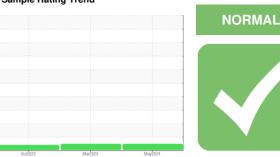


# **OIL ANALYSIS REPORT**

## Sample Rating Trend



FORD 30144

Component

Gasoline Engine

KENDALL GT-1 FULL SYNTHETIC MOTOR SAE 5W20 (--- QTS)

### 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

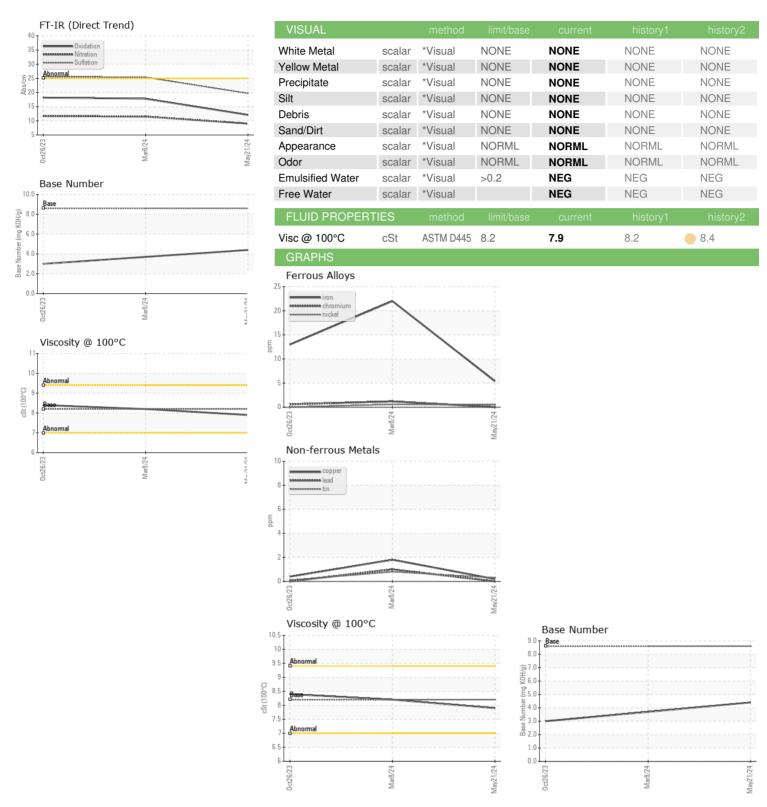
## **Fluid Condition**

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

	OAL OWLO	<b>u</b> .o,					
Client Info	SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Machine Age         mls         Client Info         146261         142992         137267           Oil Age         mls         Client Info         3269         5725         7230           Oil Changed         Client Info         Changed         Changed </td <td>Sample Number</td> <td></td> <td>Client Info</td> <td></td> <th>WC0867778</th> <td>WC0867746</td> <td>WC0867802</td>	Sample Number		Client Info		WC0867778	WC0867746	WC0867802
Oil Age         mls         Client Info         3269         5725         7230           Oil Changed Sample Status         Client Info         Changed	Sample Date		Client Info		21 May 2024	08 Mar 2024	26 Oct 2023
Client Info   Changed   Changed   Changed   NORMAL   NORMAL   NORMAL   ATTENTION	Machine Age	mls	Client Info		146261	142992	137267
NORMAL   NORMAL   ATTENTION   CONTAMINATION   method   limit/base   current   history1   history2   history2	Oil Age	mls	Client Info		3269	5725	7230
CONTAMINATION   method   limit/base   current   history1   history2	Oil Changed		Client Info		Changed	Changed	Changed
Fuel	Sample Status				NORMAL	NORMAL	ATTENTION
Water Glycol         WC Method WC Method         >0.2         NEG NEG         NEG NEG         NEG NEG           WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >150         5         22         13           Chromium         ppm         ASTM D5185m         >20         0         1         <1	CONTAMINATIO	N	method	limit/base	current	history1	history2
WEAR METALS	Fuel		WC Method	>4.0	<1.0	<1.0	1.1
WEAR METALS	Water		WC Method	>0.2	NEG	NEG	NEG
ASTM D5185m   ASTM D5185m	Glycol		WC Method		NEG	NEG	NEG
Chromium         ppm         ASTM D5185m         >20         0         1         <1           Nickel         ppm         ASTM D5185m         >5         <1	WEAR METALS		method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>150	5	22	13
Titanium	Chromium	ppm	ASTM D5185m	>20	0	1	<1
Silver	Nickel	ppm	ASTM D5185m	>5	<1	<1	0
Aluminum	Titanium	ppm	ASTM D5185m		1	<1	<1
Lead	Silver	ppm	ASTM D5185m	>2	0	0	0
Copper         ppm         ASTM D5185m         >155         <1         2         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1	Aluminum	ppm	ASTM D5185m	>40	2	5	3
Tin	Lead	ppm	ASTM D5185m	>50	0	1	0
Vanadium         ppm         ASTM D5185m         0         <1         0           Cadmium         ppm         ASTM D5185m         0         <1         0           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         39         39         25           Barium         ppm         ASTM D5185m         0         <1         0           Molybdenum         ppm         ASTM D5185m         51         80         73           Manganese         ppm         ASTM D5185m         2         1         <1           Magnesium         ppm         ASTM D5185m         410         596         553           Calcium         ppm         ASTM D5185m         1032         1136         1010           Phosphorus         ppm         ASTM D5185m         770         576         882         746           Zinc         ppm         ASTM D5185m         2461         3424         2753           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >30 <t< td=""><td>Copper</td><td>ppm</td><td>ASTM D5185m</td><td>&gt;155</td><th>&lt;1</th><td>2</td><td>&lt;1</td></t<>	Copper	ppm	ASTM D5185m	>155	<1	2	<1
Cadmium         ppm         ASTM D5185m         0         <1         0           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         39         39         25           Barium         ppm         ASTM D5185m         0         <1	Tin	ppm	ASTM D5185m	>10	<1	<1	<1
ADDITIVES	Vanadium	ppm	ASTM D5185m		0	<1	0
Boron	Cadmium	ppm	ASTM D5185m		0	<1	0
Barium         ppm         ASTM D5185m         0         <1	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum         ppm         ASTM D5185m         51         80         73           Manganese         ppm         ASTM D5185m         2         1         <1           Magnesium         ppm         ASTM D5185m         410         596         553           Calcium         ppm         ASTM D5185m         1032         1136         1010           Phosphorus         ppm         ASTM D5185m         770         576         882         746           Zinc         ppm         ASTM D5185m         850         642         937         850           Sulfur         ppm         ASTM D5185m         2461         3424         2753           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >30         7         11         10           Sodium         ppm         ASTM D5185m         >400         2         4         2           Potassium         ppm         ASTM D5185m         >20         2         2         0           INFRA-RED         method         limit/base         current         history1         history2           Soot	Boron	ppm	ASTM D5185m		39	39	25
