APPENDIX A
Welcome to the GM dexos™
Information Center

General Motors is committed to designing, building, and selling cars that perform well and last a long time - and to making the experience of owning a GM vehicle highly rewarding. GM is also working to make its vehicles more fuel efficient and emit fewer pollutants. A critical component of performance, longevity, and environmental sensitivity is the quality of the oil that goes into the car. The right oil will help your engine run well for a longer time; substandard oil will cause your engine to run poorly and may even damage it. Yet, in today’s market it’s not always possible to determine the quality of the oil you buy.

That’s why GM Powertrain engineers developed the dexos™ engine oil specification. The result is engine oil designed specifically for your GM engine, with added performance in areas important to its operation. dexos™ represents a high quality, robust oil formulated to some of the most rigorous specifications in the industry. And just like GM, dexos™ is global. GM wants to make sure that every GM car anywhere in the world has access to the highest quality oil formulated exclusively for GM engines.

dexos™ is designed to increase fuel efficiency, extend the life of your emissions system, require fewer oil changes, and produce fewer emissions. You save time and money, and your car performs the way it was designed to.

dexos™ is the best oil for any GM car. It’s that simple.

To ensure you are using the right oil for your GM car, choose only authentic, licensed dexos™ oils. dexos™ is an exclusive trademark of General Motors. Only those oils displaying the green or blue dexos™ trademark and icon on the front label have been certified and licensed by GM as meeting the demanding performance requirements and stringent quality standards of the dexos™ specification. Other oils may make a lot of claims but have not gone through GM’s rigorous testing and quality control process.
In Brief ........................................ 1-1
Instrument Panel ............................. 1-2
Initial Drive Information ................. 1-3
Vehicle Features ............................ 1-14
Performance and Maintenance ............ 1-18

Keys, Doors and Windows ................. 2-1
Keys and Locks .............................. 2-2
Doors ......................................... 2-10
Vehicle Security ............................. 2-11
Exterior Mirrors ......................... 2-14
Interior Mirrors ............................ 2-15
Windows .................................... 2-16
Roof ......................................... 2-18

Seats and Restraints ....................... 3-1
Head Restraints ............................ 3-2
Front Seats .................................. 3-3
Rear Seats .................................. 3-8
Safety Belts .................................. 3-10
Airbag System .............................. 3-26
Child Restraints ............................ 3-42

Storage ....................................... 4-1
Storage Compartments .................... 4-1
Additional Storage Features ............ 4-2

Instruments and Controls .................. 5-1
Controls ..................................... 5-2
Warning Lights, Gauges, and Indicators 5-10
Information Displays ..................... 5-26
Vehicle Messages ......................... 5-30
Vehicle Personalization ................. 5-39
Universal Remote System .............. 5-45

Lighting ..................................... 6-1
Exterior Lighting ........................... 6-1
Interior Lighting ........................... 6-5
Lighting Features .......................... 6-6

Infotainment System ....................... 7-1
Introduction ................................ 7-1
Radio ....................................... 7-6
Audio Players ................................ 7-15
Phone ....................................... 7-21

Climate Controls ......................... 8-1
Climate Control Systems ............... 8-1
Air Vents .................................... 8-5
Maintenance ............................... 8-5

Driving and Operating ..................... 9-1
Driving Information ...................... 9-2
Starting and Operating ................. 9-17
Engine Exhaust ............................ 9-24
Automatic Transmission .............. 9-25
Brakes ....................................... 9-28
Ride Control Systems ................. 9-29
Cruise Control ............................. 9-32
Fuel ......................................... 9-35
Towing ....................................... 9-41
Conversions and Add-Ons ............. 9-48

Vehicle Care ................................. 10-1
General Information ...................... 10-2
Vehicle Checks ............................ 10-4
Headlamp Aiming ......................... 10-32
Bulb Replacement ....................... 10-33
Selecting the Right Engine Oil

Selecting the right engine oil depends on both the proper oil specification and viscosity grade:

**Specification**

Use and ask for engine oils with the dexos™ certification mark. Oils meeting the requirements of the vehicle should have the dexos certification mark on the container. This certification mark indicates that the oil has been approved to the dexos specification.

This vehicle was filled at the factory with dexos-approved engine oil. **Notice: Use only engine oil that is approved to the dexos specification or an equivalent engine oil of the appropriate viscosity grade. Engine oils approved to the dexos specification will show the dexos symbol on the container.**

Failure to use the recommended engine oil or equivalent can result in engine damage not covered by the vehicle warranty. If you are unsure whether the oil is approved to the dexos specification, ask your service provider.

Use of Substitute Engine Oils if dexos is unavailable: In the event that dexos-approved engine oil is not available at an oil change or for maintaining proper oil level, you may use substitute engine oil displaying the API Starburst symbol and of SAE 5W-30 viscosity grade.
Use of oils that do not meet the dexos specification, however, may result in reduced performance under certain circumstances.

**Viscosity Grade**

SAE 5W-30 is the best viscosity grade for the vehicle. Do not use other viscosity oils such as SAE 10W-30, 10W-40, or 20W-50.

Cold Temperature Operation:

In an area of extreme cold, where the temperature falls below \(-29^\circ C \text{ (} -20^\circ F\text{)}, an SAE 0W-30 oil should be used. An oil of this viscosity grade will provide easier cold starting for the engine at extremely low temperatures. When selecting an oil of the appropriate viscosity grade, be sure to always select an oil that meets the required specification, dexos. See “Specification” earlier in this section for more information.
Vehicle Care

Engine Oil

To ensure proper engine performance and long life, careful attention must be paid to engine oil. Following these simple, but important steps will help protect your investment:

• Always use engine oil approved to the proper specification and of the proper viscosity grade. See "Selecting the Right Engine Oil."
• Check the engine oil level regularly and maintain the proper oil level. See "Checking Engine Oil" and "When to Add Engine Oil."
• Change the engine oil at the appropriate time. See Engine Oil Life System on page 10-12.
• Always dispose of engine oil properly. See "What to Do With Used Oil."

Checking Engine Oil

It is a good idea to check the engine oil level at each fuel fill. In order to get an accurate reading, the vehicle must be on level ground. The engine oil dipstick handle is a yellow loop. See Engine Compartment Overview on page 10-6 for the location of the engine oil dipstick.

