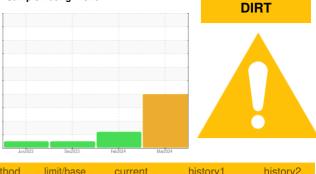


OIL ANALYSIS REPORT

Sample Rating Trend





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

υ	IA	GI	AC	5	5	

Recommendation

We advise that you check for the source of the coolant leak. Check for low coolant level. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

Sodium and/or potassium levels are high. Elemental level of silicon (Si) above normal indicating ingress of seal material.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil.

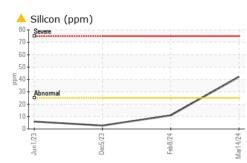
Sample Date Client Info 14 Mar 2024 08 Feb 2024 05 Dec 20 Machine Age hrs Client Info 19104 18969 18860 Oil Age hrs Client Info 0 109 0 Oil Changed Client Info Not Changd Not Changd Changed Sample Status method imit/base current historyl historyl Fuel WC Method >3.0 <1.0 <1.0 <1.0 Water WC Method >0.2 NEG NEG NEG Iron ppm ASTM D5185m >120 20 9 8 Chromium ppm ASTM D5185m >20 <1 <1 0 Silver ppm ASTM D5185m >20 6 4 1 1 Lead ppm ASTM D5185m >20 6 4 1 1 Copper ppm ASTM D5185m >10 0 1 1		MATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 19104 18969 18860 Oil Age hrs Client Info 0 109 0 Oil Changed Client Info Not Changd Not Changd Not Changd Not Changd Sample Status Imtel Imtelbase Current history history history Fuel WC Method >3.0 <1.0	Sample Number		Client Info		GFL0114338	GFL0110065	GFL0101432
Oil Age hrs Client Info 0 109 0 Oil Changed Client Info Not Changed Not Changed Changed Sample Status Imit Data Imit Data Current Not Changed Not Changed CONTAMINATION method Imit Data current history1 Nistory1 Fuel WC Method >3.0 <1.0	Sample Date		Client Info		14 Mar 2024	08 Feb 2024	05 Dec 2023
Oil Changed Sample Status Client Info Not Changd ABNORMAL Not Changd ABNORMAL Changed NORMAL CONTAMINATION method limit/base current history1 history1 Fuel WC Method >3.0 <1.0	Machine Age	hrs	Client Info		19104	18969	18860
Sample Status ABNORMAL ABNORMAL ABNORMAL NORMAL CONTAMINATION method limit/base current history1 history1 Fuel WC Method >3.0 <1.0	Oil Age	hrs	Client Info		0	109	0
CONTAMINATION method limit/base current history1 history1 Fuel WC Method >3.0 <1.0	Oil Changed		Client Info		Not Changd	Not Changd	Changed
Fuel WC Method >3.0 <1.0 <1.0 <1.0 Water WC Method >0.2 NEG NEG NEG Wear WC Method >0.2 NEG NEG NEG NEG Wear ppm ASTM D5185m >120 20 9 8 Chromium ppm ASTM D5185m >20 <1 <1 <1 Nickel ppm ASTM D5185m >20 <1 0 <1 Silver ppm ASTM D5185m >2 0 0 0 Auminum ppm ASTM D5185m >20 6 4 1 Lead ppm ASTM D5185m >40 2 <1 <1 Capper ppm ASTM D5185m >330 10 3 <1 <1 Cadmium ppm ASTM D5185m 0 0 0 0 0 0 ASTM D5185m 0 1 <1 <1 <	Sample Status				ABNORMAL	ABNORMAL	NORMAL
Water WC Method >0.2 NEG NEG NEG Wear METALS method limit/base current history1 history1 Iron ppm ASTM D5185m >120 20 9 8 Chromium ppm ASTM D5185m >20 <1	CONTAMINATI	ON	method	limit/base	current	history1	history2
WEAR METALS method limit/base current history1 history1 Iron ppm ASTM D5185m >120 20 9 8 Chromium ppm ASTM D5185m >20 <1	Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Iron ppm ASTM D5185m >120 20 9 8 Chromium ppm ASTM D5185m >20 <1	Water		WC Method	>0.2	NEG	NEG	NEG
Dromium ppm ASTM D5185m >20 <1	WEAR METALS	S	method	limit/base	current	history1	history2
Nickel ppm ASTM D5185m >5 4 <1 0 Titanium ppm ASTM D5185m >2 <1	Iron	ppm	ASTM D5185m	>120	20	9	8
Titanium ppm ASTM D5185m >2 <1 0 <1 Silver ppm ASTM D5185m >2 0 0 0 Aluminum ppm ASTM D5185m >20 6 4 1 Lead ppm ASTM D5185m >20 6 4 1 Copper ppm ASTM D5185m >330 10 3 <1	Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Silver ppm ASTM D5185m >2 0 0 0 Aluminum ppm ASTM D5185m >20 6 4 1 Lead ppm ASTM D5185m >40 2 <1	Nickel	ppm	ASTM D5185m	>5	4	<1	0
