

OIL ANALYSIS REPORT





Machine Id 830012

Component Diesel Engine

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

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

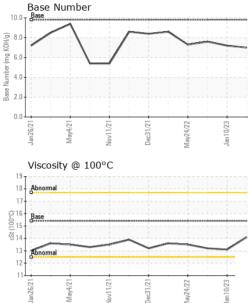
Fluid Condition

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

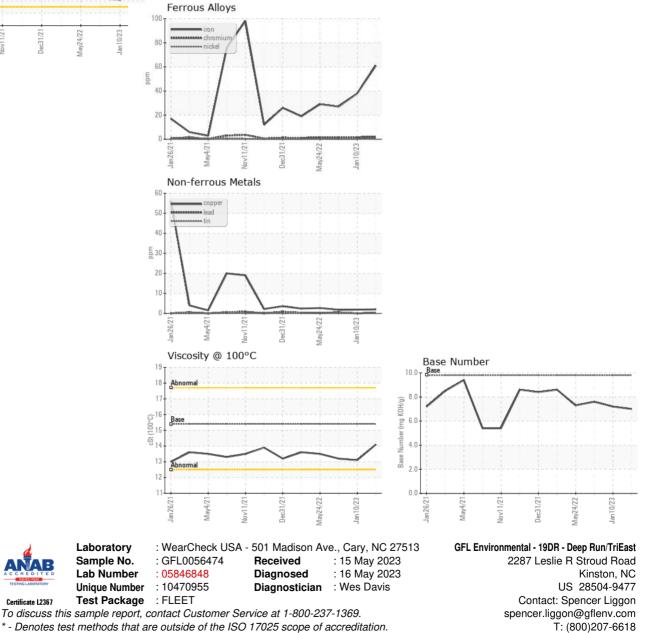
Sample Number Client Info GFL056474 GFL056585 GFL058584 Sample Date Client Info 99 May 2023 10 Jan 2023 19 Aug 2022 Machine Age hrs Client Info 4992 4992 4992 Oil Age hrs Client Info NA Changed Changed Sample Status I Imit/Dase current history 1 history 2 Fuel WC Method >5 <1.0 <1.0 <1.0 Glycol WC Method >50 <1.0 <1.0 <1.0 Ref WC Method >20 2 1 Northol Nickel ppm ASTM 05185m >100 61 38 27 Chromium ppm ASTM 05185m >20 2 2 1 Nickel ppm ASTM 05185m >3 0 0 1 Silver ppm ASTM 05185m >3 0 0 1 Auminum ppm	SAMPLE INFORM	MATION	method	limit/base	current	history 1	history 2
Machine Age hrs Client Info 4992 4992 4992 Oil Age hrs Client Info M92 611 603 Oil Changed Client Info N/A Changed Changed Sample Status Imit/Dase current history 1 history 2 Fuel WC Method >5 <1.0 <1.0 <1.0 Glycol W WC Method >5 <1.0 <1.0 <1.0 Glycol W WC Method >5 <1.0 <1.0 <1.0 Glycol W W Method >5 <1.0 <1.0 <1.0 Glycol W W Method >5 <1.0 <1.0 <1.0 Silver ppm ASTM D5185m >20 2 2 1 Nickel ppm ASTM D5185m >30 0 <1 <1 Aluminum ppm ASTM D5185m >30 2 2 2 1 Auminum ppm ASTM D5185m >30	Sample Number		Client Info		GFL0056474	GFL0058558	GFL0058544
Oil Age hrs Client Info 4992 611 603 Oil Changed Client Info N/A Changed Changed Sample Status Imathematical Control NORMAL NORMAL NORMAL CONTAMINATION method Imit/base current history 1 history 2 Fuel WC Method 55 <1.0 <1.0 <1.0 Glycol WC Method 55 <1.0 <1.0 <1.0 Glycol WC Method Status NEG NEG NEG VEAR METALS method Imit/base current history 1 history 2 Iron ppm ASTM D5185m >20 2 2 1 Nickel ppm ASTM D5185m >3 0 <1 2 Lead ppm ASTM D5185m >30 2 2 2 Tin ppm ASTM D5185m >30 2 2 2 Chopper ppm ASTM D51	Sample Date		Client Info		09 May 2023	10 Jan 2023	19 Aug 2022
Oil Changed Sample StatusClient InfoN/AChanged NORMALChanged NORMALChanged NORMALChanged NORMALCONTAMINATIONmethodlimit/basecurrenthistory 1history 2FuelWC Method>5<1.0<1.0<1.0GlycolWC Method>5<1.0<1.0<1.0WEAR METALSmethodlimit/basecurrenthistory 1history 2IronppmASTM D5185m>100613827ChromiumppmASTM D5185m>20221NickelppmASTM D5185m>20432LeadppmASTM D5185m>3300<1CopperppmASTM D5185m>20432LeadppmASTM D5185m>3302222TinppmASTM D5185m>3302222TinppmASTM D5185m>15<1<10QopperppmASTM D5185m0387GadiumppmASTM D5185m0387BoronppmASTM D5185m0210MolybdenumppmASTM D5185m10101013894857CalaciumppmASTM D5185m10101133894857CalaciumppmASTM D5185m1270133512181161Suffur	Machine Age	hrs	Client Info		4992	4992	4992
Sample Status Image: More Mail More Market More Mark	Oil Age	hrs	Client Info		4992	611	603
