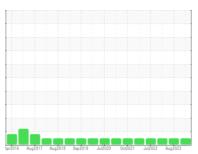


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



INTERNATIONAL 799

Component

Diesel Engine

CHEVRON DELO 400 XLE 10W30 (40 LTR)

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 history1 history2			Apr2016 Aug	2017 Aug2018 Sep2019	Jul2020 Oct2021 Jul2022	Aug2023	
Sample Date	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Machine Age mls Client Info 185238 16501 410075 Oil Age mls Client Info 0 400 400 Oil Changed Client Info Changed Changed Changed Changed Sample Status Description Changed Changed <th>Sample Number</th> <th></th> <th>Client Info</th> <th></th> <th>WC0851828</th> <th>WC0733109</th> <th>WC0733068</th>	Sample Number		Client Info		WC0851828	WC0733109	WC0733068
Oil Age mls Client Info Changed NORMAL	Sample Date		Client Info		11 Jan 2024	31 Aug 2023	25 Apr 2023
Oil Changed Sample Status Client Info Changed NORMAL NORMAL NORMAL Changed NORMAL NORMAL NORMAL Changed NORMAL Changed NORMAL Nor	Machine Age	mls	Client Info		185238	16501	410075
Sample Status	Oil Age	mls	Client Info		0	400	400
CONTAMINATION method limit/base current history1 history2 Fuel WC Method >2.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 NEG NED 1 0 0 <th>Oil Changed</th> <th></th> <th>Client Info</th> <th></th> <th>Changed</th> <th>Changed</th> <th>Changed</th>	Oil Changed		Client Info		Changed	Changed	Changed
Fuel	Sample Status				NORMAL	NORMAL	NORMAL
Water Glycol WC Method >0.2 NEG NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >100 10 11 17 Chromium ppm ASTM D5185m >20 <1 <1 <1 Nickel ppm ASTM D5185m >4 1 1 2 Silver ppm ASTM D5185m >4 1 1 2 Silver ppm ASTM D5185m >4 1 0 0 Silver ppm ASTM D5185m >20 2 1 5 Lead ppm ASTM D5185m >40 <1 0 0 Copper ppm ASTM D5185m >15 <1 0 0 Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0	CONTAMINATIO	N	method	limit/base	current	history1	history2
WEAR METALS	Fuel		WC Method	>2.0	<1.0	<1.0	<1.0
WEAR METALS	Water		WC Method	>0.2	NEG	NEG	NEG
Iron	Glycol		WC Method		NEG	NEG	NEG
Chromium ppm ASTM D5185m >20 <1	WEAR METALS		method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>100	10	11	17
Titanium	Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Silver	Nickel	ppm	ASTM D5185m	>4	1_	1	2
Aluminum ppm ASTM D5185m >20 2 1 5 Lead ppm ASTM D5185m >40 <1 0 0 Copper ppm ASTM D5185m >330 6 2 5 Tin ppm ASTM D5185m >15 <1 0 0 Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 Barium ppm ASTM D5185m <1 0 0 Molybdenum ppm ASTM D5185m 3 5 71 Manganese ppm ASTM D5185m 0 <1 0 Magnesium ppm ASTM D5185m 2900 1281 1493 1872 Phosphorus pp	Titanium	ppm	ASTM D5185m		<1	0	0
Lead ppm ASTM D5185m >40 <1	Silver	ppm	ASTM D5185m	>3	0	0	0
Copper ppm ASTM D5185m >330 6 2 5 Tin ppm ASTM D5185m >15 <1 0 0 Vanadium ppm ASTM D5185m 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 37 50 19 Barium ppm ASTM D5185m -1 0 0 Molybdenum ppm ASTM D5185m 3 5 71 Manganese ppm ASTM D5185m 0 <1 0 Magnesium ppm ASTM D5185m 713 764 446 Calcium ppm ASTM D5185m 2900 1281 1493 1872 Phosphorus ppm ASTM D5185m 1200 784 939 1216 Sulfur ppm ASTM D5185m	Aluminum	ppm	ASTM D5185m	>20	2	1	5
