

OIL ANALYSIS REPORT

(16095Z) Walgreens - Tractor [Walgreens - Tractor] 136A61404

Diesel Engine Eluid

PETRO CANADA DURON SHP 10W30 (11 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.



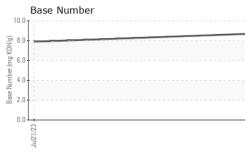
Sample Rating Trend

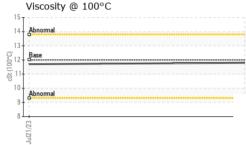


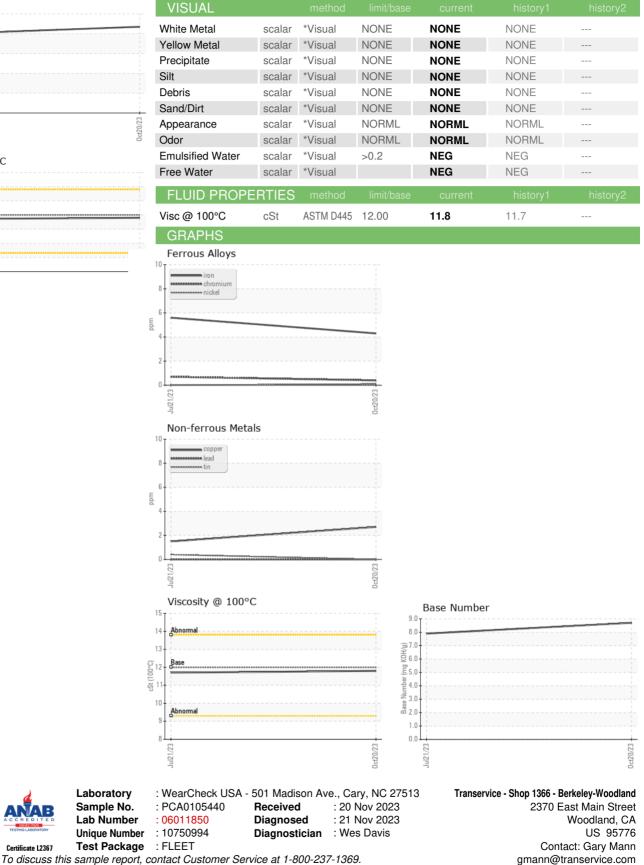
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0105440	PCA0093790	
Sample Date		Client Info		20 Oct 2023	21 Jul 2023	
Machine Age	mls	Client Info		364451	351457	
Oil Age	mls	Client Info		25000	47000	
Oil Changed		Client Info		Not Changd	Changed	
Sample 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	, 0.1	NEG	NEG	
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WEAR METAL	5	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>80	4	6	
Chromium	ppm	ASTM D5185m	>5	<1	<1	
Nickel	ppm	ASTM D5185m	>2	<1	0	
Titanium	ppm	ASTM D5185m		<1	0	
Silver	ppm	ASTM D5185m	>3	0	0	
Aluminum	ppm	ASTM D5185m	>30	1	2	
Lead	ppm	ASTM D5185m	>30	0	0	
Copper	ppm	ASTM D5185m	>150	3	2	
Tin	ppm	ASTM D5185m	>5	0	<1	
Vanadium	ppm	ASTM D5185m		0	0	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	1	5	
Barium	ppm	ASTM D5185m	0	0	0	
Molybdenum	ppm	ASTM D5185m	50	59	59	
Manganese	ppm	ASTM D5185m	0	0	<1	
Manganese Magnesium	ppm ppm	ASTM D5185m ASTM D5185m	0 950	0 879	<1 875	
•				-		
Magnesium	ppm	ASTM D5185m	950	879	875	
Magnesium Calcium	ppm ppm	ASTM D5185m ASTM D5185m	950 1050	879 1071	875 1241	
Magnesium Calcium Phosphorus	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	950 1050 995	879 1071 992	875 1241 1016	
Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	950 1050 995 1180	879 1071 992 1177	875 1241 1016 1262	
Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	950 1050 995 1180 2600 limit/base	879 1071 992 1177 3147	875 1241 1016 1262 3611	
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	950 1050 995 1180 2600 limit/base	879 1071 992 1177 3147 current	875 1241 1016 1262 3611 history1	
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	950 1050 995 1180 2600 limit/base >20	879 1071 992 1177 3147 current 4	875 1241 1016 1262 3611 history1 5	 history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	950 1050 995 1180 2600 limit/base >20	879 1071 992 1177 3147 current 4 0	875 1241 1016 1262 3611 history1 5 <1	 history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	950 1050 995 1180 2600 limit/base >20	879 1071 992 1177 3147 current 4 0 2	875 1241 1016 1262 3611 history1 5 <1 <1	 history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	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	950 1050 995 1180 2600 limit/base >20 limit/base	879 1071 992 1177 3147 current 4 0 2 2 current 0.3	875 1241 1016 1262 3611 history1 5 <1 <1 <1 <1 0.3	 history2 history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	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	950 1050 995 1180 2600 limit/base >20 limit/base >3	879 1071 992 1177 3147 current 4 0 2 2 current	875 1241 1016 1262 3611 history1 5 <1 <1 <1 history1	 history2 history2
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 ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D51854 ASTM D7844	950 1050 995 1180 2600 <i>limit/base</i> >20 <i>limit/base</i> >3 >20	879 1071 992 1177 3147 <i>current</i> 4 0 2 <i>current</i> 0.3 6.4	875 1241 1016 1262 3611 history1 5 <1 <1 <1 history1 0.3 7.2	 history2 history2 history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Solicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRAE	ppm ppm ppm ppm ppm TS ppm ppm ppm ppm % Abs/cm Abs/cm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7844 *ASTM D7844 *ASTM D7624 *ASTM D7415	950 1050 995 1180 2600 imit/base >20 20 imit/base >3 >20 >30 imit/base	879 1071 992 1177 3147 current 4 0 2 current 0.3 6.4 18.7 current	875 1241 1016 1262 3611 history1 5 <1 <1 <1 history1 0.3 7.2 18.8 history1	 history2 history2 history2
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 ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7844 *ASTM D7844 *ASTM D7844	950 1050 995 1180 2600 imit/base >20 imit/base >3 >20 >3 >20	879 1071 992 1177 3147 <u>current</u> 4 0 2 <u>current</u> 0.3 6.4 18.7	875 1241 1016 1262 3611 history1 5 <1 <1 <1 history1 0.3 7.2 18.8	 history2 history2 history2



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* - 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

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