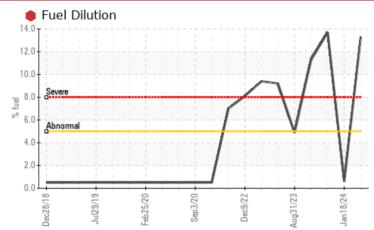


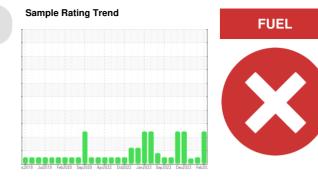
## **PROBLEM SUMMARY**

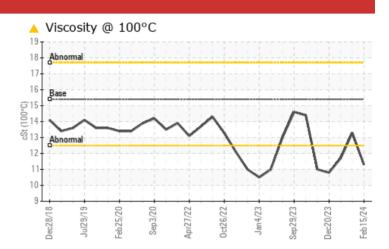
#### Area GFL836 Machine Id 425062-402315

Component Diesel Engine Fluid PETRO CANADA DURON SHP 15W40 (--- GAL)

## COMPONENT CONDITION SUMMARY







## RECOMMENDATION

We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS							
Sample Status				SEVERE	NORMAL	ATTENTION	
Fuel	%	ASTM D3524	>5	<b>•</b> 13.3	<1.0	0.6	
Visc @ 100°C	cSt	ASTM D445	15.4	<b>11.3</b>	13.3	<b>11.7</b>	

Customer Id: GFL836 Sample No.: GFL0109829 Lab Number: 06095438 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data: Jonathan Hester +1 919-379-4092 x4092 jhester@wearcheckusa.com

*To change component or sample information:* Customer Service +1 1-800-237-1369 <u>customerservice@wearcheck.com</u>

RECOMMENDE	RECOMMENDED ACTIONS						
Action	Status	Date	Done By	Description			
Change Fluid			?	Oil and filter change at the time of sampling has been noted.			
Change Filter			?	Oil and filter change at the time of sampling has been noted.			
Resample			?	We recommend an early resample to monitor this condition.			
Check Fuel/injector System			?	We advise that you check the fuel injection system.			

## HISTORICAL DIAGNOSIS



06 Feb 2024 Diag: Wes Davis

Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.





18 Jan 2024 Diag: Jonathan Hester

#### VISCOSITY



No corrective action is recommended at this time. Resample at the next service interval to monitor.All component wear rates are normal. Fuel content negligible. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

#### 20 Dec 2023 Diag: Jonathan Hester



We advise that you check the fuel injection system. We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition.All component wear rates are normal. There is a high amount of fuel present in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.







## **OIL ANALYSIS REPORT**

#### Area GFL836 Machine Id 425062-402315 Component

PETRO CANADA DURON SHP 15W40 (--- GAL)

## DIAGNOSIS

#### Recommendation

We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

## Wear

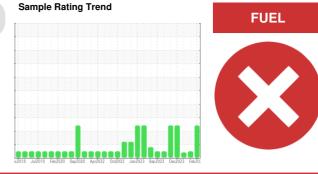
All component wear rates are normal.

## Contamination

There is a high amount of fuel present in the oil.

#### Fluid Condition

Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

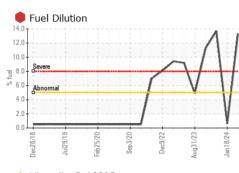


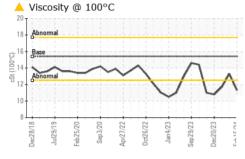
Sample Number         Client Info         GFL0109829         GFL0109859         GFL010328           Sample Date         Client Info         15 Feb 2024         06 Feb 2024         18 Jan 2024           Machine Age         hrs         Client Info         25117         25130         24978           Oil Age         Client Info         C600         0         0         0           Oil Age         Client Info         Changed         Not Changed         Not Changed         Not Changed           Sample Status         Immethod         Immitbase         current         history1         history2           Water         WC Method         >0.2         NEG         NEG         NEG         NEG           WEAR METALS         method         Immitbase         current         history1         history2           Iron         ppm         ASTM 051855         >20         2         0         <1           Silver         ppm         ASTM 051855         >20         5         0         6           Lead         ppm         ASTM 051855         >30         0         0         0         0           Adminum         ppm         ASTM 051855         >15         <1         <1         <	SAMPLE INFOR	MATIO <u>N</u>	method	limit/base	current	history1	history2
Sample Date         Client Info         15 Feb 2024         06 Feb 2024         18 Jan 2024           Machine Age         hrs         Client Info         25217         25130         24978           Oil Age         hrs         Client Info         600         0         0         0           Sample Status         Client Info         Changed         Not Changed         Not Changed         Not Changed         ATTENTION           CONTAMINATION         method         Imit/base         current         history1         history2           Water         WC Method         >0.2         NEG         NEG         NEG         NEG           Chromium         ppm         ASTM 05185m         >100         47         1         7           Chromium         ppm         ASTM 05185m         >20         2         0         -1           Nickel         ppm         ASTM 05185m         >20         5         0         6           Lead         ppm         ASTM 05185m         >20         5         0         6           Andimium         ppm         ASTM 05185m         >30         0         0         0           Aumium         ppm         ASTM 05185m         >30	Sample Number		Client Info		GFL0109829	GFL0109859	GFL0103328
Machine Age         hrs         Client Info         25217         25130         24978           Oil Age         hrs         Client Info         600         0         0           Oil Age         hrs         Client Info         Changed         Not Changd         Not Changd           Sample Status         not Changed         Not Changd         Not Changd         Not Changd           CONTAMINATION         method         imit/base         current         history1         history2           Water         WC Method         >0.2         NEG         NEG         NEG           Wethod         WC Method         >0.2         NEG         NEG         NEG           Wethod         Pom         ASTM D585m         >100         47         1         7           Chromium         ppm         ASTM D585m         >40         0         0         3           Muminum         ppm         ASTM D585m         >30         0         0         0           Cadmium         ppm         ASTM D585m         >30         0         0         0           AstM D585m         >40         0         0         <1	,		Client Info		15 Feb 2024	06 Feb 2024	18 Jan 2024
Oil Age         Ins         Client Info         600         0         0           Oil Changed         Client Info         Changed         Not Changd         Not Changd           Sample Status         Client Info         Changed         Not Changd         Not Changd           CONTAMINATION         method         limit/base         current         history1         history2           Water         WC Method         >0.2         NEG         NEG         NEG           Qiyool         WC Method         >0.2         NEG         NEG         NEG           WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >20         2         0         <1	•	hrs					
Oil Changed Sample Status         Client Info         Changed SEVERE         Not Changed NORMAL         Not Changed ATTENTION           CONTAMINATION         method         limit/base         current         history1         history2           Water         WC Method         >0.2         NEG         NEG         NEG         NEG           WEAR METALS         method         limit/base         current         history1         nistory2           Iron         ppm         ASTM D5185m         >100         47         1         7           Chromium         ppm         ASTM D5185m         >20         2         0         <1           Nickel         ppm         ASTM D5185m         >20         5         0         6           Silver         ppm         ASTM D5185m         >20         5         0         6           Lead         ppm         ASTM D5185m         >20         5         0         6           Capper         ppm         ASTM D5185m         >15         <1         <1         <1         <1           Vanadium         ppm         ASTM D5185m         0         0         0         0         0           Copper         ppm         ASTM D518	0				-		