Obtaining an accurate oil level reading is essential:

1. If the engine has been running recently, turn off the engine and allow several minutes for the oil to drain back into the oil pan. Checking your oil level too soon after engine shut off will not provide an accurate oil level reading.

2. Pull out the dipstick and clean it with a paper towel or cloth, then push it back in all the way. Remove it again, keeping the tip down, and check the level.

When to Add Engine Oil

If the oil is below the MIN (minimum) mark for the L4 engine or below the cross-hatched area at the tip of the dipstick for the V6 engine, add one liter/quart of the recommended oil and then recheck the level. See "Selecting the Right Engine Oil" for an explanation of what kind of oil to use. For engine oil crankcase capacity, see Capacities and Specifications on page 12-2.

Notice: Do not add too much oil. If the engine has so much oil that the oil level gets above the upper mark that shows the proper operating range, the engine could be damaged.

See Engine Compartment Overview on page 10-5 for the location of the engine oil fill cap.

Add enough oil to put the level somewhere in the proper operating range. Push the dipstick all the way back in when through.

Selecting the Right Engine Oil

Selecting the right engine oil depends on both the proper oil specification and viscosity grade:

Specification

Use and ask for engine oils with the dexos™ certification mark. Oils meeting the requirements of your vehicle should have the dexos™ certification mark on the container.
This certification mark indicates that the oil has been approved to the dexos™ specification.

Your vehicle was filled at the factory with dexos™ approved engine oil.

Notice: Use only engine oil that is approved to the dexos™ specification or an equivalent engine oil of the appropriate viscosity grade. Engine oils approved to the dexos™ specification will show the dexos™ symbol on the container. Failure to use the recommended engine oil or equivalent can result in engine damage not covered by the vehicle warranty. If you are unsure whether your oil is approved to the dexos™ specification, ask your service provider.

Use of Substitute Engine Oils if dexos™ is unavailable: In the event that dexos™ approved engine oil is not available at an oil change or for maintaining proper oil level, you may use substitute engine oil displaying the API Starburst symbol and of SAE 5W-30 viscosity grade. Use of oils that do not meet the dexos™ specification, however, may result in reduced performance under certain circumstances.

Viscosity Grade
SAE 5W-30 is the best viscosity grade for the vehicle. Do not use other viscosity oils such as SAE 10W-30, 10W-40, or 20W-50.

Cold Temperature Operation: In an area of extreme cold, where the temperature falls below -29°C (-20°F), an SAE 0W-30 oil should

11-6 Service and Maintenance

Recommended Fluids, Lubricants, and Parts

Recommended Fluids and Lubricants

<table>
<thead>
<tr>
<th>Usage</th>
<th>Fluid/Lubricant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine Oil</td>
<td>The engine requires engine oil approved to the dexos™ specification. Oils meeting this specification can be identified with the dexos™ certification mark. Look for and use only an engine oil that displays the dexos™ certification mark of the proper viscosity grade. See Engine Oil on page 10-9.</td>
</tr>
<tr>
<td>Engine Coolant</td>
<td>50/50 mixture of clean, drinkable water and use only DEX-COOL Coolant. See Engine Coolant on page 10-16.</td>
</tr>
<tr>
<td>Windshield Washer</td>
<td>Optikleen® Washer Solvent.</td>
</tr>
<tr>
<td>Automatic Transmission</td>
<td>DEXRON® VI Automatic Transmission Fluid.</td>
</tr>
<tr>
<td>Key Lock Cylinders</td>
<td>Multi-Purpose Lubricant, Superlube (GM Part No. U.S. 12346241, in Canada 10953474).</td>
</tr>
<tr>
<td>Hood Latch Assembly, Secondary Latch, Pivot, Spring Anchor, and Release Pawl</td>
<td>Lubriplate Lubricant Aerosol (GM Part No. U.S. 12346293, in Canada 992723) or lubricant meeting requirements of NLGI #2, Category LB or GC-LB.</td>
</tr>
</tbody>
</table>
Conventional and synthetic oil both are produced from crude oil. Their differences lie in how they're refined.


Challenges posed by the modern engines
The new FB Subaru Boxer four-cylinder non-turbocharged engine in the 2011 Forester was designed and engineered for improved fuel economy, a wider range of power, and improved response. The design puts different demands on engine oil. (See "The All-New Subaru FB Engine" article in Winter 2011 Drive at www.drive.subaru.com.)

Turbocharged engines also place unique demands on motor oil, exposing it to extreme heat and high engine speeds. These tend to break down conventional oil more quickly. Turbochargers operate at higher temperatures, which can lead to restricted oil passageways and deposits on the turbine shafts if the engine is not maintained properly.

As a result, Subaru 0W-20 synthetic motor oil is required for the FB engine and Subaru 5W-30 synthetic motor oil for Subaru 2011 turbocharged engines. Subaru synthetic 0W-20 is uniquely formulated to handle the low-friction design of the FB engine, while Subaru synthetic 5W-30 is formulated specifically to address the harsh demands of a turbocharged engine. For 2010 and earlier turbocharged engines, Subaru also recommends the Subaru synthetic 5W-30 motor oil.

Synthetic oil - more refined
Conventional and synthetic oil both are produced from crude oil. Their differences lie in how they're refined.
A synthetic base oil can be produced by using two different processes. Both processes start with crude oil. The first process separates and breaks crude oil into small molecules and then uses polymerizations (forming larger molecules from two or more molecules by a chemical reaction) to derive a synthetic oil base from crude. The second process refines crude oil into conventional base oil and then undergoes hydrocracking (breaking crude oil's heavy hydrocarbons into lighter products in the presence of hydrogen) and hydroisomerizing (changing hydrocarbon compounds into a different molecular form).

Additives mixed with the synthetic base oil enhance its performance. In its final form, synthetic oil is approximately 80 percent synthetic base oil and 20 percent additives.

**MEETING THE CHALLENGES**

There are three major differences between conventional and synthetic oils. Synthetic oil is more stable against oxidation and breakdown, has a higher viscosity index, and demonstrates lower volatility.

