

OIL ANALYSIS REPORT

Area **SCHEID PRODUCE INC HINO SPI42**

Diesel Engine Fluic PETRO CANADA DURON SHP 10W30 (16 QT

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

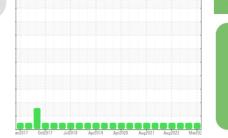
Contamination

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 Number Client Info PCA0110684 PCA0097331 PCA00 Sample Date Client Info 27 Mar 2024 20 Jul 2023 06 Apr Machine Age mis Client Info 246823 230641 223974 Oil Age Mis Client Info Changed Changed <th colspan="12"></th>												
Sample Date Client Info 27 Mar 2024 20 Jul 2023 06 Apr Machine Age Machine Age mis Client Info 246823 230641 22397 Oil Age mis Client Info 99175 6667 8136 Oil Changed Client Info Changed	SAMPLE INFORM	NATION	method	limit/base	current	history1	history2					
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Machine Age mls Client Info 246823 230641 223974 Dil Age mls Client Info 99175 6667 8136 Dil Age Client Info NORMAL NORMAL NORMAL NORMAL Sample Status Client Info NORMAL NORMAL NORMAL NORMAL CONTAMINATION method Imit/base current history1 file Tol VC Method >0.2 NEG NEG NEG Nycol WC Method >0.2 NEG NEG NEG VEAR METALS method Imit/base current history1 file Vickel ppm ASTM D5185m >100 10 8 9 Chromium ppm ASTM D5185m >20 1 <1			Client Info		27 Mar 2024	20 Jul 2023	06 Apr 2023					
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ron ppm ASTM D5185m >100 10 8 9 Chromium ppm ASTM D5185m >20 1 <1	àlycol		WC Method		NEG	NEG	NEG					
Dromium ppm ASTM D5185m >20 1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1	WEAR METALS	5	method	limit/base	current	history1	history2					
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Numinum ppm ASTM D5185m >20 2 2 4 Lead ppm ASTM D5185m >40 <1	Silver		ASTM D5185m	>3	0	0	0					
Dopper ppm ASTM D5185m >330 1 2 0 Tin ppm ASTM D5185m >15 <1	luminum		ASTM D5185m	>20	2	2	4					
Dopper ppm ASTM D5185m >330 1 2 0 Tin ppm ASTM D5185m >15 <1	ead		ASTM D5185m	>40	<1	<1	0					
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Vanadium ppm ASTM D5185m 1 <1 <1 0 Cadmium ppm ASTM D5185m <1 0 0 ADDITIVES method limit/base current history1 history1 Boron ppm ASTM D5185m 2 70 10 18 Barium ppm ASTM D5185m 2 70 10 18 Barium ppm ASTM D5185m 0 0 0 0 0 0 Magnesium ppm ASTM D5185m 50 20 61 44 Magnesium ppm ASTM D5185m 950 518 973 833 Calcium ppm ASTM D5185m 950 1547 1207 1370 Phosphorus ppm ASTM D5185m 995 960 1058 1060 Contact ppm ASTM D5185m 2600 3672 3294 3847 Solifur ppm ASTM D5185m			ASTM D5185m	>15	<1	0	<1					
ADDITIVES method limit/base current history1 history1 Boron ppm ASTM D5185m 2 70 10 18 Barium ppm ASTM D5185m 0 0 0 0 Magnese ppm ASTM D5185m 0 20 61 44 Magnesium ppm ASTM D5185m 0 <1	/anadium	ppm	ASTM D5185m		1	<1	0					
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Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 50 20 61 44 Manganese ppm ASTM D5185m 0 <1	ADDITIVES		method	limit/base	current	history1	history2					
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Manganese ppm ASTM D5185m 0 <1 <1 <1 <1 Magnesium ppm ASTM D5185m 950 518 973 833 Calcium ppm ASTM D5185m 1050 1547 1207 1370 Phosphorus ppm ASTM D5185m 1050 1547 1207 1370 Phosphorus ppm ASTM D5185m 995 960 1058 1060 Zinc ppm ASTM D5185m 995 960 1058 1060 Zinc ppm ASTM D5185m 995 960 1058 1060 Zinc ppm ASTM D5185m 2600 3672 3294 3847 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >25 6 3 3 Potassium ppm ASTM D5185m >20 4 3 2 INFRA-RED method	Barium	ppm	ASTM D5185m	0	0	0	0					
Agnesium ppm ASTM D5185m 950 518 973 833 Calcium ppm ASTM D5185m 1050 1547 1207 1370 Phosphorus ppm ASTM D5185m 1050 1547 1207 1370 Phosphorus ppm ASTM D5185m 995 960 1058 1060 Zinc ppm ASTM D5185m 1180 1139 1325 1224 Sulfur ppm ASTM D5185m 2600 3672 3294 384 CONTAMINANTS method limit/base current history1 his Silicon ppm ASTM D5185m >25 6 3 3 3 Potassium ppm ASTM D5185m >20 4 3 2 INFRA-RED method limit/base current history1 his Soot % % *ASTM D7624 >3 0.7 0.8 0.9 Nitration Abs/cm *A	lolybdenum	ppm	ASTM D5185m	50	20	61	44					
