

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id V3324 Component Diesel Engine Fluid PETRO CANADA DURON SHP 10W30 (--- GAL)

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.

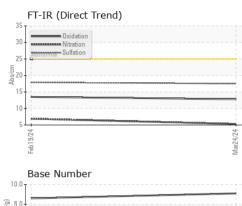
Fluid Condition

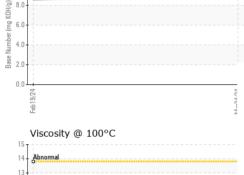
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0112746	PCA0099374	
Sample Date		Client Info		24 Mar 2024	19 Feb 2024	
Machine Age	mls	Client Info		234429	232019	
Oil Age	mls	Client Info		0	0	
Oil Changed		Client Info		N/A	Changed	
Sample Status				NORMAL	NORMAL	
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	
Water		WC Method	>0.2	NEG	NEG	
Glycol		WC Method		NEG	NEG	
WEAR METAL	S	method	limit/base	current	history1	history2
Iron		ASTM D5185m	>100	6	13	
Chromium	ppm ppm	ASTM D5185m	>20	ہ <1	1	
Nickel		ASTM D5185m	>20	0	<1	
Titanium	ppm ppm	ASTM D5185m	~	20	<1	
Silver	ppm	ASTM D5185m	>3	0	0	
Aluminum	ppm		>20	2	7	
Lead	ppm	ASTM D5185m	>40	0	<1	
Copper	ppm	ASTM D5185m		3	1	
Tin	ppm	ASTM D5185m	>15	0	<1	
Vanadium	ppm	ASTM D5185m	210	۰ <1	<1	
Cadmium	ppm	ASTM D5185m		0	0	
oddiniani	ppm					
		method	limit/base	ourrent		history?
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	50	history1 4	
Boron Barium	ppm	ASTM D5185m ASTM D5185m	2 0	50 1	history1 4 0	
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50	50 1 43	history1 4 0 59	
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0	50 1 43 1	history1 4 0 59 <1	
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950	50 1 43 1 795	history1 4 0 59 <1 1075	
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050	50 1 43 1 795 1338	history1 4 0 59 <1 1075 1413	
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	2 0 50 0 950 1050 995	50 1 43 1 795 1338 1071	history1 4 0 59 <1 1075 1413 1156	
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	2 0 50 950 1050 995 1180	50 1 43 1 795 1338 1071 1217	history1 4 0 59 <1 1075 1413 1156 1525	
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	2 0 50 950 1050 995 1180 2600	50 1 43 1 795 1338 1071 1217 3902	history1 4 0 59 <1 1075 1413 1156 1525 3794	
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	2 0 50 950 1050 995 1180 2600	50 1 43 1 795 1338 1071 1217 3902 current	history1 4 0 59 <1 1075 1413 1156 1525 3794 history1	
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	2 0 50 950 1050 995 1180 2600	50 1 43 1 795 1338 1071 1217 3902 current 4	history1 4 0 59 <1 1075 1413 1156 1525 3794 history1 3	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	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	2 0 50 950 1050 995 1180 2600 limit/base >25	50 1 43 1 795 1338 1071 1217 3902 current 4 2	history1 4 0 59 <1 1075 1413 1156 1525 3794 history1 3 1	
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	2 0 50 0 950 1050 995 1180 2600 imit/base >25	50 1 43 1 795 1338 1071 1217 3902 current 4	history1 4 0 59 <1 1075 1413 1156 1525 3794 history1 3 1 1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >25 -20 limit/base	50 1 43 1 795 1338 1071 1217 3902 current 4 2 <1 <1	history1 4 0 59 <1 1075 1413 1156 1525 3794 history1 3 1 1 history1	 history2
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	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >25 >20 limit/base	50 1 43 1 795 1338 1071 1217 3902 <i>current</i> 4 2 <1 <i>current</i> 0.1	history1 4 0 59 <1 1075 1413 1156 1525 3794 history1 3 1 1 1 0.4	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 <i>imit/base</i> >25 >20 <i>imit/base</i> >3 >20	50 1 43 1 795 1338 1071 1217 3902 current 4 2 <1 current 0.1 5.3	history1 4 0 59 <1 1075 1413 1156 1525 3794 history1 3 1 小istory1 0 0.4 6.9	 history2 history2
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	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >25 >20 limit/base	50 1 43 1 795 1338 1071 1217 3902 <i>current</i> 4 2 <1 <i>current</i> 0.1	history1 4 0 59 <1 1075 1413 1156 1525 3794 history1 3 1 1 1 0.4	 history2 history2 history2
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 ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 <i>imit/base</i> >25 >20 <i>imit/base</i> >3 >20	50 1 43 1 795 1338 1071 1217 3902 current 4 2 <1 current 0.1 5.3	history1 4 0 59 <1 1075 1413 1156 1525 3794 history1 3 1 小istory1 0 0.4 6.9	 history2 history2
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	2 0 50 0 950 1050 995 1180 2600 <i>imit/base</i> >25 >20 <i>imit/base</i> >3 >20 >30	50 1 43 1 795 1338 1071 1217 3902 current 4 2 <1 current 0.1 5.3 17.5	history1 4 0 59 <1 1075 1413 1156 1525 3794 history1 3 1 0.4 6.9 17.9	 history2 history2 history2 history2
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 D7844 *ASTM D7844	2 0 50 0 950 1050 995 1180 2600 <i>imit/base</i> >25 >20 <i>imit/base</i> >3 >20 >30	50 1 43 1 795 1338 1071 1217 3902 <i>current</i> 4 2 <1 <i>current</i> 0.1 5.3 17.5 <i>current</i>	history1 4 0 59 <1 1075 1413 1525 3794 history1 3 1 0.4 6.9 17.9 history1	 history2 history2 history2 history2

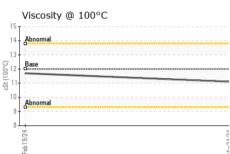


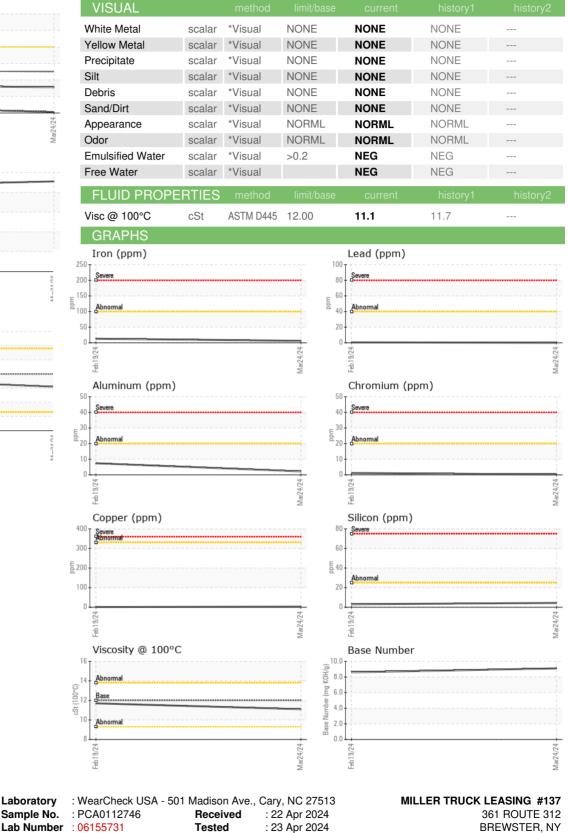
OIL ANALYSIS REPORT





bpm





: 23 Apr 2024 - Wes Davis

US 10509 Contact: Robert Beckhusen rbeckhusen@millertransgroup.com T: (845)779-1064



Unique Number : 10991154 Diagnosed Test Package : MOB 1 (Additional Tests: TBN) Certificate 12367 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)

Report Id: MILBRENY [WUSCAR] 06155731 (Generated: 04/23/2024 17:05:23) Rev: 1

Laboratory

Sample No.

Contact/Location: Robert Beckhusen - MILBRENY

E: