

Machine Id  
**1995 FORD FORD PSD**  
Component  
**Diesel Engine**  
Fluid  
**SHELL ROTELLA T 15W40 (14 QTS)**

**RECOMMENDATION**

The oil change at the time of sampling has been noted. We recommend an early resample to confirm this situation, however, a minimum of 10 hours, 500 miles or 800 kilometers on the oil is required before resampling to prevent false positive glycol reactions that can be experienced with new oil. NOTE: Although the glycol test was positive other chemicals other than anti-freeze can cause a similar reaction including the oil additive package, or supplemental oil additives. As there is insufficient evidence (such as high wear metals, or the presence of water) to indicate a serious leak, no other maintenance actions, aside from those recommended here, should be carried out at this time.

**WEAR**

All component wear rates are normal.

**CONTAMINATION**

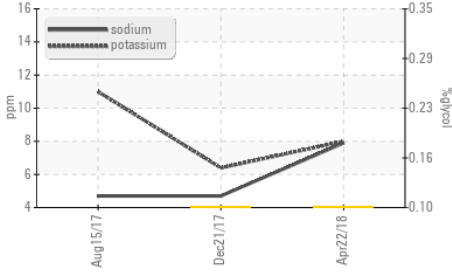
Test for glycol is positive.

**FLUID CONDITION**

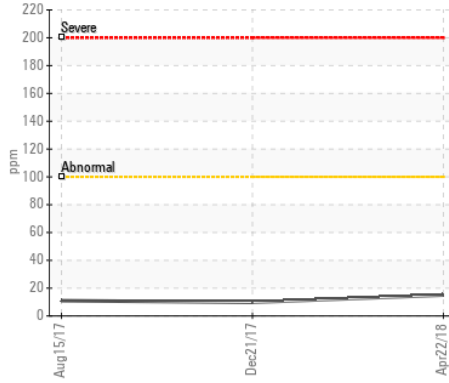
The condition of the oil is acceptable for the time in service (see recommendation).

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LF501953</b>	LF501964	LF168975
Sample Date		Client Info		<b>22 Apr 2018</b>	21 Dec 2017	15 Aug 2017
Machine Age	mls	Client Info		<b>0</b>	0	209000
Oil Age	mls	Client Info		<b>7337</b>	6800	7000
Filter Age	mls	Client Info		<b>7337</b>	6800	7000
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>ABNORMAL</b>	ABNORMAL	NORMAL
Iron	ppm	ASTM D5185(m)	>100	<b>15</b>	10	11
Chromium	ppm	ASTM D5185(m)	>20	<b>1</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	<b>1</b>	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>2</b>	1	2
Lead	ppm	ASTM D5185(m)	>40	<b>1</b>	<1	2
Copper	ppm	ASTM D5185(m)	>330	<b>3</b>	1	1
Tin	ppm	ASTM D5185(m)	>15	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	0
Silicon	ppm	ASTM D5185(m)	>25	<b>5</b>	4	6
Potassium	ppm	ASTM D5185(m)	>20	<b>▲ 8</b>	▲ 6	11
Fuel		WC Method	>2.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol	%	ASTM D7922*		<b>▲ 0.10</b>	▲ 0.10	NEG
Soot %	%	ASTM D7844*	>3	<b>0</b>	0	0
Nitration	Abs/cm	ASTM D7624*	>25	<b>8.6</b>	7.6	6.
Sulfation	Abs/.1mm	ASTM D7415*	>35	<b>21.9</b>	21.2	16.
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG
Sodium	ppm	ASTM D5185(m)		<b>8</b>	5	5
Boron	ppm	ASTM D5185(m)	35	<b>160</b>	154	99
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	0	<b>3</b>	2	2
Manganese	ppm	ASTM D5185(m)	0	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185(m)	10	<b>15</b>	15	11
Calcium	ppm	ASTM D5185(m)	2340	<b>2334</b>	2269	2532
Phosphorus	ppm	ASTM D5185(m)	1110	<b>1024</b>	981	1039
Zinc	ppm	ASTM D5185(m)	1210	<b>1208</b>	1194	1220
Sulfur	ppm	ASTM D5185(m)	3890	<b>3061</b>	3010	3562
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>18.6</b>	17.4	15.
Visc @ 100°C	cSt	ASTM D7279(m)	15.7	<b>13.9</b>	13.8	14.17