Description ppm ASTM D5185m 1050 1547 1207 1374 Phosphorus ppm ASTM D5185m 995 960 1058 1060 Zinc ppm ASTM D5185m 1180 1139 1325 1224 Sulfur ppm ASTM D5185m 2600 3672 3294 3844 CONTAMINANTS method limit/base current history1 his Silicon ppm ASTM D5185m >25 6 3 <td< td=""><td></td><td>ppm</td><td>ASTM D5185m</td><td>0</td><td><1</td><td><1</td><td><1</td></td<>		ppm	ASTM D5185m	0	<1	<1	<1					
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Zinc ppm ASTM D5185m 1180 1139 1325 1224 Sulfur ppm ASTM D5185m 2600 3672 3294 384 CONTAMINANTS method limit/base current history1 hist Silicon ppm ASTM D5185m >25 6 3 3 Sodium ppm ASTM D5185m >25 6 3 3 Potassium ppm ASTM D5185m >20 4 3 2 INFRA-RED method limit/base current history1 history1 Soot % % *ASTM D7844 >3 0.7 0.8 0.9 Jitration Abs/cm *ASTM D7624 >20 10.1 8.4 9.4 Sulfation Abs/.1mm *ASTM D7415 >30 20.9 19.2 18.7	Calcium	ppm	ASTM D5185m	1050	1547	1207	1370					
Description ppm ASTM D5185m 1180 1139 1325 1224 Gulfur ppm ASTM D5185m 2600 3672 3294 384 CONTAMINANTS method limit/base current history1 hist Silicon ppm ASTM D5185m >25 6 3 3 Sodium ppm ASTM D5185m >25 6 3 3 Potassium ppm ASTM D5185m >20 4 3 2 INFRA-RED method limit/base current history1 history1 Soot % % *ASTM D7844 >3 0.7 0.8 0.9 Jitration Abs/cm *ASTM D7624 >20 10.1 8.4 9.4 Sulfation Abs/.1mm *ASTM D7415 >30 20.9 19.2 18.7 FLUID DEGRADATION method limit/base current history1 history1	hosphorus	ppm	ASTM D5185m	995	960	1058	1060					
CONTAMINANTSmethodlimit/basecurrenthistory1hisSiliconppmASTM D5185m>25633SodiumppmASTM D5185m343PotassiumppmASTM D5185m>20432INFRA-REDmethodlimit/basecurrenthistory1history1Soot %%*ASTM D7844>30.70.80.9JitrationAbs/cm*ASTM D7624>2010.18.49.4SulfationAbs/cm*ASTM D7415>3020.919.218.7FLUID DEGRADATIONmethodlimit/basecurrenthistory1history1		ppm	ASTM D5185m	1180	1139	1325	1224					
Silicon ppm ASTM D5185m >25 6 3 3 Sodium ppm ASTM D5185m >20 3 4 3 Potassium ppm ASTM D5185m >20 4 3 2 INFRA-RED method limit/base current history1 history1 Soot % % *ASTM D7844 >3 0.7 0.8 0.9 Jitration Abs/cm *ASTM D7624 >20 10.1 8.4 9.4 Sulfation Abs/Imm *ASTM D7415 >30 20.9 19.2 18.7 FLUID DEGRADATION method limit/base current history1 history1	Sulfur	ppm	ASTM D5185m	2600	3672	3294	3847					
Sodium ppm ASTM D5185m 3 4 3 Potassium ppm ASTM D5185m >20 4 3 2 INFRA-RED method limit/base current history1 his Soot % % *ASTM D7844 >3 0.7 0.8 0.9 Nitration Abs/cm *ASTM D7624 >20 10.1 8.4 9.4 Sulfation Abs/cm *ASTM D7615 >30 20.9 19.2 18.7 FLUID DEGRADATION method limit/base current history1 history1	CONTAMINAN	ΓS	method	limit/base	current	history1	history2					
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INFRA-REDmethodlimit/basecurrenthistory1history1Soot %%*ASTM D7844>30.70.80.9NitrationAbs/cm*ASTM D7624>2010.18.49.4SulfationAbs/.1mm*ASTM D7115>3020.919.218.7FLUID DEGRADATIONmethodlimit/basecurrenthistory1history1	Sodium	ppm	ASTM D5185m		3	4	3					
Soot % % *ASTM D7844 >3 0.7 0.8 0.9 Vitration Abs/cm *ASTM D7624 >20 10.1 8.4 9.4 Sulfation Abs/.1mm *ASTM D7415 >30 20.9 19.2 18.7 FLUID DEGRADATION method limit/base current history1 history1	Potassium	ppm	ASTM D5185m	>20	4	3	2					
NitrationAbs/cm*ASTM D7624>2010.18.49.4SulfationAbs/.1mm*ASTM D7415>3020.919.218.7FLUID DEGRADATIONmethodlimit/basecurrenthistory1history1	INFRA-RED		method	limit/base	current	history1	history2					
NitrationAbs/cm*ASTM D7624>2010.18.49.4SulfationAbs/.1mm*ASTM D7415>3020.919.218.7FLUID DEGRADATIONmethodlimit/basecurrenthistory1history1	Soot %	%	*ASTM D7844	>3	0.7	0.8	0.9					
Sulfation Abs/.1mm *ASTM D7415 >30 20.9 19.2 18.7 FLUID DEGRADATION method limit/base current history1 history1												
							18.7					
	FLUID DEGRAD	ATION	method	limit/base	current	history1	history2					
			*ASTM D7414	>25	17.7	15.7	16.4					
Base Number (BN) mg KOH/g ASTM D2896 7.0 8.9 7.5												