Sample Status         SEVERE         NORMAL         ATTENTION           CONTAMINATION         method         imil/base         current         history1         history2           Water         WC Method         >0.2         NEG         NEG         NEG           Glycol         WC Method         >0.2         NEG         NEG         NEG           WEAR METALS         method         Imil/base         current         history1         history2           Iron         ppm         ASTM D5185m         >100         47         1         7           Chromium         ppm         ASTM D5185m         >20         2         0         <1	-		Client Info			Not Changd	Not Changd
CONTAMINATION         method         limit/base         current         history1         history2           Water         WC Method         >0.2         NEG         NEG         NEG           Glycol         WC Method         >0.2         NEG         NEG         NEG           WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >100         47         1         7           Chromium         ppm         ASTM D5185m         >20         2         0         <1					-	•	
Water         WC Method         >0.2         NEG         NEG         NEG           Glycol         WC Method         Imil/base         current         history1         history2           Iron         ppm         ASTM D5185m         >100         47         1         7           Chromium         ppm         ASTM D5185m         >20         2         0         <1	-	ION	method	limit/base		history1	
Glycol         WC Method         NEG         NEG         NEG           WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m<>100         47         1         7           Chromium         ppm         ASTM D5185m<>20         2         0         <1			WC Method	>0.2	NEG	NEG	
Iron         ppm         ASTM D5185m         >100         47         1         7           Chromium         ppm         ASTM D5185m         >20         2         0         <1				20.L	-		
Iron         ppm         ASTM D5185m         >100         47         1         7           Chromium         ppm         ASTM D5185m         >20         2         0         <1           Nickel         ppm         ASTM D5185m         >4         0         0         3           Titanium         ppm         ASTM D5185m         >3         0         0         0           Silver         ppm         ASTM D5185m         >3         0         0         0           Auminum         ppm         ASTM D5185m         >3         0         0         0         0           Copper         ppm         ASTM D5185m         >3         0         0         0         0           Cadmium         ppm         ASTM D5185m         >15         <1         <1         <1         <1           Cadmium         ppm         ASTM D5185m         0         2         4         55           Barium         ppm         ASTM D5185m         0         2         4         55           Barium         ppm         ASTM D5185m         0         2         4         55           Barium         ppm         ASTM D5185m         0		S	method	limit/base	current	historv1	historv2
Drive         ASTM D5185m         >20         2         0         <1           Nickel         ppm         ASTM D5185m         >4         0         0         3           Titanium         ppm         ASTM D5185m         >3         0         0         0           Silver         ppm         ASTM D5185m         >3         0         0         0           Aluminum         ppm         ASTM D5185m         >30         0         0         0           Copper         ppm         ASTM D5185m         >30         <1							
Nickel         ppm         ASTM D5185m         >4         0         0         3           Titanium         ppm         ASTM D5185m         >3         0         0         0           Sliver         ppm         ASTM D5185m         >20         5         0         6           Lead         ppm         ASTM D5185m         >20         5         0         0           Copper         ppm         ASTM D5185m         >330         <1	-						
Titanium         ppm         ASTM D5185m         0         <1         0           Silver         ppm         ASTM D5185m         >3         0         0         0           Aluminum         ppm         ASTM D5185m         >20         5         0         6           Lead         ppm         ASTM D5185m         >40         0         0         0           Copper         ppm         ASTM D5185m         >330         <1					_		
Silver         ppm         ASTM D5185m         >3         0         0         0           Aluminum         ppm         ASTM D5185m         >20         5         0         6           Lead         ppm         ASTM D5185m         >40         0         0         0           Copper         ppm         ASTM D5185m         >330         <1         <1         4           Tin         ppm         ASTM D5185m         >15         <1         <1         <1         <1           Vanadium         ppm         ASTM D5185m         0         <1         <1         <1         <1           Cadmium         ppm         ASTM D5185m         0         21         <1         <1         <1           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0         <1         0         <1           Molybdenum         ppm         ASTM D5185m         0         <1         0         <1           Maganesium         ppm         ASTM D5185m         1070         922         1001         1262           Phosphorus         ppm         ASTM D				>4			
