

# **OIL ANALYSIS REPORT**



(YA147125) [0111043] 2843

Component **Diesel Engine** 

PETRO CANADA DURON SHP 15W40 (10 GAL)

Sample Rating Trend

**NORMAL** 



## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the

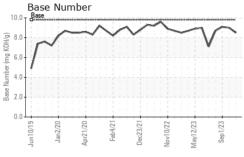
### **Fluid Condition**

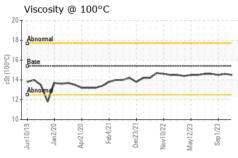
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sample Number	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Machine Age         hrs         Client Info         14349         14033         13702           Oil Age         hrs         Client Info         226         400         600         600           Oil Changed         Client Info         N/A         NORMAL         NORMAL         NORMAL           Sample Status         method         limit/base         current         history1         history2           Fuel         WC Method         >5         <1.0         <1.0         <1.0           Water         WC Method         >0.2         NEG         NEG         NEG           WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >80         17         11         6           Chromium         ppm         ASTM D5185m         >5         2         1         <1         0           Chromium         ppm         ASTM D5185m         >5         2         1         <1         0         0           Chromium         ppm         ASTM D5185m         >3         0         0         0         0         0         1         1         4         2         2 </th <th>Sample Number</th> <th></th> <th>Client Info</th> <th></th> <th>GFL0111043</th> <th>GFL0098528</th> <th>GFL0087744</th>	Sample Number		Client Info		GFL0111043	GFL0098528	GFL0087744
Oil Age         hrs         Client Info         226         400         600           Oil Changed         Client Info         N/A         Not Changed         Changed           Sample Status         NoRMAL         NORMAL         NORMAL         NORMAL         NORMAL           CONTAMINATION         method         limit/base         current         history1         history2           Fuel         WC Method         >5         <1.0	Sample Date		Client Info		19 Mar 2024	28 Dec 2023	01 Sep 2023
Oil Changed Sample Status         Client Info         N/A         Not Changed NORMAL         Changed NORMAL         Changed NORMAL         NORMAL	Machine Age	hrs	Client Info		14349	14033	13702
Sample Status	Oil Age	hrs	Client Info		226	400	600
CONTAMINATION         method         limit/base         current         history1         history2           Fuel         WC Method         >5         <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         <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         <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	Oil Changed		Client Info		N/A	Not Changd	Changed
Fuel   WC Method   S5   C1.0   C1.0   C1.0   C1.0	Sample Status				NORMAL	NORMAL	NORMAL
Water         WC Method         >0.2         NEG         NEG         NEG           Glycol         WC Method         Imili/base         current         history1         history2           WEAR METALS         method         limil/base         current         history1         history2           Iron         ppm         ASTM D5185m         >80         17         11         6           Chromium         ppm         ASTM D5185m         >5         2         1         0         0           Nickel         ppm         ASTM D5185m         >2         <1         0         0         0           Silver         ppm         ASTM D5185m         >2         <1         0         0         0           Silver         ppm         ASTM D5185m         >30         <1         0         0         0           Silver         ppm         ASTM D5185m         >30         <1         0	CONTAMINATI	ON	method	limit/base	current	history1	history2
WEAR METALS	Fuel		WC Method	>5	<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         >5         2         1         <1	WEAR METALS	S	method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>80	17	11	6
Titanium         ppm         ASTM D5185m         -1         <1	Chromium	ppm	ASTM D5185m	>5	2	1	<1
Silver         ppm         ASTM D5185m         >3         0         0         0           Aluminum         ppm         ASTM D5185m         >30         8         5         2           Lead         ppm         ASTM D5185m         >30         <1	Nickel	ppm	ASTM D5185m	>2	<1	0	0
Aluminum         ppm         ASTM D5185m         >30         8         5         2           Lead         ppm         ASTM D5185m         >30         <1         0         0           Copper         ppm         ASTM D5185m         >150         3         1         <1           Tin         ppm         ASTM D5185m         0         0         0         <1           Vanadium         ppm         ASTM D5185m         0         0         0         <1           Cadmium         ppm         ASTM D5185m         0         0         0         0           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0         1         4         2           Barium         ppm         ASTM D5185m         0         0         0         0           Molybdenum         ppm         ASTM D5185m         0         64         57         64           Manganese         ppm         ASTM D5185m         010         963         917         1026           Calcium         ppm         ASTM D5185m         1070         1156         1010	Titanium	ppm	ASTM D5185m		<1	<1	0
Lead         ppm         ASTM D5185m         >30         <1	Silver	ppm	ASTM D5185m	>3	0	0	0
Copper         ppm         ASTM D5185m         >150         3         1         <1	Aluminum	ppm	ASTM D5185m	>30	8	5	2
Tin         ppm         ASTM D5185m         >5         <1	Lead	ppm	ASTM D5185m	>30	<1	0	0
Vanadium         ppm         ASTM D5185m         0         0         <1	Copper	ppm	ASTM D5185m	>150	3	1	<1
Cadmium         ppm         ASTM D5185m         0         0         0           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0         1         4         2           Barium         ppm         ASTM D5185m         0         0         0         0           Molybdenum         ppm         ASTM D5185m         0         4         57         64           Manganese         ppm         ASTM D5185m         0         4         1         4         1         4           Magnesium         ppm         ASTM D5185m         0         4         1         4         1         4         1         4         1         4         4         1         4         4         4         4         4         4         2         6         4         57         64         4         4         4         4         1         4         1         4         1         1         1         2         1         1         1         1         1         2         1         1         1         1         1         1         4 </th <th></th> <th>ppm</th> <th>ASTM D5185m</th> <th>&gt;5</th> <th>&lt;1</th> <th>&lt;1</th> <th>0</th>		ppm	ASTM D5185m	>5	<1	<1	0
ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0         1         4         2           Barium         ppm         ASTM D5185m         0         0         0         0           Molybdenum         ppm         ASTM D5185m         60         64         57         64           Manganese         ppm         ASTM D5185m         0         <1         <1         <1           Magnesium         ppm         ASTM D5185m         1010         963         917         1026           Calcium         ppm         ASTM D5185m         1070         1156         1010         1195           Phosphorus         ppm         ASTM D5185m         1270         1289         1245         1331           Sulfur         ppm         ASTM D5185m         2060         2986         3061         3961           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         7         8         2           Sodium         ppm         ASTM D5185m	Vanadium	ppm	ASTM D5185m		0	0	<1
Boron	Cadmium	ppm	ASTM D5185m		0	0	0
Barium         ppm         ASTM D5185m         0         0         0         0           Molybdenum         ppm         ASTM D5185m         60         64         57         64           Manganese         ppm         ASTM D5185m         0         <1         <1         <1           Magnesium         ppm         ASTM D5185m         1010         963         917         1026           Calcium         ppm         ASTM D5185m         1070         1156         1010         1195           Phosphorus         ppm         ASTM D5185m         1150         1028         1036         1115           Zinc         ppm         ASTM D5185m         1270         1289         1245         1331           Sulfur         ppm         ASTM D5185m         2060         2986         3061         3961           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         7         8         2           Sodium         ppm         ASTM D5185m         20         7         4         0           INFRA-RED         method         limit/base							
Molybdenum         ppm         ASTM D5185m         60         64         57         64           Manganese         ppm         ASTM D5185m         0         <1	ADDITIVES		method	limit/base	current	history1	history2
Manganese         ppm         ASTM D5185m         0         <1		ppm					
Magnesium         ppm         ASTM D5185m         1010         963         917         1026           Calcium         ppm         ASTM D5185m         1070         1156         1010         1195           Phosphorus         ppm         ASTM D5185m         1150         1028         1036         1115           Zinc         ppm         ASTM D5185m         1270         1289         1245         1331           Sulfur         ppm         ASTM D5185m         2060         2986         3061         3961           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         7         8         2           Sodium         ppm         ASTM D5185m         >20         7         4         0           INFRA-RED         method         limit/base         current         history1         history2           Soot %         "ASTM D7844         >3         0.5         0.3         0.2           Nitration         Abs/cm         "ASTM D7415         >30         18.8         18.3         17.4           FLUID DEGRADATION         "ASTM D7414         >	Boron		ASTM D5185m	0	1	4	2
Calcium         ppm         ASTM D5185m         1070         1156         1010         1195           Phosphorus         ppm         ASTM D5185m         1150         1028         1036         1115           Zinc         ppm         ASTM D5185m         1270         1289         1245         1331           Sulfur         ppm         ASTM D5185m         2060         2986         3061         3961           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         7         8         2           Sodium         ppm         ASTM D5185m         20         7         4         0           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.5         0.3         0.2           Nitration         Abs/.1mm         *ASTM D7624         >20         7.4         6.0         5.2           Sulfation         Abs/.1mm         *ASTM D7415         >30         18.8         18.3         17.4           FLUID DEGRADATION	Boron Barium	ppm	ASTM D5185m ASTM D5185m	0	1 0	4	2
Phosphorus         ppm         ASTM D5185m         1150         1028         1036         1115           Zinc         ppm         ASTM D5185m         1270         1289         1245         1331           Sulfur         ppm         ASTM D5185m         2060         2986         3061         3961           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         7         8         2           Sodium         ppm         ASTM D5185m         >20         7         4         0           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.5         0.3         0.2           Nitration         Abs/cm         *ASTM D7624         >20         7.4         6.0         5.2           Sulfation         Abs/.1mm         *ASTM D7415         >30         18.8         18.3         17.4           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs	Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60	1 0 64	4 0 57	2 0 64
Zinc         ppm         ASTM D5185m         1270         1289         1245         1331           Sulfur         ppm         ASTM D5185m         2060         2986         3061         3961           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         7         8         2           Sodium         ppm         ASTM D5185m         2         1         1         1           Potassium         ppm         ASTM D5185m         >20         7         4         0           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.5         0.3         0.2           Nitration         Abs/cm         *ASTM D7624         >20         7.4         6.0         5.2           Sulfation         Abs/.1mm         *ASTM D7415         >30         18.8         18.3         17.4           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm	Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0	1 0 64 <1	4 0 57 <1	2 0 64 <1
Sulfur         ppm         ASTM D5185m         2060         2986         3061         3961           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         7         8         2           Sodium         ppm         ASTM D5185m         2         1         1           Potassium         ppm         ASTM D5185m         >20         7         4         0           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.5         0.3         0.2           Nitration         Abs/cm         *ASTM D7624         >20         7.4         6.0         5.2           Sulfation         Abs/.1mm         *ASTM D7415         >30         18.8         18.3         17.4           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         14.3         13.6         12.9	Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010	1 0 64 <1 963	4 0 57 <1 917	2 0 64 <1 1026
CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         7         8         2           Sodium         ppm         ASTM D5185m         2         1         1         1           Potassium         ppm         ASTM D5185m         >20         7         4         0           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.5         0.3         0.2           Nitration         Abs/cm         *ASTM D7624         >20         7.4         6.0         5.2           Sulfation         Abs/.1mm         *ASTM D7415         >30         18.8         18.3         17.4           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         14.3         13.6         12.9	Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010 1070	1 0 64 <1 963 1156	4 0 57 <1 917 1010	2 0 64 <1 1026 1195
