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### Avian/Nonmammalian 10-Chem Screen
**Updated:** 1/22/2018

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<tr>
<td>Total Protein</td>
<td>AST (Aspartate Transaminase)</td>
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<tr>
<td>Creatine Kinase (CK)</td>
<td>Phosphorus</td>
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<tr>
<td>Cholesterol</td>
<td>Ca/Phos Ratio</td>
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</table>

**Specimen Required:** 1 M-GRNTT

**Minimum:** 100 uL heparinized plasma.

**Day(s) Test Set Up:** Monday through Sunday

**Reported Time:** Same Day

### Avian/Nonmammalian 13-Chem Panel
**Updated:** 1/22/2018

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<td>Total Protein</td>
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<td>Globulin</td>
<td>A/G Ratio</td>
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<td>AST (Aspartate Transaminase)</td>
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</tr>
<tr>
<td>Albumin</td>
<td>Bile Acids</td>
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</table>

**Specimen Required:** 1 M-GRNTT

**Minimum:** 100 uL heparinized plasma.

**Day(s) Test Set Up:** Monday through Sunday

**Reported Time:** Same Day

### Avian/Nonmammalian 13-Chem w/CBC
**Updated:** 1/22/2018

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<td>Creatine Kinase (CK)</td>
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<tr>
<td>Total Protein</td>
<td>Albumin</td>
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</tbody>
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**Specimen Required:** Chemistry:

1 M-GRNTT

**Minimum:** 150 uL heparinized plasma

**CBC:**

2 air dried slides, and

1 M-LTT

**Minimum:** 100 uL heparinized or EDTA whole blood

**Day(s) Test Set Up:** Monday through Sunday

**Reported Time:** Same Day

**Comments:** If a microtainer (M-GRNTT or M-LTT) is not submitted, WBC is estimated from the blood smear.

### Avian/Nonmammalian 18-Chem Panel
**Updated:** 1/22/2018

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<td>Chloride</td>
<td>GGT (Gamma-glutamyltransferase)</td>
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<td>AST (Aspartate Transaminase)</td>
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<tr>
<td>Uric Acid</td>
<td>Bile Acids</td>
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**Specimen Required:** Chemistry:

1 M-GRNTT

**Minimum:** 150 uL heparinized plasma

**CBC:**

2 air dried slides, and

1 M-LTT

**Minimum:** 100 uL heparinized or EDTA whole blood

**Day(s) Test Set Up:** Monday through Sunday

**Reported Time:** Same Day

**Comments:** If a microtainer (M-GRNTT or M-LTT) is not submitted, WBC is estimated from the blood smear.
Avian/Exotic Panel

**Avian/Nonmammalian 18-Chem Panel w/CBC 3009**

Updated: 1/22/2018

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<td>Ca/Phos Ratio</td>
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Day(s) Test Set Up: Monday through Sunday

Reported Time: Same Day

Comments: If a microtainer (M-GRNTT or M-LTT) is not submitted, WBC is estimated from the blood smear.

**Avian/Nonmammalian 21-Chem Panel 3013**

Updated: 1/22/2018

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<td>Chloride</td>
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</tr>
<tr>
<td>Calcium</td>
<td></td>
</tr>
<tr>
<td>Phosphorus</td>
<td></td>
</tr>
<tr>
<td>Ca/Phos Ratio</td>
<td></td>
</tr>
<tr>
<td>Total Protein</td>
<td></td>
</tr>
</tbody>
</table>

Day(s) Test Set Up: Monday through Sunday

Reported Time: Same Day

Comments: If a microtainer (M-GRNTT or M-LTT) is not submitted, WBC is estimated from the blood smear.

**Avian/Nonmammalian 18-Chem w/CBC & PEP 3012**

Updated: 1/22/2018

<table>
<thead>
<tr>
<th>Specimen Required:</th>
<th>Chemistry:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 M-GRNTT</td>
</tr>
<tr>
<td></td>
<td>Minimum: 200 uL heparinized plasma</td>
</tr>
<tr>
<td>CBC</td>
<td></td>
</tr>
<tr>
<td>Protein Electrophoresis</td>
<td></td>
</tr>
<tr>
<td>Glucose</td>
<td></td>
</tr>
<tr>
<td>Potassium</td>
<td></td>
</tr>
<tr>
<td>Sodium/Potassium Ratio</td>
<td></td>
</tr>
<tr>
<td>Chloride</td>
<td></td>
</tr>
<tr>
<td>Calcium</td>
<td></td>
</tr>
<tr>
<td>Phosphorus</td>
<td></td>
</tr>
<tr>
<td>Ca/Phos Ratio</td>
<td></td>
</tr>
<tr>
<td>Total Protein</td>
<td></td>
</tr>
</tbody>
</table>

Day(s) Test Set Up: Monday through Sunday

Reported Time: Same Day

Comments: If a microtainer (M-GRNTT or M-LTT) is not submitted, WBC is estimated from the blood smear. Protein Electrophoresis run Mondays and Thursdays.

**Avian/Nonmammalian 21-Chem Panel w/CBC 3015**

Updated: 1/22/2018

<table>
<thead>
<tr>
<th>Specimen Required:</th>
<th>Chemistry:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 M-GRNTT</td>
</tr>
<tr>
<td></td>
<td>Minimum: 150 uL heparinized plasma</td>
</tr>
<tr>
<td>CBC</td>
<td></td>
</tr>
<tr>
<td>Glucose</td>
<td></td>
</tr>
<tr>
<td>Blood Urea Nitrogen (BUN)</td>
<td></td>
</tr>
<tr>
<td>Potassium</td>
<td></td>
</tr>
<tr>
<td>Sodium/Potassium Ratio</td>
<td></td>
</tr>
<tr>
<td>Chloride</td>
<td></td>
</tr>
<tr>
<td>Calcium</td>
<td></td>
</tr>
<tr>
<td>Phosphorus</td>
<td></td>
</tr>
<tr>
<td>Ca/Phos Ratio</td>
<td></td>
</tr>
<tr>
<td>Total Protein</td>
<td></td>
</tr>
</tbody>
</table>

Day(s) Test Set Up: Monday through Sunday

Reported Time: Same Day

Comments: If a microtainer (M-GRNTT or M-LTT) is not submitted, WBC is estimated from the blood smear.
# Avian/Exotic Panel

## Avian/Nonmammalian Panel

### 3016

**Specimen Required:**
- **Chemistry:** 1 M-GRNTT
  - Minimum: 200 uL heparinized plasma
- **CBC:** 2 air dried slides, and 1 M-LTT
  - Minimum: 100 uL heparinized or EDTA whole blood

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

**Comments:** If a microtainer (M-GRNTT or M-LTT) is not submitted, WBC is estimated from the blood smear. Protein Electrophoresis run Mondays and Thursdays.

### 1530

**Specimen Required:**
- Giardia/Cryptosporidium (IFA) Modified Acid Fast Stain

**Day(s) Test Set Up:** Monday through Saturday

**Reported Time:** 24 hours

**Comments:** Screening for giardia and cryptosporidium in avian/non-mammalian. To rule out giardia and cryptosporidium in other species, order Giardia/Cryptosporidium IFA (#240).

### 3003

**Specimen Required:** 1 M-GRNTT
- Minimum: 50 uL heparinized plasma

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

**Comments:** Submit within 30 days of original test. Previous case ID is required to activate the discounted price. If a microtainer (M-GRNTT or M-LTT) is not submitted, WBC is estimated from the blood smear.

## Avian/Nonmammalian Panel, Follow-up

### 82

**Specimen Required:**
- **Chemistry:** 1 M-GRNTT
  - Minimum: 100 uL heparinized plasma
- **CBC:** 2 air dried slides, and 1 M-LTT
  - Minimum: 100 uL heparinized or EDTA whole blood

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

**Comments:** If a microtainer (M-GRNTT or M-LTT) is not submitted, WBC is estimated from the blood smear.
### Avian/Nonmammalian Renal Panel

**3002**

**Blood Urea Nitrogen (BUN)**
**Calcium**
**Phosphorus**
**Ca/Phos Ratio**
**Total Protein**

**Specimen Required:** 1 M-GRNTT
Minimum: 50 uL heparinized plasma.

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

### Avian/Nonmammalian w/ Aerobic Culture

**7007**

**CBC**
**Glucose**
**Calcium**
**Total Protein**
**AST (Aspartate Transaminase)**
**Creatine Kinase (CK)**
**Uric Acid**

**Specimen Required:** 1 M-GRNTT, minimum 200 uL heparinized plasma
Two air dried slides
1 M-LTT, minimum 100 uL EDTA whole blood
Culture swab

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** 36 - 60 hours

### Ferret/Small Mammal 12-Chem Panel

**956**

**Glucose**
**Blood Urea Nitrogen (BUN)**
**Creatinine**
**Calcium**
**Phosphorus**
**Ca/Phos Ratio**
**Total Protein**
**Albumin**
**Globulin**
**A/G Ratio**
**Uric Acid**