Manganese         ppm         ASTM D5185m         2         1         <1           Magnesium         ppm         ASTM D5185m         410         596         553           Calcium         ppm         ASTM D5185m         1032         1136         1010           Phosphorus         ppm         ASTM D5185m         770         576         882         746           Zinc         ppm         ASTM D5185m         850         642         937         850           Sulfur         ppm         ASTM D5185m         2461         3424         2753           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >30         7         11         10           Sodium         ppm         ASTM D5185m         >400         2         4         2           Potassium         ppm         ASTM D5185m         >20         2         2         0           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         0.1         0.1         0.1         0	Barium	ppm	ASTM D5185m		0	<1	0
Magnesium         ppm         ASTM D5185m         410         596         553           Calcium         ppm         ASTM D5185m         1032         1136         1010           Phosphorus         ppm         ASTM D5185m         770         576         882         746           Zinc         ppm         ASTM D5185m         850         642         937         850           Sulfur         ppm         ASTM D5185m         2461         3424         2753           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >30         7         11         10           Sodium         ppm         ASTM D5185m         >400         2         4         2           Potassium         ppm         ASTM D5185m         >20         2         2         0           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7624         >20         9.0         11.5         11.7           Sulfation         Abs/.1mm         *ASTM D7415         >30         19.7         25.4	Molybdenum	ppm	ASTM D5185m		51	80	73
Calcium         ppm         ASTM D5185m         1032         1136         1010           Phosphorus         ppm         ASTM D5185m         770         576         882         746           Zinc         ppm         ASTM D5185m         850         642         937         850           Sulfur         ppm         ASTM D5185m         2461         3424         2753           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >30         7         11         10           Sodium         ppm         ASTM D5185m         >400         2         4         2           Potassium         ppm         ASTM D5185m         >20         2         2         0           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         0.1         0.1         0           Nitration         Abs/cm         *ASTM D7624         >20         9.0         11.5         11.7           Sulfation         Abs/.1mm         *ASTM D7415         >30         19.7         25.4	Manganese	ppm	ASTM D5185m		2	1	<1
Phosphorus         ppm         ASTM D5185m         770         576         882         746           Zinc         ppm         ASTM D5185m         850         642         937         850           Sulfur         ppm         ASTM D5185m         2461         3424         2753           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >30         7         11         10           Sodium         ppm         ASTM D5185m         >400         2         4         2           Potassium         ppm         ASTM D5185m         >20         2         2         0           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         0.1         0.1         0           Nitration         Abs/cm         *ASTM D7624         >20         9.0         11.5         11.7           Sulfation         Abs/.1mm         *ASTM D7415         >30         19.7         25.4         25.6           FLUID DEGRADATION         method         limit/base <td< td=""><td>Magnesium</td><td>ppm</td><td>ASTM D5185m</td><td></td><th>410</th><td>596</td><td>553</td></td<>	Magnesium	ppm	ASTM D5185m		410	596	553
Zinc         ppm         ASTM D5185m         850         642         937         850           Sulfur         ppm         ASTM D5185m         2461         3424         2753           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >30         7         11         10           Sodium         ppm         ASTM D5185m         >400         2         4         2           Potassium         ppm         ASTM D5185m         >20         2         2         0           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         0.1         0.1         0           Nitration         Abs/cm         *ASTM D7624         >20         9.0         11.5         11.7           Sulfation         Abs/.1mm         *ASTM D7415         >30         19.7         25.4         25.6           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         12.1<	Calcium	ppm	ASTM D5185m		1032	1136	1010