**Stability**

Because of its high stability, synthetic oil protects against breakdown, which can lead to residue formation (called “coking” and “sludge”) and engine deposits, and results in reduced engine wear. The engine runs cleaner, and the oil has a longer life.

**Viscosity**

Perceived as thickness or resistance to flow, viscosity is a measure of a fluid's resistance to deform under stress. Viscosity is oil's most important characteristic, and the level of viscosity is specified based on engine design and operating temperature. If an oil's viscosity is too high or too low, it will cause undue stress to the engine, breaking down the oil structure and wearing out the engine.

An oil's nomenclature indicates its viscosity. In the reference to 5W-30, the 5 is a relative measure of viscosity at low engine temperatures, and 30 is the relative viscosity at high engine temperatures. The lower the numbers, the easier the flow rate.

Synthetic oils have a more stable viscosity over an engine's operating range.

**Volatility**

This is an oil's tendency to lose its lighter components through evaporation. Volatility is a function of the base oil. Synthetic oils tend to have lower volatility, which helps to reduce emissions and residue as well as improve service life.

**SUBARU-BRANDED SYNTHETIC MOTOR OIL**

In 2010, Subaru of America, Inc. partnered with Idemitsu Lubricants America Corporation to prepare Subaru-branded synthetic motor oil for applications in the new FB four-cylinder engine and in turbocharged engines. Researching and formulating Subaru engine-specific 0W-20 and 5W-30 synthetic motor oil ensures quality, performance, and, ultimately, customer satisfaction. This oil is available to do-it-yourselfers at Subaru dealers.
## RECOMMENDED FLUIDS AND LUBRICANTS

### Fluids and Lubricants

<table>
<thead>
<tr>
<th>Description</th>
<th>Capacity (approximate)</th>
<th>Recommended Fluids and Lubricants</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Liter</td>
<td>US measure</td>
</tr>
<tr>
<td>Fuel</td>
<td>75.6</td>
<td>20 gal</td>
</tr>
<tr>
<td>Engine oil change</td>
<td>4.2</td>
<td>4 1/2 qt</td>
</tr>
<tr>
<td>Drain and refill</td>
<td>4.0</td>
<td>4 1/4 qt</td>
</tr>
<tr>
<td>Dry engine (engine overhaul)</td>
<td>4.6</td>
<td>4 7/8 qt</td>
</tr>
<tr>
<td>Cooling system</td>
<td>8.5</td>
<td>2 1/4 gal</td>
</tr>
<tr>
<td>Manual transaxle fluid (MTF)</td>
<td>2.2</td>
<td>2 3/8 qt</td>
</tr>
<tr>
<td>Transaxle fluid (ATF)</td>
<td>7.3</td>
<td>7 3/4 qt</td>
</tr>
<tr>
<td>Power steering fluid (PSF)</td>
<td>1.0</td>
<td>2 1/8 pt</td>
</tr>
<tr>
<td>Brake and clutch fluids</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Multi-purpose grease</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Windshield washer fluid</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Air conditioning system refrigerant</td>
<td>0.55 ± 0.025 kg</td>
<td>1.21 ± 0.055 lb</td>
</tr>
<tr>
<td>Air conditioning system lubricant</td>
<td>150 ml</td>
<td>5.03 fl oz</td>
</tr>
</tbody>
</table>

*1: For improved performance, use unleaded premium gasoline with an octane rating of at least 91 AKI (RON 96).

*2: For further details, see "SAE Viscosity Number".

*3: Using automatic transmission fluid other than Genuine NISSAN Matic K ATF will cause deterioration in driveability and automatic transmission durability, and may damage the automatic transmission, which is not covered by the NISSAN new vehicle limited warranty.

*4: For Canada, NISSAN Automatic Transmission Fluid (ATF); DEXRON™ III / MERCON™ or equivalent ATF may also be used.

*5: Available in mainland U.S.A. through your NISSAN dealer.

*6: For further details, see "Air conditioner specification label".

---

Revision: April 2008

MA-9

2005 Maxima
<table>
<thead>
<tr>
<th>Caller ID</th>
<th>Salesperson</th>
<th>Company/Department</th>
<th>Call Number:  TLMY-7VQR2X</th>
<th>Level 1: VALVOLINE</th>
<th>Group: Fluid Tech Line</th>
</tr>
</thead>
<tbody>
<tr>
<td>Call Status: Open</td>
<td>Level 2: FUNCTIONAL FLUIDS</td>
<td>Assignee:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Call Priority: Emergency</td>
<td>Level 3: AUTOMATIC</td>
<td>Tech Time: 0 hr 0 min</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Call Opened: 09/09/2009 03:39 PM</td>
<td>Level 4: MAXLIFE DEX/MERCON ATF</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Call Author:</td>
<td>Level 5: CLAIM</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Problem Description:**
Customer had a transmission flush from VIOC 040052 using the MaxLife ATF for his 2007 Nissan Xterra. Problems occurred with the shifting of the transmission. Nissan denied warranty due to not using Nissan Matic fluids.

**Problem Resolution:**
Claim has been honored by Valvoline due to standing behind our products 100%. Customer has been reimbursed Check #16300274 has been issued in the amount of $8,129.27 to Mtn View Nissan and check #16200276 issued in the amount of $1,250.84 to customer for vehicle rental fees.