Silicon         ppm         ASTM D5185m         >20         7         8         2           Sodium         ppm         ASTM D5185m         2         1         1           Potassium         ppm         ASTM D5185m         >20         7         4         0           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.5         0.3         0.2           Nitration         Abs/cm         *ASTM D7624         >20         7.4         6.0         5.2           Sulfation         Abs/.1mm         *ASTM D7415         >30         18.8         18.3         17.4           FLUID DEGRADATION method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         14.3         13.6         12.9	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010 1070 1150	1 0 64 <1 963 1156 1028	4 0 57 <1 917 1010 1036	2 0 64 <1 1026 1195 1115
Sodium         ppm         ASTM D5185m         2         1         1           Potassium         ppm         ASTM D5185m         >20         7         4         0           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.5         0.3         0.2           Nitration         Abs/cm         *ASTM D7624         >20         7.4         6.0         5.2           Sulfation         Abs/.1mm         *ASTM D7415         >30         18.8         18.3         17.4           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         14.3         13.6         12.9	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	0 0 60 0 1010 1070 1150 1270	1 0 64 <1 963 1156 1028	4 0 57 <1 917 1010 1036 1245	2 0 64 <1 1026 1195 1115
Potassium         ppm         ASTM D5185m         >20         7         4         0           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.5         0.3         0.2           Nitration         Abs/cm         *ASTM D7624         >20         7.4         6.0         5.2           Sulfation         Abs/.1mm         *ASTM D7415         >30         18.8         18.3         17.4           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         14.3         13.6         12.9	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 ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060	1 0 64 <1 963 1156 1028 1289 2986	4 0 57 <1 917 1010 1036 1245 3061	2 0 64 <1 1026 1195 1115 1331 3961
INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.5         0.3         0.2           Nitration         Abs/cm         *ASTM D7624         >20         7.4         6.0         5.2           Sulfation         Abs/.1mm         *ASTM D7415         >30         18.8         18.3         17.4           FLUID DEGRADATION method limit/base current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         14.3         13.6         12.9	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060	1 0 64 <1 963 1156 1028 1289 2986	4 0 57 <1 917 1010 1036 1245 3061 history1	2 0 64 <1 1026 1195 1115 1331 3961 history2
Soot %         %         *ASTM D7844 >3         0.5         0.3         0.2           Nitration         Abs/cm         *ASTM D7624 >20         7.4         6.0         5.2           Sulfation         Abs/.1mm         *ASTM D7415 >30         18.8         18.3         17.4           FLUID DEGRADATION method limit/base current history1         history2           Oxidation         Abs/.1mm         *ASTM D7414 >25         14.3         13.6         12.9	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060	1 0 64 <1 963 1156 1028 1289 2986 current	4 0 57 <1 917 1010 1036 1245 3061 history1	2 0 64 <1 1026 1195 1115 1331 3961 history2
Nitration         Abs/cm         *ASTM D7624         >20         7.4         6.0         5.2           Sulfation         Abs/.1mm         *ASTM D7415         >30         18.8         18.3         17.4           FLUID DEGRADATION method limit/base current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         14.3         13.6         12.9	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060 limit/base	1 0 64 <1 963 1156 1028 1289 2986 current 7	4 0 57 <1 917 1010 1036 1245 3061 history1 8	2 0 64 <1 1026 1195 1115 1331 3961 history2 2
Sulfation         Abs/.1mm         *ASTM D7415         >30         18.8         18.3         17.4           FLUID DEGRADATION method limit/base current history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         14.3         13.6         12.9	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060 limit/base >20	1 0 64 <1 963 1156 1028 1289 2986 current 7 2	4 0 57 <1 917 1010 1036 1245 3061 history1 8 1	2 0 64 <1 1026 1195 1115 1331 3961 history2 2 1
FLUID DEGRADATION     method     limit/base     current     history1     history2       Oxidation     Abs/.1mm     *ASTM D7414     >25     14.3     13.6     12.9	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 0 1010 1070 1150 1270 2060 limit/base >20	1 0 64 <1 963 1156 1028 1289 2986 current 7 2 7	4 0 57 <1 917 1010 1036 1245 3061 history1 8 1	2 0 64 <1 1026 1195 1115 1331 3961 history2 2 1 0
Oxidation         Abs/.1mm         *ASTM D7414         >25         14.3         13.6         12.9	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  method  *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 0 1010 1070 1150 1270 2060 limit/base >20 	1 0 64 <1 963 1156 1028 1289 2986 current 7 2 7	4 0 57 <1 917 1010 1036 1245 3061 history1 8 1 4	2 0 64 <1 1026 1195 1115 1331 3961 history2 2 1 0 history2
	Boron Barium Molybdenum 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  method  *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 0 1010 1150 1270 2060 limit/base >20 	1 0 64 <1 963 1156 1028 1289 2986 current 7 2 7 current 0.5 7.4	4 0 57 <1 917 1010 1036 1245 3061 history1 8 1 4 history1 0.3 6.0	2 0 64 <1 1026 1195 1115 1331 3961 history2 2 1 0 history2
Base Number (BN)         mg KOH/g         ASTM D2896         9.8         8.5         9.0         9.1	Boron Barium Molybdenum 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  method  *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m  method  *ASTM D7844  *ASTM D7624  *ASTM D76145	0 0 0 1010 1070 1150 1270 2060 limit/base >20 >20 limit/base >3 >20 >3	1 0 64 <1 963 1156 1028 1289 2986 current 7 2 7 current 0.5 7.4 18.8	4 0 57 <1 917 1010 1036 1245 3061 history1 8 1 4 history1 0.3 6.0 18.3	2 0 64 <1 1026 1195 1115 1331 3961 history2 2 1 0 history2 0.2 5.2 17.4
	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRAD	ppm	ASTM D5185m  method  *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m  method  *ASTM D7844  *ASTM D7624  *ASTM D7415  method	0 0 0 1010 1070 1150 1270 2060 limit/base >20 >20   limit/base >3   >20   >30   limit/base	1 0 64 <1 963 1156 1028 1289 2986 current 7 2 7 current 0.5 7.4 18.8	4 0 57 <1 917 1010 1036 1245 3061 history1 8 1 4 history1 0.3 6.0 18.3 history1	2 0 64 <1 1026 1195 1115 1331 3961 history2 2 1 0 history2 0.2 5.2 17.4 history2



