonathan Hester

JUAREZ 348 HERMOSILLO, MX 83140

Contact: EDUARDO GARCIA egarcia.comsa@gmail.com

T: (526)622-1581 x:81

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

Report Id: CONHERKL [WUSCAR] 05579601 (Generated: 02/19/2024 16:07:16) Rev: 1

Submitted By: EDUARDO GARCIA

**CONOR** 

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