Sulfur         ppm         ASTM D5185m         2461         3424         2753           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >30         7         11         10           Sodium         ppm         ASTM D5185m         >400         2         4         2           Potassium         ppm         ASTM D5185m         >20         2         2         0           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         0.1         0.1         0           Nitration         Abs/cm         *ASTM D7624         >20         9.0         11.5         11.7           Sulfation         Abs/.1mm         *ASTM D7415         >30         19.7         25.4         25.6           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         12.1         17.8         18.2	Phosphorus	ppm	ASTM D5185m	770	576	882	746
CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >30         7         11         10           Sodium         ppm         ASTM D5185m         >400         2         4         2           Potassium         ppm         ASTM D5185m         >20         2         2         0           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         0.1         0.1         0           Nitration         Abs/cm         *ASTM D7624         >20         9.0         11.5         11.7           Sulfation         Abs/.1mm         *ASTM D7415         >30         19.7         25.4         25.6           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         12.1         17.8         18.2	Zinc	ppm	ASTM D5185m	850	642	937	850
Silicon         ppm         ASTM D5185m         >30         7         11         10           Sodium         ppm         ASTM D5185m         >400         2         4         2           Potassium         ppm         ASTM D5185m         >20         2         2         0           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         0.1         0.1         0           Nitration         Abs/cm         *ASTM D7624         >20         9.0         11.5         11.7           Sulfation         Abs/.1mm         *ASTM D7415         >30         19.7         25.4         25.6           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         12.1         17.8         18.2	Sulfur	ppm	ASTM D5185m		2461	3424	2753
Sodium         ppm         ASTM D5185m         >400         2         4         2           Potassium         ppm         ASTM D5185m         >20         2         2         0           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         0.1         0.1         0           Nitration         Abs/cm         *ASTM D7624         >20         9.0         11.5         11.7           Sulfation         Abs/.1mm         *ASTM D7415         >30         19.7         25.4         25.6           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         12.1         17.8         18.2	CONTAMINANTS	8	method	limit/base	current	history1	history2
Potassium         ppm         ASTM D5185m         >20         2         2         0           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         0.1         0.1         0           Nitration         Abs/cm         *ASTM D7624         >20         9.0         11.5         11.7           Sulfation         Abs/.1mm         *ASTM D7415         >30         19.7         25.4         25.6           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         12.1         17.8         18.2	Silicon	ppm	ASTM D5185m	>30	7	11	
INFRA-RED	Sodium	ppm	ASTM D5185m	>400	2	4	2
Soot %         %         *ASTM D7844         0.1         0.1         0           Nitration         Abs/cm         *ASTM D7624         >20         9.0         11.5         11.7           Sulfation         Abs/.1mm         *ASTM D7415         >30         19.7         25.4         25.6           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         12.1         17.8         18.2	Potassium	ppm	ASTM D5185m	>20	2	2	0
Nitration         Abs/cm         *ASTM D7624         >20         9.0         11.5         11.7           Sulfation         Abs/.1mm         *ASTM D7415         >30         19.7         25.4         25.6           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         12.1         17.8         18.2	INFRA-RED		method	limit/base	current	history1	history2
Sulfation         Abs/.1mm         *ASTM D7415 >30         19.7         25.4         25.6           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414 >25         12.1         17.8         18.2	Soot %	%	*ASTM D7844		0.1	0.1	0
FLUID DEGRADATION     method     limit/base     current     history1     history2       Oxidation     Abs/.1mm     *ASTM D7414     >25     12.1     17.8     18.2	Nitration	Abs/cm	*ASTM D7624	>20	9.0	11.5	11.7
Oxidation Abs/.1mm *ASTM D7414 >25 <b>12.1</b> 17.8 18.2	Sulfation	Abs/.1mm	*ASTM D7415	>30	19.7	25.4	25.6
	FLUID DEGRADA	ATION	method	limit/base	current	history1	history2
	Oxidation	Abs/.1mm	*ASTM D7414	>25	12.1	17.8	18.2



# **OIL ANALYSIS REPORT**







Report Id: GREGRETN [WUSCAR] 06198597 (Generated: 06/04/2024 18:39:00) Rev: 1

Laboratory Sample No.

: WC0867778 Lab Number : 06198597 Unique Number : 11060720 Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 03 Jun 2024

**Tested** : 04 Jun 2024 Diagnosed : 04 Jun 2024 - Wes Davis

**GREENEVILLE OIL & PETROLEUM INC** 860 WEST ANDREW JOHNSON HWY

GREENEVILLE, TN US 37745 Contact: SHOP

Certificate 12367 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)

Contact/Location: SHOP? - GREGRETN

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T:

F: