

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id 624553 Component Diesel Engine Fluid PETRO CANADA DURON SHP 10W30 (--- QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

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.

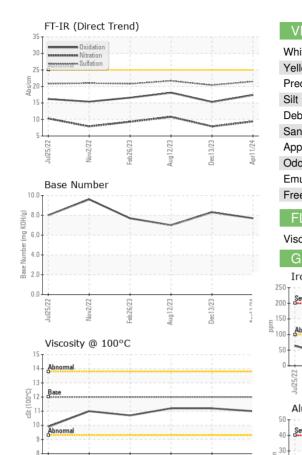
Sample Number Client Info PCA0123936 PCA0113340 PCA0104320 Sample Date Client Info 11 Apr 2024 13 Dec 2023 12 Aug 2023 Machine Age mis Client Info 77551 31383 24740 Oil Age mis Client Info 0 0 0 Oil Age mis Client Info Not Changd Not Changd Changed Sample Status Imathod imit/base current history1 history2 Fuel WC Method >52 <1.0 <1.0 <1.0 Water WC Method >52 <1.0 <1.0 <1.0 Water WC Method >50 30 70 Iron ppm ASTM 05185m<>100 50 30 70 Silver ppm ASTM 05185m<>100 50 30 70 Iron ppm ASTM 05185m<>50 6 4 10 Iron ppm ASTM 05185m >40 1 <th>SAMPLE INFORI</th> <th>MATION</th> <th>method</th> <th>limit/base</th> <th>current</th> <th>history1</th> <th>history2</th>	SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Date Client Info 11 Apr 2024 13 Dec 2023 12 Aug 2023 Machine Age mis Client Info 77551 31383 24740 Oil Age mis Client Info 0 0 0 Oil Changed Client Info Not Changd NorRMAL NORMAL NORMAL CONTAMINATION method limit/base current history1 history2 Fuel WC Method >5.2 <1.0 <1.0 <1.0 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 05165m >100 50 30 70 Silver ppm ASTM 05165m >33 <1 <1 10 Silver ppm ASTM 05165m >330 60 64 240 Titanium	Sample Number		Client Info		PCA0123936	PCA0113340	PCA0104320
Off Age mis Client Info 0 0 0 0 Oil Changed Client Info Not Changd Nor Changd NorRMAL NORMAL Sample Status method limit/base current history1 history2 Fuel WC Method >5 <1.0 <1.0 <1.0 Water WC Method >0 NEG NEG NEG Glycol WC Method >0 20 2 <1 2 Vater method imit/base current history1 history2 Iron ppm ASTM D5185m >100 50 30 70 Thanium ppm ASTM D5185m >4 1 0 1 Itanium ppm ASTM D5185m >3 <1 <1 1 Copper ppm ASTM D5185m >3 <1 0 0 Copper ppm ASTM D5185m >1 0 0 0	Sample Date		Client Info		11 Apr 2024	13 Dec 2023	12 Aug 2023
Oil Changed Sample Status Client Info Not Changd NORMAL Not Changd NORMAL Changed NORMAL Changed NORMAL CONTAMINATION method limit/base current history1 history2 Fuel WC Method >5 <1.0 <1.0 <1.0 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 >20 2 <1 2 Nickel ppm ASTM D5185m >20 2 <1 <1 <1 Auminum ppm ASTM D5185m >20 6 4 100 0 0 Lead ppm ASTM D5185m >20 6 4 10 0 0 Copper ppm ASTM D5185m >15 4 2 11 2 12 12<	Machine Age	mls	Client Info		77551	31383	24740
Sample Status NORMAL NORMAL NORMAL NORMAL CONTAMINATION method limit/base current. history1 history2 Fuel WC Method >5 <1.0 <1.0 <1.0 Water WC Method >0.2 NEG NEG NEG Glycol WC Method NEG NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >100 50 30 70 Chromium ppm ASTM D5185m >20 2 <1 2 Nickel ppm ASTM D5185m >3 <1 0 0 Lead ppm ASTM D5185m >20 6 4 10 Lead ppm ASTM D5185m >30 80 64 240 Tin ppm ASTM D5185m >1 0 0 0 Vanadium ppm<	Oil Age	mls	Client Info		0	0	0