**Specimen Required:** 1 M-SST or 1 M-GRNTT
Minimum: 100 uL serum or heparinized plasma

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

### Ferret/Small Mammal 12-Chem w/CBC

**56**

**CBC**
**Glucose**
**Blood Urea Nitrogen (BUN)**
**Creatinine**
**Calcium**
**Phosphorus**
**Ca/Phos Ratio**
**Total Protein**
**Albumin**
**Globulin**
**A/G Ratio**
**Uric Acid**

**Specimen Required:** Chemistry:
1 M-SST or 1 M-GRNTT
Minimum: 100 uL serum or heparinized plasma
CBC:
2 air dried slides, and
1 M-LTT
Minimum: 250 uL heparinized or EDTA whole blood

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

**Comments:**
If a microtainer (M-GRNTT or M-LTT) is not submitted, WBC is estimated from the blood smear.

### Ferret/Small Mammal 12-Chem/CBC, Follow-up

**84**

**CBC**
**Glucose**
**Blood Urea Nitrogen (BUN)**
**Creatinine**
**Calcium**
**Phosphorus**
**Ca/Phos Ratio**
**Total Protein**
**Albumin**
**Globulin**
**A/G Ratio**
**ALT (Alanine Transaminase)**
**AST (Aspartate Transaminase)**

**Specimen Required:** Chemistry:
1 M-SST or 1 M-GRNTT
Minimum: 100 uL serum or heparinized plasma
CBC:
2 air dried slides, and
1 M-LTT
Minimum: 250 uL heparinized or EDTA whole blood

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

**Comments:**
Submit within 30 days of original test. Previous case ID is required to activate the discounted price.
If a microtainer (M-GRNTT or M-LTT) is not submitted, WBC is estimated from the blood smear.
### Avian/Exotic Panel

#### Ferret/Small Mammal 20-Chem

**101004**

| Specimen Required: | 1 M-SST  
| Minimum 200 uL serum |
|---------------------|--------------------------------------------------|
| Day(s) Test Set Up: | Monday through Sunday (AM/PM) |
| Reported Time:      | Same Day |

**Updated:** 1/22/2018

<table>
<thead>
<tr>
<th>Glucose</th>
<th>Bilirubin, Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood Urea Nitrogen (BUN)</td>
<td>ALP (Alkaline Phosphatase)</td>
</tr>
<tr>
<td>Creatinine</td>
<td>ALT (Alanine Transaminase)</td>
</tr>
<tr>
<td>Calcium</td>
<td>AST (Aspartate Transaminase)</td>
</tr>
<tr>
<td>Phosphorus</td>
<td>GGT (Gamma-glutamyltransferase)</td>
</tr>
<tr>
<td>Ca/Phos Ratio</td>
<td>Cholesterol</td>
</tr>
<tr>
<td>Total Protein</td>
<td>Creatine Kinase (CK)</td>
</tr>
<tr>
<td>Albumin</td>
<td>Amylase</td>
</tr>
<tr>
<td>Globulin</td>
<td>Lipase</td>
</tr>
<tr>
<td>A/G Ratio</td>
<td>Bile Acids</td>
</tr>
</tbody>
</table>

#### Ferret/Small Mammal 20-Chem w/CBC

**10044**

| Specimen Required: | 1 M-SST  
| Minimum 200 uL serum |
|---------------------|--------------------------------------------------|
| Day(s) Test Set Up: | Monday through Sunday (AM/PM) |
| Reported Time:      | Same Day |

**Updated:** 1/22/2018

<table>
<thead>
<tr>
<th>CBC</th>
<th>Bilirubin, Total</th>
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</thead>
<tbody>
<tr>
<td>Glucose</td>
<td>ALP (Alkaline Phosphatase)</td>
</tr>
<tr>
<td>Blood Urea Nitrogen (BUN)</td>
<td>ALT (Alanine Transaminase)</td>
</tr>
<tr>
<td>Creatinine</td>
<td>AST (Aspartate Transaminase)</td>
</tr>
<tr>
<td>Calcium</td>
<td>GGT (Gamma-glutamyltransferase)</td>
</tr>
<tr>
<td>Phosphorus</td>
<td>Cholesterol</td>
</tr>
<tr>
<td>Ca/Phos Ratio</td>
<td>Creatine Kinase (CK)</td>
</tr>
<tr>
<td>Total Protein</td>
<td>Amylase</td>
</tr>
<tr>
<td>Albumin</td>
<td>Lipase</td>
</tr>
<tr>
<td>Globulin</td>
<td>Bile Acids</td>
</tr>
<tr>
<td>A/G Ratio</td>
<td>Protein Electrophoresis</td>
</tr>
</tbody>
</table>

#### Ferret/Small Mammal 20-Chem/CBC, Follow-up

**11004**

| Specimen Required: | Chemistry:  
| 1 M-SST  
| Minimum: 200 uL serum |
| CBC:  
| 2 air dried slides, and |
| 1 M-LTT  
| Minimum: 250 uL EDTA whole blood |
| Day(s) Test Set Up: | Monday through Sunday (AM/PM) |
| Reported Time:      | Same Day |
| Comments:           | If a microtainer (M-LTT) is not submitted, WBC is estimated from the blood smear. |

**Updated:** 1/27/2018

<table>
<thead>
<tr>
<th>CBC</th>
<th>Bilirubin, Total</th>
</tr>
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<tbody>
<tr>
<td>Glucose</td>
<td>ALP (Alkaline Phosphatase)</td>
</tr>
<tr>
<td>Blood Urea Nitrogen (BUN)</td>
<td>ALT (Alanine Transaminase)</td>
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<td>Phosphorus</td>
<td>Cholesterol</td>
</tr>
<tr>
<td>Ca/Phos Ratio</td>
<td>Creatine Kinase (CK)</td>
</tr>
<tr>
<td>Total Protein</td>
<td>Amylase</td>
</tr>
<tr>
<td>Albumin</td>
<td>Lipase</td>
</tr>
<tr>
<td>Globulin</td>
<td>Bile Acids</td>
</tr>
<tr>
<td>A/G Ratio</td>
<td>Protein Electrophoresis</td>
</tr>
</tbody>
</table>

#### Ferret/Small Mammal 20-Chem w/CBC & PEP

**Updated:** 1/22/2018

| Specimen Required: | 1 M-SST  
| Minimum 200 uL serum |
|---------------------|--------------------------------------------------|
| Day(s) Test Set Up: | Monday through Sunday (AM/PM) |
| Reported Time:      | Same Day |

#### Ferret/Small Mammal 20-Chem/CBC, Follow-up

**11004**

| Specimen Required: | Chemistry:  
| 1 M-SST  
| Minimum: 200 uL serum |
| CBC:  
| 2 air dried slides, and |
| 1 M-LTT  
| Minimum: 250 uL EDTA whole blood |
| Day(s) Test Set Up: | Monday through Sunday (AM/PM) |
| Reported Time:      | Same Day |
| Comments:           | If a microtainer (M-LTT) is not submitted, WBC is estimated from the blood smear. |

**Updated:** 1/27/2018

<table>
<thead>
<tr>
<th>CBC</th>
<th>Bilirubin, Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glucose</td>
<td>ALP (Alkaline Phosphatase)</td>
</tr>
<tr>
<td>Blood Urea Nitrogen (BUN)</td>
<td>ALT (Alanine Transaminase)</td>
</tr>
<tr>
<td>Creatinine</td>
<td>AST (Aspartate Transaminase)</td>
</tr>
<tr>
<td>Calcium</td>
<td>GGT (Gamma-glutamyltransferase)</td>
</tr>
<tr>
<td>Phosphorus</td>
<td>Cholesterol</td>
</tr>
<tr>
<td>Ca/Phos Ratio</td>
<td>Creatine Kinase (CK)</td>
</tr>
<tr>
<td>Total Protein</td>
<td>Amylase</td>
</tr>
<tr>
<td>Albumin</td>
<td>Lipase</td>
</tr>
<tr>
<td>Globulin</td>
<td>Bile Acids</td>
</tr>
<tr>
<td>A/G Ratio</td>
<td>Protein Electrophoresis</td>
</tr>
</tbody>
</table>

### Comments:
- If a microtainer (M-LTT) is not submitted, WBC is estimated from the blood smear.
- Submit within 30 days of original test.
- Previous case ID is required to activate the discounted price.
Avian/Exotic Panel

Ferret/Small Mammal 27-Chem
101002

Updated: 1/27/2018

Glucose
Blood Urea Nitrogen (BUN)
Creatinine
Sodium
Potassium
Sodium/Potassium Ratio
Chloride
Carbon Dioxide (CO2)
Anion Gap
Calcium
Phosphorus
Calculated Osmolality
Total Protein

Specimen Required: 2 M-SST
Minimum: 250 uL serum

Day(s) Test Set Up: Monday through Sunday
(AM/PM)

Reported Time: Same Day

Ferret/Small Mammal 27-Chem w/CBC
10022

Updated: 1/22/2018

Glucose
Blood Urea Nitrogen (BUN)
Creatinine
Sodium
Potassium
Sodium/Potassium Ratio
Chloride
Carbon Dioxide (CO2)
Anion Gap
Calcium
Phosphorus
Calculated Osmolality
Total Protein

Specimen Required: Chemistry:
2 M-SST
Minimum: 250 uL serum

CBC:
2 air dried slides and
1 M-LTT
Minimum: 250 uL EDTA whole blood

Day(s) Test Set Up: Monday through Sunday
(AM/PM)

Reported Time: Same Day

Comments: Chemistry Screen includes electrolytes,
Total CO2, calculated osmolality and anion gap.
If a microtainer (M-GRNTT or M-LTT) is not submitted,
WBC is estimated from the blood smear. Protein Electrophoresis run Mondays and Thursdays.

