

OIL ANALYSIS REPORT

Sample Rating Trend



Area SCHTRUCK Machine Id 7083 [SCHTRUCK]

Diesel Engine

PETRO CANADA DURON SHP 15W40 (--- 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

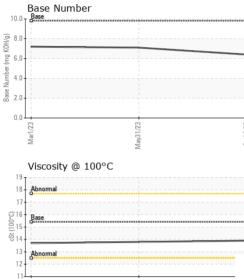
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORM	ΛΑΤΙΟΝ	method	limit/base	current	history1	history2
Sample Number		Client Info		SBP0005677	SBP0004420	SBP0002239
Sample Date		Client Info		10 Oct 2023	31 May 2023	01 Mar 2023
Machine Age	mls	Client Info		197498	153775	115918
Oil Age	mls	Client Info		42743	40000	40000
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATIO	N	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>80	19	22	26
Chromium	ppm	ASTM D5185m		2	2	2
Nickel	ppm	ASTM D5185m	>2	- <1	<1	0
Titanium	ppm	ASTM D5185m	-	0	0	0
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm		>30	9	15	25
Lead	ppm	ASTM D5185m	>30	0	0	0
Copper	ppm		>150	10	18	30
Tin	ppm	ASTM D5185m	>5	<1	<1	1
Vanadium	ppm	ASTM D5185m	20	0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
	PP					-
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	2	<1	4
Boron Barium	ppm	ASTM D5185m ASTM D5185m	0	2 0	<1 0	4
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60	2 0 62	<1 0 61	4 0 57
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0	2 0 62 <1	<1 0 61 <1	4 0 57 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010	2 0 62 <1 969	<1 0 61 <1 964	4 0 57 <1 878
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010 1070	2 0 62 <1 969 1093	<1 0 61 <1 964 1272	4 0 57 <1 878 1412
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	0 0 60 0 1010 1070 1150	2 0 62 <1 969 1093 1019	<1 0 61 <1 964 1272 984	4 0 57 <1 878 1412 927
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	0 0 60 0 1010 1070 1150 1270	2 0 62 <1 969 1093 1019 1306	<1 0 61 <1 964 1272 984 1299	4 0 57 <1 878 1412 927 1237
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	0 0 60 0 1010 1070 1150	2 0 62 <1 969 1093 1019	<1 0 61 <1 964 1272 984	4 0 57 <1 878 1412 927
Boron 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 ASTM D5185m	0 0 60 0 1010 1070 1150 1270	2 0 62 <1 969 1093 1019 1306 2336	<1 0 61 <1 964 1272 984 1299	4 0 57 <1 878 1412 927 1237
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 ASTM D5185m	0 0 60 1010 1070 1150 1270 2060	2 0 62 <1 969 1093 1019 1306 2336	<1 0 61 <1 964 1272 984 1299 3038	4 0 57 <1 878 1412 927 1237 3073
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	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	0 0 60 1010 1070 1150 1270 2060	2 0 62 <1 969 1093 1019 1306 2336 Current	<1 0 61 <1 964 1272 984 1299 3038 history1	4 0 57 <1 878 1412 927 1237 3073 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS 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 method ASTM D5185m	0 0 60 1010 1070 1150 1270 2060 Limit/base	2 0 62 <1 969 1093 1019 1306 2336 current 6	<1 0 61 <1 964 1272 984 1299 3038 history1 5	4 0 57 <1 878 1412 927 1237 3073 history2 6
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS 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 method ASTM D5185m	0 0 60 1010 1070 1150 1270 2060 Limit/base	2 0 62 <1 969 1093 1019 1306 2336 current 6 3 16	<1 0 61 <1 964 1272 984 1299 3038 history1 5 4	4 0 57 <1 878 1412 927 1237 3073 history2 6 6 6
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 limit/base >20	2 0 62 <1 969 1093 1019 1306 2336 current 6 3 16	<1 0 61 <1 964 1272 984 1299 3038 history1 5 4 26	4 0 57 <1 878 1412 927 1237 3073 history2 6 6 6 6 52
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 2060 200 200 200 20 20 20 20	2 0 62 <1 969 1093 1019 1306 2336 current 6 3 16 Current	<1 0 61 <1 964 1272 984 1299 3038 history1 5 4 26 history1	4 0 57 <1 878 1412 927 1237 3073 history2 6 6 6 52 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 limit/base >20 limit/base >20	2 0 62 <1 969 1093 1019 1306 2336 <u>current</u> 6 3 16 <u>current</u> 0.7	<1 0 61 <1 964 1272 984 1299 3038 history1 5 4 26 history1 0.6	4 0 57 <1 878 1412 927 1237 3073 history2 6 6 6 52 history2 0.6
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 limit/base >20 limit/base >20	2 0 62 <1 969 1093 1019 1306 2336 <u>current</u> 6 3 16 <u>current</u> 0.7 9.6 21.7	<1 0 61 <1 964 1272 984 1299 3038 history1 5 4 26 history1 0.6 9.3	4 0 57 <1 878 1412 927 1237 3073 history2 6 6 6 6 52 history2 0.6 10.0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7844 *ASTM D7844	0 0 0 1010 1070 1150 1270 2060 2060 2060 200 200 200 200 200 200	2 0 62 <1 969 1093 1019 1306 2336 Current 6 3 16 Current 0.7 9.6 21.7 Current	<1 0 61 <1 964 1272 984 1299 3038 history1 5 4 26 history1 0.6 9.3 21.5 history1	4 0 57 <1 878 1412 927 1237 3073 history2 6 6 6 6 52 history2 0.6 10.0 21.9 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 /////////////////////////////////	2 0 62 <1 969 1093 1019 1306 2336 <u>current</u> 6 3 16 <u>current</u> 0.7 9.6 21.7	<1 0 61 <1 964 1272 984 1299 3038 history1 5 4 26 history1 0.6 9.3 21.5	4 0 57 <1 878 1412 927 1237 3073 history2 6 6 6 52 history2 0.6 10.0 21.9