Aluminum ppm ASTM D5185m >20 6 4 1 Lead ppm ASTM D5185m >40 2 <1	Titanium	ppm	ASTM D5185m	>2	<1	0	<1
Lead ppm ASTM D5185m >40 2 <1 <1 Copper ppm ASTM D5185m >330 10 3 <1	Silver	ppm	ASTM D5185m	>2	0	0	0
Copper ppm ASTM D5185m >330 10 3 <1 Tin ppm ASTM D5185m >15 1 0 1 Vanadium ppm ASTM D5185m 0 0 <1	Aluminum	ppm	ASTM D5185m	>20	6	4	1
Tin ppm ASTM D5185m >15 1 0 1 Vanadium ppm ASTM D5185m 0 0 21 Cadmium ppm ASTM D5185m 0 0 21 Cadmium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 history1 Boron ppm ASTM D5185m 0 95 21 1 Barium ppm ASTM D5185m 0 0 0 0 0 0 0 Manganese ppm ASTM D5185m 0 1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1	Lead	ppm	ASTM D5185m	>40	2	<1	<1
Vanadium ppm ASTM D5185m 0 0 <1 Cadmium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 history1 Boron ppm ASTM D5185m 0 95 21 1 Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 0 0 0 0 Magnesium ppm ASTM D5185m 0 1 <1	Copper	ppm	ASTM D5185m	>330	10	3	<1
Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history1 Boron ppm ASTM D5185m 0 95 21 1 Barium ppm ASTM D5185m 0 0 0 0 0 Manganese ppm ASTM D5185m 0 140 73 59 Manganese ppm ASTM D5185m 0 1 <1 <1 <1 Magnesium ppm ASTM D5185m 0 1 <1 <1< <1 Magnesium ppm ASTM D5185m 1010 804 909 910 Calcium ppm ASTM D5185m 1070 981 1025 1042 Phosphorus ppm ASTM D5185m 1270 1122 1221 1200 Sulfur ppm ASTM D5185m 2060 3019 2941 2886 CONTAMINANTS method	Tin	ppm	ASTM D5185m	>15	1	0	1
ADDITIVES method limit/base current history1 history1 Boron ppm ASTM D5185m 0 95 21 1 Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 60 140 73 59 Manganese ppm ASTM D5185m 0 1 <1	Vanadium	ppm	ASTM D5185m		0	0	<1
Boron ppm ASTM D5185m 0 95 21 1 Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 60 140 73 59 Manganese ppm ASTM D5185m 0 1 <1	Cadmium	ppm	ASTM D5185m		0	0	0
Barium ppm ASTM D5185m 0 0 0 0 0 0 Molybdenum ppm ASTM D5185m 60 140 73 59 Manganese ppm ASTM D5185m 0 1 <1 <1 Magnesium ppm ASTM D5185m 0 1 <1 <1 Magnesium ppm ASTM D5185m 1010 804 909 910 Calcium ppm ASTM D5185m 1070 981 1025 1042 Phosphorus ppm ASTM D5185m 1270 1122 1221 1200 Sulfur ppm ASTM D5185m 1270 1122 1221 1200 Sulfur ppm ASTM D5185m 2060 3019 2941 2886 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >20 233 3 0 Glycol % <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 60 140 73 59 Manganese ppm ASTM D5185m 0 1 <1							
Manganese ppm ASTM D5185m 0 1 <1 <1 Magnesium ppm ASTM D5185m 1010 804 909 910 Calcium ppm ASTM D5185m 1010 804 909 910 Calcium ppm ASTM D5185m 1070 981 1025 1042 Phosphorus ppm ASTM D5185m 1150 940 1042 1014 Zinc ppm ASTM D5185m 1270 1122 1221 1200 Sulfur ppm ASTM D5185m 2060 3019 2941 2886 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >25 42 11 3 Sodium ppm ASTM D5185m >20 233 3 0 Glycol % *ASTM D2982 NEG NEG NEG NEG INFRA-RED method limit/base <td>Boron</td> <td>ppm</td> <td>ASTM D5185m</td> <td>0</td> <th>95</th> <td></td> <td></td>	Boron	ppm	ASTM D5185m	0	95		
Magnesium ppm ASTM D5185m 1010 804 909 910 Calcium ppm ASTM D5185m 1070 981 1025 1042 Phosphorus ppm ASTM D5185m 1150 940 1042 1014 Zinc ppm ASTM D5185m 1150 940 1042 1014 Zinc ppm ASTM D5185m 1270 1122 1221 1200 Sulfur ppm ASTM D5185m 2060 3019 2941 2886 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >25 422 11 3 Sodium ppm ASTM D5185m >20 233 3 0 Glycol % *ASTM D5185m >20 233 3 0 INFRA-RED method limit/base current history1 history1 Soot % % *ASTM D7844						21	1
Calcium ppm ASTM D5185m 1070 981 1025 1042 Phosphorus ppm ASTM D5185m 1150 940 1042 1014 Zinc ppm ASTM D5185m 1270 1122 1221 1200 Sulfur ppm ASTM D5185m 2060 3019 2941 2886 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >25 42 11 3 Sodium ppm ASTM D5185m >25 422 11 3 Sodium ppm ASTM D5185m >20 2335 429 4 Potassium ppm ASTM D5185m >20 23 3 0 INFRA-RED method limit/base current history1 history1 Soot % % *ASTM D7844 >4 0.3 0.2 0.4 Nitration Abs/cm *ASTM D7624	Barium	ppm	ASTM D5185m	0	0	21 0	1 0