Sample Rating Trend



NORMAL

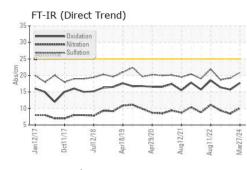
Report Id: MILLAN [WUSCAR] 06140887 (Generated: 04/10/2024 10:49:38) Rev: 1

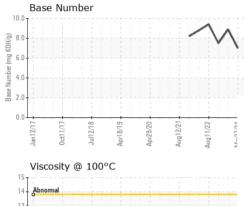
Contact/Location: RON ROBERTS - MILLAN Page 1 of 2

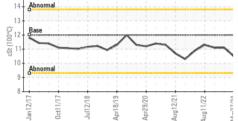


OIL ANALYSIS REPORT

VICLAI







	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	
and the second	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE	
1/22	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML	
Aug 1 2/21 Aug 1 1/22 Mar2 7/24	Odor	scalar	*Visual	NORML	NORML	NORML	NORML	
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG	
	Free Water	scalar	*Visual		NEG	NEG	NEG	
$\sim$	FLUID PROPE		method	limit/base	current	history1	history2	
	Visc @ 100°C	cSt	ASTM D445	12.00	10.5	11.1	11.1	
	GRAPHS							
	Iron (ppm)				Lead (ppm)			
	250			100				
лстсм	200 - Severe				80 - Severe			
Aug	E ¹⁵⁰ - Abnormal			5	60 Abnormal			
	100 - 0							
	50				20 -			
		/19-	22	/24		/19	/21 /22	
	Jan 12/17 Oct11/17 Jul12/18	Apr1 8/19 Apr2 9/20	Aug 12/21 Aug 11/22	Mar27/24	Jan 12/17 Oct1 1/17 Jul12/18	Apr18/19 Apr29/20	Aug12/21 Aug11/22 Mar27/24	
$\sim$	Aluminum (ppm)			<u> </u>	Chromium (p	nm)		
$\sim$	50 T			ingen d	50 T			
	40 - Severe				40 - Severe			
	20 - Abnormal			E E	30			
Aug11/22 Aug11/22	all 20 - Abnormal			udd	20 - Abnormal			
Aug	10				10			
		10	21	24		61 02	22	
	Jan 12/17 Oct 11/17 Jul 12/18	Apr1 8/19 Apr2 9/20	Aug 12/21 Aug 11/22	Mar27/24	Jan 12/17 Oct1 1/17 Jul1 2/18	Apr18/19 Apr29/20	Aug12/21 Aug11/22 Mar27/24	
	, – ,	A A	Aı	≥	,		Aı M	
	Copper (ppm)			80	Silicon (ppm)			
	400 Severe Pubitormati				60			
	톱 200 -			udd	Abnormal			
	100-				20 -			
		6 0	5	4	0			
	Jan 12/17 Oct11/17 Jul12/18	Apr18/19 Apr29/20	Aug 12/21 Aug 11/22	Mar27/24	Jan 12/17 Oct1 1/17 Jul1 2/18	Apr18/19 Apr29/20	Aug12/21 Aug11/22 Mar27/24	
	-		Au	M	,		Au	
	Viscosity @ 100°C			10	Base Number	-		
	14 Abnormal			B	.0		$\sim$	
				В б	.0-			
	(0-001) 12 - Base	$\sim$	$\sim$	- ¹ ¹ ¹ ¹	.0			
	10 Abnormal		$\sim$	Nn es 2	.0			
	8				.0			
	Jan 12/17 Oct11/17 Jul12/18	Apr18/19 Apr29/20	Aug 12/21 Aug 11/22	Mar27/24	Jan 12/17 Oct1 1/17 Jul1 2/18	Apr18/19 Apr29/20	Aug12/21 Aug11/22 Mar27/24	
	Jar Ju	Ap	Aug	Ma	Jar Jul	Api	Aug Aug Mar	
Lab Number : 06140887 T		Recei Teste Diagr	ved : 08   d : 08   iosed : 10	, NC 27513 Apr 2024 Apr 2024 Apr 2024 - Jonathan Hester		MILLER TRUCK LEASING #123 66 KELLER AVENUE LANCASTER, PA US 17601 Contact: PON POPERTS		



Unique Number : 10965695 Diagnosed : 10 Apr 2024 - Jonathan Hester Test Package : MOB 1 (Additional Tests: TBN) Certificate 12367 To discuss this sample report, contact Customer Service at 1-800-237-1369. * - 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)

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