**Attachments:**

**Custom Fields:**

<table>
<thead>
<tr>
<th>Batch Number:</th>
<th>Repeate Caller:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Line of Claim: Valvoline</td>
<td>Claim Amount: 7380.11 (number only)</td>
</tr>
</tbody>
</table>

Copyright ©1994-98 GWI Software. All rights reserved.
Route Count: 0

Follow Up Date:

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/19/2009</td>
<td>12:00PM</td>
<td>Escalation Manager - Emergency threshold exceeded. SLA counter updated.</td>
</tr>
<tr>
<td>10/14/2009</td>
<td>12:00PM</td>
<td>Escalation Manager - Emergency threshold exceeded. SLA counter updated.</td>
</tr>
<tr>
<td>10/09/2009</td>
<td>12:00PM</td>
<td>Escalation Manager - Emergency threshold exceeded. SLA counter updated.</td>
</tr>
<tr>
<td>10/06/2009</td>
<td>12:00PM</td>
<td>Escalation Manager - Emergency threshold exceeded. SLA counter updated.</td>
</tr>
<tr>
<td>09/28/2009</td>
<td>12:01PM</td>
<td>Escalation Manager - Notified that this ticket exceeded a SLA.</td>
</tr>
<tr>
<td>09/21/2009</td>
<td>12:00PM</td>
<td>Escalation Manager - Medium priority threshold exceeded. Upgraded to High priority.</td>
</tr>
<tr>
<td>09/15/2009</td>
<td>11:04AM</td>
<td>- Did not log any time to ticket.</td>
</tr>
<tr>
<td>09/09/2009</td>
<td>03:56PM</td>
<td>- Did not log any time to ticket.</td>
</tr>
<tr>
<td>09/09/2009</td>
<td>03:56PM</td>
<td>- Priority set to Medium.</td>
</tr>
<tr>
<td>09/09/2009</td>
<td>03:39PM</td>
<td>- Ticket opened.</td>
</tr>
</tbody>
</table>

Copyright ©1994-98 GWI Software. All rights reserved.
Consumer Claim Information

Date: 8/27/09

Name:
Address:
City, State, Zip:

Phone:
Fax Number:
E-mail address:

Valvoline Product Used:  MAXATFB

Purchased Product at What Store:  #94005-2

Date of Product Purchase:  6/14/09
(Include cash register receipt reflecting this purchase when returning form.)

VEHICLE INFORMATION:
Year:  2007
Make:  NISSAN
Model:  XTERRA
Mileage before change:  42160
Mileage when damage was noticed:  44700
Have you kept vehicle services up to date:  YES

Why. How did you select this product?
I just do Valvoline Instant Oil Change to have my oil changed and technicians suggested be in our Transmission linked. Told us it was competitive. I wouldn't void our warranty.
Describe in detail the specific concern. Indicate when the product was used (if used), and when the concern was noticed.

My Transmission was flushed using Magnatek fluid: 6/14/2009

Please describe in detail the problem associated with using the product.

My Transmission started slipping while we were on vacation. When we returned, we took it to our local Nissan dealership. Nissan says the wrong fluid was used. Any pressurization, will have to be replaced. They voided my power train warranty on the trans and won't repair.

How do you perceive that this claim can best be resolved?

Replace my trans with a new one from Nissan. I have also had to get around since this has been going on for over 2 weeks.

Signature: 
Date: 8/27/09

RETURN COMPLETED CLAIM FORM, COPY OF ESTIMATES FOR REPAIR & PRIOR SERVICE RECORDS TO:

The Valvoline Company
P.O. BOX 12918
Lexington, KY 40583

VALVOLINE FLUID CLAIMS REQUIRE A PROPER SAMPLE OF THE ORIGINAL FLUID IN QUESTION, TO BE SUBMITTED FOR TESTING & IDENTIFICATION PURPOSES. FAILURE TO SUBMIT A SAMPLE OF THE FLUID IN QUESTION COULD RESULT IN POSSIBLE DENIAL OF CLAIM.

FLUID SAMPLE INSTRUCTIONS CAN BE OBTAINED BY CALLING THE VALVOLINE FLUID TECHNICAL HOTLINE AT (800) TEAM VAL.
Mountain View Nissan  
2100 S. Market Street  
Chattanooga, TN. 37408  
August 26, 2009

Dear Mrs.

This is to notify you that Nissan has declined your transmission replacement, due to Matic J transmission fluid not being used. The decision was made by Nissan North America, Inc. the manufacturer, not Mountain View Nissan. If you need further assistance in this matter, please contact Nissan North America, Inc.

Sincerely,

Chris Tapp  
Service Manager  
Mountain View Nissan
**Horizon Fluid Analysis Report**

**Unit ID**
- NL: New lube reference
- SE: New lube reference

**Application**
- New lube reference

**Account Number**
- VALV0600000000

**Date Sampled**
- 02/11/08

**Date Received**
- 02/12/08

**Date Completed**
- 02/12/08

**Tracking #**
- 08037N09362

**Manufacturer/Model**
- VALVOLUM

**Lube Mfr**
- MAXLIFE DEX/MERC

**Micron Rating**
- 0

**Filter Type**
- SUMP CAPACITY

**Hyd System Pressure**
- 0

**Fluid Added**
- You can hover and click on any FIELD NAME (like IRON) to learn more.

**Wear Metals (PPM)**

<table>
<thead>
<tr>
<th>Element</th>
<th>Cu</th>
<th>Fe</th>
<th>Al</th>
<th>Si</th>
<th>P</th>
<th>Ti</th>
<th>Mo</th>
<th>Mn</th>
<th>S</th>
<th>M</th>
<th>Si</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample 1</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

**Contaminant Metals - PPM**

<table>
<thead>
<tr>
<th>Element</th>
<th>Cu</th>
<th>Fe</th>
<th>Al</th>
<th>Si</th>
<th>P</th>
<th>Ti</th>
<th>Mo</th>
<th>Mn</th>
<th>S</th>
<th>M</th>
<th>Si</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample 1</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

**Multi-Source Metals - PPM**

<table>
<thead>
<tr>
<th>Element</th>
<th>Cu</th>
<th>Fe</th>
<th>Al</th>
<th>Si</th>
<th>P</th>
<th>Ti</th>
<th>Mo</th>
<th>Mn</th>
<th>S</th>
<th>M</th>
<th>Si</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample 1</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

**Additive Metals - PPM**

<table>
<thead>
<tr>
<th>Element</th>
<th>Cu</th>
<th>Fe</th>
<th>Al</th>
<th>Si</th>
<th>P</th>
<th>Ti</th>
<th>Mo</th>
<th>Mn</th>
<th>S</th>
<th>M</th>
<th>Si</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample 1</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

**Overall Severity of Report**

- Based on comments, not individual flags

**Lab.#**
- 690902

**Location**
- 1

**Analyst**
- JUK

**Company Information**
- Valvoline / Team Val
- Travis M./Jeff T.
- 800-832-6825 X7460
- 3499 Blazer Parkway
- Lexington, KY 40509

**Fluid Analysis Report - 866-301-9229**

**Comments**
- New lube reference - Data used for baseline reference only; Data indicates no abnormal findings. Resample at normal interval;

**Links**

9/9/2009
September 18, 2009

Mountain View Nissan
2100 S. Market St.
Chattanooga, TN 37408

To whom this letter may concern;

Enclosed is a check in the amount of $6,129.27 to cover the transmission replacement repairs made for a customer. The check is a reimbursement of the amount given in the total estimate received by our company (attached), from the customer as indicated by your company. With this payment, we have also reserved the rights to the existing transmission that was removed from the vehicle, in which one of our Valvoline associates will be picking up very soon.

