

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id 720062

Component Diesel Engine

CHEVRON DELO 400 LE 15W40 (--- GAL)

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 INFORM	NATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0083067	GFL0044642	GFL0053985
Sample Date		Client Info		02 Nov 2023	22 Feb 2023	12 Dec 2022
Machine Age	hrs	Client Info		0	0	330
Oil Age	hrs	Client Info		0	0	150
Oil Changed		Client Info		Not Changd	Changed	Not Changd
Sample Status				NORMAL	ATTENTION	ABNORMAL
CONTAMINATI	ON	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	2 .4
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS	S	method	limit/base	current	history1	history2
Iron	maa	ASTM D5185m	>100	70	13	6
Chromium	ppm	ASTM D5185m	>20	1	<1	<1
Nickel	ppm	ASTM D5185m	>2	3	0	0
Titanium	ppm	ASTM D5185m	>2	<1	1	<1
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m	>25	8	2	<1
Lead	ppm	ASTM D5185m	>40	2	2	<1
Copper	ppm	ASTM D5185m	>330	2	<1	<1
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
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		16	6	6
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	nnm	ACTM DE185m		83	54	55
,	ppm	ASTIVI DJIOJIII			04	
Manganese	ppm	ASTM D5185m		<1	1	<1
Manganese Magnesium	ppm ppm	ASTM D5185m ASTM D5185m		<1 888	1 892	<1 863
Manganese Magnesium Calcium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		<1 888 1147	1 892 996	<1 863 1021
Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1200	<1 888 1147 997	1 892 996 930	<1 863 1021 960
Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1200 1300	<1 888 1147 997 1290	1 892 996 930 1174	<1 863 1021 960 1113
Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1200 1300 3200	<1 888 1147 997 1290 2791	1 892 996 930 1174 3326	<1 863 1021 960 1113 3021
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method	1200 1300 3200 limit/base	<1 888 1147 997 1290 2791 current	1 892 996 930 1174 3326 history1	<1 863 1021 960 1113 3021 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1200 1300 3200 limit/base >25	<1 888 1147 997 1290 2791 current 10	1 892 996 930 1174 3326 history1 4	<1 863 1021 960 1113 3021 history2 3
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1200 1300 3200 limit/base >25	<1 <1 888 1147 997 1290 2791 current 10 3 	1 892 996 930 1174 3326 history1 4 2	<1 863 1021 960 1113 3021 history2 3 2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1200 1300 3200 limit/base >25 >20	<1 <1 888 1147 997 1290 2791 current 10 3 7 	1 892 996 930 1174 3326 history1 4 2 2	<1 863 1021 960 1113 3021 history2 3 2 0
Maganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1200 1300 3200 Imit/base >25 >20	<1 <1 888 1147 997 1290 2791 current 10 3 7 current 	1 892 996 930 1174 3326 history1 4 2 2 history1	<1 863 1021 960 1113 3021 history2 3 2 0 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m	1200 1300 3200 Iimit/base >25 >20 Iimit/base >3	<1 <1 888 1147 997 1290 2791 current 10 3 7 current 1.1 	1 892 996 930 1174 3326 history1 4 2 2 history1 0.4	<1 863 1021 960 1113 3021 history2 3 2 0 history2 0.3
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	1200 1300 3200 imit/base >25 >20 imit/base >3 >20	<1 <1 888 1147 997 1290 2791 current 10 3 7 current 1.1 11.2 	1 892 996 930 1174 3326 history1 4 2 2 history1 0.4 5.6	<1 863 1021 960 1113 3021 history2 3 2 0 history2 0.3 5.6
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7844 *ASTM D7844	1200 1300 3200 imit/base >25 >20 imit/base >3 >20 >30	<1 888 1147 997 1290 2791 current 10 3 7 current 1.1 11.2 22.7	1 892 996 930 1174 3326 history1 4 2 2 history1 0.4 5.6 17.4	<1 863 1021 960 1113 3021 history2 3 2 0 history2 0.3 5.6 18.5
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN 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 D7415	1200 1300 3200 imit/base >25 >20 imit/base >3 >20 >30 >30	<1 888 1147 997 1290 2791 current 10 3 7 current 1.1 11.2 22.7 current	1 892 996 930 1174 3326 history1 4 2 2 2 history1 0.4 5.6 17.4 history1	<1 863 1021 960 1113 3021 history2 3 2 0 history2 0.3 5.6 18.5 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRAD Oxidation	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm ppm % Abs/cm Abs/cm Abs/.1mm	ASTM D5185m ASTM D7844 *ASTM D7844 *ASTM D7844 *ASTM D7844	1200 1300 3200 imit/base >25 >20 imit/base >3 >20 >30 imit/base	<1888114799712902791current1037current1.111.222.7current18.2	1 892 996 930 1174 3326 history1 4 2 2 history1 0.4 5.6 17.4 history1 12.2	<1 863 1021 960 1113 3021 history2 3 2 0 history2 0.3 5.6 18.5 history2 13.4
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRAE Oxidation Base Number (BN)	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm ppm ppm ppm ppm ppm pp	ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7624 *ASTM D7415	1200 1300 3200 Imit/base >25 20 20 Imit/base >30 >20 30 20 20 20 20 20 20 20 20 20 20 20 20 20	<1888114799712902791current1037current1.111.222.7current18.27.6	1 892 996 930 1174 3326 history1 4 2 2 history1 0.4 5.6 17.4 history1 12.2 8.4	<1 863 1021 960 1113 3021 history2 3 2 0 history2 0.3 5.6 18.5 history2 13.4 9.7



OIL ANALYSIS REPORT



		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	
	/23	Appearance	scalar	*Visual	NORMI	NORMI	NORMI	NORMI	
Eeh22	Nov2	Odor	scalar	*Visual	NORMI	NORMI	NORMI	NORMI	
		Emulsified Water	scalar	*Visual		NEG	NEG	NEG	
С		Eree Water	scalar	*Vieual	20.2	NEG	NEG	NEG	
		Tiee Water	Scalai	VISUAI		NEG	NEG	NEG	
*****		FLUID PROPE	RTIES	method	limit/base	current	history1	history2	
		Visc @ 100°C	cSt	ASTM D445	15.7	14.0	1 1.3	1 1.5	
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4	Laboratory	: WearCheck USA - 5	Beceiver	son Ave., Ca ו אחי	ry, NC 27513 Nov 2023	GFL Envir	onmental - 073 - Warr	155 Story Road	
ARIAB	Lab Number	: 06001415	Diagnos	ed : 09 l	Nov 2023		Wa	rner Robins, GA	
TESTING LABORATORY	Unique Number	: 10729775	Diagnost	Diagnostician : Jonathan Hester			US 31093		
Certificate L2367	Test Package	: FLEET	-				Contact: J	OSH MALONEY	
To discuss this	s sample report, o	contact Customer Serv	ice at 1-8	00-237-1369). /+ = +' = ==		jmaloi	ney@gflenv.com	
Statements of c	si meinoas that a conformity to spec	ifications are based on t	7025 sco he simple	pe of accred acceptance d	nation. lecision rule (JCGM 106:2012	2)	1: F:	



Submitted By: George Sawyer Page 2 of 2