Phosphorus ppm ASTM D5185m 1150 940 1042 1014 Zinc ppm ASTM D5185m 1270 1122 1221 1200 Sulfur ppm ASTM D5185m 2060 3019 2941 2886 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >25 42 11 3 Sodium ppm ASTM D5185m >20 2035 429 4 Potassium ppm ASTM D5185m >20 233 3 0 Glycol % *ASTM D2982 NEG NEG NEG NEG INFRA-RED method limit/base current history1 history1 Soot % % *ASTM D7844 >4 0.3 0.2 0.4 Nitration Abs/cm *ASTM D7624 >20 12.4 7.0 8.0	Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m	0 60	0 140	21 0 73	1 0 59
Zinc ppm ASTM D5185m 1270 1122 1221 1200 Sulfur ppm ASTM D5185m 2060 3019 2941 2886 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >25 42 11 3 Sodium ppm ASTM D5185m >25 42 11 3 Potassium ppm ASTM D5185m >20 233 3 0 Glycol % *ASTM D2982 NEG NEG NEG NEG Soot % % *ASTM D7844 >4 0.3 0.2 0.4 Nitration Abs/cm *ASTM D7624 >20 12.4 7.0 8.0	Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0 60 0	0 140 1	21 0 73 <1	1 0 59 <1
Sulfur ppm ASTM D5185m 2060 3019 2941 2886 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >25 42 11 3 Sodium ppm ASTM D5185m >25 42 11 3 Potassium ppm ASTM D5185m >20 233 3 0 Glycol % *ASTM D2982 NEG NEG NEG INFRA-RED method limit/base current history1 history1 Soot % % *ASTM D7844 >4 0.3 0.2 0.4 Nitration Abs/cm *ASTM D7624 >20 12.4 7.0 8.0	Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 60 0 1010	0 140 1 804	21 0 73 <1 909	1 0 59 <1 910
CONTAMINANTSmethodlimit/basecurrenthistory1history1SiliconppmASTM D5185m>2542113SodiumppmASTM D5185m>2020354294PotassiumppmASTM D5185m>202330Glycol%*ASTM D2982NEGNEGNEGINFRA-REDmethodlimit/basecurrenthistory1history1Soot %%*ASTM D7844>40.30.20.4NitrationAbs/cm*ASTM D7624>2012.47.08.0	Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 60 0 1010 1070	0 140 1 804 981	21 0 73 <1 909 1025	1 0 59 <1 910 1042
Silicon ppm ASTM D5185m >25 42 11 3 Sodium ppm ASTM D5185m >20 2035 429 4 Potassium ppm ASTM D5185m >20 23 3 0 Glycol % *ASTM D2982 MEG NEG NEG INFRA-RED method limit/base current history1 history1 Soot % % *ASTM D7844 >4 0.3 0.2 0.4 Nitration Abs/cm *ASTM D7624 >20 12.4 7.0 8.0	Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 60 0 1010 1070 1150	0 140 1 804 981 940	21 0 73 <1 909 1025 1042	1 0 59 <1 910 1042 1014
Sodium ppm ASTM D5185m 2035 429 4 Potassium ppm ASTM D5185m >20 23 3 0 Glycol % *ASTM D2982 NEG NEG NEG INFRA-RED method limit/base current history1 history1 Soot % % *ASTM D7844 >4 0.3 0.2 0.4 Nitration Abs/cm *ASTM D7624 >20 12.4 7.0 8.0	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 60 0 1010 1070 1150 1270	0 140 1 804 981 940 1122	21 0 73 <1 909 1025 1042 1221	1 0 59 <1 910 1042 1014 1200
Potassium ppm ASTM D5185m >20 ▲ 23 3 0 Glycol % *ASTM D2982 ▲ 20 ▲ EG NEG NEG NEG INFRA-RED method limit/base current history1 history1 history1 Soot % % *ASTM D7844 >4 0.3 0.2 0.4 Nitration Abs/cm *ASTM D7624 >20 12.4 7.0 8.0	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 60 0 1010 1070 1150 1270 2060	0 140 1 804 981 940 1122 3019	21 0 73 <1 909 1025 1042 1221 2941	1 0 59 <1 910 1042 1014 1200
Glycol%*ASTM D2982NEGNEGINFRA-REDmethodlimit/basecurrenthistory1history1Soot %%*ASTM D7844>40.30.20.4NitrationAbs/cm*ASTM D7624>2012.47.08.0	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 60 0 1010 1070 1150 1270 2060 limit/base	0 140 1 804 981 940 1122 3019 current	21 0 73 <1 909 1025 1042 1221 2941 history1	1 0 59 <1 910 1042 1014 1200 2886 history2