Thank you,

Valvoline

Travis Montgomery
Supervisor – Valvoline Fluid/Technical
This check request of greater than $5,000.00 has been approved by Kathy Jackson. She can be reached at 8.

Thanks,

TRAVIS MONTGOMERY  
Supervisor · Valvoline Fluid Technical Hotline  
Valvoline · 3499 Blazer Pkwy · Lexington, KY 40509  
[Office] 800 TEAM VAL · [Ext] 7460  
[Phone] 859-357-7460 · [Fax] 859-357-5001  
[Email] tlmontgomery@ashland.com
Consumer Claim Information

Date: 3/24/2010

Name: 
Address: 
City, State, Zip: 
Phone: 
Fax Number: 
E-mail address: 

Valvoline Product Used: Max Life ATF
Purchased Product at What Store: Store 8522 goodyear
Date of Product Purchase: 7/29/2009
(Include cash register receipt reflecting this purchase when returning form is available.)

Why/How did you select this product? Max Life ATF is the only trans fluid Goodyear stocks to service a majority of its vehicles because it covers such a large range of vehicles.

Describe in detail the specific concern. Indicate when the product was used, and when the concern was noticed. After 8,691 miles after a trans service the transmission failed. The dealer says the trans failed because of type of fluid used. The fluid used during service was ATF MaxLife

VEHICLE INFORMATION:
Year: 2003
Make: HYUNDAI
Model: Elantra
Mileage: 71,868
Please complete the following shaded section as needed for complaints -

Was a complete transmission flush performed?
Yes, a complete service fluid exchange machine.

What type of machine was used to perform service? (Name and type)
Evans Wear, Inc., fluid exchanger.

Why was the fluid changed?
Fluid is due to be changed at next service.

What are the problems noticed with this service?
After service, the fluid transmission failed.

Has vehicle had a transmission service before?
No, manufacturer service schedule is every 60,000 miles.

What was the mileage on the vehicle at the time of the transmission service?
60,777

What was the mileage on the fluid when the problem occurred?
67,094 - Vehicle 71868
How do you perceive that this claim can best be resolved?

The customer will need to have a
the Trans replaced - and Good year used
the correct fluid - Kia - Hyundai should
Should behind the warrant, but has accused
us of using the wrong fluid. So Valvoline
or Kia should take care of the customer
by replacing the transmission.

Signature: __________________________
Date: ______________________

RETURN COMPLETED FORM AND CASH REGISTER RECEIPT (IF APPLICABLE) REFLECTING THIS PURCHASE TO:

The Valvoline Company
P.O. BOX 12918
Lexington, KY 40583

ALONG WITH CLAIM INFO, PLEASE PROVIDE SERVICE RECORDS FOR PAST VEHICLE SERVICES. INCLUDE THE INFORMATION FROM A LICENSED DEALER OR ESTIMATE PERTAINING TO THE TYPE OF DAMAGES THAT HAS OCCURRED.
Route Count: 1

<table>
<thead>
<tr>
<th>Route Count:</th>
<th>1</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Audit History (F9 or click to update):</th>
</tr>
</thead>
<tbody>
<tr>
<td>06/08/2011 01:53PM Travis L Montgomery - Closed Ticket</td>
</tr>
<tr>
<td>06/08/2011 12:01PM Escalation Manager - Emergency threshold exceeded. SLA counter updated.</td>
</tr>
<tr>
<td>06/03/2011 12:01PM Escalation Manager - Emergency threshold exceeded. SLA counter updated.</td>
</tr>
<tr>
<td>05/31/2011 12:00PM Escalation Manager - High priority threshold exceeded. Upgraded to Emergency priority.</td>
</tr>
<tr>
<td>05/31/2011 12:00PM Escalation Manager - Notified that this ticket exceeded a SLA.</td>
</tr>
<tr>
<td>05/24/2011 12:01PM Escalation Manager - Medium priority threshold exceeded. Upgraded to High priority.</td>
</tr>
<tr>
<td>05/24/2011 12:01PM Escalation Manager - Notified Travis Montgomery that this incident exceeded a threshold.</td>
</tr>
<tr>
<td>05/16/2011 09:21AM - Did not log any time to ticket.</td>
</tr>
<tr>
<td>05/13/2011 04:53PM Tom Sanders - Assigned ticket to Travis L Montgomery and sent e-mail notification.</td>
</tr>
<tr>
<td>05/13/2011 04:15PM - Did not log any time to ticket.</td>
</tr>
<tr>
<td>05/13/2011 09:58AM - Did not log any time to ticket.</td>
</tr>
<tr>
<td>05/13/2011 09:58AM - Priority set to Medium.</td>
</tr>
<tr>
<td>05/13/2011 09:56AM - Ticket opened.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Work History:</th>
</tr>
</thead>
<tbody>
<tr>
<td>06/08/2011 01:40PM Travis L Montgomery - After full investigation and discussion with Legal and Technical Dept., this claim has been approved for payment for transmission repair and transmission core. Once payment and repair has been completed, freight will be setup to retrieve damaged transmission to have sent to Lubrizol for further investigation and evaluation. After results of investigation are completed, further action will be taken against Toyota per the Magnuson Moss Act for full reimbursement to Valvoline. Payment has been made. Check #13800154 issued in the amount of $1,000.00 for core charge and Check #13800155 has been issued in the amount of $3,560.01 for transmission repair. Total amount of complete replacement is $4,560.01.</td>
</tr>
<tr>
<td>05/16/2011 09:21AM Travis L Montgomery - Sent release to customer to have signed and completed for core transmission warranty. Claim pending.</td>
</tr>
<tr>
<td>05/13/2011 09:58AM Tom Sanders - Customer had a fluid exchange performed with our product and the Toyota dealership has denied warranty service. The vehicle is an 09 Corolla and it has 58,000 miles currently.</td>
</tr>
</tbody>
</table>
Consumer Claim Information

Date: 5-8-11

Name:
Address:
City, State, Zip:

Phone:
Fax Number:
E-mail address:

Valvoline Product Used:

Purchased Product at What Store:

Date of Product Purchase:
(Include cash register receipt reflecting this purchase when returning form is available.)

