

# **OIL ANALYSIS REPORT**

Sample Rating Trend

SAMPLE INFORMATION method limit/base current



912023 Component Diesel Engine Fluid

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

## DIAGNOSIS Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Machine Id

### Wear

All component wear rates are normal.

#### Contamination

Fuel content negligible. There is no indication of any contamination in the oil.

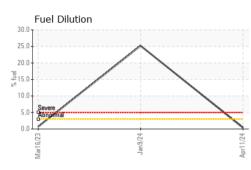
### Fluid Condition

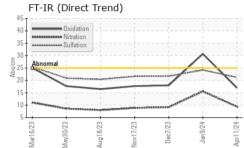
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

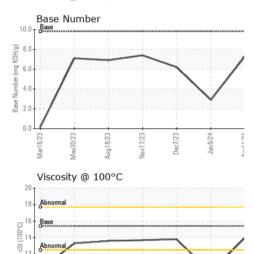
Sample Date     Client Info     11 Apr 2024     09 Jan 2024     07 Dec 2023	SAMIFLE INFURI		method	mmubase	current	TIISTOLA	nistoryz
Machine Age     hrs     Client Info     5918     5804     5563       Oil Age     hrs     Client Info     8004     600     5392       Oil Changed     Client Info     Not Changed     Changed     Not Changed       Sample Status     NORMAL     SEVERE     NORMAL     SEVERE     NORMAL       CONTAMINATION     method     Imit/base     current     history1     history2       Water     WC Method     >0.2     NEG     NEG     NEG       Weter     WC Method     >0.2     NEG     NEG     NEG       Weter     WC Method     >20.2     1     3.3     <1       Nickel     ppm     ASTM 05155m     >5     >     >1     7       Tranum     ppm     ASTM 05155m     >2     0     0     0       Auminum     ppm     ASTM 05155m     >2     1     1     0     0       Vanadum     ppm     ASTM 05155m     >1     0     0     0     0       Auminum <th>Sample Number</th> <th></th> <th>Client Info</th> <th></th> <th>GFL0117660</th> <th>GFL0108833</th> <th>GFL0105652</th>	Sample Number		Client Info		GFL0117660	GFL0108833	GFL0105652
Oil Age     hrs     Client Info     5804     600     5392       Oil Changed     Client Info     Not Changed     Not Changed     Not Changed       Sample Status     Imit Descent     Not RMAL     SEVERE     Not Changed       CONTAMINATION     method     Imit Descent     NeG     NeG       Water     WC Method     >0.2     NEG     NEG     NEG       Glycol     WC Method     >0.2     NEG     NEG     NEG       Wear     WC Method     >0.2     NEG     NEG     NEG       Wear     WC Method     >0.2     1     3     -1       Chromium     ppm     ASTM D5185n     >2     1     0     0       Silver     ppm     ASTM D5185n     >2     0     0     0       Silver     ppm     ASTM D5185n     >20     9     4     1       Lead     ppm     ASTM D5185n     >300     4     2     4       Tin     ppm     ASTM D5185n     >300     0	Sample Date		Client Info		11 Apr 2024	09 Jan 2024	07 Dec 2023
Oli Changed Sample Status Client Info Not Changd NORMAL Changed SEVERE Not Changed NORMAL   CONTAMINATION method Imit/base current history1 history2   Water WC Method >0.2 NEG NEG NEG   Glycol WC Method >0.2 NEG NEG NEG   WEAR METALS method Imit/base current history1 history2   Iron ppm ASTM D5185n >12.0 24 61 21   Chromium ppm ASTM D5185n >2.0 1 3 -1   Nickel ppm ASTM D5185n >2.2 <1 0 0   Silver ppm ASTM D5185n >2.2 0 0 0   Auminum ppm ASTM D5185n >2.0 0 0 0   Copper ppm ASTM D5185n >4.0 2 1 2   Copper ppm ASTM D5185n >4.0 2 1 2   Vanadium ppm ASTM D5185n 0 0 0 0   AstM D5185n 0 0 0 0 0 1   Mangainese ppm ASTM D5185	Machine Age	hrs	Client Info		5918	5804	5563
Oil Changed Sample Status Client Info Not Changd NORMAL Changed SEVERE Not Changed NORMAL   CONTAMINATION method limit/base current Nistory1 Nistory2   Water WC Method >0.2 NEG NEG NEG   Glycol WC Method >0.2 NEG NEG NEG   WEAR METALS method Imit/base current history1 history2   Iron ppm ASTM D518m >12.0 24 61 21   Chromium ppm ASTM D518m >2.2 1 3 -1   Nickel ppm ASTM D518m >2.2 0 0 0   Aluminum ppm ASTM D518m >2.2 0 0 0   Aluminum ppm ASTM D518m >2.2 0 0 0   Aluminum ppm ASTM D518m >2.0 9 4 1   Lead ppm ASTM D518m >2.0 0 0 0   Vanadium ppm ASTM D518m >2.0 0 0 0   Vanadium ppm ASTM D518m >2.0 0 0 0   Vanadium ppm AST	Oil Age	hrs	Client Info		5804	600	5392
