

OIL ANALYSIS REPORT

Sample Rating Trend







Machine Id DFGS100736 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.

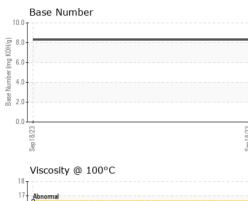
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0847074		
Sample Date		Client Info		18 Sep 2023		
Machine Age	hrs	Client Info		10119		
Oil Age	hrs	Client Info		1500		
Oil Changed		Client Info		Changed		
Sample Status				NORMAL		
CONTAMINATION	J	method	limit/base	current	history1	history2
Fuel	N	WC Method	>5	<1.0		
Glycol		WC Method	20	NEG		
		WC Method		NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	28		
Chromium	ppm	ASTM D5185m	>20	<1		
Nickel	ppm	ASTM D5185m	>4	0		
Titanium	ppm	ASTM D5185m		0		
Silver	ppm	ASTM D5185m	>3	0		
Aluminum	ppm	ASTM D5185m	>20	12		
Lead	ppm	ASTM D5185m	>40	0		
Copper	ppm	ASTM D5185m	>330	0		
Tin	ppm	ASTM D5185m	>15	<1		
Vanadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 359	history1	history2
	ppm ppm		limit/base			
Boron		ASTM D5185m	limit/base	359		
Boron Barium	ppm	ASTM D5185m ASTM D5185m	limit/base	359 <1		
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	359 <1 125		
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	359 <1 125 <1		
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	359 <1 125 <1 727		
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	359 <1 125 <1 727 1555	 	
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	359 <1 125 <1 727 1555 806	 	
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	limit/base	359 <1 125 <1 727 1555 806 992	 	
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	limit/base	359 <1 125 <1 727 1555 806 992 2727		
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	limit/base	359 <1 125 <1 727 1555 806 992 2727 current		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	limit/base	359 <1 125 <1 727 1555 806 992 2727 2727 current 7	 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 ASTM D5185m	limit/base >25 >50	359 <1 125 <1 727 1555 806 992 2727 2727 current 7 42	 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	359 <1 125 <1 727 1555 806 992 2727 2727 current 7 42 1	 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	ASTM D5185m ASTM D5185m	limit/base >25 >50 >20 limit/base >3	359 <1 125 <1 727 1555 806 992 2727 current 7 42 1 2	 history1 history1	 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm	ASTM D5185m ASTM D5185m	limit/base >25 >50 >20 limit/base >3	359 <1 125 <1 727 1555 806 992 2727 current 7 42 1 current 0.1	 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	359 <1 125 <1 727 1555 806 992 2727 <i>current</i> 7 42 1 <i>current</i> 0.1 7.4	 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 D7844 *ASTM D7844 *ASTM D7844	limit/base >25 >50 >20 limit/base >3 >20 >30 >30	359 <1 125 <1 727 1555 806 992 2727 current 7 42 1 current 0.1 7.4 21.6 current	 history1 history1 history1	 history2 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	Imit/base >25 >50 >20 Imit/base >3 >20 >30	359 <1 125 <1 727 1555 806 992 2727 <i>current</i> 7 42 1 <i>current</i> 0.1 7.4 21.6	 history1 history1 history1	 history2 history2 history2



16 (0.001) 14 Base

13 Abnormal 12 11 Sep18/23

OIL ANALYSIS REPORT



	VISUAL		method	limit/base	current	history1	history2
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
	Precipitate	scalar	*Visual	NONE	NONE		
	Silt	scalar	*Visual	NONE	NONE		
	Debris	scalar	*Visual	NONE	NONE		
	Sand/Dirt	scalar	*Visual	NONE	NONE		
202		scalar	*Visual	NORML	NORML		
San 18/23	Odor	scalar	*Visual	NORML	NORML		
0°C	Emulsified Water	scalar	*Visual	>0.2	NEG		
	Free Water	scalar	*Visual		NEG		
	FLUID PROPER	TIES	method	limit/base	current	history1	history2
	Visc @ 100°C	cSt	ASTM D445		13.4		
	GRAPHS						
	Ferrous Alloys						
	30 T						
	25 - chromium						
	20-						
	톱 15						
	10						
	5						
	Sep 18/23			Sep 18/23			
	Sep 1			Sep1			
	Non-ferrous Meta	als					
	10 copper						
	8 - Beasessesses lead						
	6						
	H 4						
	2-						
	0						
	18/23			3ep18/23			
	Sep 1			Sep			
	Viscosity @ 100°	С			Base Number	-	
	18 T			9.0	1		
	17- Abnormal			8.0	1		
	16			HO HO			
	0, 15 Base 3, 14			Ĕ 5.0			
	tis 14			¹⁰ g 4.0	+		
	13 - Abnormal			(07.0 HOX 6.0 June 5.0 June 4.0 Win 3.0 Billion 8 Billion 8 Billion 8 Billion 8 Billion 8 Billion 8 Billion 8 Billion 8 Billion 8 Control 10 Billion 8 Control 10 Control 10 Contr			
	12-			<u>م</u> 2.0 1.0			
	11			0.0			
	Sep 18/23			Sep18/23	Sep18/23		Sep 18/23
	Sep			Sep	Sep		Sep1
Laboratory	: WearCheck USA -	501 Made	son Ave Co	ny NC 07510	2		FRESH FRUIT
Sample No.	: WC0847074	Received		Sep 2023	J	DOLE	PO BOX 1689
Lab Number		Diagnos		Sep 2023		G	ULFPORT, MS
Unique Numbe	e r : 10671035	Diagnost		s Davis			US 39502
Certificate L2367 Test Package		ing at the		`		Contact: JORD	
To discuss this sample report * - Denotes test methods that						jordan.john	ston@dole.com T:
Statements of conformity to spe					JCGM 106:2012	?) F:	(228)867-2970



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