Why/How did you select this product?

Describe in detail the specific concern. Indicate when the product was used, and when the concern was noticed.

VEHICLE INFORMATION:
Year: 2009
Make: Toyota
Model: Corolla
Mileage: 58,000
Please complete the following shaded section as needed for complaints -

Was a complete transmission flush performed?  

Yes

What type of machine was used to perform service? (Name and type)

Why was the fluid changed?

Trying to fix a problem

What are the problems noticed with this service?

Toyota warranty the transmission because of the type of fluid that was used.

Has vehicle had a transmission service before?


What was the mileage on the fluid when the problem occurred?

Approximately 57,990 miles
How do you perceive that this claim can best be resolved?

I need a new transmission.

Signature:

Date:

RETURN COMPLETED FORM AND CASH REGISTER RECEIPT (IF APPLICABLE) REFLECTING THIS PURCHASE TO:

The Valvoline Company
P.O. BOX 12918
Lexington, KY 40583

ALONG WITH CLAIM INFO, PLEASE PROVIDE SERVICE RECORDS FOR PAST VEHICLE SERVICES. INCLUDE THE INFORMATION FROM A LICENSED DEALER OR ESTIMATE PERTAINING TO THE TYPE OF DAMAGES THAT HAS OCCURRED.
1. COMPLAINT: CUSTOMER STATES WHEN DRIVING VEHICLE-COMING TO STOP VEHICLE WILL LUG DOWN AND DIE, JERKS AND SURGES WHEN DRIVING.

2. CAUSE: CONFIRMED FAILURE CODES IN SYSTEM (P0335, P0340) -- CMP SENSOR B1 AND CKP SENSOR CIRCUIT FAILURES. WAS TOLD TCC FAILURE CODES IN SYSTEM -- NO FAILURE CODES SET IN SYSTEM. TRANS HAS INCORRECT FLUID IN TRANS.

3. CORRECTION: REPLACED CAM AND CRANK SENSORS
   INTERNAL FAILURE OF TRANS--FOUND NON-NISSAN FLUID INSTALLED IN TRANSMISSION--AS STATED ON PAGE 8-13 OF OWNERS MANUAL--DAMAGE TO TRANS DUE TO NON-NISSAN FLUID INSTALLED IN TRANS--DID DAMAGE INTERNALLY
   REPAIR UNDER WARRANTY IS DECLINED BY NISSAN.

(E=ENTER) (LINE#) (M#=MORE LINES)
Consumer Claim Information

Date: 6-17-11

Name: 
Address: 
City, State, Zip: 

Phone: 
Fax Number: 
E-mail address: 

Valvoline Product Used: Valvoline MaxLife ATF
Purchased Product at What Store: Evans Tire Centers
Date of Product Purchase: 4-13-11
(Include cash register receipt reflecting this purchase when returning form.)

VEHICLE INFORMATION:
Year: 2004
Make: 
Model: 
Mileage before change: 79,953
Mileage when damage was noticed: 79,047
Have you kept vehicle services up to date: Yes

Why/How did you select this product?
It was time to service the transmission and Evans Tires did the work.

-- Page 1 of 2 --
Describe in detail the specific concern. Indicate when the product was used (if used), and when the concern was noticed.

Afraid that the transmission will lock up and I will be stranded somewhere. Fluid was put in my car on 4-13-11 and I notice the problem on 5-27-11.

_________________________________________________________
_________________________________________________________
_________________________________________________________
_________________________________________________________

Please describe in detail the problem associated with using the product.

Kia dealer claims that the fluid damaged the transmission.

_________________________________________________________
_________________________________________________________
_________________________________________________________
_________________________________________________________

How do you perceive that this claim can best be resolved?

That my transmission be repaired as I have a 100,000 mile warranty.

_________________________________________________________
_________________________________________________________
_________________________________________________________
_________________________________________________________

Signature: ____________________________
Date: _________________________________

RETURN COMPLETED CLAIM FORM, COPY OF ESTIMATES FOR REPAIR & PRIOR SERVICE RECORDS TO:

The Valvoline Company
P.O. BOX 12918
Lexington, KY 40583

VALVOLINE FLUID CLAIMS REQUIRE A PROPER SAMPLE OF THE ORIGINAL FLUID IN QUESTION, TO BE SUBMITTED FOR THE TESTING & IDENTIFICATION PURPOSES. FAILURE TO SUBMIT A SAMPLE OF THE FLUID IN QUESTION COULD RESULT IN POSSIBLE DENIAL OF CLAIM.

FLUID SAMPLE INSTRUCTIONS CAN BE OBTAINED BY CALLING THE VALVOLINE FLUID TECHNICAL HOTLINE AT (800) TEAM VAL.
REPAIR ORDER

Print Date: 06/21/2011

Home 619-4/0-1250
Cust ID: 401   Ref#   Hat#   Engine: 3.5L, V6, VIN (1)

Last Service:   Current Odometer: 79320   Previous Odometer:   Elapsed Mileage:

--- Total ---

<table>
<thead>
<tr>
<th>Labor Requested</th>
<th>Parts</th>
<th>Labor</th>
<th>Extended</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUSTOMER STATES WRONG ATF INSTALLED FROM FLUSH DONE AT ANOTHER SHOP. TRANSAXLE ASSEMBLY - Removal &amp; Installation</td>
<td>672.86</td>
<td>672.86</td>
<td></td>
</tr>
<tr>
<td>(Combination) TRANSAXLE ASSEMBLY - Replace</td>
<td>39.58</td>
<td>39.58</td>
<td></td>
</tr>
<tr>
<td>Parts subtotal</td>
<td>2,207.99</td>
<td>2,207.99</td>
<td></td>
</tr>
<tr>
<td>Shop Supplies</td>
<td>3.00</td>
<td>3.00</td>
<td></td>
</tr>
<tr>
<td>Hazardous Materials</td>
<td>3.00</td>
<td>3.00</td>
<td></td>
</tr>
</tbody>
</table>