Sample Status NORMAL NORMAL NORMAL NORMAL CONTAMINATION method limit/base current. history1 history2 Fuel WC Method >5 <1.0 <1.0 <1.0 Water WC Method >0.2 NEG NEG NEG Glycol WC Method NEG NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >100 50 30 70 Chromium ppm ASTM D5185m >20 2 <1 2 Nickel ppm ASTM D5185m >3 <1 0 0 Lead ppm ASTM D5185m >20 6 4 10 Lead ppm ASTM D5185m >30 80 64 240 Tin ppm ASTM D5185m >1 0 0 0 Vanadium ppm<	Oil Changed		Client Info		Not Changd	Not Changd	Changed
Fuel WC Method >5 <1.0	-				-	-	
Water WC Method >0.2 NEG NEG NEG NEG NEG Glycol WC Method Imit/base current history1 history2 Iron ppm ASTM D5185m >100 50 30 70 Chromium ppm ASTM D5185m >20 2 <1 2 Nickel ppm ASTM D5185m >20 6 4 10 Silver ppm ASTM D5185m >3 <1 <1 0 0 Copper ppm ASTM D5185m >20 6 4 10 Lead ppm ASTM D5185m >20 6 4 10 Copper ppm ASTM D5185m >20 6 4 240 Tin ppm ASTM D5185m >30 80 64 240 Tin ppm ASTM D5185m < 1 0 0 0 Cadatium ppm ASTM D5185m	CONTAMINAT	ION	method	limit/base	current	history1	history2
Glycol WC Method NEG NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >100 50 30 70 Chromium ppm ASTM D5185m >20 2 <1 2 Nickel ppm ASTM D5185m >4 1 0 1 Titanium ppm ASTM D5185m >20 6 4 10 Lead ppm ASTM D5185m >20 6 4 10 Lead ppm ASTM D5185m >20 6 4 10 Lead ppm ASTM D5185m >20 6 4 240 Tin ppm ASTM D5185m >15 4 2 11 Vanadium ppm ASTM D5185m < 17 22 18 Barium ppm ASTM D5185m 0 1 <1 2 <th>Fuel</th> <th></th> <th>WC Method</th> <th>>5</th> <th><1.0</th> <th><1.0</th> <th><1.0</th>	Fuel		WC Method	>5	<1.0	<1.0	<1.0
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >100 50 30 70 Chromium ppm ASTM D5185m >20 2 <1 2 Nickel ppm ASTM D5185m >20 2 <1 0 1 Titanium ppm ASTM D5185m >3 <1 <1 <1 <1 Aluminum ppm ASTM D5185m >20 6 4 10 0 0 Coper ppm ASTM D5185m >20 6 4 10 0 0 Coper ppm ASTM D5185m >20 6 4 10 0	Water		WC Method	>0.2	NEG	NEG	NEG
Iron ppm ASTM D5185m >100 50 30 70 Chromium ppm ASTM D5185m >20 2 <1 2 Nickel ppm ASTM D5185m >4 1 0 1 Titanium ppm ASTM D5185m >3 <1 <1 <1 Aluminum ppm ASTM D5185m >30 6 4 10 Lead ppm ASTM D5185m >40 <1 0 0 Copper ppm ASTM D5185m >330 80 644 2400 Tin ppm ASTM D5185m >15 4 2 11 Vanadium ppm ASTM D5185m >15 4 2 11 Vanadium ppm ASTM D5185m >15 4 2 11 Vanadium ppm ASTM D5185m 2 17 22 18 Barium ppm ASTM D5185m 2 17 21 <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 2 <1	WEAR METAL	S	method	limit/base	current	history1	history2
Nickel ppm ASTM D5185m >4 1 0 1 Titanium ppm ASTM D5185m >3 <1 <1 0 0 Silver ppm ASTM D5185m >3 <1 <1 <1 Aluminum ppm ASTM D5185m >20 6 4 10 Lead ppm ASTM D5185m >330 80 64 240 Tin ppm ASTM D5185m >330 80 64 240 Copper ppm ASTM D5185m >330 80 64 240 Tin ppm ASTM D5185m >15 4 2 11 Vanadium ppm ASTM D5185m <1 0 0 0 Cadmium ppm ASTM D5185m 2 17 22 18 Barium ppm ASTM D5185m 50 68 65 59 Magnesium ppm ASTM D5185m 1050 1223	Iron	ppm	ASTM D5185m	>100	50	30	70
Nickel ppm ASTM D5185m >4 1 0 1 Titanium ppm ASTM D5185m >3 <1 <1 <1 Silver ppm ASTM D5185m >3 <1 <1 <1 Aluminum ppm ASTM D5185m >20 6 4 10 Lead ppm ASTM D5185m >20 6 4 20 Copper ppm ASTM D5185m >330 80 644 240 Tin ppm ASTM D5185m >15 4 2 11 Vanadium ppm ASTM D5185m <1 0 0 Cadmium ppm ASTM D5185m <17 22 18 Barium ppm ASTM D5185m 0 0 0 0 Molybelenum ppm ASTM D5185m 50 68 65 59 Magnesium ppm ASTM D5185m 0 1 <120 200	Chromium		ASTM D5185m	>20	2	<1	2
Titanium ppm ASTM D5185m <1	Nickel		ASTM D5185m	>4	1	0	1
Silver ppm ASTM D5185m >3 <1	Titanium	ppm	ASTM D5185m		<1	0	0