Ferret/Small Mammal 27-Chem w/CBC and PEP
10022

Updated: 1/22/2018

Glucose
Blood Urea Nitrogen (BUN)
Creatinine
Sodium
Potassium
Sodium/Potassium Ratio
Chloride
Carbon Dioxide (CO2)
Anion Gap
Calcium
Phosphorus
Ca/Phos Ratio
Calculated Osmolality
Total Protein

Specimen Required: Chemistry:
2 M-SST
Minimum: 250 uL serum

CBC:
2 air dried slides and
1 M-LTT
Minimum: 250 uL EDTA whole blood

Day(s) Test Set Up: Monday through Sunday
(AM/PM)

Reported Time: Same Day

Comments: Chemistry Screen includes electrolytes,
Total CO2, calculated osmolality and anion gap.
If a microtainer (M-GRNTT or M-LTT) is not submitted,
WBC is estimated from the blood smear. Protein Electrophoresis run Mondays and Thursdays.
Avian/Exotic Panel

Ferret/Small Mammal 27-Chem/CBC, Follow-up
11002

Updated: 1/30/2018

<table>
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<tr>
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<td>2 M-SST</td>
</tr>
<tr>
<td></td>
<td>Minimum: 250 uL serum</td>
</tr>
<tr>
<td></td>
<td>CBC:</td>
</tr>
<tr>
<td></td>
<td>2 air dried slides and</td>
</tr>
<tr>
<td></td>
<td>1 M-LTT</td>
</tr>
<tr>
<td></td>
<td>Minimum: 250 uL EDTA whole blood</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Day(s) Test Set Up:</th>
<th>Monday through Sunday</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(AM/PM)</td>
</tr>
</tbody>
</table>

| Reported Time:      | Same Day               |

| Comments:           | Chemistry screen includes the electrolytes, Total CO2, calculated osmolality and anion gap. |
|                     | If a microtainer (M-GRNTT or M-LTT) is not submitted, WBC is estimated from the blood smear. |
|                     | Submit within 30 days of original test. Previous case ID is required to activate the discounted price. |
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### Autoimmune Panel

**Specimen Required:**
- 1 LTT, 2 blood smears, 0.1 mL serum
- 1 SST or RTT

**Day(s) Test Set Up:**
Monday through Sunday
(AM/PM)

**Reported Time:**
Same Day/See Comments

**Comments:**
ANA is performed Tues/Thurs AM. A positive ANA is titered the next day (Wed/Fri). Coombs performed Mon-Sat AM.

Note: Discontinue Corticosteroid use a minimum 2-3 weeks prior to testing. Corticosteroids can cause false negative ANA and Coombs results.

### Basic Canine

**Specimen Required:**
- 1 SST or RTT

**Day(s) Test Set Up:**
Monday through Sunday
(AM/PM)

**Reported Time:**
Same Day

### Basic Health Profile I

**Specimen Required:**
- 1 LTT

**Day(s) Test Set Up:**
Monday through Sunday
(AM/PM)

**Reported Time:**
Same Day

### Basic Health Profile II

**Specimen Required:**
- 1 LTT

**Day(s) Test Set Up:**
Monday through Sunday
(AM/PM)

**Reported Time:**
Same Day

### Bile Acids Panel

**Specimen Required:**
- 1 SST or RTT for each, pre and post
  - Minimum: 0.5 mL serum, each
  - Pre Sample: 12 hour fasting sample
  - Post Sample: 2 hour post prandial

Bile acids testing is used in place of BSP or blood ammonia. Helpful in assessing liver function. Use a standard meal such as CD. Post prandial values in normal dogs/cats do not usually exceed 20 umol/L.

**Day(s) Test Set Up:**
Monday through Sunday
(AM/PM)

**Reported Time:**
Same Day

**Comments:**
PLEASE NOTE: The animal should be off Actigall (Ursodiol) 48 hours prior to running a bile acid study.
**Canine Breeding Panel**

**Specimen Required:** 1 RTT
- Minimum: 0.3 mL serum
- 1-2 Vaginal Smears (Slides)

Prepare the cytology sample by GENTLY rolling the swab over the slide. This technique will deliver optimal cellular material for review. Thoroughly dry the smears. DO NOT put slides into the slide holder until completely dry.

**Timing of Sampling:**
In early proestrus, 1) progesterone should be monitored every 2-3 days to detect the preovulatory rise; 2) vaginal cytology should be evaluated every 2 days until >60% cornified.

**Rechecking:**
If progesterone is 1.0 - 3.9 ng/mL, consider confirming ovulation with serum progesterone concentration after at least 3 days.

**Day(s) Test Set Up:** Monday through Sunday
**Reported Time:** Next Day

**Comments:**
At ovulation, serum progesterone ranges from 3.8 - 10 ng/mL. Optimal breeding (fresh semen) is 2 days after ovulation.

Consistent labeling of tubes: Last Name, Owner, Animal is very helpful when comparing serial results.

---

**Chemistry Screen, Follow-up**

**Specimen Required:** 1 SST or RTT
- Minimum: 0.5 mL serum
- 1 GTT (a grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube).

**Day(s) Test Set Up:** Monday through Sunday
**Reported Time:** Same Day
**Comments:** Submit within 30 days of original test. Previous case ID is required to activate the discounted price.

---

**Chemistry Screen**

**Specimen Required:** 1 SST or RTT
- Minimum: 0.5 mL serum
- 1 GTT (a grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube).

**Day(s) Test Set Up:** Monday through Sunday
**Reported Time:** Same Day

---

**Glucose**  
**Total Protein**

**Blood Urea Nitrogen (BUN)**  
**Albumin**

**Creatinine**  
**Globulin**

**Sodium**  
**A/G Ratio**

**Potassium**  
**Bilirubin, Total**

**Sodium/Potassium Ratio**  
**ALP (Alkaline Phosphatase)**

**Chloride**  
**ALT (Alanine Transaminase)**

**Carbon Dioxide (CO2)**  
**AST (Aspartate Transaminase)**

**Anion Gap**  
**GGT (Gamma-glutamyltransferase)**

**Calcium**  
**Cholesterol**

**Phosphorus**  
**Calculated Osmolality**

---

**Printed On:** 2/4/2018
Coagulation Panel I

83

Prothrombin Time (PT)  APTT

**Specimen Required:** 1 BTT, Centrifuge, separate plasma and refrigerate.

Citrate tubes (BTT) provided by Phoenix Laboratory hold 2.7 mL of blood. Tubes filled with less than 2.0 mL whole blood (approximately half full) have excess anticoagulant for the volume of blood which may affect the PT and APTT results. If collecting a smaller volume of blood, <2.0 mL, the blood to anticoagulant ratio should be 9:1.

THE RATIO OF BLOOD TO ANTICOAGULANT IS CRITICAL FOR VALID COAGULATION RESULTS.

**Protocol:**

1. Draw fresh venous blood into BTT (blue top, buffered sodium citrate tube) until full. Gently mix by inverting 4-5 times. NO CLOTTING SHOULD BE OBSERVED IN THE TUBE. Please remember, if collecting a smaller volume of blood, <2.0 mL, the blood to anticoagulant ratio should be 9:1.

For proper dilution, do not fill beyond the top of the tube label.

2. Cool to 4 degrees C (refrigerator temperature), until analysis.

3. If delay greater than 24 hours is expected prior to analysis, the BTT should be spun in a centrifuge, the plasma separated and placed in a plain plastic vial to be frozen until analysis.

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

**Comments:** Citrate tubes (BTT) provided by Phoenix Laboratory hold 2.7 mL of blood. Tubes filled with less than 2.0 mL whole blood (approximately half full) have excess anticoagulant for the volume of blood which may affect the PT and APTT results. However, for proper dilution, do not fill beyond the top of the tube label. If collecting a smaller volume of blood, blood to anticoagulant ratio should be 9:1.

---

Coagulation Panel II

10

Prothrombin Time (PT)  APTT  Platelet Count  Fibrinogen

**Specimen Required:** 1 BTT, Centrifuge, separate plasma and refrigerate.

1 LTT, 2 blood smears

Citrate tubes (BTT) provided by Phoenix Laboratory hold 2.7 mL of blood. Tubes filled with less than 2.0 mL whole blood (approximately half full) have excess anticoagulant for the volume of blood which may affect the PT and APTT results. If collecting a smaller volume of blood, <2.0 mL, the blood to anticoagulant ratio should be 9:1.

THE RATIO OF BLOOD TO ANTICOAGULANT IS CRITICAL FOR VALID COAGULATION RESULTS.