Tin	Lead	ppm	ASTM D5185m	>40	<1	0	0
Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 37 50 19 Barium ppm ASTM D5185m <1	Copper	ppm	ASTM D5185m	>330	6	2	5
Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 37 50 19 Barium ppm ASTM D5185m <1 0 0 Molybdenum ppm ASTM D5185m 3 5 71 Manganese ppm ASTM D5185m 0 <1 0 Magnesium ppm ASTM D5185m 713 764 446 Calcium ppm ASTM D5185m 2900 1281 1493 1872 Phosphorus ppm ASTM D5185m 1100 776 800 1020 Zinc ppm ASTM D5185m 1200 784 939 1216 Sulfur ppm ASTM D5185m 20 3928 4275 CONTAMINANTS method limit/base current history1 history2 Silicon ppm AST	Tin	ppm	ASTM D5185m	>15	<1	0	0
ADDITIVES	Vanadium	ppm	ASTM D5185m		0	0	0
Boron	Cadmium	ppm	ASTM D5185m		0	0	0
Barium ppm ASTM D5185m <1	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 3 5 71 Manganese ppm ASTM D5185m 0 <1	Boron	ppm	ASTM D5185m		37	50	19
Manganese ppm ASTM D5185m 0 <1	Barium	ppm	ASTM D5185m		<1	0	0
Magnesium ppm ASTM D5185m 713 764 446 Calcium ppm ASTM D5185m 2900 1281 1493 1872 Phosphorus ppm ASTM D5185m 1100 776 800 1020 Zinc ppm ASTM D5185m 1200 784 939 1216 Sulfur ppm ASTM D5185m 4000 3260 3928 4275 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 8 7 9 Sodium ppm ASTM D5185m 29 18 15 Potassium ppm ASTM D5185m >20 17 10 6 INFRA-RED method limit/base current history1 history2 Soot % "ASTM D7844 >3 0.5 0.4 0.5 Nitration Abs/cm "ASTM D7415 >30 20.1 19.2	Molybdenum	ppm	ASTM D5185m		3	5	71
Calcium ppm ASTM D5185m 2900 1281 1493 1872 Phosphorus ppm ASTM D5185m 1100 776 800 1020 Zinc ppm ASTM D5185m 1200 784 939 1216 Sulfur ppm ASTM D5185m 4000 3260 3928 4275 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 8 7 9 Sodium ppm ASTM D5185m >20 17 10 6 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.4 0.5 Nitration Abs/.1mm *ASTM D7624 >20 10.7 10.0 11.7 Sulfation Abs/.1mm *ASTM D7415 >30 20.1 19.2 20.7 FLUID DEGRADATION method	Manganese	ppm	ASTM D5185m		0	<1	0
Phosphorus ppm ASTM D5185m 1100 776 800 1020 Zinc ppm ASTM D5185m 1200 784 939 1216 Sulfur ppm ASTM D5185m 4000 3260 3928 4275 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 8 7 9 Sodium ppm ASTM D5185m 29 18 15 Potassium ppm ASTM D5185m >20 17 10 6 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.4 0.5 Nitration Abs/:nm *ASTM D7624 >20 10.7 10.0 11.7 Sulfation Abs/:nm *ASTM D7415 >30 20.1 19.2 20.7 FLUID DEGRADATION method <	Magnesium	ppm	ASTM D5185m		713	764	446
Zinc ppm ASTM D5185m 1200 784 939 1216 Sulfur ppm ASTM D5185m 4000 3260 3928 4275 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 8 7 9 Sodium ppm ASTM D5185m 29 18 15 Potassium ppm ASTM D5185m >20 17 10 6 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.4 0.5 Nitration Abs/cm *ASTM D7624 >20 10.7 10.0 11.7 Sulfation Abs/.1mm *ASTM D7415 >30 20.1 19.2 20.7 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 <t< th=""><th>Calcium</th><th>ppm</th><th>ASTM D5185m</th><th>2900</th><th>1281</th><th>1493</th><th>1872</th></t<>	Calcium	ppm	ASTM D5185m	2900	1281	1493	1872