Aluminum ppm ASTM D5185m >20 6 4 10 Lead ppm ASTM D5185m >40 <1 0 0 Copper ppm ASTM D5185m >330 80 644 240 Tin ppm ASTM D5185m >15 4 2 11 Vanadium ppm ASTM D5185m <1 0 0 0 Cadmium ppm ASTM D5185m <1 0 0 0 Cadmium ppm ASTM D5185m 2 17 22 18 Baron ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 0 816 868 879 Calcium ppm ASTM D5185m 1050 1223 1219 1200 Phosphorus ppm ASTM D5185m 955 856 1055 931 Zinc ppm ASTM D5185m 2600 2583	Silver		ASTM D5185m	>3	<1	<1	<1
Lead ppm ASTM D5185m >40 <1	Aluminum		ASTM D5185m	>20	6	4	10
Copper ppm ASTM D5185m >330 80 64 240 Tin ppm ASTM D5185m >15 4 2 11 Vanadium ppm ASTM D5185m <1 0 0 Cadmium ppm ASTM D5185m <1 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 2 17 22 18 Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 0 1 <1 2 Magnesium ppm ASTM D5185m 950 816 868 879 Calcium ppm ASTM D5185m 950 856 1055 931 Zinc ppm ASTM D5185m 995 856 1055 931 Zinc ppm ASTM D5185m 2600 2583 282 2837	Lead		ASTM D5185m	>40	<1	0	0
Tin ppm ASTM D5185m >15 4 2 11 Vanadium ppm ASTM D5185m < <1 0 0 Cadmium ppm ASTM D5185m <1 0 0 ADDITIVES method imit/base current history1 history2 Boron ppm ASTM D5185m 2 17 22 18 Barium ppm ASTM D5185m 0 0 0 0 0 Molybdenum ppm ASTM D5185m 50 68 65 59 Magnesium ppm ASTM D5185m 90 816 86 879 Calcium ppm ASTM D5185m 905 856 1055 931 Phosphorus ppm ASTM D5185m 995 856 1055 931 Sulfur ppm ASTM D5185m 925 856 1055 931 Sulfur ppm ASTM D5185m >20	Copper		ASTM D5185m	>330	80	64	240
Vanadium ppm ASTM D5185m <1			ASTM D5185m	>15	4	2	11
Cadmium ppm ASTM D5185m <1	Vanadium		ASTM D5185m		<1	0	0
Boron ppm ASTM D5185m 2 17 22 18 Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 50 68 65 59 Manganese ppm ASTM D5185m 0 1 <1 2 Magnesium ppm ASTM D5185m 950 816 868 879 Calcium ppm ASTM D5185m 950 816 868 879 Calcium ppm ASTM D5185m 950 856 1055 931 Zinc ppm ASTM D5185m 995 856 1055 931 Zinc ppm ASTM D5185m 2600 2583 2882 2837 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 14 6 23 INFRA-RED method limit/base current <th>Cadmium</th> <th></th> <th>ASTM D5185m</th> <th></th> <th><1</th> <th>0</th> <th></th>	Cadmium		ASTM D5185m		<1	0	
Barium ppm ASTM D5185m 0 0 0 0 0 Molybdenum ppm ASTM D5185m 50 68 65 59 Manganese ppm ASTM D5185m 0 1 <1 2 Magnesium ppm ASTM D5185m 950 816 868 879 Calcium ppm ASTM D5185m 1050 1223 1219 1200 Phosphorus ppm ASTM D5185m 995 856 1055 931 Zinc ppm ASTM D5185m 2600 2583 2882 2837 CONTAMINANTS method limit/base current history1 history2 Silicon ppm<	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 50 68 65 59 Manganese ppm ASTM D5185m 0 1 <1 2 Magnesium ppm ASTM D5185m 950 816 868 879 Calcium ppm ASTM D5185m 1050 1223 1219 1200 Phosphorus ppm ASTM D5185m 1050 1223 1219 1200 Phosphorus ppm ASTM D5185m 995 856 1055 931 Zinc ppm ASTM D5185m 1180 1180 1254 1184 Sulfur ppm ASTM D5185m 2600 2583 2882 2837 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 14 6 23 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7624 <th>Boron</th> <th>ppm</th> <th>ASTM D5185m</th> <th>2</th> <th>17</th> <th>22</th> <th>18</th>	Boron	ppm	ASTM D5185m	2	17	22	18
Manganese ppm ASTM D5185m 0 1 <1	Barium	ppm	ASTM D5185m	0	0	0	0
Magnesium ppm ASTM D5185m 950 816 868 879 Calcium ppm ASTM D5185m 1050 1223 1219 1200 Phosphorus ppm ASTM D5185m 1050 1223 1219 1200 Phosphorus ppm ASTM D5185m 995 856 1055 931 Zinc ppm ASTM D5185m 1180 1180 1254 1184 Sulfur ppm ASTM D5185m 2600 2583 2882 2837 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 4 3 4 Sodium ppm ASTM D5185m >20 14 6 23 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 1.2 0.8 1.4 Nitration Abs/(1mm *ASTM D74	Molybdenum	ppm	ASTM D5185m	50	68	65	59
Calcium ppm ASTM D5185m 1050 1223 1219 1200 Phosphorus ppm ASTM D5185m 995 856 1055 931 Zinc ppm ASTM D5185m 995 856 1055 931 Zinc ppm ASTM D5185m 1180 1180 1254 1184 Sulfur ppm ASTM D5185m 2600 2583 2882 2837 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 4 3 4 Sodium ppm ASTM D5185m >20 14 6 23 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 1.2 0.8 1.4 Nitration Abs/cm<*ASTM D7624 >20 9.4 7.9 10.8 Sulfation Abs/s/imm<*ASTM D7415 >30 <	Manganese	ppm	ASTM D5185m	0	1	<1	2
Phosphorus ppm ASTM D5185m 995 856 1055 931 Zinc ppm ASTM D5185m 1180 1180 1254 1184 Sulfur ppm ASTM D5185m 2600 2583 2882 2837 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 4 3 4 Sodium ppm ASTM D5185m >25 4 3 4 Sodium ppm ASTM D5185m >20 14 6 23 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 1.2 0.8 1.4 Nitration Abs/cm *ASTM D7624 >20 9.4 7.9 10.8 Sulfation Abs/.1mm *ASTM D7415 >30 21.5 20.4 21.7 FLUID DEGRADATION method limit/b	Magnesium	ppm	ASTM D5185m	950	816	868	879
Zinc ppm ASTM D5185m 1180 1180 1254 1184 Sulfur ppm ASTM D5185m 2600 2583 2882 2837 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 4 3 4 Sodium ppm ASTM D5185m >25 4 3 4 Sodium ppm ASTM D5185m >20 14 6 23 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844<>3 1.2 0.8 1.4 Nitration Abs/cm *ASTM D7624<>20 9.4 7.9 10.8 Sulfation Abs/.imm *ASTM D7415<>30 21.5 20.4 21.7 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.imm *ASTM D7414<>25 17.4 15.3 <th>Calcium</th> <th>ppm</th> <th>ASTM D5185m</th> <th>1050</th> <th>1223</th> <th>1219</th> <th>1200</th>	Calcium	ppm	ASTM D5185m	1050	1223	1219	1200
Sulfur ppm ASTM D5185m 2600 2583 2882 2837 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 4 3 4 Sodium ppm ASTM D5185m >25 4 3 4 Sodium ppm ASTM D5185m >20 14 6 23 Potassium ppm ASTM D7845 >20 14 6 23 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 1.2 0.8 1.4 Nitration Abs/cm *ASTM D7624 >20 9.4 7.9 10.8 Sulfation Abs/.1mm *ASTM D7415 >30 21.5 20.4 21.7 Cxidation Abs/.1mm *ASTM D7414 >25 17.4 15.3 18.1	Phosphorus						
CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>25434SodiumppmASTM D5185m0<12PotassiumppmASTM D5185m>2014623INFRA-REDmethodlimit/basecurrenthistory1history2Soot %%*ASTM D7844>31.20.81.4NitrationAbs/cm*ASTM D7624>209.47.910.8SulfationAbs/lmm*ASTM D7415>3021.520.421.7FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2OxidationAbs/.1mm*ASTM D7414>2517.415.318.1		ppm	ASTM D5185m	995	856	1055	931
Silicon ppm ASTM D5185m >25 4 3 4 Sodium ppm ASTM D5185m 0 <1	Zinc						
Sodium ppm ASTM D5185m 0 <1		ppm	ASTM D5185m	1180	1180	1254	1184
Potassium ppm ASTM D5185m >20 14 6 23 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 1.2 0.8 1.4 Nitration Abs/cm *ASTM D7624 >20 9.4 7.9 10.8 Sulfation Abs/.1mm *ASTM D7415 >30 21.5 20.4 21.7 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 17.4 15.3 18.1	Sulfur	ppm ppm	ASTM D5185m ASTM D5185m	1180 2600	1180 2583	1254 2882	1184 2837
INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 1.2 0.8 1.4 Nitration Abs/cm *ASTM D7624 >20 9.4 7.9 10.8 Sulfation Abs/.1mm *ASTM D7415 >30 21.5 20.4 21.7 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 17.4 15.3 18.1	Sulfur CONTAMINAN	ppm ppm TS	ASTM D5185m ASTM D5185m method	1180 2600 limit/base	1180 2583 current	1254 2882 history1	1184 2837 history2
Soot % % *ASTM D7844 >3 1.2 0.8 1.4 Nitration Abs/cm *ASTM D7624 >20 9.4 7.9 10.8 Sulfation Abs/.1mm *ASTM D7415 >30 21.5 20.4 21.7 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 17.4 15.3 18.1	Sulfur CONTAMINAN Silicon	ppm ppm TS ppm	ASTM D5185m ASTM D5185m method ASTM D5185m	1180 2600 limit/base	1180 2583 current 4	1254 2882 history1 3	1184 2837 history2 4
Nitration Abs/cm *ASTM D7624 >20 9.4 7.9 10.8 Sulfation Abs/.1mm *ASTM D7615 >30 21.5 20.4 21.7 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 17.4 15.3 18.1	Sulfur CONTAMINAN Silicon Sodium	ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m	1180 2600 limit/base >25	1180 2583 current 4 0	1254 2882 history1 3 <1	1184 2837 history2 4 2
Sulfation Abs/.1mm *ASTM D7415 >30 21.5 20.4 21.7 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 17.4 15.3 18.1	Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m	1180 2600 limit/base >25 >20	1180 2583 current 4 0 14	1254 2882 history1 3 <1 6	1184 2837 history2 4 2 23
FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 17.4 15.3 18.1	Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method	1180 2600 limit/base >25 >20 limit/base	1180 2583 current 4 0 14 current	1254 2882 history1 3 <1 6 history1	1184 2837 history2 4 2 23 history2
Oxidation Abs/.1mm *ASTM D7414 >25 17.4 15.3 18.1	Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method *ASTM D7844	1180 2600 imit/base >25 >20 imit/base >3	1180 2583 current 4 0 14 current 1.2	1254 2882 history1 3 <1 6 history1 0.8	1184 2837 history2 4 2 23 history2 1.4
	Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm TS ppm ppm ppm % Abs/cm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method *ASTM D7844 *ASTM D7624	1180 2600 limit/base >25 >20 limit/base >3 >20	1180 2583 current 4 0 14 current 1.2 9.4	1254 2882 history1 3 <1 6 history1 0.8 7.9	1184 2837 history2 4 2 23 history2 1.4 10.8
	Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm TS ppm ppm ppm ppm % Abs/cm Abs/1mm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7844 *ASTM D7844	1180 2600 imit/base >25 >20 imit/base >3 >20 >30	1180 2583 current 4 0 14 current 1.2 9.4 21.5	1254 2882 history1 3 <1 6 history1 0.8 7.9 20.4	1184 2837 history2 4 2 23 history2 1.4 10.8 21.7
	Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRAE	ppm ppm TS ppm ppm ppm ppm % Abs/cm Abs/cm Abs/.1mm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D7415	1180 2600 <i>limit/base</i> >25 >20 <i>limit/base</i> >3 >20 >30 <i>limit/base</i>	1180 2583 current 4 0 14 current 1.2 9.4 21.5 current	1254 2882 history1 3 <1 6 history1 0.8 7.9 20.4 history1	1184 2837 history2 4 2 23 history2 1.4 10.8 21.7 history2



Jul25/22

Nov2/22

OIL ANALYSIS REPORT



Aug12/23 -

eb26/23

	VISUAL		method	limit/base	current	history	y1	histor	ry2
	White Metal	scalar	*Visual	NONE	NONE	NONE		NONE	
1	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	
Strengt and	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE		NONE	
Dec13/23 Apr11/24	Appearance	scalar	*Visual	NORML	NORML	NORML	_	NORM	L
Deci	Odor	scalar	*Visual	NORML	NORML	NORML	-	NORM	L
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG		NEG	
	Free Water	scalar	*Visual		NEG	NEG		NEG	
	FLUID PROPE	RTIES	method	limit/base	current	history	y1	histor	y2
	Visc @ 100°C	cSt	ASTM D445	12.00	11.0	11.2		11.2	
	GRAPHS								
	Iron (ppm) 250 ₁			10	Lead (ppm)				
/23	200 - Severe			8	30 - Severe				
Dec13/23	= ¹⁵⁰			e 6	50				
	Abnormal			udd 4	10 - Abnormal				
	50		\searrow	2	20 -				
					2 2 0	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	m	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	4
	Jul25/22 Nov2/22	Aug12/23 -	Dec13/23	Apr11/24	Jul25/22 Nov2/22	-eb 26/23	Aug12/23	Dec13/23	Apr11/24
	, L	Au	De	A			Au	De	Ag
	Aluminum (ppm)			5	Chromium (p	opm)			
1	40 - Severe			4	10 - Severe				
	e 30 -			e ³	30 -				
Dec13/23	E 20 - Abnormal			udd 2	20 - Abnormal				
Dec	10				10-				
						~		m	4
	Jul25/22 Nov2/22	Aug12/23 -	Dec13/23	Apr11/24	Jul25/22 Nov2/22	Feb26/23	Aug12/23 .	Dec13/23	Apr11/24
		Au	Dě	A		_	Au	De	A
	Copper (ppm)				Silicon (ppm))			, -
	500 -				50	1		1	
	E 300 200				Abnormal	1		1	
	100 -			2	20				
			5			22			4
	Jul25/22 Nov2/22	Aug12/23 -	Dec13/23	Apr11/24	Jul25/22 Nov2/22	Feb26/23	Aug12/23 -	Dec13/23	Apr11/24
	Viscosity @ 100°C		Ď		Dees Numbe	_	Au	Ď	A
	¹⁶			10 (b)(HO) Bugese Wumber Base 0				 I I	
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Unique Number : 10992 Test Package : MOB 1 (Additional Tests: TBN)

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

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (201)528-7053

Certificate 12367

Contact/Location: MIKE LONGETTE - MILRUT

Т:

Contact: MIKE LONGETTE

mlongette@millertransgroup.com