

OIL ANALYSIS REPORT

Sample Rating Trend



Area SCHTRUCK 6382 [SCHTRUCK]

Diesel Engine

PETRO CANADA DURON SHP 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

Metal levels are typical for a new component breaking in.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

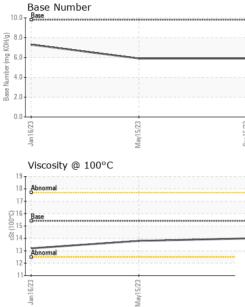
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Jan2023 May2023 Sap2023										
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2				
Sample Number		Client Info		SBP0005724	SBP0004365	SBP0002458				
Sample Date		Client Info		15 Sep 2023	15 May 2023	16 Jan 2023				
Machine Age	mls	Client Info		141815	104395	66759				
Oil Age	mls	Client Info		37420	37636	34190				
Oil Changed		Client Info		Changed	Changed	Changed				
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	23	35	36				
Chromium	ppm	ASTM D5185m	>5	3	5	5				
Nickel	ppm	ASTM D5185m	>2	0	0	<1				
Titanium	ppm	ASTM D5185m		0	0	0				
Silver	ppm	ASTM D5185m	>3	<1	0	<1				
Aluminum	ppm	ASTM D5185m	>30	12	34	31				
Lead	ppm	ASTM D5185m	>30	0	0	<1				
Copper	ppm	ASTM D5185m	>150	27	59	70				
Tin	ppm	ASTM D5185m	>5	<1	2	2				
Vanadium	ppm	ASTM D5185m		0	0	0				
Cadmium	ppm	ASTM D5185m		0	0	0				
ADDITIVES		method	limit/base	current	history1	history2				
ADDITIVES Boron	ppm		limit/base	current 3	history1 <1	history2 17				
	ppm ppm	ASTM D5185m								
Boron		ASTM D5185m	0	3	<1	17				
Boron Barium	ppm	ASTM D5185m ASTM D5185m	0 0 60	3 0	<1 0	17 0				
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60	3 0 65	<1 0 60	17 0 41				
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0	3 0 65 <1	<1 0 60 1	17 0 41 2				
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010	3 0 65 <1 1004	<1 0 60 1 851 1281 800	17 0 41 2 486 1656 601				
Boron Barium Molybdenum Manganese Magnesium Calcium	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	3 0 65 <1 1004 1170	<1 0 60 1 851 1281	17 0 41 2 486 1656 601 820				
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	3 0 65 <1 1004 1170 922	<1 0 60 1 851 1281 800	17 0 41 2 486 1656 601				
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	3 0 65 <1 1004 1170 922 1266 2922	<1 0 60 1 851 1281 800 1113	17 0 41 2 486 1656 601 820				
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 0 1010 1070 1150 1270 2060	3 0 65 <1 1004 1170 922 1266 2922	<1 0 60 1 851 1281 800 1113 2522	17 0 41 2 486 1656 601 820 2290				
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	3 0 65 <1 1004 1170 922 1266 2922 current	<1 0 60 1 851 1281 800 1113 2522 history1	17 0 41 2 486 1656 601 820 2290 history2				
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	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 kimit/base	3 0 65 <1 1004 1170 922 1266 2922 current 7	<1 0 60 1 851 1281 800 1113 2522 history1 6	17 0 41 2 486 1656 601 820 2290 history2 7				
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 kimit/base	3 0 65 <1 1004 1170 922 1266 2922 <u>current</u> 7 2 11	<1 0 60 1 851 1281 800 1113 2522 history1 6 8	17 0 41 2 486 1656 601 820 2290 2290 history2 7 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 <i>limit/base</i> >20	3 0 65 <1 1004 1170 922 1266 2922 <u>current</u> 7 2 11	<1 0 60 1 851 1281 800 1113 2522 history1 6 8 8 27	17 0 41 2 486 1656 601 820 2290 history2 7 6 55				
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 2060 2060 200 200 200 200 200 200	3 0 65 <1 1004 1170 922 1266 2922 current 7 2 2 11 2	<1 0 60 1 851 1281 800 1113 2522 history1 6 8 27 history1	17 0 41 2 486 1656 601 820 2290 history2 7 6 55 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	3 0 65 <1 1004 1170 922 1266 2922 <u>current</u> 7 2 11 2 11 <u>current</u> 0.8	<1 0 60 1 851 1281 800 1113 2522 history1 6 8 27 history1 0.8	17 0 41 2 486 1656 601 820 2290 history2 7 6 55 history2 0.7				
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	3 0 65 <1 1004 1170 922 1266 2922 Current 7 2 2 11 Current 0.8 9.8 22.1	<1 0 60 1 851 1281 800 1113 2522 history1 6 8 27 history1 0.8 10.1	17 0 41 2 486 1656 601 820 2290 history2 7 6 55 history2 0.7 12.3				
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 imit/base >20 imit/base >3 >20 >3 >20	3 0 65 <1 1004 1170 922 1266 2922 Current 7 2 2 11 Current 0.8 9.8 22.1	<1 0 60 1 851 1281 800 1113 2522 history1 6 8 27 history1 0.8 10.1 21.7	17 0 41 2 486 1656 601 820 2290 history2 7 6 55 history2 0.7 12.3 23.6				
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	3 0 65 <1 1004 1170 922 1266 2922 Current 7 2 2 11 Current 0.8 9.8 22.1 Current	<1 0 60 1 851 1281 800 1113 2522 history1 6 8 27 history1 0.8 10.1 21.7 history1	17 0 41 2 486 1656 601 820 2290 history2 7 6 55 history2 0.7 12.3 23.6 history2				