**Protocol:**

1. Draw fresh venous blood into BTT (blue top, buffered sodium citrate tube) until full. Gently mix by inverting 4-5 times. NO CLOTTING SHOULD BE OBSERVED IN THE TUBE. Please remember, if collecting a smaller volume of blood, <2.0 mL, the blood to anticoagulant ratio should be 9:1.

For proper dilution, do not fill beyond the top of the tube label.

2. Cool to 4 degrees C (refrigerator temperature), until analysis.

3. If delay greater than 24 hours is expected prior to analysis, the BTT should be spun in a centrifuge, the plasma separated and placed in a plain plastic vial to be frozen until analysis.

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

**Comments:** Citrate tubes (BTT) provided by Phoenix Laboratory hold 2.7 mL of blood. Tubes filled with less than 2.0 mL whole blood (approximately half full) have excess anticoagulant for the volume of blood which may affect the PT and APTT results. However, do not fill beyond the top of the tube label. If collecting a smaller volume of blood, blood to anticoagulant ratio should be 9:1.
Coagulation Panel III

Specimen Required:
- 1 BTT, Centrifuge, separate plasma and refrigerate.
- 1 LTT, 2 blood smears

Citrate tubes (BTT) provided by Phoenix Laboratory hold 2.7 mL of blood. Tubes filled with less than 2.0 mL whole blood (approximately half full) have excess anticoagulant for the volume of blood which may affect the PT and APTT results. If collecting a smaller volume of blood, <2.0 mL, the blood to anticoagulant ratio should be 9:1.

THE RATIO OF BLOOD TO ANTICOAGULANT IS CRITICAL FOR VALID COAGULATION RESULTS.

Protocol:
1. Draw fresh venous blood into BTT (blue top, buffered sodium citrate tube) until full. Gently mix by inverting 4-5 times. NO CLOTTING SHOULD BE OBSERVED IN THE TUBE. Please remember, if collecting a smaller volume of blood, <2.0 mL, the blood to anticoagulant ratio should be 9:1.

For proper dilution, do not fill beyond the top of the tube label.

2. Cool to 4 degrees C (refrigerator temperature), until analysis.

3. If delay greater than 24 hours is expected prior to analysis, the BTT should be spun in a centrifuge, the plasma separated and placed in a plain plastic vial to be frozen until analysis.

Day(s) Test Set Up: Monday through Sunday (AM/PM)

Reported Time: Same Day

Comments:
Citrate tubes (BTT) provided by Phoenix Laboratory hold 2.7 mL of blood. Tubes filled with less than 2.0 mL whole blood (approximately half full) have excess anticoagulant for the volume of blood which may affect the PT and APTT results. However, for proper dilution, do not fill beyond the top of the tube label. If collecting a smaller volume of blood, blood to anticoagulant ratio should be 9:1.

Cobalamin and Folate

Specimen Required: 0.75 mL serum, RTT

Cobalamin and Folate are light sensitive. It is recommended to wrap serum tube in paper or aluminum foil. Frozen and protected from light.

Day(s) Test Set Up: Monday, Wednesday, Friday (AM)

Reported Time: Same Day

Comments:
### Cushing’s Disease Panel-TDM

**5011**  
Updated: 1/31/2018

| Specimen Required: 1 LTT  
Air dried peripheral blood smears  
2 RTTs, 0.5 mL each pre and post cortisol (avoid lipemia)  

**CANINE PROTOCOL:**  
1. Collect a resting sample in a RTT, 0.5 mL of serum is required. Separate serum if possible and refrigerate.  

2. Inject 0.25 mg (250 ug) of Cortrosyn IM or IV (1 vial).  

3. Collect a second sample EXACTLY 1 HOUR post injection in RTT, label clearly as to the collection status (post), and preserve in the same manner as the first sample.  

**ALTERNATIVE CANINE PROTOCOL (Microdose):**  
In order to keep Cortrosyn costs down, use the specific dose of 5 ug/kg IV - up to the maximum dose of 250 ug (one vial) per dog. Whatever is left over can then be split into aliquots of 25 ug or 50 ug using small plastic syringes. Normally 1 mL of sterile physiologic saline is used as diluent. If so, 25 ug would be 100 ul or 0.1 mL and 50 ug would be 200 ul or 0.2 mL. The aliquots can then be frozen for up to 6 months with no loss of activity as long as they are not thawed and refrozen.  

**NOTE:**  
The test has been validated using Cortrosyn. Although compounded gels are available, they vary greatly in peak times and are not recommended.  

**Day(s) Test Set Up:** Monday through Sunday  
(AM/PM)  

**Reported Time:** Same Day  

**Comments:** Run prior to and immediately after induction, then every 3 to 4 months, more if patient’s condition dictates.

### Electrolyte Screen

**16**  
Updated: 1/22/2018

| Specimen Required: 1 SST or RTT  
Minimum: 0.5 mL serum  

**Day(s) Test Set Up:** Monday through Sunday  
(AM/PM)  

**Reported Time:** Same Day  

### Endocrine Panel II

**1008**  
Updated: 1/25/2018

| Specimen Required: 3 RTT, label each tube with draw time (0, 4 and 8 hour), 0.5 mL serum-each cortisol sample.  
Minimum: 0.1 mL for each cortisol sample  

**Day(s) Test Set Up:** Monday through Sunday  
(AM/PM)  

**Reported Time:** Same Day  

**Comments:** Chemistry Screen run Mon-Sun.  
Cortisols run Mon - Sat AM/PM  
Collection protocol and result interpretations are found in the Individual Test section of this book under "Dexamethasone Suppression".  

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**Printed On:** 2/4/2018
**Canine Panel**

### Fecal Parasite Screen Combo w/Elisa

**Updated: 1/30/2018**

**Specimen Required:** Fresh feces
- Minimum: 10 gm feces

The stool should not be contaminated with clay kitty litter which causes interference (wheat/corn litter ok).

**Protocol:**
1. Sugar flotation procedure that incorporates two centrifugation sequences.
2. Microscopic examination of the processed specimen to detect ova and parasites.
3. ELISA examination for Giardia.

**Day(s) Test Set Up:**
- Monday through Saturday (AM)

**Reported Time:** Same Day

**Comments:** Sugar flotation with two centrifugation sequences; microscopic examination for ova and parasites, including giardia cysts.

### Fecal Parasite Screen Combo w/IFA

**Updated: 2/2/2018**

**Specimen Required:** Fresh feces
- Minimum: 10 gm feces

The stool should not be contaminated with clay kitty litter which causes interference (wheat/corn litter OK).

**Protocol:**
1. Sugar flotation procedure that incorporates two centrifugation sequences.
2. Microscopic examination of the processed specimen to detect ova and parasites.
3. IFA microscopic exam for Giardia/Crypto.

**Day(s) Test Set Up:**
- Monday through Saturday (AM)

**Reported Time:** Next Day

**Comments:** Sugar flotation with two centrifugation sequences; microscopic examination for ova and parasites, including Giardia cysts.

The IFA test will detect the antigen of Giardia species and most cryptosporidia. It will not detect some species of cryptosporidium that are associated with birds and reptiles.

To rule giardia and cryptosporidium in avian/non-mammalian, order Avian/Nonmammalian Giardia/Cryptosporidium (#1530).

### General Diagnostic

**Updated: 1/22/2018**

**Specimen Required:**
- 1 LTT
- Air dried peripheral blood smears
- 1 SST or RTT, 0.5 mL serum
- 1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)

**Day(s) Test Set Up:**
- Monday through Sunday (AM/PM)

**Reported Time:** Same Day
## General Diagnostic w/T4 and TSH Canine
### 2072
Updated: 1/30/2018

<table>
<thead>
<tr>
<th>Chemistry Screen</th>
<th>Total T4</th>
<th>TSH Canine</th>
</tr>
</thead>
</table>

**Specimen Required:**
- 1 LTT, 2 Air dried peripheral blood smears
- 1 SST or RTT with 1.0 mL serum
- 1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

## General Diagnostic w/Total T4
### 77
Updated: 1/28/2018

<table>
<thead>
<tr>
<th>CBC w/Differential</th>
<th>Total T4</th>
</tr>
</thead>
</table>

**Specimen Required:**
- 1 LTT, 2 Air dried peripheral blood smears
- 1 SST or RTT with 1.0 mL serum
- 1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

## General Diagnostic, Follow-up
### 72
Updated: 1/22/2018

<table>
<thead>
<tr>
<th>CBC w/Differential</th>
<th>Chemistry Screen</th>
</tr>
</thead>
</table>

**Specimen Required:**
- 1 LTT, Air dried peripheral blood smears
- 1 SST or RTT Minimum: 0.5 mL serum
- 1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

**Comments:** Submit within 30 days of original test. Previous case ID is required to activate the discounted price.

## General Endocrine, Canine
### 61
Updated: 2/4/2018

<table>
<thead>
<tr>
<th>Chemistry Screen</th>
<th>ACTH Response (2 Cortisol samples)</th>
</tr>
</thead>
</table>

**Specimen Required:**
- 1 RTT
- 1 GTT (A grey top tube is not necessary if the RTT is centrifuged and serum is transferred to a transport tube.)