Aluminum         ppm         ASTM D5185m         >20         5         0         6           Lead         ppm         ASTM D5185m         >40         0         0         0           Copper         ppm         ASTM D5185m         >330         <1				0			
Lead         ppm         ASTM D5185m         >40         0         0         0           Copper         ppm         ASTM D5185m         >330         <1							
Copper         ppm         ASTM D5185m         >330         <1         <1         4           Tin         ppm         ASTM D5185m         >15         <1							
Tin         ppm         ASTM D5185m         >15         <1         <1         <1           Vanadium         ppm         ASTM D5185m         0         0         0         0           Cadmium         ppm         ASTM D5185m         0         0         0         0           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0         2         4         55           Barium         ppm         ASTM D5185m         0         0         0         0           Molybdenum         ppm         ASTM D5185m         0         <1							
Vanadium         ppm         ASTM D5185m         0         <1         <1           Cadmium         ppm         ASTM D5185m         0         0         0         0           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0         2         4         55           Barium         ppm         ASTM D5185m         0         0         0         0         0           Molybdenum         ppm         ASTM D5185m         0         53         56         17           Magnese         ppm         ASTM D5185m         00         <1							
Cadmium         ppm         ASTM D5185m         0         0         0         0           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0         2         4         55           Barium         ppm         ASTM D5185m         0         0         0         0         0         0           Magnesium         ppm         ASTM D5185m         0         4         55           Magnesium         ppm         ASTM D5185m         0         4         0         4           Magnesium         ppm         ASTM D5185m         1010         816         867         877           Calcium         ppm         ASTM D5185m         1010         816         867         877           Calcium         ppm         ASTM D5185m         1070         922         1001         1262           Phosphorus         ppm         ASTM D5185m         1270         1114         1145         909           Sulfur         ppm         ASTM D5185m         225         6         1         4           Sodium         ppm         ASTM D5185m         22 <td></td> <td></td> <td></td> <td>&gt;15</td> <th></th> <td></td> <td></td>				>15			
ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0         2         4         55           Barium         ppm         ASTM D5185m         0         0         0         0         0           Malganese         ppm         ASTM D5185m         0         <1							
Boron         ppm         ASTM D5185m         0         2         4         55           Barium         ppm         ASTM D5185m         0         0         0         0           Molybdenum         ppm         ASTM D5185m         60         53         56         17           Manganese         ppm         ASTM D5185m         0         <1	Cadmium	ppm	ASTM D5185m		0	0	0
Barium         ppm         ASTM D5185m         0         0         0         0         0           Molybdenum         ppm         ASTM D5185m         60         53         56         17           Manganese         ppm         ASTM D5185m         0         <1         0         <1           Magnesium         ppm         ASTM D5185m         1010         816         867         877           Calcium         ppm         ASTM D5185m         1010         816         867         877           Calcium         ppm         ASTM D5185m         1070         922         1001         1262           Phosphorus         ppm         ASTM D5185m         1070         922         1001         1262           Sulfur         ppm         ASTM D5185m         1270         1114         1145         909           Sulfur         ppm         ASTM D5185m         2060         2508         2895         2467           Solicon         ppm         ASTM D5185m         >20         2         2         2           Potassium         ppm         ASTM D5185m         >20         <1         0         4           Fuel         %         ASTM D5185	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum         ppm         ASTM D5185m         60         53         56         17           Manganese         ppm         ASTM D5185m         0         <1	Boron	ppm			2	4	55
Maganese         ppm         ASTM D5185m         0         <1         0         <1           Magnesium         ppm         ASTM D5185m         1010         816         867         877           Calcium         ppm         ASTM D5185m         1070         922         1001         1262           Phosphorus         ppm         ASTM D5185m         1070         922         1001         1262           Phosphorus         ppm         ASTM D5185m         1070         922         1001         1262           Phosphorus         ppm         ASTM D5185m         1270         1114         1145         909           Sulfur         ppm         ASTM D5185m         2060         2508         2895         2467           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         <1	Barium	ppm	ASTM D5185m	0	0	0	0
