

### **OIL ANALYSIS REPORT**

Sample Rating Trend



# Machine Id DFGS100439

Component Diesel Engine Fluid CHEVRON 15W40 (--- QTS)

#### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

#### 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 INFORM	<b>IATION</b>	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0905061		
Sample Date		Client Info		01 May 2024		
Machine Age	hrs	Client Info		11937		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		Changed		
Sample Status				NORMAL		
CONTAMINATIO	N	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0		
Water		WC Method	>0.2	NEG		
Glycol		WC Method		NEG		
WEAR METALS		method	limit/base	current	history1	history2
					Thistory I	mstoryz
Iron	ppm	ASTM D5185m	>100	8		
Chromium	ppm	ASTM D5185m	>20	<1		
Nickel	ppm	ASTM D5185m	>4	0		
Titanium	ppm	ASTM D5185m		<1		
Silver	ppm	ASTM D5185m	>3	0		
Aluminum	ppm	ASTM D5185m	>20	5		
Lead	ppm	ASTM D5185m	>40	<1		
Copper	ppm	ASTM D5185m	>330	<1		
Tin	ppm	ASTM D5185m	>15	<1		
Vanadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		<1		
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 367	history1	history2
	ppm ppm		limit/base			, i i i i i i i i i i i i i i i i i i i
Boron		ASTM D5185m	limit/base	367		
Boron Barium	ppm	ASTM D5185m ASTM D5185m	limit/base	367 1		
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	367 1 145		
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	367 1 145 <1		
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	367 1 145 <1 689		
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	367 1 145 <1 689 1616	  	
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	limit/base	367 1 145 <1 689 1616 770	  	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	367 1 145 <1 689 1616 770 943	    	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm 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		367 1 145 <1 689 1616 770 943 2649		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	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	limit/base	367 1 145 <1 689 1616 770 943 2649 current	     history1	     history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m	limit/base	367 1 145 <1 689 1616 770 943 2649 current 6	    history1	     history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m	limit/base >25 >50	367 1 145 <1 689 1616 770 943 2649 2649 current 6 <1	     history1	     history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >50 >20	367 1 145 <1 689 1616 770 943 2649 current 6 <1 2	     history1  	     history2  
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 ASTM D5185m	limit/base >25 >50 >20 limit/base	367 1 145 <1 689 1616 770 943 2649 <i>current</i> 6 <1 2	    history1   history1	     history2   history2
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 ASTM D5185m	limit/base >25 >50 >20 limit/base >3	367 1 145 <1 689 1616 770 943 2649 <i>current</i> 6 <1 2 <i>current</i> 0.3	     history1   history1  history1	     history2  history2  history2
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 ASTM D5185m	limit/base >25 >50 >20 limit/base >3 >20	367 1 145 <1 689 1616 770 943 2649 <u>current</u> 6 <1 2 <u>current</u> 0.3 9.3	     history1   history1  history1	     history2  history2  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 ASTM D5185m	limit/base >25 >50 >20 limit/base >3 >20 >30 limit/base	367 1 145 <1 689 1616 770 943 2649 <u>current</u> 6 <1 2 <u>current</u> 0.3 9.3 23.8	     history1   history1  history1	      history2  history2  history2