**NOTE:**
The test has been validated using Cortrosyn. Although compounded gels are available, they vary greatly in peak times and are not recommended.

**CANINE ACTH STIM PROTOCOL:**
1. Collect a resting sample in a RTT, 0.5 mL of serum is required. Separate serum if possible and refrigerate.

2. Inject 0.25 mg (250 ug) of Cortrosyn IM or IV (1 vial).

3. Collect a second sample exactly 1 hour post injection in RTT, label clearly as to the collection status (post), and preserve in the same manner as the first sample.

**ALTERNATE CANINE PROTOCOL (Microdose):**

In order to keep Cortrosyn costs down, use the specific dose of 5 ug/kg IV - up to the maximum dose of 250 ug (one vial) per dog. Whatever is left over can then be split into aliquots of 25 ug or 50 ug using small plastic syringes. Normally 1 mL of sterile physiologic saline is used as diluent. If so, 25 ug would be 100 ul or 0.1 mL and 50 ug would be 200 ul or 0.2 mL. The aliquots can then be frozen for up to 6 months with no loss of activity as long as they are not thawed and refrozen.

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

Printed On: 2/4/2018
### Geriatric Panel, Canine

**Specimen Required:**
- 1 LTT
- Air dried peripheral blood smears
- 1 SST or RTT
- Minimum 0.5 mL serum
- 1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

### Geriatric Panel, Canine, Follow-up

**Specimen Required:**
- 1 SST or RTT
- Minimum 0.5 mL serum
- 1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)
- 1 LTT
- Air dried peripheral blood smears

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

**Comments:** Submit within 30 days of original test. Previous case ID is required to activate the discounted price.

### Heartworm Panel

**Specimen Required:**
- 1 SST or RTT, 0.5 mL serum
- Minimum: 0.1 mL
- 1 LTT

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

### Liver Chemistry Panel

**Specimen Required:**
- 1 SST or RTT
- Minimum: 0.5 mL serum
- and
- 1 SST or RTT for post bile acids
- Minimum: 0.1 mL serum

**Pre Sample:** 12 hour fasting sample

**Post Sample:** 2 hour post prandial

Bile acids testing is used in place of BSP or blood ammonia. Helpful in assessing liver function. Use a standard meal such as CD. Post prandial values in normal dogs/cats do not usually exceed 20 umol/L.

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

### Glucocorticoids-TDM

**Specimen Required:**
- 1.0 mL serum, SST or RTT

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

**Comments:** Run after 2 weeks, 1 month, then every 2 to 4 months. Glucocorticoids include Prednisone, Prednisolone, Dexamethasone, etc.
**Canine Panel**

### Liver Profile

**85**

**Updated:** 1/22/2018

- CBC w/Differential
- Albumin
- ALP (Alkaline Phosphatase)
- ALT (Alanine Transaminase)
- AST (Aspartate Transaminase)
- Bilirubin, Direct
- Bilirubin, Indirect

**Specimen Required:**
- 1 LTT
- Air dried peripheral blood smears
- 1 SST or RTT
- Minimum: 0.5 mL serum
- and
- 1 SST or RTT for post bile acids sample
- Minimum: 0.1 mL serum

**Pre Sample:** 12 hour fasting sample
**Post Sample:** 2 hour post prandial

**Day(s) Test Set Up:** Monday through Sunday
**Reported Time:** Same Day

### Ova and Parasite Combo w/ IFA

**2213**

**Updated:** 2/2/2018

- Ova and Parasite
  - Giardia/Cryptosporidium (IFA)

**Specimen Required:**
- Fresh feces
- Minimum: 10 gm feces

The stool should not be contaminated with clay kitty litter which causes interference (wheat/corn litter ok).

**Protocol:**
1) Sugar flotation procedure that incorporates two centrifugation sequences.
2) Microscopic examination of the processed specimen to detect ova and parasites.
3) IFA microscopic examination for Giardia/Crypto.

**Day(s) Test Set Up:** Monday through Saturday
**Reported Time:** Next Day
**Comments:** Sugar flotation with two centrifugation sequences; microscopic examination for ova and parasites, including Giardia cysts.

The IFA test will detect the antigen of Giardia species and most cryptosporidia. It will not detect some species of cryptosporidium that are associated with birds and reptiles.

To rule giardia and cryptosporidium in avian/non-mammalian, order Avian/Nonmammalian Giardia/Cryptosporidium (#1530).

### Senior Screen

**11**

**Updated:** 1/25/2018

- Glucose
- Blood Urea Nitrogen (BUN)
- Creatinine
- Potassium
- ALP (Alkaline Phosphatase)
- ALT (Alanine Transaminase)
- Total T4
- Phosphorus

**Specimen Required:** 1.0 ml serum, SST or RTT

**Day(s) Test Set Up:** Monday through Sunday
**Reported Time:** Same Day

Printed On: 2/4/2018
# Canine Panel

## Senior Screen w/CBC
### 2011

<table>
<thead>
<tr>
<th>Test</th>
<th>Specimen Required</th>
<th>Day(s) Test Set Up</th>
<th>Reported Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBC w/Differential</td>
<td>1 mL LTT, 0.5 mL serum SST or RTT</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
<tr>
<td>Glucose</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blood Urea Nitrogen (BUN)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Creatinine</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potassium</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Specimen Required:** 1 mL LTT, 0.5 mL serum SST or RTT

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

## Senior Screen w/TSH Canine
### 2071

<table>
<thead>
<tr>
<th>Test</th>
<th>Specimen Required</th>
<th>Day(s) Test Set Up</th>
<th>Reported Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALP (Alkaline Phosphatase)</td>
<td>1.0 mL serum, SST or RTT</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
<tr>
<td>Blood Urea Nitrogen (BUN) and Creatinine</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glucose</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phosphorus</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Specimen Required:** 1.0 mL serum, SST or RTT

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

## Special Profile 861
### 861

<table>
<thead>
<tr>
<th>Test</th>
<th>Specimen Required</th>
<th>Day(s) Test Set Up</th>
<th>Reported Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBC w/Differential</td>
<td>1 LTT</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
<tr>
<td>Chemistry Screen</td>
<td>Air dried peripheral blood smears 1 SST or RTT, 0.5 mL serum 1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amylase</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lipase</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Specimen Required:** 1 LTT

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

## Thyroid I
### 74

<table>
<thead>
<tr>
<th>Test</th>
<th>Specimen Required</th>
<th>Day(s) Test Set Up</th>
<th>Reported Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free T4</td>
<td>1 RTT or SST</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
<tr>
<td>TSH Canine</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Specimen Required:** 1 RTT or SST

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

## Thyroid II
### 75

<table>
<thead>
<tr>
<th>Test</th>
<th>Specimen Required</th>
<th>Day(s) Test Set Up</th>
<th>Reported Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total T4</td>
<td>1 RTT or SST</td>
<td>Monday through Sunday</td>
<td>Same Day</td>
</tr>
<tr>
<td>TSH Canine</td>
<td>Minimum: 1 mL serum</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Specimen Required:** 1 RTT or SST

**Day(s) Test Set Up:** Monday through Sunday

**Reported Time:** Same Day

## Thyroid III
### 864

<table>
<thead>
<tr>
<th>Test</th>
<th>Specimen Required</th>
<th>Day(s) Test Set Up</th>
<th>Reported Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSH Canine</td>
<td>1 RTT or SST</td>
<td>Monday through Sunday</td>
<td>Same Day</td>
</tr>
<tr>
<td>Total T4</td>
<td>Minimum: 1 mL serum</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Specimen Required:** 1 RTT or SST

**Day(s) Test Set Up:** Monday through Sunday

**Reported Time:** Same Day

## Thyroid IV Panel, Canine
### 874

<table>
<thead>
<tr>
<th>Test</th>
<th>Specimen Required</th>
<th>Day(s) Test Set Up</th>
<th>Reported Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total T4</td>
<td>1 RTT or SST</td>
<td>Monday through Sunday</td>
<td>Same Day</td>
</tr>
<tr>
<td>Free T4</td>
<td>Minimum: 1 mL serum</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Specimen Required:** 1 RTT or SST

**Day(s) Test Set Up:** Monday through Sunday

**Reported Time:** Same Day

## Thyroid Screen
### 49

<table>
<thead>
<tr>
<th>Test</th>
<th>Specimen Required</th>
<th>Day(s) Test Set Up</th>
<th>Reported Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total T4</td>
<td>1 RTT or SST</td>
<td>Monday through Sunday</td>
<td>Same Day</td>
</tr>
<tr>
<td>T3 (Triiodothyronine)</td>
<td>Minimum: 1 mL serum</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Specimen Required:** 1 RTT or SST

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

## Thyroid Screen
### 49

<table>
<thead>
<tr>
<th>Test</th>
<th>Specimen Required</th>
<th>Day(s) Test Set Up</th>
<th>Reported Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total T4</td>
<td>1 RTT or SST</td>
<td>Monday through Sunday</td>
<td>Same Day</td>
</tr>
<tr>
<td>T3 (Triiodothyronine)</td>
<td>Minimum: 1 mL serum</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Specimen Required:** 1 RTT or SST

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

## Thyroid Screen
### 49

<table>
<thead>
<tr>
<th>Test</th>
<th>Specimen Required</th>
<th>Day(s) Test Set Up</th>
<th>Reported Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total T4</td>
<td>1 RTT or SST</td>
<td>Monday through Sunday</td>
<td>Same Day</td>
</tr>
<tr>
<td>T3 (Triiodothyronine)</td>
<td>Minimum: 1 mL serum</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Specimen Required:** 1 RTT or SST

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

## Thyroid Screen
### 49

<table>
<thead>
<tr>
<th>Test</th>
<th>Specimen Required</th>
<th>Day(s) Test Set Up</th>
<th>Reported Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total T4</td>
<td>1 RTT or SST</td>
<td>Monday through Sunday</td>
<td>Same Day</td>
</tr>
<tr>
<td>T3 (Triiodothyronine)</td>
<td>Minimum: 1 mL serum</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Specimen Required:** 1 RTT or SST

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day
### TLI, Cobalamin and Folate, Canine 689C

**Specimen Required:** 1.0 mL RTT fasted 12 - 18 hours (Diabetic animals 6 - 8 hr) non-hemolyzed serum.

Cobalamin and Folate are light sensitive. It is recommended to wrap serum tube in paper or aluminum foil.