Magnesium         ppm         ASTM D5185m         1010         816         867         877           Calcium         ppm         ASTM D5185m         1070         922         1001         1262           Phosphorus         ppm         ASTM D5185m         1150         882         981         781           Zinc         ppm         ASTM D5185m         1270         1114         1145         909           Sulfur         ppm         ASTM D5185m         2060         2508         2895         2467           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         6         1         4           Sodium         ppm         ASTM D5185m         >20         <1	Molybdenum			00	53		17
Calcium         ppm         ASTM D5185m         1070         922         1001         1262           Phosphorus         ppm         ASTM D5185m         1150         882         981         781           Zinc         ppm         ASTM D5185m         1150         882         981         781           Zinc         ppm         ASTM D5185m         1270         1114         1145         909           Sulfur         ppm         ASTM D5185m         2060         2508         2895         2467           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         6         1         4           Sodium         ppm         ASTM D5185m         >20         <1	-	ppm	ASTM D5185m	60	00	56	17
Phosphorus         ppm         ASTM D5185m         1150         882         981         781           Zinc         ppm         ASTM D5185m         1270         1114         1145         909           Sulfur         ppm         ASTM D5185m         2060         2508         2895         2467           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         6         1         4           Sodium         ppm         ASTM D5185m         >20         2         2         2           Potassium         ppm         ASTM D5185m         >20         <1	-						
Zinc         ppm         ASTM D5185m         1270         1114         1145         909           Sulfur         ppm         ASTM D5185m         2060         2508         2895         2467           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         6         1         4           Sodium         ppm         ASTM D5185m         >25         6         1         4           Sodium         ppm         ASTM D5185m         >20         <1	Manganese	ppm	ASTM D5185m	0	<1	0	<1
SulfurppmASTM D5185m2060250828952467CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>25614SodiumppmASTM D5185m>20<1	Manganese Magnesium	ppm ppm	ASTM D5185m ASTM D5185m	0 1010	<1 816	0 867	<1 877
CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m<>25         6         1         4           Sodium         ppm         ASTM D5185m         22         2         2           Potassium         ppm         ASTM D5185m         >20         <1	Manganese Magnesium Calcium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0 1010 1070	<1 816 922	0 867 1001	<1 877 1262
Silicon         ppm         ASTM D5185m         >25         6         1         4           Sodium         ppm         ASTM D5185m         >20         2         2         2           Potassium         ppm         ASTM D5185m         >20         <1         0         4           Fuel         %         ASTM D5185m         >20         <1         0         4           Sodium         ppm         ASTM D5185m         >20         <1         0         4           Fuel         %         ASTM D5324         >5         13.3         <1.0         0.6           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         1.6         0.1         0.2           Nitration         Abs/cm         *ASTM D7624         >20         14.6         5.7         8.9           Sulfation         Abs/.1mm         *ASTM D7415         >30         26.6         18.0         21.9           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25 <td>Manganese Magnesium Calcium Phosphorus</td> <td>ppm ppm ppm ppm</td> <td>ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m</td> <td>0 1010 1070 1150</td> <th>&lt;1 816 922 882</th> <td>0 867 1001 981</td> <td>&lt;1 877 1262 781</td>	Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 1010 1070 1150	<1 816 922 882	0 867 1001 981	<1 877 1262 781
Sodium         ppm         ASTM D5185m         2         2         2           Potassium         ppm         ASTM D5185m         >20         <1	Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 1010 1070 1150 1270	<1 816 922 882 1114	0 867 1001 981 1145	<1 877 1262 781 909
Potassium         ppm         ASTM D5185m         >20         <1         0         4           Fuel         %         ASTM D3524         >5         13.3         <1.0         0.6           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         1.6         0.1         0.2           Nitration         Abs/cm         *ASTM D7624         >20         14.6         5.7         8.9           Sulfation         Abs/.1mm         *ASTM D7615         >30         26.6         18.0         21.9           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         26.6         14.2         19.5	Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 1010 1070 1150 1270 2060	<1 816 922 882 1114 2508	0 867 1001 981 1145 2895	<1 877 1262 781 909 2467