Sulfur ppm ASTM D5185m 4000 3260 3928 4275 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 8 7 9 Sodium ppm ASTM D5185m 29 18 15 Potassium ppm ASTM D5185m >20 17 10 6 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.4 0.5 Nitration Abs/cm *ASTM D7624 >20 10.7 10.0 11.7 Sulfation Abs/.1mm *ASTM D7415 >30 20.1 19.2 20.7 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.3 14.9 17.7	Phosphorus	ppm	ASTM D5185m	1100	776	800	1020
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 8 7 9 Sodium ppm ASTM D5185m 29 18 15 Potassium ppm ASTM D5185m >20 17 10 6 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.4 0.5 Nitration Abs/cm *ASTM D7624 >20 10.7 10.0 11.7 Sulfation Abs/.1mm *ASTM D7415 >30 20.1 19.2 20.7 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.3 14.9 17.7	Zinc	ppm	ASTM D5185m	1200	784	939	1216
Silicon ppm ASTM D5185m >25 8 7 9 Sodium ppm ASTM D5185m 29 18 15 Potassium ppm ASTM D5185m >20 17 10 6 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.4 0.5 Nitration Abs/cm *ASTM D7624 >20 10.7 10.0 11.7 Sulfation Abs/.1mm *ASTM D7415 >30 20.1 19.2 20.7 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.3 14.9 17.7	Sulfur	ppm	ASTM D5185m	4000	3260	3928	4275
Sodium ppm ASTM D5185m 29 18 15 Potassium ppm ASTM D5185m >20 17 10 6 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.4 0.5 Nitration Abs/cm *ASTM D7624 >20 10.7 10.0 11.7 Sulfation Abs/.1mm *ASTM D7415 >30 20.1 19.2 20.7 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.3 14.9 17.7	CONTAMINANTS	3	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 17 10 6 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.4 0.5 Nitration Abs/cm *ASTM D7624 >20 10.7 10.0 11.7 Sulfation Abs/.1mm *ASTM D7415 >30 20.1 19.2 20.7 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.3 14.9 17.7	Silicon	ppm	ASTM D5185m	>25	8	7	9
INFRA-RED	Sodium	ppm	ASTM D5185m		29	18	15
Soot % % *ASTM D7844 >3 0.5 0.4 0.5 Nitration Abs/cm *ASTM D7624 >20 10.7 10.0 11.7 Sulfation Abs/.1mm *ASTM D7415 >30 20.1 19.2 20.7 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.3 14.9 17.7	Potassium	ppm	ASTM D5185m	>20	17	10	6
Nitration Abs/cm *ASTM D7624 >20 10.7 10.0 11.7 Sulfation Abs/.1mm *ASTM D7415 >30 20.1 19.2 20.7 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.3 14.9 17.7	INFRA-RED		method	limit/base	current	history1	history2
Sulfation Abs/.1mm *ASTM D7415 >30 20.1 19.2 20.7 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.3 14.9 17.7	Soot %	%	*ASTM D7844	>3	0.5	0.4	0.5
FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.3 14.9 17.7	Nitration	Abs/cm	*ASTM D7624	>20	10.7	10.0	11.7
Oxidation Abs/.1mm *ASTM D7414 >25 16.3 14.9 17.7	Sulfation	Abs/.1mm			20.1	19.2	
	FLUID DEGRADA	ATION	method	limit/base	current	history1	history2
	Oxidation	Abs/.1mm	*ASTM D7414	>25	16.3	14.9	17.7
	Base Number (BN)	mg KOH/g			8.73	9.92	9.13



OIL ANALYSIS REPORT







Certificate L2367

Laboratory Lab Number

Sample No. **Unique Number**

Test Package : MOB 2

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : WC0851828 : 18 Jan 2024 Recieved

: 06065112 Diagnosed : 22 Jan 2024 : Sean Felton : 10836494 Diagnostician

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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