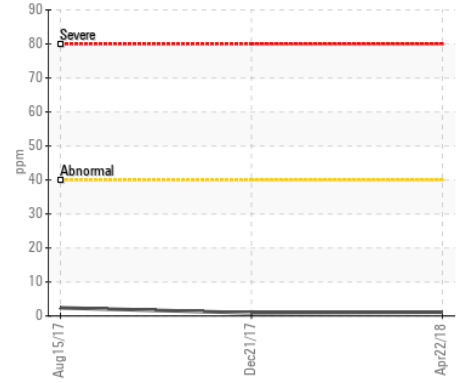
**▲ Glycol Contamination**



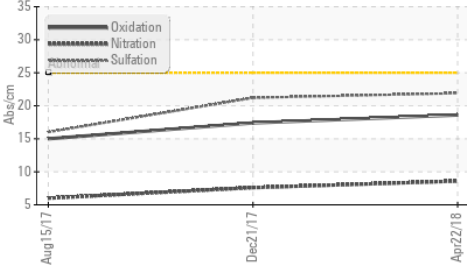
**Iron (ppm)**



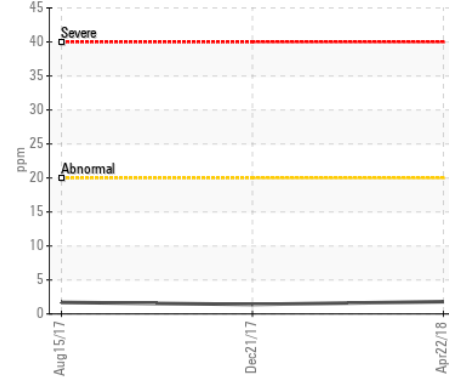
**Lead (ppm)**



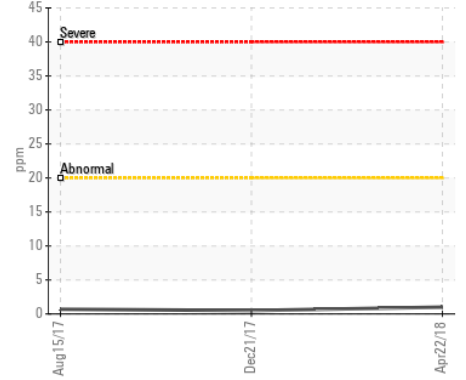
**FT-IR (Direct Trend)**



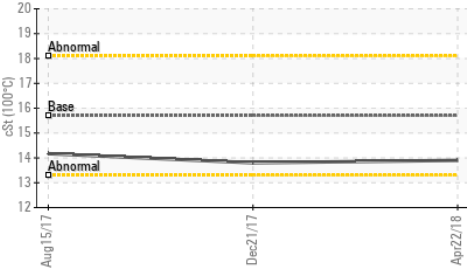
**Aluminum (ppm)**



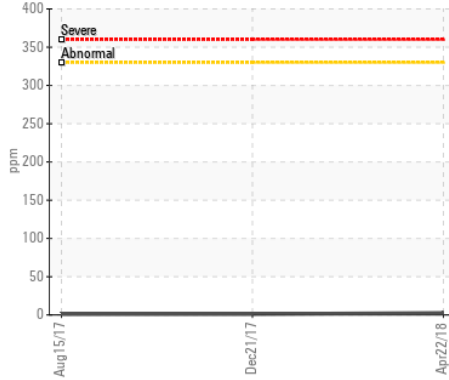
**Chromium (ppm)**



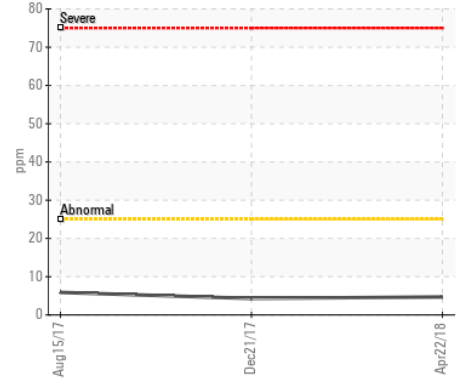
**Viscosity @ 100°C**



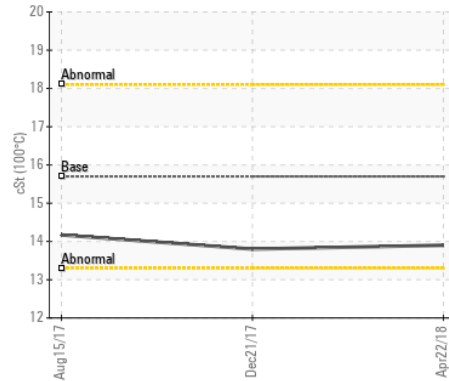
**Copper (ppm)**



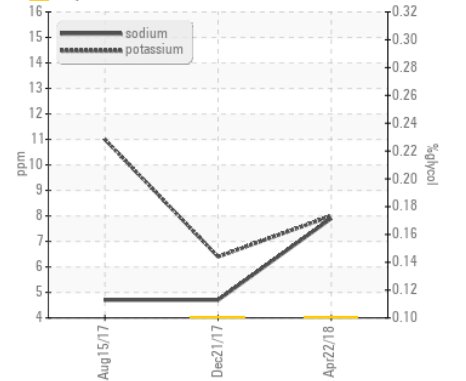
**Silicon (ppm)**



**Viscosity @ 100°C**



**▲ Glycol Contamination**



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : LF501953 **Received** : 02 May 2018  
**Lab Number** : **02213624** **Tested** : 03 May 2018  
**Unique Number** : 4680748 **Diagnosed** : 03 May 2018 - Wes Davis  
**Test Package** : MOB 1

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To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.