CONTAMINATION method limit/base current history 1 history 2 Fuel WC Method >5 <1.0 <1.0 <1.0 Glycol WC Method >5 <1.0 <1.0 <1.0 WEAR METALS method limit/base current history 1 history 2 Iron ppm ASTM D5185m >100 61 38 27 Chromium ppm ASTM D5185m >20 2 2 1 Nickel ppm ASTM D5185m >20 2 2 1 Nickel ppm ASTM D5185m >20 4 3 2 Lead ppm ASTM D5185m >20 4 3 2 Lead ppm ASTM D5185m >40 0 0 0 Cadmium ppm ASTM D5185m >15 <1 <1 0 Vanadium ppm ASTM D5185m 0 3 8 7	Oil Changed		Client Info		N/A	Changed	Changed
Fuel WC Method >5 <1.0	Sample Status				NORMAL	NORMAL	NORMAL
Glycol WC Method NEG NEG NEG WEAR METALS method limit/base current history 1 history 2 Iron ppm ASTM D5185m >100 61 38 27 Chromium ppm ASTM D5185m >20 2 2 1 Nickel ppm ASTM D5185m >20 2 2 1 Nickel ppm ASTM D5185m >3 0 0 0 Silver ppm ASTM D5185m >30 2 2 2 Lead ppm ASTM D5185m >300 2 2 2 Tin ppm ASTM D5185m >330 2 2 2 Gopper ppm ASTM D5185m 0 3 8 7 Cadmium ppm ASTM D5185m 0 3 8 7 Boron ppm ASTM D5185m 0 3 8 7 Barium<	CONTAMINATI	ION	method	limit/base	current	history 1	history 2
WEAR METALS method limit/base current history 1 history 2 Iron ppm ASTM D5185m >100 61 38 27 Chromium ppm ASTM D5185m >20 2 2 1 Nickel ppm ASTM D5185m >4 <1 <1 0 Titanium ppm ASTM D5185m >4 <1 <1 0 Aluminum ppm ASTM D5185m >40 <1 0 <1 Copper ppm ASTM D5185m >20 4 3 2 Lead ppm ASTM D5185m >40 <1 0 <1 Copper ppm ASTM D5185m 0 0 0 0 Vanadium ppm ASTM D5185m 0 3 8 7 Baron ppm ASTM D5185m 0 2 1 0 Molybdenum ppm ASTM D5185m 0 2 1	Fuel		WC Method	>5	<1.0	<1.0	<1.0
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Nickel ppm ASTM D5185m >4 <1	Iron	ppm	ASTM D5185m	>100	61	38	27
Nickel ppm ASTM D5185m >4 <1	Chromium		ASTM D5185m	>20	2	2	1
Titanium ppm ASTM D5185m 0 0 0 0 Silver ppm ASTM D5185m >3 0 0 <1 Aluminum ppm ASTM D5185m >20 4 3 2 Lead ppm ASTM D5185m >40 <1 0 <1 Copper ppm ASTM D5185m >330 2 2 2 Tin ppm ASTM D5185m >15 <1 <1 0 Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 3 8 7 Boron ppm ASTM D5185m 0 2 1 0 Molybdenum ppm ASTM D5185m 0 2 1 0 Magnesium ppm ASTM D5185m 0 <1 <1 <1 Magnesium ppm ASTM D5185m 1010 1013 894	Nickel		ASTM D5185m	>4	<1	<1	0
Silver ppm ASTM D5185m >3 0 0 <1	Titanium		ASTM D5185m		0	0	0
Aluminum ppm ASTM D5185m >20 4 3 2 Lead ppm ASTM D5185m >40 <1 0 <1 Copper ppm ASTM D5185m >330 2 2 2 Tin ppm ASTM D5185m >15 <1 <1 0 Vanadium ppm ASTM D5185m >15 <1 <1 0 Vanadium ppm ASTM D5185m >15 <1 <1 0 Cadmium ppm ASTM D5185m 0 0 0 0 ADDITIVES method Imit/base current history 1 history 2 Boron ppm ASTM D5185m 0 3 8 7 Barium ppm ASTM D5185m 0 <1 <1 0 Molybdenum ppm ASTM D5185m 0 <11 <1 <1 <1 Magnesium ppm ASTM D5185m 1070 1233 </th <th>Silver</th> <th></th> <th>ASTM D5185m</th> <th>>3</th> <th>0</th> <th>0</th> <th><1</th>	Silver		ASTM D5185m	>3	0	0	<1
Lead ppm ASTM D5185m >40 <1	Aluminum					3	
Copper ppm ASTM D5185m >330 2 2 2 Tin ppm ASTM D5185m >15 <1 <1 0 Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 3 8 7 Boron ppm ASTM D5185m 0 3 8 7 Barium ppm ASTM D5185m 0 3 8 7 Barium ppm ASTM D5185m 0 2 1 0 Molybdenum ppm ASTM D5185m 0 2 1 0 Magnesium ppm ASTM D5185m 0 <1 <1 <1 Magnesium ppm ASTM D5185m 1010 1013 894 857 Calcium ppm ASTM D5185m 1070 1233 1174 1108 Phosphorus ppm ASTM D5185m 2060 2920	Lead		ASTM D5185m	>40	<1	0	<1
Tin ppm ASTM D5185m >15 <1							