Fuel         %         ASTM D3524         >5         13.3         <1.0         0.6           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         1.6         0.1         0.2           Nitration         Abs/cm         *ASTM D7624         >20         14.6         5.7         8.9           Sulfation         Abs/.1mm         *ASTM D7415         >30         26.6         18.0         21.9           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         26.6         14.2         19.5	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 <b>method</b>	0 1010 1070 1150 1270 2060 limit/base	<1 816 922 882 1114 2508 current	0 867 1001 981 1145 2895 history1	<1 877 1262 781 909 2467 history2
INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         1.6         0.1         0.2           Nitration         Abs/cm         *ASTM D7624         >20         14.6         5.7         8.9           Sulfation         Abs/.1mm         *ASTM D7415         >30         26.6         18.0         21.9           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         26.6         14.2         19.5	Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m	0 1010 1070 1150 1270 2060 limit/base	<1 816 922 882 1114 2508 current 6	0 867 1001 981 1145 2895 history1 1	<1 877 1262 781 909 2467 history2 4
Soot %         %         *ASTM D7844         >3         1.6         0.1         0.2           Nitration         Abs/cm         *ASTM D7624         >20         14.6         5.7         8.9           Sulfation         Abs/.1mm         *ASTM D7415         >30         26.6         18.0         21.9           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         26.6         14.2         19.5	Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm <b>ITS</b>	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m ASTM D5185m	0 1010 1070 1150 1270 2060 Iimit/base >25	<1 816 922 882 1114 2508 <u>current</u> 6 2	0 867 1001 981 1145 2895 history1 1 2	<1 877 1262 781 909 2467 history2 4 2
Nitration         Abs/cm         *ASTM D7624         >20         14.6         5.7         8.9           Sulfation         Abs/.1mm         *ASTM D7415         >30         26.6         18.0         21.9           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         26.6         14.2         19.5	Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm <b>ITS</b>	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 1010 1070 1150 1270 2060 <b>limit/base</b> >25	<1 816 922 882 1114 2508 <u>current</u> 6 2 2 <1	0 867 1001 981 1145 2895 history1 1 2 0	<1 877 1262 781 909 2467 <b>history2</b> 4 2 4 4
Nitration         Abs/cm         *ASTM D7624         >20         14.6         5.7         8.9           Sulfation         Abs/.1mm         *ASTM D7615         >30         26.6         18.0         21.9           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         26.6         14.2         19.5	Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel	ppm ppm ppm ppm ppm ppm ppm <b>ITS</b>	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D3524	0 1010 1070 1150 1270 2060 <b>limit/base</b> >25 >20 >5	<1 816 922 882 1114 2508 current 6 2 <1 13.3	0 867 1001 981 1145 2895 history1 1 2 0 <1.0	<1 877 1262 781 909 2467 history2 4 2 4 2 4 0.6
Sulfation         Abs/.1mm         *ASTM D7415         >30         26.6         18.0         21.9           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         26.6         14.2         19.5	Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D3524	0 1010 1070 1150 1270 2060 <b>limit/base</b> >25 >20 >5 <b>limit/base</b>	<1 816 922 882 1114 2508 Current 6 2 <1 13.3 Current	0 867 1001 981 1145 2895 history1 1 2 0 <1.0 history1	<1 877 1262 781 909 2467 history2 4 2 4 0.6 history2
Oxidation         Abs/.1mm         *ASTM D7414         >25         26.6         14.2         19.5	Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D51854	0 1010 1070 1150 1270 2060 <b>limit/base</b> >25 >20 >5 <b>limit/base</b> >3	<1 816 922 882 1114 2508 current 6 2 <1 13.3 current 1.6	0 867 1001 981 1145 2895 history1 1 2 0 <1.0 history1 0.1	<1 877 1262 781 909 2467 history2 4 2 4 0.6 history2 0.2
	Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm JTS ppm ppm ppm ppm %	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D3524 ASTM D3524 <b>method</b> *ASTM D7844	0 1010 1070 1150 1270 2060 <b>limit/base</b> >25 >20 >5 <b>limit/base</b> >3 >20	<1 816 922 882 1114 2508 current 6 2 <1 13.3 current 1.6 14.6	0 867 1001 981 1145 2895 history1 1 2 0 <1.0 history1 0.1 5.7	<1 877 1262 781 909 2467 history2 4 2 4 0.6 history2 0.2 8.9
	Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation	ppm ppm 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 ASTM D3524 ASTM D3524 *ASTM D7844 *ASTM D7624	0 1010 1070 1150 1270 2060 <b>limit/base</b> >25 <b>limit/base</b> >3 >20 >3 >20	<1 816 922 882 1114 2508 current 6 2 <1 13.3 current 1.6 14.6 26.6	0 867 1001 981 1145 2895 history1 1 2 0 <1.0 history1 0.1 5.7 18.0	<1 877 1262 781 909 2467 history2 4 2 4 0.6 history2 0.2 8.9 21.9
	Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation FLUID DEGRAI	ppm ppm ppm ppm ppm ppm ppm ppm ppm % % Abs/cm Abs/cm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D3524 ASTM D3524 ASTM D7844 *ASTM D7844 *ASTM D7844 *ASTM D7844	0 1010 1070 1150 1270 2060 <b>imit/base</b> >25 <b>imit/base</b> >3 >20 >30 >30 <b>imit/base</b>	<1 816 922 882 1114 2508 Current 6 2 <1 13.3 Current 1.6 14.6 26.6 Current	0 867 1001 981 1145 2895 history1 1 2 0 <1.0 kistory1 0.1 5.7 18.0 history1	<1 877 1262 781 909 2467 history2 4 2 4 2 4 0.6 history2 0.2 8.9 21.9 history2