< Your Tax Rates   $ 193.46 >

Parts: $ 2,210.99   Labor: $ 715.44   Tax: $ 193.46   Total: $ 3,119.89

TEARDOWN ESTIMATE: I understand that my vehicle will be reassembled within ___ days of the date shown above if I choose not to authorize the service recommended. All Parts removed will be discarded unless instructed otherwise: Save all Parts ___. NOT RESPONSIBLE FOR LOSS OR DAMAGE TO CARS OR ARTICLES LEFT IN CARS IN CASE OF FIRE, THEFT OR ANY OTHER CAUSE.

Authorized By: ___________________________   Date: _______________   Time: _______________

ATTN: Tom
EARN MONEY NOW
Visit
www.GreatPartTimeOption.com
Watch The 15 Minute Overview
REVISED ESTIMATE AUTHORIZATION(S):

AUTH. BY: MILDRED CALVERT
DATE: 04-13-11 TIME: 12:28 PM
PREVIOUS EST: 0.00

Work Authorized: 2 TIRES AND TRANS FLUSH

<table>
<thead>
<tr>
<th>Qty.</th>
<th>Part #</th>
<th>RFR</th>
<th>Loc Description</th>
<th>Parts</th>
<th>Labor</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>QBA</td>
<td></td>
<td>WHEEL BALANCE 10-17 INCH</td>
<td>0.00</td>
<td>14.00</td>
<td>14.00</td>
</tr>
<tr>
<td>2</td>
<td>CTFD</td>
<td></td>
<td>CALIFORNIA TIRE RECYCLING FEE</td>
<td>1.75</td>
<td>0.00</td>
<td>1.75</td>
</tr>
<tr>
<td>2</td>
<td>TDF</td>
<td></td>
<td>WASTE TIRE DISPOSAL FEE</td>
<td>4.00</td>
<td>0.00</td>
<td>4.00</td>
</tr>
<tr>
<td>2</td>
<td>21-1708</td>
<td></td>
<td>RUBBER VALVE STEM</td>
<td>2.95</td>
<td>0.00</td>
<td>2.95</td>
</tr>
<tr>
<td>1</td>
<td>BTP2</td>
<td></td>
<td>BASIC TIRE PACKAGE</td>
<td>-0.00</td>
<td>-0.00</td>
<td>-0.00</td>
</tr>
</tbody>
</table>

**TOTAL BASIC TIRE PACKAGE: 45.45**

<table>
<thead>
<tr>
<th>Qty.</th>
<th>Part #</th>
<th>RFR</th>
<th>Loc Description</th>
<th>Parts</th>
<th>Labor</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>100AR089</td>
<td></td>
<td>LIFE OF THE TIRE SERVICE AGRE</td>
<td>10.01</td>
<td>0.00</td>
<td>10.01</td>
</tr>
<tr>
<td>1</td>
<td>100AR089</td>
<td></td>
<td>Discount On 100AR089</td>
<td>(77.00)</td>
<td>0.00</td>
<td>(77.00)</td>
</tr>
<tr>
<td>1</td>
<td>PLTA</td>
<td></td>
<td>POLICY ALIGNMENT</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>1</td>
<td>CC</td>
<td></td>
<td>CHECK BRAKES AND TIRES</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>15</td>
<td>VV3240</td>
<td></td>
<td>VALVOLINE MAXLIFE ATF</td>
<td>5.14</td>
<td>0.00</td>
<td>5.14</td>
</tr>
</tbody>
</table>

**TOTAL OTHER PARTS/SERVICES: 174.12**

*** Customer Wishes To Discard Old Parts. ***

Three Parts And/or Services Were Declined by the Customer:

1. Coolant Flush

This is a fuel system package. This package includes:

Valvoline 2

SEE NEXT PAGE

Thanks for your business.
**DESCRIPTION OF SERVICE AND PARTS**

<table>
<thead>
<tr>
<th>#1 - AIR: LF _____ RF _____ LR _____ RR _____ TIRE INFLATION</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>(PSI) Sub Total: .00</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>#2 - MPI: PERFORM MULTI-POINT INSPECTION</th>
<th>Sub Total: .00</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>#3 - 246: CUSTOMER STATES CHECK ENGINE LIGHT/SERVICE</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGINESOON LIGHT IS ON--CHECK Work performed by Donald Way (202)</td>
<td>95.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>#4 - Customer Reports: CONTACT STEVEN AYALA AT 619-474-1591</th>
<th>Sub Total: .00</th>
</tr>
</thead>
</table>

Please Note: RETRIEVED CODES P0734 AND P0735 GEAR 4 & 5 INCORRECT RATIO. CHECKED FLUID COLOR. OK. CHECKED FLUID LEVEL. OK. CLEARED CODES. STARTED TECHLINE CASE # TL961880 THEY SAID PERFORM TRANSMISSION RELEARN AND ROAD TEST. TRANSMISSION STILL SLIPPING BETWEEN 3RD AND 4TH GEAR. CONTACTED TECHLINE THAT RECOMMEND REPLACE TRANSMISSION. UPON INVESTIGATION FROM SHOPS THAT HAD REPLACED TRANS FLUID THEY WERE USING INCORRECT FLUID POSSIBLY CAUSING INTERNAL DAMAGE.

**TERMS:** STRICTLY CASH UNLESS ARRANGEMENTS ARE MADE. "I hereby authorize the repair work hereinafter to be done along with the necessary material and agree that you are not responsible for loss or damage to vehicle or articles left in the vehicle in case of fire, theft, or any other cause beyond your control or for any damage caused by unavailability of parts or absence in parts shipments by the supplier or transporters. I hereby grant you or your employees permission to operate the vehicle that is described on streets, highways, or elsewhere for the purpose of testing and/or inspection. All express mechanism's fees are hereby acknowledged on above vehicle to secure the amount of repair thereto."  