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ADDITIVES method limit/base current history 1 history 2 Boron ppm ASTM D5185m 0 3 8 7 Barium ppm ASTM D5185m 0 2 1 0 Molybdenum ppm ASTM D5185m 60 69 67 60 Manganese ppm ASTM D5185m 0 <1 <1 <1 Magnesium ppm ASTM D5185m 1010 1013 894 857 Calcium ppm ASTM D5185m 1070 1233 1174 1108 Phosphorus ppm ASTM D5185m 1270 1335 1218 1161 Sulfur ppm ASTM D5185m 2060 2920 2964 2749 CONTAMINANTS method limit/base current history 1 history 2 Silicon ppm ASTM D5185m >25 6 6 5 Sodium ppm ASTM D5185m 2							
Boron ppm ASTM D5185m 0 3 8 7 Barium ppm ASTM D5185m 0 2 1 0 Molybdenum ppm ASTM D5185m 60 69 67 60 Manganese ppm ASTM D5185m 0 <1 <1 <1 Magnesium ppm ASTM D5185m 0 <1 <1 <1 <1 Magnesium ppm ASTM D5185m 1010 1013 894 857 Calcium ppm ASTM D5185m 1070 1233 1174 1108 Phosphorus ppm ASTM D5185m 1270 1335 1218 1161 Sulfur ppm ASTM D5185m 2060 2920 2964 2749 CONTAMINANTS method limit/base current history 1 history 2 Silicon ppm ASTM D5185m >25 6 6 5 5 Sodium ppm ASTM D		1.1			•		
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Molybdenum ppm ASTM D5185m 60 69 67 60 Manganese ppm ASTM D5185m 0 <1 <1 <1 Magnesium ppm ASTM D5185m 1010 1013 894 857 Calcium ppm ASTM D5185m 1010 1013 894 857 Calcium ppm ASTM D5185m 1070 1233 1174 1108 Phosphorus ppm ASTM D5185m 1150 1115 991 912 Zinc ppm ASTM D5185m 1270 1335 1218 1161 Sulfur ppm ASTM D5185m 2060 2920 2964 2749 CONTAMINANTS method limit/base current history 1 history 2 Silicon ppm ASTM D5185m >20 1 <1 <1 Potassium ppm ASTM D5185m >20 1 <1 <1 INFRA-RED method lim		ppm					
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Magnesium ppm ASTM D5185m 1010 1013 894 857 Calcium ppm ASTM D5185m 1070 1233 1174 1108 Phosphorus ppm ASTM D5185m 1070 1233 1174 1108 Phosphorus ppm ASTM D5185m 1150 1115 991 912 Zinc ppm ASTM D5185m 1270 1335 1218 1161 Sulfur ppm ASTM D5185m 2060 2920 2964 2749 CONTAMINANTS method limit/base current history 1 history 2 Silicon ppm ASTM D5185m >25 6 6 5 Sodium ppm ASTM D5185m >20 1 <1 <1 Potassium ppm ASTM D5185m >20 1 <1 <1 INFRA-RED method limit/base current history 1 history 2 Soot % % 'ASTM D784	Boron Barium	ppm	ASTM D5185m ASTM D5185m	0	3 2	8 1	7 0
Calcium ppm ASTM D5185m 1070 1233 1174 1108 Phosphorus ppm ASTM D5185m 1150 1115 991 912 Zinc ppm ASTM D5185m 1270 1335 1218 1161 Sulfur ppm ASTM D5185m 2060 2920 2964 2749 CONTAMINANTS method limit/base current history 1 history 2 Silicon ppm ASTM D5185m >25 6 6 5 Sodium ppm ASTM D5185m >20 1 <1 <1 Potassium ppm ASTM D5185m >20 1 <1 <1 INFRA-RED method limit/base current history 1 history 2 Soot % % *ASTM D7844 >3 0.9 0.9 1 Nitration Abs/cm *ASTM D7624 >20 11.6 11.2 12.4 Sulfation Abs/.1mm *ASTM D74	Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60	3 2 69	8 1 67	7 0 60
Phosphorus ppm ASTM D5185m 1150 1115 991 912 Zinc ppm ASTM D5185m 1270 1335 1218 1161 Sulfur ppm ASTM D5185m 2060 2920 2964 2749 CONTAMINANTS method limit/base current history 1 history 2 Silicon ppm ASTM D5185m >25 6 6 5 Sodium ppm ASTM D5185m >25 6 6 5 Sodium ppm ASTM D5185m >20 1 <1	Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0	3 2 69 <1	8 1 67 <1	7 0 60 <1