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 D5185n     >12.0     24     61     21       Chromium     ppm     ASTM D5185n     >2.0     1     3     <1       Nickel     ppm     ASTM D5185n     >2.2     0     0     0       Silver     ppm     ASTM D5185n     >2.0     0     0     0       Copper     ppm     ASTM D5185n     >2.0     9     4     1       Lead     ppm     ASTM D5185n     >1.0     0     0     0       Cadmium     ppm     ASTM D5185n     >1     0     0     0       AstM D5185n     0     0     0     0     0     0	-		Client Info		Not Changd	Changed	Not Changd
Water     WC Method     >0.2     NEG     NEG     NEG     NEG       Glycol     WC Method     imit/base     current     history1     history2       Iron     ppm     ASTM D5185m     >120     24     61     21       Chromium     ppm     ASTM D5185m     >5     5     <1     7       Nickel     ppm     ASTM D5185m     >20     1     3     <1       Silver     ppm     ASTM D5185m     >20     0     0     0       Aluminum     ppm     ASTM D5185m     >20     9     4     1       Lead     ppm     ASTM D5185m     >20     9     4     1       Lead     ppm     ASTM D5185m     >30     4     2     4       Tin     pom     ASTM D5185m     >1     0     0     0       Adamium     ppm     ASTM D5185m     0     0     0     0       Adamium     ppm     ASTM D5185m     0     0     0     1 <th>Sample Status</th> <th></th> <th></th> <th></th> <th>NORMAL</th> <th>SEVERE</th> <th>NORMAL</th>	Sample Status				NORMAL	SEVERE	NORMAL
Water     WC Method     >0.2     NEG     NEG     NEG     NEG       Glycol     WC Method     imit/base     current     history1     history2       Iron     ppm     ASTM D5185m     >120     24     61     21       Chromium     ppm     ASTM D5185m     >5     5     <1     7       Nickel     ppm     ASTM D5185m     >20     1     3     <1       Silver     ppm     ASTM D5185m     >20     0     0     0       Aluminum     ppm     ASTM D5185m     >20     9     4     1       Lead     ppm     ASTM D5185m     >20     9     4     1       Lead     ppm     ASTM D5185m     >30     4     2     4       Tin     pom     ASTM D5185m     >1     0     0     0       Adamium     ppm     ASTM D5185m     0     0     0     0       Adamium     ppm     ASTM D5185m     0     0     0     1 <th></th> <th></th> <th>and the second</th> <th>Provide Research</th> <th></th> <th>In the transmitter</th> <th>la fa ta ma O</th>			and the second	Provide Research		In the transmitter	la fa ta ma O
Glycol     WC Method     NEG     NEG     NEG     NEG       WEAR METALS     method     limi/base     current     history1     history2       Iron     ppm     ASTM D5185m     >20     1     3     <1       Nickel     ppm     ASTM D5185m     >20     1     3     <1       Nickel     ppm     ASTM D5185m     >2     <1     0     0       Silver     ppm     ASTM D5185m     >2     <1     0     0       Aduminum     ppm     ASTM D5185m     >20     9     4     1       Lead     ppm     ASTM D5185m     >330     4     2     4       Tin     ppm     ASTM D5185m     >15     1     0     0       Cadmium     ppm     ASTM D5185m     >15     1     0     0       Cadmium     ppm     ASTM D5185m     0     0     0     0     0       Cadmium     ppm     ASTM D5185m     0     0     0     0 <th>CONTAMINAT</th> <th>ION</th> <th></th> <th></th> <th>current</th> <th></th> <th></th>	CONTAMINAT	ION			current		
WEAR METALS     method     imit/base     current     history1     history2       Iron     ppm     ASTM 05185m     >120     24     61     21       Othomium     ppm     ASTM 05185m     >20     1     3     <1       Nickel     ppm     ASTM 05185m     >20     1     3     <1       Nickel     ppm     ASTM 05185m     >20     0     0     0       Aluminum     ppm     ASTM 05185m     >20     9     4     1       Lead     ppm     ASTM 05185m     >20     9     4     1       Lead     ppm     ASTM 05185m     >20     9     4     1       Lead     ppm     ASTM 05185m     0     0     0     0       Cadmium     ppm     ASTM 05185m     0     0     0     0       Cadmium     ppm     ASTM 05185m     0     0     0     0       ADDITVES     method     imit/base     current     history1     history2 </th <th></th> <th></th> <th></th> <th>&gt;0.2</th> <th></th> <th></th> <th></th>				>0.2			