**Day(s) Test Set Up:** Monday, Wednesday, Friday (AM)

**Reported Time:** Next Day

**Comments:** No Comment

---

### Total Body Diagnostic 3

**Specimen Required:** 1 LTT Air dried peripheral blood smears 1 SST or RTT

Minimum: 0.5 mL serum

1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)

5 mL urine; indicate method of collection.

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

---

### Total Body Diagnostic, Follow-up 1003

**Specimen Required:** 1 LTT

Air dried peripheral blood smears

1 SST or RTT

Minimum: 0.5 mL serum

1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)

5 mL urine; indicate method of collection.

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

**Comments:** Submit within 30 days of original test. Previous case ID is required to activate the discounted price.

---

### Total Body Diagnostic, w/o UA 35

**Specimen Required:** 1 LTT Air dried peripheral blood smears 1 SST or RTT

Minimum: 0.5 mL serum

1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day
**Total Body Diagnostic, w/o UA, Follow-up 1035**

**Specimen Required:**
- 1 LTT
- Air dried peripheral blood smears
- 1 SST or RTT
- Minimum: 0.5 mL serum
- 1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)

**Day(s) Test Set Up:**
- Monday through Sunday

**Reported Time:**
- Same Day

**Comments:**
Submit within 30 days of original test. Previous case ID is required to activate the discounted price.

**Wellness II 1711**

**Specimen Required:**
- 1 SST or RTT, 0.5 mL serum
- 1 LTT
- Air dried peripheral blood smears
- 1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)
- 5 mL urine; indicate method of collection.

**Day(s) Test Set Up:**
- Monday through Sunday

**Reported Time:**
- Same Day

**Wellness I 1710**

**Specimen Required:**
- 1 SST or RTT, 0.5 mL serum
- 1 LTT
- Air dried peripheral blood smears
- 1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)

**Day(s) Test Set Up:**
- Monday through Sunday

**Reported Time:**
- Same Day

**Wellness III 1712**

**Specimen Required:**
- 1 SST or RTT, 0.5 mL serum
- 1 LTT
- Air dried peripheral blood smears
- 1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)

**Day(s) Test Set Up:**
- Monday through Sunday

**Reported Time:**
- Same Day
Wellness IV
1713

Specimen Required: 1 SST or RTT, 0.5 mL serum
1 LTT
Air dried peripheral blood smears
1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)
5 mL urine; indicate method of collection.

Day(s) Test Set Up: Monday through Sunday
(AM/PM)

Reported Time: Same Day
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**Equine/Large Panel**

**Chemistry Screen, Equine 30**

Updated: 1/22/2018

<table>
<thead>
<tr>
<th>Test Item</th>
<th>Reference Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glucose</td>
<td>3.5-10.0 mg/dL</td>
</tr>
<tr>
<td>Blood Urea Nitrogen (BUN)</td>
<td>8-25 mg/dL</td>
</tr>
<tr>
<td>Creatinine</td>
<td>1-15 mg/dL</td>
</tr>
<tr>
<td>Sodium</td>
<td>135-145 mEq/L</td>
</tr>
<tr>
<td>Potassium</td>
<td>3-5 mEq/L</td>
</tr>
<tr>
<td>Sodium/Potassium Ratio</td>
<td>35-90 mEq/L</td>
</tr>
<tr>
<td>Chloride</td>
<td>100-125 mEq/L</td>
</tr>
<tr>
<td>Carbon Dioxide (CO2)</td>
<td>22-35 mEq/L</td>
</tr>
<tr>
<td>Anion Gap</td>
<td>10-25 mEq/L</td>
</tr>
<tr>
<td>Calcium</td>
<td>8-10 mg/dL</td>
</tr>
<tr>
<td>Phosphorus</td>
<td>3-5 mg/dL</td>
</tr>
</tbody>
</table>

**Specimen Required:**

1 SST or RTT

1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)

**Day(s) Test Set Up:**

Monday through Sunday

(AM/PM)

**Reported Time:**

Same Day

**Chemistry Screen, Large Animal 98**

Updated: 1/22/2018

<table>
<thead>
<tr>
<th>Test Item</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Glucose</td>
<td>3.5-10.0 mg/dL</td>
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<tr>
<td>Calcium</td>
<td>8-10 mg/dL</td>
</tr>
<tr>
<td>Phosphorus</td>
<td>3-5 mg/dL</td>
</tr>
</tbody>
</table>

**Specimen Required:**

1 SST or RTT, 0.5 mL serum

1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)

**Day(s) Test Set Up:**

Monday through Sunday

(AM/PM)

**Reported Time:**

Same Day

**Equine 872 w/Insulin 2872**

Updated: 1/25/2018

<table>
<thead>
<tr>
<th>Test Item</th>
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<tbody>
<tr>
<td>Glucose</td>
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</tr>
<tr>
<td>Phosphorus</td>
<td>3-5 mg/dL</td>
</tr>
</tbody>
</table>

**Specimen Required:**

1 SST or RTT, 2.0 ml serum

1 LTT, 2 blood smears

1 ml LTT plasma, separated and frozen.

**Special Equine Chem Screen**

- Insulin
- Total T4
- Fibrinogen

**Specimen Required:**

1 LTT, 2 blood smears, 2.0 ml serum, SST or RTT, 1 ml LTT plasma, separated and frozen.

Insulin: Sample should be tested or frozen within 24 hours.

**Day(s) Test Set Up:**

Monday through Saturday

**Reported Time:**

Same Day / Insulin Next Day

**Equine Dexamethasone Suppression 2038**

Updated: 1/27/2018

<table>
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<th>Test Item</th>
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<td>8-10 mg/dL</td>
</tr>
<tr>
<td>Phosphorus</td>
<td>3-5 mg/dL</td>
</tr>
</tbody>
</table>

**Specimen Required:**

2 samples: Pre/Post

2 RTT's

Minimum: 0.5 mL serum (each)

**Protocol:**

1. Begin test between 4-6 PM.
2. Draw a pre-injection blood sample into a RTT and label "PRE".
3. Inject 40 ug/kg of DEXAMETHASONE intramuscularly.
4. Nineteen hours post-injection, draw a blood sample into a RTT and label "POST-19".
5. Submit both samples at one time. Blood samples should be centrifuged, the serum separated, placed in a clean tube, and refrigerated or frozen until submitted to the Lab.

**Day(s) Test Set Up:**

Monday through Sunday

**Reported Time:**

Same Day
### Equine General Endocrine

**Specimen Required:** 1.0 mL serum, SST or RTT, 1 mL LTT plasma, separated and frozen.

**Day(s) Test Set Up:** Monday through Saturday (AM/PM)

**Reported Time:** Same Day/See Comments

**Comments:** Dexamethasone Suppression is the currently recommended protocol for confirmation of equine Cushing’s disease.

Normal horses: Cortisol ≤ 1.0 ug/dL 19 hours post dexamethasone.

Interpret with clinical signs and rule out other conditions. Also, if performing this test in the fall, starting in September, interpret a failure to suppress with caution as false positives occasionally occur at that time of the year.

Prednisone, prednisolone, and other corticosteroids (except dexamethasone) will cross react. Recommend these drugs be discontinued at least 24 hrs before testing.

---

### Equine INS/ACTH

**Specimen Required:** 1 LTT

1.0 mL Plasma, spin down immediately and separate from cells, freeze as soon as possible.

1 SST or RTT, minimum 0.5 mL serum.

Sample should be frozen within 24 hours.

ACTH - Frozen Plasma stable for 14 days. Avoid grossly hemolyzed and or lipemic samples. See report for reference ranges.

Insulin - Centrifuge tube within 20 - 30 minutes of collection. Separate serum into a transport tube and refrigerate.

If unable to centrifuge, use GTT for collection of glucose samples. GTT tubes must have a minimum of 1 mL of blood for accurate results.