# **OIL ANALYSIS REPORT**

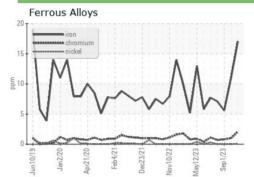


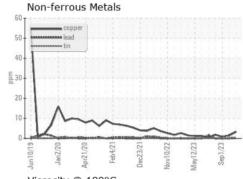


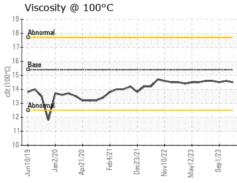
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
<b>Emulsified Water</b>	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG

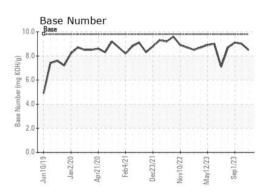
FLUID PROPE	ERTIES	method				history2
Visc @ 100°C	cSt	ASTM D445	15.4	14.5	14.6	14.5

## **GRAPHS**













Certificate L2367

Laboratory Sample No.

Lab Number : 06126209 Unique Number : 10940360 Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : GFL0111043

**Tested** 

Received : 22 Mar 2024 : 24 Mar 2024 Diagnosed : 24 Mar 2024 - Wes Davis

GFL Environmental - 006 - Wilmington 3618 US Highway 421 N

Wilmington, NC US 28401 Contact: Eric Wood

eric.wood@gflenv.com T: (717)723-1956

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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