

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



(6639) Side Loader **ASL202385** Component

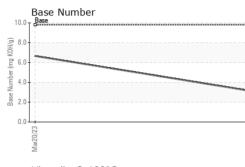
Diesel Engine Fluid

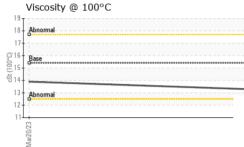
PETRO CANADA DURON SHP 15W40 (10 GAL)

DIAGNOSIS	SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Recommendation	Sample Number		Client Info		PCA0109912	PCA0083101	
Resample at the next service interval to monitor.	Sample Date		Client Info		23 Jan 2024	20 Mar 2023	
Wear	Machine Age	hrs	Client Info		8071	7640	
All component wear rates are normal.	Oil Age	hrs	Client Info		8071	7640	
·	Oil Changed		Client Info		N/A	N/A	
Contamination There is no indication of any contamination in the	Sample Status				NORMAL	NORMAL	
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.	CONTAMINAT	ION	method	limit/base		history1	history2
	Fuel		WC Method	>3.0	<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	ppm	ASTM D5185m	>120	34	31	
	Chromium	ppm	ASTM D5185m		1	0	
	Nickel	ppm	ASTM D5185m		1	<1	
	Titanium	ppm	ASTM D5185m		<1	<1	
	Silver	ppm	ASTM D5185m		<1	0	
	Aluminum	ppm	ASTM D5185m		9	4	
	Lead	ppm	ASTM D5185m		5	<1	
	Copper	ppm	ASTM D5185m		8	12	
	Tin	ppm	ASTM D5185m		2	<1	
	Vanadium	ppm	ASTM D5185m	210	<1	0	
	Cadmium	ppm	ASTM D5185m		<1	0	
	ADDITIVES		method	limit/base	current	history1	history2
	Boron	ppm	ASTM D5185m	0	15	9	
	Boron Barium	ppm ppm	ASTM D5185m ASTM D5185m		15 0	9 0	
				0			
	Barium	ppm	ASTM D5185m	0 60	0	0	
	Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m	0 60 0	0 66	0 85	
	Barium Molybdenum	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 60 0 1010	0 66 3	0 85 <1	
	Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0 60 0 1010	0 66 3 870	0 85 <1 388	
	Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 60 0 1010 1070 1150	0 66 3 870 1014	0 85 <1 388 2001	
	Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 60 0 1010 1070 1150	0 66 3 870 1014 942	0 85 <1 388 2001 1020	
	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 60 0 1010 1070 1150 1270	0 66 3 870 1014 942 1177 2379	0 85 <1 388 2001 1020 1389	
	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	0 60 0 1010 1070 1150 1270 2060	0 66 3 870 1014 942 1177 2379	0 85 <1 388 2001 1020 1389 3511	
	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	0 60 0 1010 1070 1150 1270 2060	0 66 3 870 1014 942 1177 2379 current	0 85 <1 388 2001 1020 1389 3511 history1	 history2
	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 60 0 1010 1070 1150 1270 2060 Limit/base >25	0 66 3 870 1014 942 1177 2379 current 8	0 85 <1 388 2001 1020 1389 3511 history1 7	 history2
	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	0 60 0 1010 1070 1150 1270 2060 Limit/base >25	0 66 3 870 1014 942 1177 2379 current 8 6 4	0 85 <1 388 2001 1020 1389 3511 history1 7 10	 history2
	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 ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 60 0 1010 1070 1150 1270 2060 limit/base >25 >20	0 66 3 870 1014 942 1177 2379 current 8 6 4	0 85 <1 388 2001 1020 1389 3511 history1 7 10 0	 history2
	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	0 60 0 1010 1150 1270 2060 imit/base >25 >20 imit/base >4	0 66 3 870 1014 942 1177 2379 current 8 6 4 2	0 85 <1 388 2001 1020 1389 3511 history1 7 10 0 history1	 history2 history2
	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	0 60 0 1010 1070 1150 1270 2060 limit/base >25 >20 limit/base >4 >20	0 66 3 870 1014 942 1177 2379 current 8 6 4 current 0.9	0 85 <1 388 2001 1020 1389 3511 history1 7 10 0 history1 0.7	 history2 history2 history2
	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	0 60 0 1010 1070 1150 1270 2060 limit/base >25 >20 limit/base >4 >20	0 66 3 870 1014 942 1177 2379 Current 8 6 4 Current 0.9 9.8 21.8	0 85 <1 388 2001 1020 1389 3511 history1 7 10 0 0 history1 0.7 11.3	 history2 history2 history2
	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 D7624 *ASTM D7624	0 60 1010 1070 1150 1270 2060 Imit/base >20 Imit/base >20 30 Imit/base	0 66 3 870 1014 942 1177 2379 current 8 6 4 current 0.9 9.8 21.8 current	0 85 <1 388 2001 1020 1389 3511 history1 7 10 0 history1 0.7 11.3 23.4 history1	 history2 history2 history2
	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 60 0 1010 1070 1150 1270 2060 2060 2060 225 20 20 20 20 20 20 20 20 20 20 20 20 20	0 66 3 870 1014 942 1177 2379 Current 8 6 4 Current 0.9 9.8 21.8	0 85 <1 388 2001 1020 1389 3511 history1 7 10 0 history1 0.7 11.3 23.4	 history2 history2 history2 history2



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

Certificate L2367