**Day(s) Test Set Up:** Monday, Wednesday, Friday (AM)

**Reported Time:** Same Day

---

### Equine Immunodeficiency Panel

**Specimen Required:** 1 LTT

Air dried peripheral blood smears

1 SST or RTT

Minimum: 0.5 mL serum

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** See Comment

**Comments:** CBC same day, final IgG/IgM 24 hrs.
### Equine Screen

<table>
<thead>
<tr>
<th>Specimen Required:</th>
<th>1 LTT Air dried peripheral blood smears 1 SST or RTT, 0.5 mL serum 1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)</th>
</tr>
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<tbody>
<tr>
<td>Day(s) Test Set Up:</td>
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<tr>
<td>Reported Time:</td>
<td>Same Day</td>
</tr>
<tr>
<td>Comments:</td>
<td>SDH is included in Equine Chemistry Screen</td>
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</tbody>
</table>

### Equine Screen, Follow-up

<table>
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<tr>
<th>Specimen Required:</th>
<th>1 LTT Air dried peripheral blood smears 1 SST or RTT Minimum: 0.5 mL serum 1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)</th>
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</tr>
<tr>
<td>Reported Time:</td>
<td>Same Day</td>
</tr>
<tr>
<td>Comments:</td>
<td>Submit within 30 days of original test. SDH is included in Equine Chemistry Screen Previous case ID is required to activate the discounted price.</td>
</tr>
</tbody>
</table>

### Equine Senior Wellness I

<table>
<thead>
<tr>
<th>Specimen Required:</th>
<th>1 LTT, 2 blood smears, 2.0 mL serum, SST or RTT, 1 mL LTT plasma, separated and frozen.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day(s) Test Set Up:</td>
<td>Monday through Saturday (AM/PM)</td>
</tr>
<tr>
<td>Reported Time:</td>
<td>Same Day</td>
</tr>
<tr>
<td>Comments:</td>
<td>SDH is included in the Equine Chemistry Screen</td>
</tr>
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</table>

### Equine Total Body

<table>
<thead>
<tr>
<th>Specimen Required:</th>
<th>1 LTT Air dried peripheral blood smears 1 SST or RTT Minimum: 0.5 mL serum 1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.) 5 mL urine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day(s) Test Set Up:</td>
<td>Monday through Sunday (AM/PM)</td>
</tr>
<tr>
<td>Reported Time:</td>
<td>Same Day</td>
</tr>
<tr>
<td>Comments:</td>
<td>SDH is included in the Equine Chemistry Screen</td>
</tr>
</tbody>
</table>
Equine Uterine Screen

**862**

**Specimen Required:** SALINE FLUSH submitted in sterile container (RTT) is the BEST SAMPLE. From this both culture and cytology can be setup by the Lab. Cytology prep would include a cytopsin prep which provides the best cell interpretation.

**OR**

2 transport swabs and freshly made slides. One swab is used for culture and one swab is used for cytology slides. Slides are ideally prepared immediately after collection. Slides prepared at lab from swabs have variable quality. Note that smears prepared on non-sterile slides will result in contamination of the culture. One swab used for the two procedures will result in a scanty amount of material for either test.

Prepare the cytology sample by GENTLY ROLLING (NOT SMEARING) the swab over the slide. This technique will deliver optimal cellular material for review. Thoroughly dry the smears. DO NOT put slides into the slide holder until completely dry or all the cells will rupture. Do not refrigerate slides.

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

** Reported Time:** See Comments

**Comments:** Cytology reported the same day (Monday - Saturday AM). Culture reported 72 hours.

---

General Diagnostic, Large Animal

**99**

**CBC w/Differential**

**Glucose**

**Blood Urea Nitrogen (BUN)**

**Creatinine**

**Sodium**

**Potassium**

**Chloride**

**Carbon Dioxide (CO2)**

**Anion Gap**

**Calcium**

**Specimen Required:** 1 LTT Air dried peripheral blood smears

1 SST or RTT Minimum: 0.5 mL serum

1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

Pre-op Panel, Large Animal

**851**

**CBC w/Differential**

**Glucose**

**Blood Urea Nitrogen (BUN)**

**Creatinine**

**Total Protein**

**ALP (Alkaline Phosphatase)**

**AST (Aspartate Transaminase)**

**Phosphorus**

**Calculated Osmolality**

**Albumin**

**Globulin**

**Albumin/Globulin Ratio**

**Bilirubin, Total**

**AST (Aspartate Transaminase)**

**GGT (Gamma-glutamyltransferase)**

**Cholesterol**

**Specimen Required:** 1 LTT Air dried peripheral blood smears

1 SST or RTT Minimum: 0.5 mL serum

1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day
### Equine/Large Panel

#### Ruminant Screen

| Specimen Required: | 1 LTT  
|                    | Air dried peripheral blood smears  
|                    | 1 SST or RTT  
|                    | Minimum: 0.5 mL serum  
|                    | 1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.) |
| Day(s) Test Set Up: | Monday through Sunday (AM/PM)  
| Reported Time: | Same Day |

#### Thyroid Screen, (other than canine/feline)

| Specimen Required: | 1 RTT or SST  
| Minimum: | 1 mL serum |
| Day(s) Test Set Up: | Monday through Saturday (PM)  
| Reported Time: | Same Day |

#### Total Body Diagnostic, Large Animal

| Specimen Required: | 1 LTT  
| Air dried peripheral blood smears  
| 1 SST or RTT, 0.5 mL serum  
| 1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)  
| 5 mL urine; indicate method of collection |
| Day(s) Test Set Up: | Monday through Sunday (AM/PM)  
| Reported Time: | Same Day |

#### Total Body Diagnostic, w/o UA, Large Animal

| Specimen Required: | 1 LTT  
| Air dried peripheral blood smears  
| 1 SST or RTT  
| 1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.) |
| Day(s) Test Set Up: | Monday through Sunday (AM/PM)  
| Reported Time: | Same Day |
TRH Stimulation Test, Equine
6971
ACTH Endogenous (pre)  ACTH Endogenous (post)

Specimen Required: 2 LTT, 1.0 mL plasma each, spin down immediately and separate from cells.

Frozen Plasma stable for 14 days. Avoid grossly hemolysed and/or lipemic samples.

Procedure:
1. Spin and separate plasma into a plastic transport tube within 1 hour of collection. Recommended to freeze immediately.

2. Collect 0 hour (PRE) TRH sample in LTT. Process as directed above. Clearly label as 0 hour / PRE-sample.

3. Administer 1mg TRH IV (Tryrotropin Releasing Hormone), which can be obtained from compounding pharmacies. The online pharmacy Wedgewood sells TRH under the brand name Protirelin.

4. At exactly 10 minutes after administration of TRH, collect second sample in LTT. Process as directed above and clearly label at 10 minutes / POST-sample.

Endogenous ACTH is tested on both samples. Recommended to perform test mid-November to mid-July since seasonally adjusted reference intervals have not yet been established. This is currently the recommended test for early detection of equine Pituitary Pars Intermedia Dysfunction (PPID). If a horse has clinical signs, and endogenous ACTH is often diagnostic. Transient yawning, coughing, mouth chomping and display flehmen response can follow administration of TRH. These side effects will subside within a few minutes.

HORSES CAN BE FASTED OR RECENTLY HAVE BEEN FED HAY, BUT NOT GRAIN. DO NOT PERFORM IMMEDIATELY AFTER AN ORAL SUGAR TEST.

Day(s) Test Set Up: Monday, Wednesday, Friday (AM)
Reported Time: Same Day
Comments: 2 samples required: PRE and 10 minute POST
ACTH Response - Feline (3 Cortisol samples)  

Specimen Required: 3 RTT’s  
Minimum: 0.5 mL for each sample  
Avoid severe lipemia  

FELINE PROTOCOL:  
Feline hyperadrenocorticism is very rare, we suggest consulting with an internist/clinical pathologist at the Laboratory prior to diagnostic testing.  
Dexamethasone suppression test is the favored diagnostic test for hyperadrenocorticism in cats.  

NOTE:  
The test has been validated using Cortrosyn. Although compounded gels are available, they vary greatly in peak times and are not recommended.  

1. Collect a resting sample in a RTT, 0.5 mL of serum is required. Separate serum if possible and refrigerate.  
2. Inject 0.125 mg of Cortrosyn IM or IV, (1/2 vial).  
3. Collect a sample exactly 30 min and 60 min post injection in a RTT, label clearly as to the status (post-30, post-60), and preserve in the same manner as the first sample.  

Day(s) Test Set Up:  
Monday through Saturday (AM/PM)  

Reported Time:  
Same Day  

Comments:  
Extreme lipemia may interfere with assay.  
Prednisone, prednisolone, and other corticosteroids (except dexamethasone) will cross react. Recommend these drugs be discontinued at least 48 hrs before testing. 