INFRA-REDmethodlimit/basecurrenthistory1history1Soot %%*ASTM D7844>40.30.20.4NitrationAbs/cm*ASTM D7624>2012.47.08.0	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 60 0 1010 1070 1150 1270 2060 limit/base	0 140 1 804 981 940 1122 3019 current ▲ 42	21 0 73 <1 909 1025 1042 1221 2941 history1 11	1 0 59 <1 910 1042 1014 1200 2886 history2 3
Soot % % *ASTM D7844 >4 0.3 0.2 0.4 Nitration Abs/cm *ASTM D7624 >20 12.4 7.0 8.0	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	0 60 0 1010 1070 1150 1270 2060 limit/base >25	0 140 1 804 981 940 1122 3019 current ▲ 42 ▲ 2035	21 0 73 <1 909 1025 1042 1221 2941 history1 11 ▲ 429	1 0 59 <1 910 1042 1014 1200 2886 history2 3 4
Nitration Abs/cm *ASTM D7624 >20 12.4 7.0 8.0	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 60 0 1010 1070 1150 1270 2060 limit/base >25	0 140 1 804 981 940 1122 3019 current ▲ 42 2035 ▲ 23	21 0 73 <1 909 1025 1042 1221 2941 history1 11 ▲ 429 3	1 0 59 <1 910 1042 1014 1200 2886 history2 3 4 0
	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Glycol	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D2982	0 60 0 1010 1070 1150 1270 2060 limit/base >25 >20	0 140 1 804 981 940 1122 3019 current ▲ 42 ▲ 2035 ▲ 23 NEG	21 0 73 <1 909 1025 1042 1221 2941 history1 11 ▲ 429 3 NEG	1 0 59 <1 910 1042 1014 1200 2886 history2 3 4 0
Sulfation Abs/.1mm *ASTM D7415 >30 18.7 18.6 18.7	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Glycol INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D2982	0 60 0 1010 1070 1150 1270 2060 limit/base >25 >20 limit/base	0 140 1 804 981 940 1122 3019 current ▲ 42 ▲ 2035 ▲ 23 NEG current	21 0 73 <1 909 1025 1042 1221 2941 history1 11 429 3 NEG history1	1 0 59 <1 910 1042 1014 1200 2886 history2 3 4 0 NEG history2
	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Glycol INFRA-RED Soot %	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 D5185m *ASTM D2982 method *ASTM D7844	0 60 0 1010 1070 1150 1270 2060 limit/base >25 >20 limit/base >4	0 140 1 804 981 940 1122 3019 current ▲ 42 ▲ 2035 ▲ 23 NEG current 0.3	21 0 73 <1 909 1025 1042 1221 2941 history1 11 429 3 NEG history1 0.2	1 0 59 <1 910 1042 1014 1200 2886 history2 3 4 0 NEG history2 0.4
FLUID DEGRADATION method limit/base current history1 history	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration	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 D2982 *ASTM D2982 *ASTM D7844 *ASTM D7844	0 60 0 1010 1070 1150 1270 2060 limit/base >25 >20 limit/base >4 >20	0 140 1 804 981 940 1122 3019 current ▲ 42 ▲ 2035 ▲ 23 NEG current 0.3 12.4	21 0 73 <1 909 1025 1042 1221 2941 history1 11 ▲ 429 3 NEG NEG history1 0.2 7.0	1 0 59 <1 910 1042 1014 1200 2886 history2 3 4 0 NEG NEG 0.4 8.0
Oxidation Abs/.1mm *ASTM D7414 >25 15.4 14.8 15.4	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Glycol 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 D2982 *ASTM D2982 *ASTM D7844 *ASTM D7844 *ASTM D7844	0 60 0 1010 1070 1150 1270 2060 imit/base >25 >20 imit/base >20 imit/base >4 >20 >30	0 140 1 804 981 940 1122 3019 Current ▲ 42 ▲ 2035 ▲ 23 NEG Current 0.3 12.4 18.7	21 0 73 <1 909 1025 1042 1221 2941 history1 11 ↓ 429 3 NEG NEG history1 0.2 7.0 18.6	1 0 59 <1 910 1042 1014 1200 2886 history2 3 4 0 NEG NEG 0.4 8.0
Base Number (BN) mg KOH/g ASTM D2896 9.8 20.0 9.8 7.5	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Glycol 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 D2982 *ASTM D2982 *ASTM D7844 *ASTM D7844 *ASTM D7415	0 60 0 1010 1070 1150 1270 2060 limit/base >25 	0 140 1 804 981 940 1122 3019 current ▲ 42 ▲ 2035 ▲ 23 NEG current 0.3 12.4 18.7 current	21 0 73 <1 909 1025 1042 1221 2941 11 ▲ 429 3 NEG NEG NEG 0.2 7.0 18.6	1 0 59 <1 910 1042 1014 1200 2886 history2 3 4 0 NEG history2 0.4 8.0 18.7 history2