Mar1/23

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
May31/23	0ct1 0/23	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
May	Oct	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
		Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
		Free Water	scalar	*Visual		NEG	NEG	NEG
		FLUID PROPER	TIES	method	limit/base	current	history1	history2
		Visc @ 100°C	cSt	ASTM D445	15.4	13.9	13.8	13.7
		GRAPHS						
		Ferrous Alloys						
/23		iron						
May31/23		nickel						
		20-						
		ត្ <u>ត</u> 15 -						
		10-						
		5.						
			-					
			/23 -		1/23			
		Mar1/23	May31/23		0ct10/23			
		Non-ferrous Met						
		³⁰						
		25 - copper						
		20						
		<u>특</u> 15 -						
		10-						
		5-						
		0						
		1/23	ay31/23		0/23			
		Mar1/23	May31		0ct10/23			
			-					
		Viscosity @ 100°	С			Base Number		
		¹⁹	С		10.0-	Base Number		
			C					
		19 18 - Abnormal 17 -	C					
		19 18 - Abnormal 17 -	C					
		19 18 Abnormal	C					
		Abnormal 17 17 16 15 12 19 19 19 19 19 19 19 19 19 19	C		(0,0HOX) Bull (0,0HOX) Bull (0,0HOX) Bull (0,0HOX) Bull (0,0HOX) (
		Abnomal Abnomal Base 17 0 16 0 15 3 14	C		-0.8 -0.8 per (mg KOH/d)			
		Abnomal Abnomal Base Base Gamma Abnomal			0.04 (0) (0) (0) (0) (0) (0) (0) (0) (0) (0)	Base		
		Abnomal Abnomal Base Base Abnomal Abnomal 12 11			0.04 (0) (0) (0) (0) (0) (0) (0) (0) (0) (0)	Base	31/23	
		Abnomal Abnomal Base Base Gamma Abnomal	C 		0,8.0 (0,HOX) (0,HOX) (0,HOX) (0,0 (0,0) (May31/23	
	Laboratory Sample No. Lab Number Unique Number Test Package	Abnomal Base Base Base Base Base Commal	Ma/31/23	d :130 ed :160	00411003 04110003 04110003 04110003 04110003 04110003 04110003 04110003 04110000000000	Base)T TRANSPORT 1 F	

Submitted By: CASEY WILKIE

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