

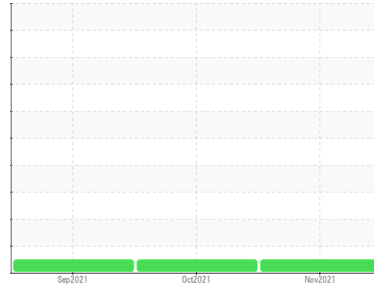


# OIL ANALYSIS REPORT



Area  
**GUAY SON/Yavaros [CONHER]**  
 Machine Id  
**CATERPILLAR Pacifico Ind Azteca MP**  
 Component  
**Diesel Engine**  
 Fluid  
**CHEVRON DELO 400 MULTIGRADE 15W40 (160 LTR)**

Sample Rating Trend



**NORMAL**



## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

### 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 INFORMATION

	method	limit/base	current	history 1	history 2
Sample Number	Client Info		<b>KL0007634</b>	KL0007490	KL0007482
Sample Date	Client Info		<b>10 Nov 2021</b>	20 Oct 2021	29 Sep 2021
Machine Age	hrs	Client Info	<b>418</b>	168	0
Oil Age	hrs	Client Info	<b>408</b>	158	10
Oil Changed	Client Info		<b>Not Chngd</b>	Not Chngd	Not Chngd
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history 1	history 2
Fuel	WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history 1	history 2	
Iron	ppm	ASTM D5185m	>100	<b>18</b>	19	12
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185m	>25	<b>4</b>	7	7
Lead	ppm	ASTM D5185m	>40	<b>2</b>	<1	1
Copper	ppm	ASTM D5185m	>330	<b>12</b>	8	7
Tin	ppm	ASTM D5185m	>15	<b>0</b>	1	<1
Antimony	ppm	ASTM D5185m		<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	<1
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history 1	history 2	
Boron	ppm	ASTM D5185m		<b>252</b>	315	415
Barium	ppm	ASTM D5185m		<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185m		<b>111</b>	116	122
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>761</b>	643	668
Calcium	ppm	ASTM D5185m		<b>1703</b>	1466	1564
Phosphorus	ppm	ASTM D5185m	1360	<b>671</b>	658	704
Zinc	ppm	ASTM D5185m	1480	<b>814</b>	786	774
Sulfur	ppm	ASTM D5185m		<b>3115</b>	1952	2126

## CONTAMINANTS

	method	limit/base	current	history 1	history 2	
Silicon	ppm	ASTM D5185m	>25	<b>9</b>	16	14
Sodium	ppm	ASTM D5185m		<b>8</b>	3	6
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	1	1

## INFRA-RED

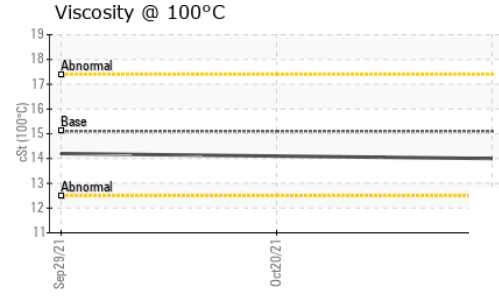
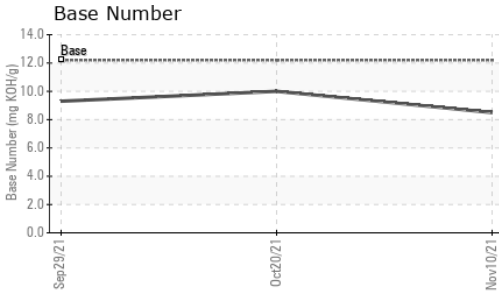
	method	limit/base	current	history 1	history 2	
Soot %	%	*ASTM D7844	>3	<b>0.4</b>	0.2	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.2</b>	7.4	5
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>23.6</b>	24.4	22.5

## FLUID DEGRADATION

	method	limit/base	current	history 1	history 2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>18.2</b>	18.2	15.3
Base Number (BN)	mg KOH/g	ASTM D2896	12.2	<b>8.5</b>	10	9.3



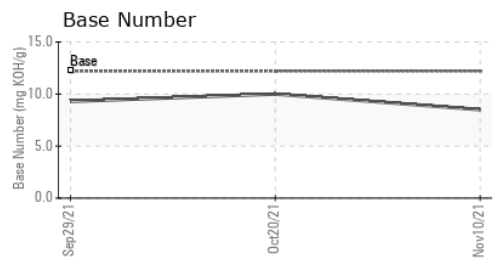
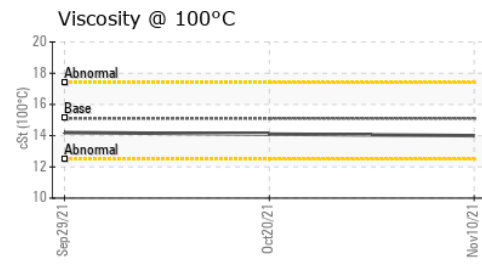
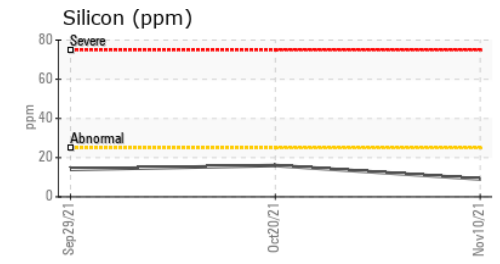
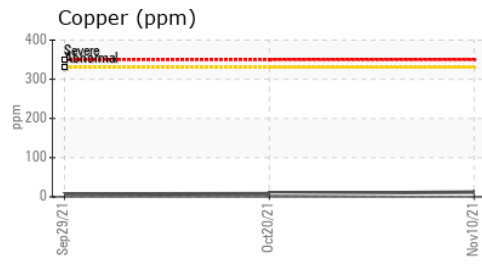
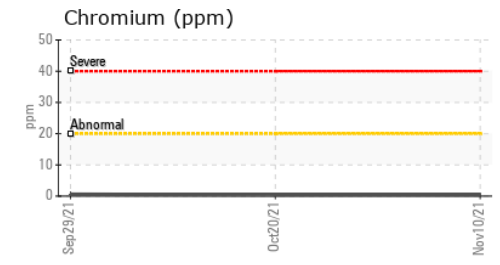
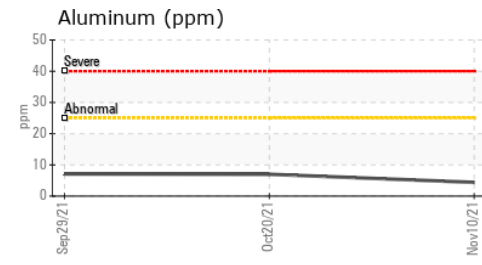
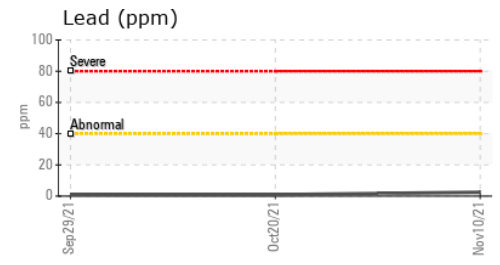
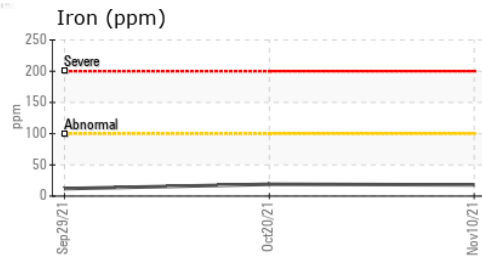
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history 1	history 2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history 1	history 2	
Visc @ 100°C	cSt	ASTM D445	15.1	<b>14.0</b>	14.1	14.2

### GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KL0007634 **Received** : 15 Nov 2021  
**Lab Number** : 05400909 **Diagnosed** : 16 Nov 2021  
**Unique Number** : 9740059 **Diagnostician** : Doug Bogart  
**Test Package** : MOB1+

**CONOR**  
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 HERMOSILLO,  
 MX 83140  
 Contact: EDUARDO GARCIA  
 egarcia.comsa@gmail.com  
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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)