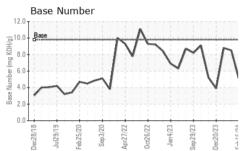
Contact/Location: GFL823,834,836,837,840 - Loyce Stewart - GFL836



# **OIL ANALYSIS REPORT**



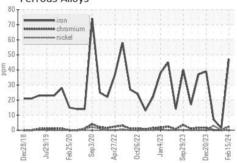


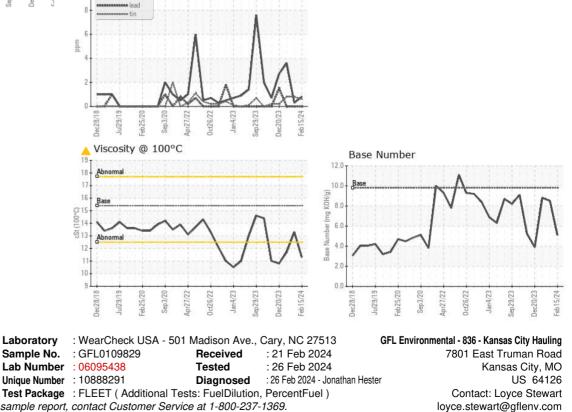


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPE	RTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	<b>11.3</b>	13.3	<b>11.7</b>
GRAPHS						

Ferrous Alloys

Non-ferrous Metals





 Certificate L2367
 Test Package
 : FLEET (Additional Tests: FuelDilution, PercentFuel)

 To discuss this sample report, contact Customer Service at 1-800-237-1369.
 loy

 \* - 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: GFL823,834,836,837,840 - Loyce Stewart - GFL836

Т:

F: