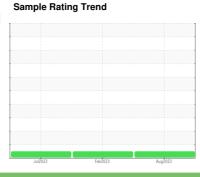


OIL ANALYSIS REPORT

(89682X) Walgreens [Walgreens] 136A69103

Diesel Engine

PETRO CANADA DURON SHP 10W30 (11 GAL)





DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the

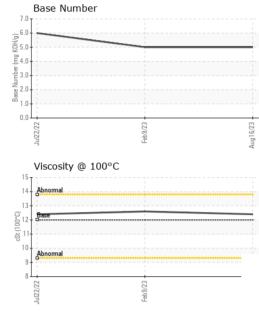
Fluid Condition

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

Client Info	SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Machine Age mls Client Info 677339 615906 413315 Client Info 70130 65500 413315 Client Info Changed Changed Changed Changed Changed Changed Changed NORMAL NORMAL NORMAL NORMAL NORMAL CONTAMINATION method Imit/base current history1 history2 Mistory2 Mistory3 Mistory3 Mistory3 Mistory4 Mistory2 Mistory3 Mistory3	Sample Number		Client Info		PCA0101038	PCA0090846	PCA0078518
Oil Age	Sample Date		Client Info		16 Aug 2023	09 Feb 2023	22 Jul 2022
Contact	Machine Age	mls	Client Info		677339	615906	413315
NORMAL NORMAL NORMAL NORMAL	Oil Age	mls	Client Info		70130	65500	413315
CONTAMINATION method limit/base current history1 history2 Fuel WC Method >5 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 NEG	Oil Changed		Client Info		Changed	Changed	Changed
Fuel	Sample Status				NORMAL	NORMAL	NORMAL
WEAR METALS	CONTAMINAT	ION	method	limit/base	current	history1	history2
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >80 38 57 17 Chromium ppm ASTM D5185m >5 2 2 1 Nickel ppm ASTM D5185m >2 0 <1 0 Silver ppm ASTM D5185m >3 0 0 0 Aluminum ppm ASTM D5185m >30 13 21 7 Lead ppm ASTM D5185m >30 13 21 7 Lead ppm ASTM D5185m >30 0 <1 0 Copper ppm ASTM D5185m >5 <1 <1 <1 Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 60 70 <	Fuel		WC Method	>5	<1.0	<1.0	<1.0
Tron	Glycol		WC Method		NEG	NEG	NEG
Chromium	WEAR METAL	S	method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>80	38	57	17
Titanium	Chromium	ppm	ASTM D5185m	>5	2	2	1
Silver	Nickel	ppm	ASTM D5185m	>2	0	<1	0
Aluminum	Titanium	ppm	ASTM D5185m		<1	0	0
Lead	Silver	ppm	ASTM D5185m	>3	0	0	0
Copper ppm ASTM D5185m >150 4 6 3 Tin ppm ASTM D5185m >5 <1 <1 <1 Vanadium ppm ASTM D5185m >5 <1 <1 <1 Cadmium ppm ASTM D5185m 0 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 <1 <1 Manganese ppm ASTM D5185m 0 <1 <1 <1 <1 Magnesium ppm ASTM D5185m 950 835 841 732 Calcium ppm ASTM D5185m 995 1085 1114 983 Zinc ppm ASTM D5185m <th>Aluminum</th> <th>ppm</th> <th>ASTM D5185m</th> <th>>30</th> <th>13</th> <th>21</th> <th>7</th>	Aluminum	ppm	ASTM D5185m	>30	13	21	7
Tin	Lead	ppm	ASTM D5185m	>30	0	<1	0
Vanadium ppm ASTM D5185m <1	Copper	ppm	ASTM D5185m	>150	4	6	3
Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 2 10 16 12 Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 50 60 70 71 Manganese ppm ASTM D5185m 0 <1 <1 <1 Magnesium ppm ASTM D5185m 950 835 841 732 Calcium ppm ASTM D5185m 995 1085 1114 983 Zinc ppm ASTM D5185m 995 1085 1114 983 Zinc ppm ASTM D5185m 2600 3518 2995 2834 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 5 </th <th>Tin</th> <th>ppm</th> <th>ASTM D5185m</th> <th>>5</th> <th><1</th> <th><1</th> <th><1</th>	Tin	ppm	ASTM D5185m	>5	<1	<1	<1
ADDITIVES	Vanadium	ppm	ASTM D5185m		<1	0	0
Boron ppm ASTM D5185m 2 10 16 12	Cadmium	ppm	ASTM D5185m		0	0	0
Barium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 50 60 70 71 Manganese ppm ASTM D5185m 0 <1	Boron	ppm	ASTM D5185m	2	10	16	12
Manganese ppm ASTM D5185m 0 <1	Barium	nnm	ASTM D5185m	0	0	0	0
Magnesium ppm ASTM D5185m 950 835 841 732 Calcium ppm ASTM D5185m 1050 1522 1487 1404 Phosphorus ppm ASTM D5185m 1085 1114 983 Zinc ppm ASTM D5185m 1180 1329 1391 1253 Sulfur ppm ASTM D5185m 2600 3518 2995 2834 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 6 8 4 Sodium ppm ASTM D5185m 3 1 <1 Potassium ppm ASTM D5185m >20 5 15 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 1.4 1.5 1.1 Nitration Abs/cm *ASTM D7415 >30 27.0		ppiii	710 TWI DO TOOTTI				
Calcium ppm ASTM D5185m 1050 1522 1487 1404 Phosphorus ppm ASTM D5185m 995 1085 1114 983 Zinc ppm ASTM D5185m 1180 1329 1391 1253 Sulfur ppm ASTM D5185m 2600 3518 2995 2834 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 6 8 4 Sodium ppm ASTM D5185m >20 5 15 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 1.4 1.5 1.1 Nitration Abs/.1mm *ASTM D7624 >20 12.0 13.6 13.2 Sulfation Abs/.1mm *ASTM D7415 >30 27.0 28.3 27.8 FLUID DEGRADATION	Molybdenum			50			71
Phosphorus ppm ASTM D5185m 995 1085 1114 983 Zinc ppm ASTM D5185m 1180 1329 1391 1253 Sulfur ppm ASTM D5185m 2600 3518 2995 2834 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 6 8 4 Sodium ppm ASTM D5185m >20 5 15 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 1.4 1.5 1.1 Nitration Abs/cm *ASTM D7624 >20 12.0 13.6 13.2 Sulfation Abs/.1mm *ASTM D7415 >30 27.0 28.3 27.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation A		ppm	ASTM D5185m		60	70	
Zinc ppm ASTM D5185m 1180 1329 1391 1253 Sulfur ppm ASTM D5185m 2600 3518 2995 2834 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 6 8 4 Sodium ppm ASTM D5185m 3 1 <1 Potassium ppm ASTM D5185m >20 5 15 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 1.4 1.5 1.1 Nitration Abs/cm *ASTM D7624 >20 12.0 13.6 13.2 Sulfation Abs/.1mm *ASTM D7415 >30 27.0 28.3 27.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414	Molybdenum	ppm	ASTM D5185m ASTM D5185m	0	60 <1	70 <1	<1
Sulfur ppm ASTM D5185m 2600 3518 2995 2834 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 6 8 4 Sodium ppm ASTM D5185m 3 1 <1 Potassium ppm ASTM D5185m >20 5 15 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 1.4 1.5 1.1 Nitration Abs/cm *ASTM D7624 >20 12.0 13.6 13.2 Sulfation Abs/.1mm *ASTM D7415 >30 27.0 28.3 27.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 22.3 24.6 22.9	Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	950	60 <1 835	70 <1 841	<1 732
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 6 8 4 Sodium ppm ASTM D5185m 3 1 <1 Potassium ppm ASTM D5185m >20 5 15 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 1.4 1.5 1.1 Nitration Abs/cm *ASTM D7624 >20 12.0 13.6 13.2 Sulfation Abs/.1mm *ASTM D7415 >30 27.0 28.3 27.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 22.3 24.6 22.9	Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 950 1050	60 <1 835 1522	70 <1 841 1487	<1 732 1404
Silicon ppm ASTM D5185m >20 6 8 4 Sodium ppm ASTM D5185m 3 1 <1	Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 950 1050 995	60 <1 835 1522 1085	70 <1 841 1487 1114	<1 732 1404 983
Sodium ppm ASTM D5185m 3 1 <1	Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 950 1050 995 1180	60 <1 835 1522 1085 1329	70 <1 841 1487 1114 1391	<1 732 1404 983 1253
Potassium ppm ASTM D5185m >20 5 15 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 1.4 1.5 1.1 Nitration Abs/cm *ASTM D7624 >20 12.0 13.6 13.2 Sulfation Abs/.1mm *ASTM D7415 >30 27.0 28.3 27.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 22.3 24.6 22.9	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	0 950 1050 995 1180 2600	60 <1 835 1522 1085 1329 3518	70 <1 841 1487 1114 1391 2995	<1 732 1404 983 1253 2834
INFRA-RED	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	0 950 1050 995 1180 2600 limit/base	60 <1 835 1522 1085 1329 3518	70 <1 841 1487 1114 1391 2995 history1	<1 732 1404 983 1253 2834 history2
Soot % % *ASTM D7844 >3 1.4 1.5 1.1 Nitration Abs/cm *ASTM D7624 >20 12.0 13.6 13.2 Sulfation Abs/.1mm *ASTM D7415 >30 27.0 28.3 27.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 22.3 24.6 22.9	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m Method ASTM D5185m	0 950 1050 995 1180 2600 limit/base	60 <1 835 1522 1085 1329 3518 current	70 <1 841 1487 1114 1391 2995 history1	<1 732 1404 983 1253 2834 history2
Nitration Abs/cm *ASTM D7624 >20 12.0 13.6 13.2 Sulfation Abs/.1mm *ASTM D7415 >30 27.0 28.3 27.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 22.3 24.6 22.9	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm	ASTM D5185m	0 950 1050 995 1180 2600 limit/base >20	60 <1 835 1522 1085 1329 3518 current 6	70 <1 841 1487 1114 1391 2995 history1 8	<1 732 1404 983 1253 2834 history2 4 <1
Sulfation Abs/.1mm *ASTM D7415 >30 27.0 28.3 27.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 22.3 24.6 22.9	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm	ASTM D5185m	0 950 1050 995 1180 2600 limit/base >20	60 <1 835 1522 1085 1329 3518 current 6 3	70 <1 841 1487 1114 1391 2995 history1 8 1	<1 732 1404 983 1253 2834 history2 4 <1 2
Sulfation Abs/.1mm *ASTM D7415 >30 27.0 28.3 27.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 22.3 24.6 22.9	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 950 1050 995 1180 2600 limit/base >20 >20	60 <1 835 1522 1085 1329 3518 current 6 3 5	70 <1 841 1487 1114 1391 2995 history1 8 1 15	<1 732 1404 983 1253 2834 history2 4 <1 2 history2
Oxidation	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 Method ASTM D5185m	0 950 1050 995 1180 2600 limit/base >20 >20 limit/base	60 <1 835 1522 1085 1329 3518 current 6 3 5 current	70 <1 841 1487 1114 1391 2995 history1 8 1 15 history1 1.5	<1 732 1404 983 1253 2834 history2 4 <1 2 history2 1.1
	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m	0 950 1050 995 1180 2600 limit/base >20 >20	60 <1 835 1522 1085 1329 3518 current 6 3 5 current 1.4 12.0	70 <1 841 1487 1114 1391 2995 history1 8 1 15 history1 1.5 13.6	<1 732 1404 983 1253 2834 history2 4 <1 2 history2 1.1 13.2
Base Number (BN) mg KOH/g ASTM D2896 5.0 5.0 6.0	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 method ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7624	0 950 1050 995 1180 2600 limit/base >20 >20 limit/base >3 >20 >3	60 <1 835 1522 1085 1329 3518 current 6 3 5 current 1.4 12.0 27.0	70 <1 841 1487 1114 1391 2995 history1 8 1 15 history1 1.5 13.6 28.3	<1 732 1404 983 1253 2834 history2 4 <1 2 history2 1.1 13.2 27.8
	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm	ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method *ASTM D7844 *ASTM D7624 *ASTM D7415 Method	0 950 1050 995 1180 2600 limit/base >20 >20 limit/base >3 >20 >30 limit/base	60 <1 835 1522 1085 1329 3518 current 6 3 5 current 1.4 12.0 27.0 current	70 <1 841 1487 1114 1391 2995 history1 8 1 15 history1 1.5 13.6 28.3 history1	<1 732 1404 983 1253 2834 history2 4 <1 2 history2 1.1 13.2 27.8 history2



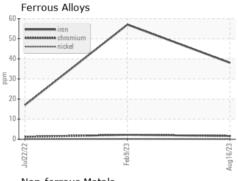
OIL ANALYSIS REPORT

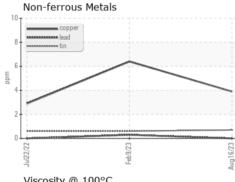


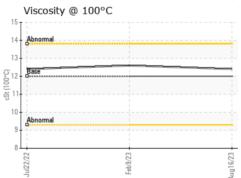
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	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

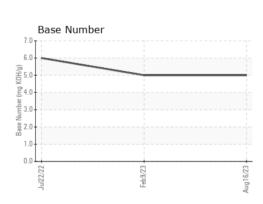
FLUID PROP	ERITES	method			riistory i	riistoryz
Visc @ 100°C	cSt	ASTM D445	12.00	12.4	12.6	12.4

GRAPHS











Certificate L2367

Laboratory Sample No. Lab Number

Unique Number : 10609160 Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : PCA0101038 : 05929213

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

Received Diagnosed

: 21 Aug 2023 : 21 Aug 2023 Diagnostician : Wes Davis

Transervice - Shop 1373 - Berkeley-Anderson/Pendergrass

101 Alliance Parkway Willamston, SC US 29697

Contact: Sonny Boucher sboucher@transervice.com T: (864)226-2304

* - 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: (864)226-2329