Iron     ppm     ASTM 05185m     >120     24     61     21       Chromium     ppm     ASTM 05185m     >20     1     3     <1       Nickel     ppm     ASTM 05185m     >5     5     <1     7       Titanium     ppm     ASTM 05185m     >2     0     0     0       Silver     ppm     ASTM 05185m     >20     9     4     1       Lead     ppm     ASTM 05185m     >330     4     2     4       Tin     ppm     ASTM 05185m     0     0     0     0       Cadmium     ppm     ASTM 05185m     0     0     0     0       Boron     ppm     ASTM 05185m     0     65     38     59 <th>Glycol</th> <th></th> <th>WC Method</th> <th></th> <th>NEG</th> <th>NEG</th> <th>NEG</th>	Glycol		WC Method		NEG	NEG	NEG
Chromium     ppm     ASTM D5185m     >20     1     3     <1	WEAR METAL	S	method	limit/base	current	history1	history2
Nickel     ppm     ASTM D5185m     >5     5     <1	Iron	ppm	ASTM D5185m	>120	24	61	21
Titanium     ppm     ASTM D5185m     >2     <1	Chromium	ppm	ASTM D5185m	>20	1	3	<1
Silver     ppm     ASTM D5185m     >2     0     0     0       Aluminum     ppm     ASTM D5185m     >20     9     4     1       Lead     ppm     ASTM D5185m     >40     2     1     2       Copper     ppm     ASTM D5185m     >330     4     2     4       Tin     ppm     ASTM D5185m     >15     1     0     0       Vanadium     ppm     ASTM D5185m     >15     1     0     0       Cadmium     ppm     ASTM D5185m      <1	Nickel	ppm	ASTM D5185m	>5	5	<1	7
Aluminum     ppm     ASTM D5185m     >20     9     4     1       Lead     ppm     ASTM D5185m     >40     2     1     2       Copper     ppm     ASTM D5185m     >330     4     2     4       Tin     ppm     ASTM D5185m     >15     1     0     0       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     0     0     0       Molybdenum     ppm     ASTM D5185m     0     <1     0     <1       Magnanese     ppm     ASTM D5185m     100     <1     062     832       Zinc     ppm     ASTM D5185m     1100     1002     634     947       Solium     ppm     ASTM D5185m     1150     1174     701 <th>Titanium</th> <th>ppm</th> <th>ASTM D5185m</th> <th>&gt;2</th> <th>&lt;1</th> <th>0</th> <th>0</th>	Titanium	ppm	ASTM D5185m	>2	<1	0	0
Lead     ppm     ASTM D5185m     >40     2     1     2       Copper     ppm     ASTM D5185m     >330     4     2     4       Tin     ppm     ASTM D5185m     >15     1     0     0       Vanadium     ppm     ASTM D5185m     >15     1     0     0       Cadmium     ppm     ASTM D5185m     >15     1     0     0       ADDITIVES     method     limit/base     current     history1     history2       Boron     ppm     ASTM D5185m     0     0     0     0     0       Magnesium     ppm     ASTM D5185m     0     <1     0     <1     1062       Phosphorus     ppm     ASTM D5185m     1010     1002     634     947       Calcium     ppm     ASTM D5185m     1070     1174     701     1062       Phosphorus     ppm     ASTM D5185m     1200     3170     1838     2653       CONTAMINANTS     method     limit/b	Silver	ppm	ASTM D5185m	>2	0	0	0
Copper     ppm     ASTM D5185m     >330     4     2     4       Tin     ppm     ASTM D5185m     >15     1     0     0       Vanadium     ppm     ASTM D5185m     <1     0     0     0       Cadmium     ppm     ASTM D5185m     <1     0     0     0       ADDITIVES     method     limit/base     current     history1     history2       Boron     ppm     ASTM D5185m     0     0     0     0       Barium     ppm     ASTM D5185m     0     0     0     0       Molybdenum     ppm     ASTM D5185m     0     <1     0     <1       Maganese     ppm     ASTM D5185m     1010     1002     634     947       Calcium     ppm     ASTM D5185m     1070     1174     701     1062       Phosphorus     ppm     ASTM D5185m     1270     1296     886     1226       Sulfur     ppm     ASTM D5185m     >25     5	Aluminum	ppm	ASTM D5185m	>20	9	4	1
Tin     ppm     ASTM D5185m     >15     1     0     0       Vanadium     ppm     ASTM D5185m     0     0     0     0       Cadmium     ppm     ASTM D5185m     <1	Lead	ppm	ASTM D5185m	>40	2	1	2