Jun1/23

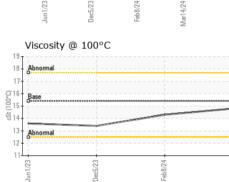
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OIL ANALYSIS REPORT

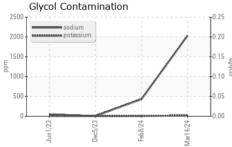




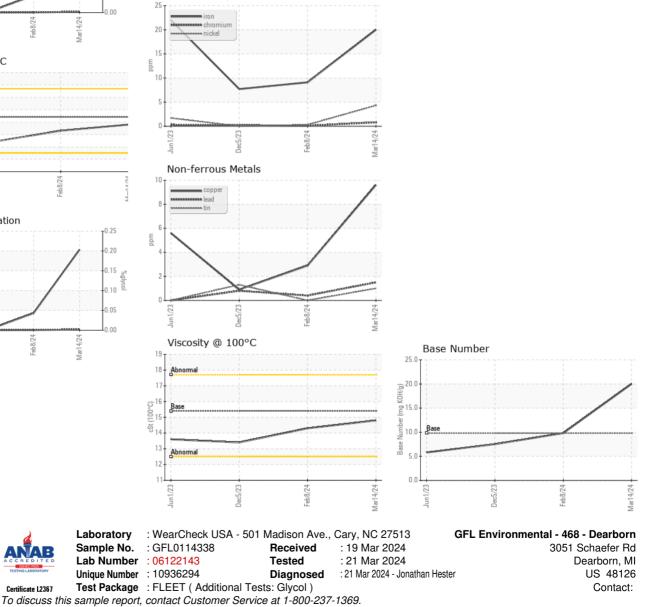
lec5/73



eh8/74



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	ERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	14.8	14.3	13.4
GRAPHS						
Ferrous Alloys						



^{* -} 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)

Certificate L2367

Submitted By: seel also GFL468 - Laura Wilson

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