Zinc ppm ASTM D5185m 1270 1335 1218 1161 Sulfur ppm ASTM D5185m 2060 2920 2964 2749 CONTAMINANTS method limit/base current history 1 history 2 Silicon ppm ASTM D5185m >25 6 6 5 Sodium ppm ASTM D5185m >20 1 <1 <1 Potassium ppm ASTM D5185m >20 1 <1 <1 INFRA-RED method limit/base current history 1 history 2 Soot % % *ASTM D7844 >3 0.9 0.9 1 Nitration Abs/cm *ASTM D7624 >20 11.6 11.2 12.4 Sulfation Abs/.imm *ASTM D7415 >30 25.2 21.8 23.8	Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010	3 2 69 <1 1013	8 1 67 <1 894	7 0 60 <1 857
Sulfur ppm ASTM D5185m 2060 2920 2964 2749 CONTAMINANTS method limit/base current history 1 history 2 Silicon ppm ASTM D5185m >25 6 6 5 Sodium ppm ASTM D5185m >20 1 <1	Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010 1070	3 2 69 <1 1013 1233	8 1 67 <1 894 1174	7 0 60 <1 857 1108
CONTAMINANTS method limit/base current history 1 history 2 Silicon ppm ASTM D5185m >25 6 6 5 Sodium ppm ASTM D5185m >25 6 6 5 Potassium ppm ASTM D5185m >20 1 <1 <1 INFRA-RED method limit/base current history 1 history 2 Soot % % *ASTM D7844 >3 0.9 0.9 1 Nitration Abs/cm *ASTM D7624 >20 11.6 11.2 12.4 Sulfation Abs/.1mm *ASTM D7415 >30 25.2 21.8 23.8	Boron 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 0 60 0 1010 1070 1150	3 2 69 <1 1013 1233 1115	8 1 67 <1 894 1174 991	7 0 60 <1 857 1108 912
Silicon ppm ASTM D5185m >25 6 6 5 Sodium ppm ASTM D5185m >20 5 2 <1	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm 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 1270	3 2 69 <1 1013 1233 1115 1335	8 1 67 <1 894 1174 991 1218	7 0 60 <1 857 1108 912 1161
Sodium ppm ASTM D5185m 5 2 <1	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 2060	3 2 69 <1 1013 1233 1115 1335 2920	8 1 67 <1 894 1174 991 1218 2964	7 0 60 <1 857 1108 912 1161 2749
Potassium ppm ASTM D5185m >20 1 <1	Boron 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 ASTM D5185m ASTM D5185m	0 0 60 1010 1070 1150 1270 2060	3 2 69 <1 1013 1233 1115 1335 2920 current	8 1 67 <1 894 1174 991 1218 2964 history 1	7 0 60 <1 857 1108 912 1161 2749 history 2
INFRA-RED method limit/base current history 1 history 2 Soot % % *ASTM D7844 >3 0.9 0.9 1 Nitration Abs/cm *ASTM D7624 >20 11.6 11.2 12.4 Sulfation Abs/.1mm *ASTM D7415 >30 25.2 21.8 23.8	Boron 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 ASTM D5185m method	0 0 60 1010 1070 1150 1270 2060	3 2 69 <1 1013 1233 1115 1335 2920 current 6	8 1 67 <1 894 1174 991 1218 2964 history 1 6	7 0 60 <1 857 1108 912 1161 2749 history 2 5
Soot % % *ASTM D7844 >3 0.9 0.9 1 Nitration Abs/cm *ASTM D7624 >20 11.6 11.2 12.4 Sulfation Abs/.1mm *ASTM D7415 >30 25.2 21.8 23.8	Boron 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 ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 1010 1070 1150 1270 2060 kimit/base >25	3 2 69 <1 1013 1233 1115 1335 2920 current 6 5	8 1 67 <1 894 1174 991 1218 2964 history 1 6 2	7 0 60 <1 857 1108 912 1161 2749 history 2 5 <