Vanadium     ppm     ASTM D5185m     0     0     0       Cadmium     ppm     ASTM D5185m     <1     0     0       ADDITIVES     method     limit/base     current     history1     history2       Boron     ppm     ASTM D5185m     0     0     0     0     0       Barium     ppm     ASTM D5185m     0     0     0     0     0       Magnaese     ppm     ASTM D5185m     0     <1     0     <1       Magnesium     ppm     ASTM D5185m     0     <1     0     <1       Magnesium     ppm     ASTM D5185m     1010     1002     634     947       Calcium     ppm     ASTM D5185m     1070     1174     701     1062       Phosphorus     ppm     ASTM D5185m     1070     1174     701     1062       Sulfur     ppm     ASTM D5185m     1270     1296     886     1226       Sulfur     ppm     ASTM D5185m     22	Copper	ppm	ASTM D5185m	>330	4	2	4
Cadmium     ppm     ASTM D5185m     <1	Tin	ppm	ASTM D5185m	>15	1	0	0
ADDITIVES     method     limit/base     current     history1     history2       Boron     ppm     ASTM D5185m     0     0     0     0       Barium     ppm     ASTM D5185m     0     0     0     0       Malganese     ppm     ASTM D5185m     0     <1     0     <1       Magnesium     ppm     ASTM D5185m     0     <1     0     <1       Magnesium     ppm     ASTM D5185m     1010     1002     634     947       Calcium     ppm     ASTM D5185m     1010     1002     634     947       Calcium     ppm     ASTM D5185m     1070     1174     701     1062       Phosphorus     ppm     ASTM D5185m     1270     1296     886     1226       Sulfur     ppm     ASTM D5185m     2060     3170     1838     2653       CONTAMINANTS     method     limit/base     current     history1     history2       Silicon     ppm     ASTM D5185m     2	Vanadium	ppm	ASTM D5185m		0	0	0
Boron     ppm     ASTM D5185m     0     0     0     0     0       Barium     ppm     ASTM D5185m     0     0     0     0     0       Molybdenum     ppm     ASTM D5185m     60     65     38     59       Manganese     ppm     ASTM D5185m     0     <1     0     <1       Magnesium     ppm     ASTM D5185m     1010     1002     634     947       Calcium     ppm     ASTM D5185m     1010     1102     634     947       Calcium     ppm     ASTM D5185m     1070     1174     701     1062       Phosphorus     ppm     ASTM D5185m     1270     1296     886     1226       Sulfur     ppm     ASTM D5185m     2060     3170     1838     2653       CONTAMINANTS     method     limit/base     current     history1     history2       Silicon     ppm     ASTM D5185m     >20     23     1     0       Fuel     %	Cadmium	ppm	ASTM D5185m		<1	0	0
Barium     ppm     ASTM D5185m     0     0     0     0     0       Molybdenum     ppm     ASTM D5185m     60     65     38     59       Manganese     ppm     ASTM D5185m     0     <1     0     <1       Magnesium     ppm     ASTM D5185m     1010     1002     634     947       Calcium     ppm     ASTM D5185m     1070     1174     701     1062       Phosphorus     ppm     ASTM D5185m     1070     1174     701     1062       Sulfur     ppm     ASTM D5185m     1270     1296     886     1226       Sulfur     ppm     ASTM D5185m     2060     3170     1838     2653       CONTAMINANTS     method     limit/base     current     history1     history2       Silicon     ppm     ASTM D5185m     >20     23     1     0       Fuel     %     ASTM D5185m     >20     23     1     0       Fuel     %     ASTM D5185m <th>ADDITIVES</th> <th></th> <th>method</th> <th>limit/base</th> <th>current</th> <th>history1</th> <th>history2</th>	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum     ppm     ASTM D5185m     60     65     38     59       Manganese     ppm     ASTM D5185m     0     <1     0     <1       Magnesium     ppm     ASTM D5185m     1010     1002     634     947       Calcium     ppm     ASTM D5185m     1070     1174     701     1062       Phosphorus     ppm     ASTM D5185m     1070     1174     701     1062       Phosphorus     ppm     ASTM D5185m     1070     1118     662     832       Zinc     ppm     ASTM D5185m     1270     1296     886     1226       Sulfur     ppm     ASTM D5185m     2060     3170     1838     2653       CONTAMINANTS     method     limit/base     current     history1     history2       Silicon     ppm     ASTM D5185m     >20     23     1     0       Fuel     %     ASTM D5185m     >20     23     1     0       Fuel     %     ASTM D5185m	Boron	ppm	ASTM D5185m	0	0	0	0
Maganese     ppm     ASTM D5185m     0     <1	Barium	ppm	ASTM D5185m	0	0	0	0
Magnesium     ppm     ASTM D5185m     1010     1002     634     947       Calcium     ppm     ASTM D5185m     1070     1174     701     1062       Phosphorus     ppm     ASTM D5185m     1150     1118     662     832       Zinc     ppm     ASTM D5185m     1270     1296     886     1226       Sulfur     ppm     ASTM D5185m     2060     3170     1838     2653       CONTAMINANTS     method     limit/base     current     history1     history2       Silicon     ppm     ASTM D5185m     >25     5     14     4       Sodium     ppm     ASTM D5185m     >20     23     1     0       Fuel     %     ASTM D524     >3.0     0.4     25.2     <1.0       INFRA-RED     method     limit/base     current     history1     history2       Soot %     %     *ASTM D7844     >4     1.1     0.8     1.1       Nitration     Abs/.1mm     *ASTM D7415	Molybdenum	ppm	ASTM D5185m	60	65	38	59
Calcium     ppm     ASTM D5185m     1070     1174     701     1062       Phosphorus     ppm     ASTM D5185m     1150     1118     662     832       Zinc     ppm     ASTM D5185m     1270     1296     886     1226       Sulfur     ppm     ASTM D5185m     2060     3170     1838     2653       CONTAMINANTS     method     limit/base     current     history1     history2       Silicon     ppm     ASTM D5185m     22     4     4       Sodium     ppm     ASTM D5185m     20     23     1     0       Fuel     %     ASTM D3524     >3.0     0.4     25.2     <1.0       INFRA-RED     method     limit/base     current     history1     history2       Soot %     %     *ASTM D7844     >4     1.1     0.8     1.1       Nitration     Abs/cm     *ASTM D7624     >20     9.4     15.6     9.2       Sulfation     Abs/.tmm     *ASTM D7415     >30	Manganese	ppm	ASTM D5185m	0	<1	0	<1
Phosphorus     ppm     ASTM D5185m     1150     1118     662     832       Zinc     ppm     ASTM D5185m     1270     1296     886     1226       Sulfur     ppm     ASTM D5185m     2060     3170     1838     2653       CONTAMINANTS     method     limit/base     current     history1     history2       Silicon     ppm     ASTM D5185m     >25     5     14     4       Sodium     ppm     ASTM D5185m     >20     23     1     0       Fuel     %     ASTM D3524     >3.0     0.4     25.2     <1.0       INFRA-RED     method     limit/base     current     history1     history2       Soot %     %     *ASTM D7844     >4     1.1     0.8     1.1       Nitration     Abs/cm     *ASTM D7624     >20     9.4     15.6     9.2       Sulfation     Abs/.1mm     *ASTM D7415     >30     21.2     24.2     21.7       FLUID DEGRADATION     method     li	Magnesium	ppm	ASTM D5185m	1010	1002	634	947
Zinc     ppm     ASTM D5185m     1270     1296     886     1226       Sulfur     ppm     ASTM D5185m     2060     3170     1838     2653       CONTAMINANTS     method     limit/base     current     history1     history2       Silicon     ppm     ASTM D5185m     >25     5     14     4       Sodium     ppm     ASTM D5185m     22     4     4       Potassium     ppm     ASTM D5185m     20     23     1     0       Fuel     %     ASTM D524     >3.0     0.4     25.2     <1.0       INFRA-RED     method     limit/base     current     history1     history2       Soot %     %     *ASTM D7844     >4     1.1     0.8     1.1       Nitration     Abs/cm     *ASTM D7624     >20     9.4     15.6     9.2       Sulfation     Abs/.1mm     *ASTM D7415     >30     21.2     24.2     21.7       FLUID DEGRADATION     method     limit/base     curre	Calcium	ppm	ASTM D5185m	1070	1174	701	1062
SulfurppmASTM D5185m2060317018382653CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>255144SodiumppmASTM D5185m>202310Fuel%ASTM D5185m>202310Fuel%ASTM D5185m>202310INFRA-REDmethodlimit/basecurrenthistory1history2Soot %%*ASTM D7844>41.10.81.1NitrationAbs/cm*ASTM D7624>209.415.69.2SulfationAbs/.imm*ASTM D7415>3021.224.221.7FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2OxidationAbs/.imm*ASTM D7414>2517.030.718.0	Phosphorus	ppm	ASTM D5185m	1150	1118	662	832