## **OIL ANALYSIS REPORT**

FT-IR (Direct Trend) VIS	SUAL	method	limit/base	current	history1	history2
0.11-51	e Metal scalar	*Visual	NONE	NONE		
	w Metal scalar		NONE	NONE		
	pitate scalar		NONE	NONE		
	scalar		NONE	NONE		
Debr			NONE	NONE		
Sand			NONE	NONE		
	arance scalar		NORML	NORML		
May1/24 Appe			NORML			
Caol				NORML NEG		
Dase Nullidei	sified Water scalar	*Visual	>0.2			
	Water scalar	*Visual		NEG		
¥		method	limit/base	current	history1	history2
	@ 100°C cSt	ASTM D445	14.4	13.7		
	APHS					
E 2.0	rous Alloys					
0.0 +	iron					
42/1/24	nickel					
≥ 2	)					
Viscosity @ 100°C						
<sup>18</sup>						
17 Abnormal						
16 9						
0 15 Base 0 42						
			May1/24			
13 Abnomal			May			
	n-ferrous Metals					
420 Kew 42						
W N N N N N N N N N N N N N N N N N N N	copper lead					
	tin					
6++						
E .						
4						
2						
54 54			24			
Aay 1./			2			
- Vis			Alar Mar			
18 T	cosity @ 100°C		Ma			
17 <b>-</b> Abn	cosity @ 100°C			Base Number		
16+			9.0 8.0	Base Number		
10	cosity @ 100°C		9.0 8.0	Base Number		
O .r			9.0 8.0 (6,7.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9	Base Number		
			9.0 8.0 9.7.0 9.7.0 9.0 9.0 9.0 9.0 8.0 9.0 9.0 9.0 9.0 9.0 1.0 9.0 8.0 9.0 1.0 9.0 1.0 9.0 8.0 9.0 8.0 9.0 8.0 9.0 8.0 9.0 8.0 9.0 9.0 8.0 9.0 9.0 8.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9	Base Number		
2 15 - Base 3 14 +			9.0 8.0 667.0 000 6.0 000 6.0 0000 6.0 0000 6.0 0000 6.0 0000000000	Base Number		
12	omal		9.0 8.0 (b)7.0 (b)7.0 (b)7.0 (c) 6.0 (c) 5.0 (c) 1 (c)	Base Number		
12			9.0 8.0 0.7.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1	Base Number		
13 - Abn 12 - 11	omal		9.0 8.0 (a) 7.0 HOY 6.0 ba 4.0 hoy 8.2 a 4.0 kg 2.0 1.0 0.0	Base Number		
13 - Abn 12 - 11	omal		9.0 8.0 (a) 7.0 HOY 6.0 ba 4.0 hoy 8.2 a 4.0 kg 2.0 1.0 0.0			1/124
13 - Abn	omal		9.0 8.0 (a) 7.0 HOY 6.0 100 100 100 100 100 100 100 1	Base Number		May1/24
13 - Abn 12 - 11	omal		9.0 8.0 (a) 7.0 HOY 6.0 ba 4.0 hoy 8.2 a 4.0 kg 2.0 1.0 0.0			May124
	ormal		9.0 8.0 (a),100 10,000 10,0000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000			RESH FRUIT
Laboratory : Wear Sample No. : WC090	ormal ormal Check USA - 501 Madiso 05061 <b>Rece</b>	eived : 10	9.0 8.0 (0,7.0 HOX 6.0 9.0 1.0 9.0 1.0 1.0 1.0 0.0 1.0 0.0 1.0 0.0 1.0 0.0 1.0 0.0 1.0 0.0 1.0 0.0 1.0 0.0 1.0 0.0 0			F <b>RESH FRUIT</b> PO BOX 1689
Laboratory : WearC Sample No. : WC090 Lab Number : 06204	ormal ormal Check USA - 501 Madiso 05061 Rece 169 Testo	eived : 10 ed : 11	9.0 8.0 107.0 100.6.0 100.	May1/24		<b>FRESH FRUIT</b> PO BOX 1689 JLFPORT, MS
Laboratory : Wear Sample No. Lab Number : 06204 Unique Number : 110710	ormal Check USA - 501 Madiso 05061 Rece 169 Testo 630 Diag	eived : 10 ed : 11	9.0 8.0 (0,7.0 HOX 6.0 9.0 1.0 9.0 1.0 1.0 1.0 0.0 1.0 0.0 1.0 0.0 1.0 0.0 1.0 0.0 1.0 0.0 1.0 0.0 1.0 0.0 1.0 0.0 0	to Davis	Gl	FRESH FRUIT PO BOX 1689 JLFPORT, MS US 39502
Laboratory : Wear Sample No. Lab Number : 06204 Unique Number : 110710 Test Package : FLEET	ormal Check USA - 501 Madis 05061 Rece 169 Test 630 Diag	eived : 10 ed : 11 nosed : 11	9.0 8.0 (0,7.0 10,0,0,0 10,0,0 10,0	to Davis	GL Contact: JORDA	FRESH FRUIT PO BOX 1689 JLFPORT, MS US 39502 N JOHNSTON
Laboratory : Wear Sample No. Lab Number : 06204 Unique Number : 110710	ormal Check USA - 501 Madisu 05061 Rece 169 Testu 630 Diag - Customer Service at 1-	eived : 10 ed : 11 nosed : 11 800-237-1369	9.0 8.0 (0,7.0 10,0	to Davis	GL Contact: JORDA	FRESH FRUIT PO BOX 1689 JLFPORT, MS US 39502

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