Nitration Abs/cm *ASTM D7624 >20 11.6 11.2 12.4 Sulfation Abs/.1mm *ASTM D7415 >30 25.2 21.8 23.8	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 limit/base >25	3 2 69 <1 1013 1233 1115 1335 2920 current 6 5 1	8 1 67 <1 894 1174 991 1218 2964 history 1 6 2 2 <1	7 0 60 <1 857 1108 912 1161 2749 history 2 5 <1 <1
Sulfation Abs/.1mm *ASTM D7415 >30 25.2 21.8 23.8	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 ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 limit/base >25	3 2 69 <1 1013 1233 1115 1335 2920 current 6 5 1 1	8 1 67 <1 894 1174 991 1218 2964 history 1 6 2 <1 kistory 1	7 0 60 <1 857 1108 912 1161 2749 history 2 5 <1 <1 <1 <1
	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 2060 225 >25 >20 limit/base >20	3 2 69 <1 1013 1233 1115 1335 2920 current 6 5 1 1 current 0.9	8 1 67 <1 894 1174 991 1218 2964 history 1 6 2 <1 history 1 0.9	7 0 60 <1 857 1108 912 1161 2749 history 2 5 <1 <1 <1 <1 history 2 1
FLUID DEGRADATION method limit/base current history 1 history 2	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 TS ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 <i>limit/base</i> >25 >20 <i>limit/base</i> >3 >20	3 2 69 <1 1013 1233 1115 1335 2920 current 6 5 1 current 0.9 11.6	8 1 67 <1 894 1174 991 1218 2964 history 1 6 2 <1 history 1 0.9 11.2	7 0 60 <1 857 1108 912 1161 2749 history 2 5 <1 <1 <1 <1 history 2 1 12.4
	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 ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 <i>limit/base</i> >25 >20 <i>limit/base</i> >3 >20	3 2 69 <1 1013 1233 1115 1335 2920 current 6 5 1 current 0.9 11.6	8 1 67 <1 894 1174 991 1218 2964 history 1 6 2 <1 history 1 0.9 11.2	7 0 60 <1 857 1108 912 1161 2749 history 2 5 <1 <1 <1 <1 history 2 1 12.4
Oxidation Abs/.1mm *ASTM D7414 >25 22.7 18.1 20.3	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 ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 imit/base >25 imit/base >3 >20	3 2 69 <1 1013 1233 1115 1335 2920 current 6 5 1 current 0.9 11.6 25.2	8 1 67 <1 894 1174 991 1218 2964 history 1 6 2 <1 history 1 0.9 11.2 21.8	7 0 60 <1 857 1108 912 1161 2749 history 2 5 <1 <1 <1 <1 history 2 1 12.4 23.8
Base Number (BN) mg KOH/g ASTM D2896 9.8 7.0 7.2 7.6	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 TS ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7844 *ASTM D7624	0 0 0 1010 1070 1150 1270 2060 2060 225 20 220 220 20 3 20 20 3 3 20 20 3 3 20 20 20 20 20 20 20 20 20 20 20 20 20	3 2 69 <1 1013 1233 1115 1335 2920 Current 6 5 1 Current 0.9 11.6 25.2 Current	8 1 67 <1 894 1174 991 1218 2964 history 1 6 2 <1 history 1 0.9 11.2 21.8 history 1	7 0 60 <1 857 1108 912 1161 2749 history 2 5 <1 <1 <1 history 2 1 12.4 23.8 history 2



OIL ANALYSIS REPORT



VISUAL		method	limit/base	current	history 1	history 2
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	history 1	history 2
Visc @ 100°C	cSt	ASTM D445	15.4	14.1	13.1	13.2
GRAPHS						



Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Certificate L2367

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