CONTAMINANTS     method     limit/base     current     history1     history2       Silicon     ppm     ASTM D5185m<>25     5     14     4       Sodium     ppm     ASTM D5185m     2     4     4       Potassium     ppm     ASTM D5185m     20     23     1     0       Fuel     %     ASTM D5185m     >20     23     1     0       Fuel     %     ASTM D5185m     >20     23     1     0       Fuel     %     ASTM D5185m     >20     23     1     0       INFRA-RED     method     limit/base     current     history1     history2       Soot %     %     *ASTM D7844     >4     1.1     0.8     1.1       Nitration     Abs/cm     *ASTM D7624     >20     9.4     15.6     9.2       Sulfation     Abs/.tmm     *ASTM D7415     >30     21.2     24.2     21.7       FLUID DEGRADATION     method     limit/base     current     history1     h	Zinc	ppm	ASTM D5185m	1270	1296	886	1226
Silicon   ppm   ASTM D5185m   >25   5   14   4     Sodium   ppm   ASTM D5185m   20   23   1   0     Potassium   ppm   ASTM D5185m   >20   23   1   0     Fuel   %   ASTM D324   >3.0   0.4   25.2   <1.0	Sulfur	ppm	ASTM D5185m	2060	3170	1838	2653
Sodium     ppm     ASTM D5185m     2     4     4       Potassium     ppm     ASTM D5185m<>20     23     1     0       Fuel     %     ASTM D5185m<>20     23     1     0       Fuel     %     ASTM D5185m<>20     23     1     0       INFRA-RED     method     limit/base     current     history1     history2       Soot %     %     *ASTM D7844<>4     1.1     0.8     1.1       Nitration     Abs/cm     *ASTM D7624<>20     9.4     15.6     9.2       Sulfation     Abs/.1mm     *ASTM D7415<>30     21.2     24.2     21.7       FLUID DEGRADATION     method     limit/base     current     history1     history2       Oxidation     Abs/.1mm     *ASTM D7414<>25     17.0     30.7     18.0	CONTAMINAN	TS	method	limit/base	current	history1	history2
Potassium     ppm     ASTM D5185m     >20     23     1     0       Fuel     %     ASTM D3524     >3.0     0.4     25.2     <1.0	Silicon	ppm	ASTM D5185m	>25	5	14	4
Fuel     %     ASTM D3524     >3.0     0.4     25.2     <1.0	Sodium	ppm	ASTM D5185m		2	4	4
INFRA-RED     method     limit/base     current     history1     history2       Soot %     %     *ASTM D7844     >4     1.1     0.8     1.1       Nitration     Abs/cm     *ASTM D7624     >20     9.4     15.6     9.2       Sulfation     Abs/.mm     *ASTM D7415     >30     21.2     24.2     21.7       FLUID DEGRADATION     method     limit/base     current     history1     history2       Oxidation     Abs/.mm     *ASTM D7414     >25     17.0     30.7     18.0	Potassium	ppm	ASTM D5185m	>20	23	1	0
Soot %     %     *ASTM D7844     >4     1.1     0.8     1.1       Nitration     Abs/cm     *ASTM D7624     >20     9.4     15.6     9.2       Sulfation     Abs/.1mm     *ASTM D7415     >30     21.2     24.2     21.7       FLUID DEGRADATION     method     limit/base     current     history1     history2       Oxidation     Abs/.1mm     *ASTM D7414     >25     17.0     30.7     18.0	Fuel	%	ASTM D3524	>3.0	0.4	▲ 25.2	<1.0
Nitration     Abs/cm     *ASTM D7624     >20     9.4     15.6     9.2       Sulfation     Abs/.1mm     *ASTM D7415     >30     21.2     24.2     21.7       FLUID DEGRADATION     method     limit/base     current     history1     history2       Oxidation     Abs/.1mm     *ASTM D7414     >25     17.0     30.7     18.0	INFRA-RED		method	limit/base	current	history1	history2
Sulfation     Abs/.1mm     *ASTM D7415     >30     21.2     24.2     21.7       FLUID DEGRADATION     method     limit/base     current     history1     history2       Oxidation     Abs/.1mm     *ASTM D7414     >25     17.0     30.7     18.0	Soot %	%	*ASTM D7844	>4	1.1	0.8	1.1
FLUID DEGRADATION method limit/base current history1 history2   Oxidation Abs/.1mm *ASTM D7414 >25 17.0 30.7 18.0	Nitration	Abs/cm	*ASTM D7624	>20	9.4	15.6	9.2
Oxidation Abs/.1mm *ASTM D7414 >25 <b>17.0</b> 30.7 18.0	Sulfation	Abs/.1mm	*ASTM D7415	>30	21.2	24.2	21.7
	FLUID DEGRA	DATION	method	limit/base	current	history1	history2
Base Number (BN) mg KOH/g ASTM D2896 9.8 7.3 🔺 2.9 6.2	Oxidation	Abs/.1mm	*ASTM D7414	>25	17.0	30.7	18.0
	Base Number (BN)	mg KOH/g	ASTM D2896	9.8	7.3	<b>2</b> .9	6.2



# **OIL ANALYSIS REPORT**







Aug18/23

Vov17/23

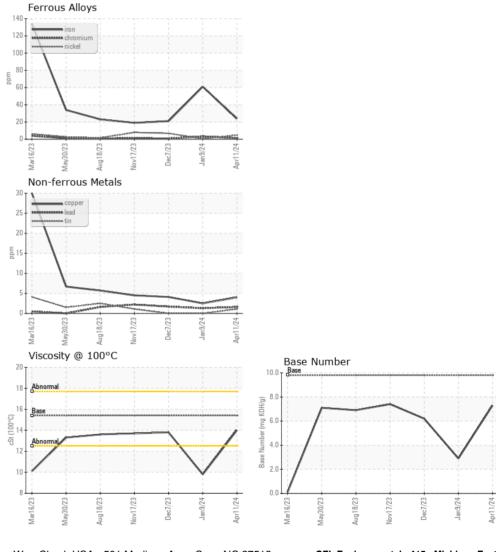
Mar16/23

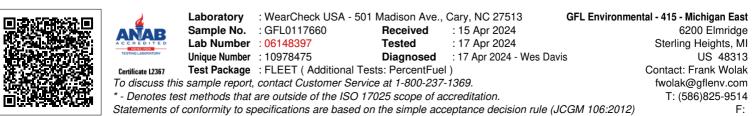
(av30/7)

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 PROPEI	RTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	14.0	<b>9.8</b>	13.8

GRAPHS

VISUAL





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Submitted By: Frank Wolak

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