OIL ANALYSIS REPORT

VISUAL



	White Metal		*Visual	NONE	NONE	NONE	NONE
	Yellow Metal		*Visual	NONE	NONE	NONE	NONE
	Precipitate		*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
May15/23 Sep15/23	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
May	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
	Free Water	scalar	*Visual		NEG	NEG	NEG
	FLUID PROPERT	IES	method	limit/base	current	history1	history2
	Visc @ 100°C	cSt	ASTM D445	15.4	14.0	13.8	13.2
	GRAPHS						
	Ferrous Alloys						
	35 iron						
May15/23	30 - nickel						
Ma	25						
	Ē 20						
	15						
	10						
	5 -	and the second division of the second divisio					
	0	-					
	Jan 16/23	May15/23		Sep15/23			
	Jan1	May1		Sep1			
	Non-ferrous Metal	S					
	⁷⁰ T						
	60 - Lead						
	50						
	_ 40						
	E 30						
	20						
	10	1					
	2 2	23		23			
	lan 16/23	May15/23		Sep 15/23			
	Viscosity @ 100°C				Base Number Base		
	, -			10.0	Base Number		
	19	-		10.0			
	19 18 - <mark>Abnormal</mark> 17 -			10.0			
	19 18 - <mark>Abnormal</mark> 17 -			10.0			
	19 18 Abnomal 17			10.0			
	19 18 - Abnormal 17 - Galle Base 17 - Galle Base 17 - Galle Base 17 - Galle Base 17 - Galle Base 18 - Abnormal 17 - Galle Base 19 - Galle Base 19 - Galle Base 19 - Galle Base 10 - G			10.0- (0)HOX 6.0- DHOX 6.0- Jacquer 4.0- ese			
	19 18 Abnormal 17 - G. 16 Base 0000 15 - 37 3 14			10.0 (8,0 (8,0) (8,0HOX) (8,0H			
	19 18 - Abnormal 17 - Base 100 15			10.0- (b) HOX Bull 4.0- Bull 4.0- Bu			
	19 Abnormal 17 Base 16 Base 15 Abnormal 13 Abnormal 12 11			10.0- (b) HOX Bull 4.0- Bull 4.0- Bu	Base	5/23	
	19 18 - Abnormal 17 17 16 - Base 16 - Base 17 18 - Abnormal 14 13 - Abnormal 12	May15/23		10.0 (0, 8.0 (0, 10, 10, 10, 10, 10, 10, 10, 10, 10, 1		May15/23	
Laboratory Sample No. Lab Number Unique Number Test Package discuss this sample report, of	¹⁹ ¹⁹ ¹⁰ ¹⁰ ¹⁰ ¹⁰ ¹⁰ ¹⁰ ¹⁰ ¹⁰ ¹¹	501 Madisc Received Diagnosed	: 22 5 d : 25 5 cian : Wes	10.0 (0)H(0) Bull + 0.0 (0)H(0) Bull + 0.0 (0.0)	Base	TRANSPORT 1 F Conta	ATION - 6054 08 E Bay Ro Plattsmouth, I US 680 ct: NICK DO uidtrucking.cc

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

Submitted By: CASEY WILKIE

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