**DISCLAIMER OF WARRANTIES:** Any warranty on the products sold hereby are those made by the manufacturer. The seller hereby expressly disclaims all warranties either express or implied, including any implied warranty of merchantability or fitness for a particular purpose, and the seller neither warrants nor authorizes any other person to assume for it any liability in connection with the sale of said products. Any limitation of liability or any warranty, express or implied, is not applicable where prohibited by law.

**WARNINGS:**

<table>
<thead>
<tr>
<th>LABOR</th>
<th>95.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>PARTS</td>
<td>.00</td>
</tr>
<tr>
<td>DEDUCTIBLE</td>
<td>.00</td>
</tr>
<tr>
<td>SUBLET</td>
<td>.00</td>
</tr>
<tr>
<td>SHOP SUPPLIES</td>
<td>.00</td>
</tr>
<tr>
<td>HAZARDOUS MATERIALS</td>
<td>.00</td>
</tr>
<tr>
<td>SALES TAX OR TAX ID</td>
<td>.00</td>
</tr>
<tr>
<td>SPECIAL ORDER DEPOSIT</td>
<td>.00</td>
</tr>
<tr>
<td>DISCOUNTS</td>
<td>.00</td>
</tr>
<tr>
<td>TOTAL DUE</td>
<td>95.00</td>
</tr>
</tbody>
</table>

**NO RETURN ON ELECTRICAL OR SAFETY ITEMS OR SPECIAL ORDERS.**

---

**SERVICE DEPARTMENT HOURS**

7:00 a.m. to 6:00 p.m. Monday - Friday

5:00 a.m. to 5:00 p.m. Saturday

**5/02/11 86002768/1**

**SERVICE ORDER:**

**R.O. Open Date:** 6/02/11

**R.O. Close Date:** 6/08/11

**Pre-Invoicel**

**Invoiced:**

**79065**

**79066**

**Vehicle Identification Number:**

**KNDUP131046569747**

**Delivery Date:** 1/01/08

**License Number:**

**BLUE**

---

**CONTACT STEVEN AYALA AT 619-474-1591**

**Sub Total: .00**

Please Note: RETRIEVED CODES P0734 AND P0735 GEAR 4 & 5 INCORRECT RATIO. CHECKED FLUID COLOR. OK. CHECKED FLUID LEVEL. OK. CLEARED CODES. STARTED TECHLINE CASE # TL961880 THEY SAID PERFORM TRANSMISSION RELEARN AND ROAD TEST. TRANSMISSION STILL SLIPPING BETWEEN 3RD AND 4TH GEAR. CONTACTED TECHLINE THAT RECOMMEND REPLACE TRANSMISSION. UPON INVESTIGATION FROM SHOPS THAT HAD REPLACED TRANS FLUID THEY WERE USING INCORRECT FLUID POSSIBLY CAUSING INTERNAL DAMAGE.

---

**NO RETURN ON ELECTRICAL OR SAFETY ITEMS OR SPECIAL ORDERS.**
INVOICE

<table>
<thead>
<tr>
<th>Part Description / Number</th>
<th>Qty</th>
<th>Sale</th>
<th>Extended</th>
<th>Labor Description</th>
<th>Extended</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRANSMISSION ASSEMBLY</td>
<td>1.00</td>
<td>1,632.11</td>
<td>1,632.11</td>
<td>TRANAXLE ASSEMBLY - Remove &amp; Replace</td>
<td>712.44</td>
</tr>
<tr>
<td>45000 39561</td>
<td></td>
<td></td>
<td></td>
<td>KEEP CORE</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CORE CHARGE</td>
<td>1,000.00</td>
</tr>
</tbody>
</table>

Org. Estimate: $9.00  Revisions: $0.00  Current Estimate: $6.00

Labor: 712.44  Parts: 1,632.11  Sub: 1,000.00
Subtotal: 3,344.55  Tax: 126.49
Total: 3,471.04  Bal Due: 3,471.04

I hereby authorize the above repair work to be done along with the necessary material and hereby grant you and/or your employees permission to operate the car or truck herein described on street, highways or elsewhere for the purpose to testing and/or inspection. An express mechanic’s lien is hereby acknowledged on above car or truck to secure the amount of repairs thereto. Warranty on parts and labor is one years or 12,000 miles whichever comes first. Warranty work has to be performed in our shop & cannot exceed the original cost of repair.

Signature:...........................................  Date:..................................  Time:.........................
## FLUID ANALYSIS REPORT

**DATE SAMPLED**: 20-Jun-11  
**SAMPLE NO.**: 10613501  
**COMPARTMENT**: 79320  
**TIME ON OIL**: 79320  
**OIL BRAND**: Unidentified  
**OIL TYPE**: Unidentified  
**SAE GRADE**: Unknown  
**FILTER**: Not Applicable  
**OIL CHANGED**: None

### Metals (ppm)
- Iron (Fe): 51
- Chromium (Cr): <1
- Lead (Pb): 1
- Copper (Cu): 23
- Tin (Sn): <1
- Aluminium (Al): 10
- Nickel (Ni): 9
- Silver (Ag): <1
- Titanium (Ti): <1
- Vanadium (V): <1

### Contaminants (ppm)
- Silicon (Si): 18
- Sodium (Na): 2
- Potassium (K): 6

### Additives (ppm)
- Magnesium (Mg): 5
- Calcium (Ca): 211
- Barium (Ba): <1
- Phosphorus (P): 509
- Zinc (Zn): 16
- Molybdenum (Mo): <1
- Boron (B): 169
- Antimony: 0

### Contaminants
- Water (%): <0.06
- Solids (%): <0.1

### Physical / Chemical
- Viscosity (cSt @ 40°C): 27.3
- Acid Number (mgKOH/g): 1.87

---

**Current Sample**

All wear levels appear within acceptable limits for first sample. Silicon level (dirt/sealant material) satisfactory. Water content acceptable.

Action: Resample at next recommended interval to monitor and establish wear trend.

**Last Sample**

---

**Customer**

VALVOLINE - T MONTGOMERY  
3499 Blazer Pkwy  
Lexington KY 40509