Iatrogenic hyperadrenocorticism can occur with long term glucocorticoids or progestins (e.g. megestrol acetate). These cats will have low to undetectable cortisol, failure to stimulate and low ACTH concentrations. They do not have abnormal electrolyte concentrations as

Autoimmune Panel  

Specimen Required: 1 LTT, 2 blood smears, 0.1 mL serum  
1 SST or RTT  

Day(s) Test Set Up:  
Monday through Sunday  
(AM/PM)  

Reported Time:  
Same Day/See Comments  

Comments:  
ANA is performed Tues/Thurs AM. A positive ANA is titered the next day (Wed/Fri)  
Coombs performed Mon-Sat AM.  
Note: Discontinue Corticosteroid use a minimum 2-3 weeks prior to testing. 
Corticosteroids can cause false negative ANA and Coombs results.

Basic Feline  

Specimen Required: 1 LTT  
Air dried peripheral blood smears  
1 SST or 1 RTT  
Minimum: 1 mL serum  
1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)  

Day(s) Test Set Up:  
Monday through Sunday  
(AM/PM)  

Reported Time:  
Same Day  

Basic Health Profile I  

Specimen Required: 1 LTT  
Air dried peripheral blood smears  
1 SST or RTT, 0.5 mL serum  
1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube).  

Day(s) Test Set Up:  
Monday through Sunday  
(AM/PM)  

Reported Time:  
Same Day
Basic Health Profile II

Specimen Required:
- 1 LTT
- Air dried peripheral blood smears
- 1 SST or RTT, 0.5 mL serum
- 1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube).
- 5 mL urine (please indicate collection method).

Day(s) Test Set Up: Monday through Sunday (AM/PM)

Reported Time: Same Day

Bile Acids Panel

Specimen Required:
- 1 SST or RTT for each, pre and post
- Minimum: 0.5 mL serum, each

Pre Sample: 12 hour fasting sample
Post Sample: 2 hour post prandial

Bile acids testing is used in place of BSP or blood ammonia. Helpful in assessing liver function. Use a standard meal such as CD. Post prandial values in normal dogs/cats do not usually exceed 20 umol/L.

Day(s) Test Set Up: Monday through Sunday (AM/PM)

Reported Time: Same Day

Comments: PLEASE NOTE: The animal should be off Actigall (Ursodiol) 48 hours prior to running a bile acid study.

Chemistry Screen

Specimen Required:
- 1 SST or RTT
- Minimum: 0.5 mL serum
- 1 GTT (a grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube).

Day(s) Test Set Up: Monday through Sunday (AM/PM)

Reported Time: Same Day

Comments: Submit within 30 days of original test. Previous case ID is required to activate the discounted price.

Chemistry Screen, Follow-up

Specimen Required:
- 1 SST or RTT
- Minimum: 0.5 mL serum
- 1 GTT (a grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube).

Day(s) Test Set Up: Monday through Sunday (AM/PM)

Reported Time: Same Day

Comments: Previously printed case ID is required to activate the discounted price.
### Coagulation Panel I

**83**

**Specimen Required:** 1 BTT, Centrifuge, separate plasma and refrigerate.

Citrate tubes (BTT) provided by Phoenix Laboratory hold 2.7 mL of blood. Tubes filled with less than 2.0 mL whole blood (approximately half full) have excess anticoagulant for the volume of blood which may affect the PT and APTT results. If collecting a smaller volume of blood, <2.0 mL, the blood to anticoagulant ratio should be 9:1.

**THE RATIO OF BLOOD TO ANTICOAGULANT IS CRITICAL FOR VALID COAGULATION RESULTS.**

**Protocol:**

1. Draw fresh venous blood into BTT (blue top, buffered sodium citrate tube) until full. Gently mix by inverting 4-5 times. NO CLOTTING SHOULD BE OBSERVED IN THE TUBE. Please remember, if collecting a smaller volume of blood, <2.0 mL, the blood to anticoagulant ratio should be 9:1.

For proper dilution, do not fill beyond the top of the tube label.

2. Cool to 4 degrees C (refrigerator temperature), until analysis.

3. If delay greater than 24 hours is expected prior to analysis, the BTT should be spun in a centrifuge, the plasma separated and placed in a plain plastic vial to be frozen until analysis.

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

**Comments:** Citrate tubes (BTT) provided by Phoenix Laboratory hold 2.7 mL of blood. Tubes filled with less than 2.0 mL whole blood (approximately half full) have excess anticoagulant for the volume of blood which may affect the PT and APTT results. However, for proper dilution, do not fill beyond the top of the tube label. If collecting a smaller volume of blood, blood to anticoagulant ratio should be 9:1.

### Coagulation Panel II

**10**

**Specimen Required:** 1 BTT, Centrifuge, separate plasma and refrigerate.

1 LTT, 2 blood smears

Citrate tubes (BTT) provided by Phoenix Laboratory hold 2.7 mL of blood. Tubes filled with less than 2.0 mL whole blood (approximately half full) have excess anticoagulant for the volume of blood which may affect the PT and APTT results. If collecting a smaller volume of blood, <2.0 mL, the blood to anticoagulant ratio should be 9:1.

**THE RATIO OF BLOOD TO ANTICOAGULANT IS CRITICAL FOR VALID COAGULATION RESULTS.**

**Protocol:**

1. Draw fresh venous blood into BTT (blue top, buffered sodium citrate tube) until full. Gently mix by inverting 4-5 times. NO CLOTTING SHOULD BE OBSERVED IN THE TUBE. Please remember, if collecting a smaller volume of blood, <2.0 mL, the blood to anticoagulant ratio should be 9:1.

For proper dilution, do not fill beyond the top of the tube label.

2. Cool to 4 degrees C (refrigerator temperature), until analysis.

3. If delay greater than 24 hours is expected prior to analysis, the BTT should be spun in a centrifuge, the plasma separated and placed in a plain plastic vial to be frozen until analysis.

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

**Comments:** Citrate tubes (BTT) provided by Phoenix Laboratory hold 2.7 mL of blood. Tubes filled with less than 2.0 mL whole blood (approximately half full) have excess anticoagulant for the volume of blood which may affect the PT and APTT results. However, do not fill beyond the top of the tube label. If collecting a smaller volume of blood, blood to anticoagulant ratio should be 9:1.
### Coagulation Panel III

**Specimen Required:**
- 1 BTT, Centrifuge, separate plasma and refrigerate.
- 1 LTT, 2 blood smears

Citrate tubes (BTT) provided by Phoenix Laboratory hold 2.7 mL of blood. Tubes filled with less than 2.0 mL whole blood (approximately half full) have excess anticoagulant for the volume of blood which may affect the PT and APTT results. If collecting a smaller volume of blood, <2.0 mL, the blood to anticoagulant ratio should be 9:1.

**The Ratio of Blood to Anticoagulant is Critical for Valid Coagulation Results.**

**Protocol:**
1. Draw fresh venous blood into BTT (blue top, buffered sodium citrate tube) until full. Gently mix by inverting 4-5 times. NO CLOTTING SHOULD BE OBSERVED IN THE TUBE. Please remember, if collecting a smaller volume of blood, <2.0 mL, the blood to anticoagulant ratio should be 9:1.
2. Cool to 4 degrees C (refrigerator temperature), until analysis.
3. If delay greater than 24 hours is expected prior to analysis, the BTT should be spun in a centrifuge, the plasma separated and placed in a plain plastic vial to be frozen until analysis.

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

**Comments:**
Citrate tubes (BTT) provided by Phoenix Laboratory hold 2.7 mL of blood. Tubes filled with less than 2.0 mL whole blood (approximately half full) have excess anticoagulant for the volume of blood which may affect the PT and APTT results. However, for proper dilution, do not fill beyond the top of the tube label. If collecting a smaller volume of blood, blood to anticoagulant ratio should be 9:1.

### Cobalamin and Folate

**Specimen Required:**
- 0.75 mL serum, RTT

Cobalamin and Folate are light sensitive. It is recommended to wrap serum tube in paper or aluminum foil. Frozen and protected from light.

**Day(s) Test Set Up:** Monday, Wednesday, Friday (AM)

**Reported Time:** Same Day

### Electrolyte Screen

**Specimen Required:**
- 1 SST or RTT

Minimum: 0.5 mL serum

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:**

**Sodium**

**Potassium**

**Chloride**

**Carbon Dioxide (CO2)**

**Anion Gap**

**Sodium/Potassium Ratio**

### Fecal Parasite Screen Combo w/Elisa

**Specimen Required:**
- Fresh feces

Minimum: 10 gm feces

The stool should not be contaminated with clay kitty litter which causes interference (wheat/corn litter ok).

**Protocol:**
1) Sugar flotation procedure that incorporates two centrifugation sequences.
2) Microscopic examination of the processed specimen to detect ova and parasites.
3) ELISA examination for Giardia.

**Day(s) Test Set Up:** Monday through Saturday (AM)

**Reported Time:** Same Day

**Comments:**
Sugar flotation with two centrifugation sequences; microscopic examination for ova and parasites, including giardia cysts.
### Fecal Parasite Screen Combo w/IFA

**Fecal Parasite Screen Combo**

**Giardia/Cryptosporidium (IFA)**

**Specimen Required:** Fresh feces
- Minimum: 10 gm feces

- The stool should not be contaminated with clay kitty litter which causes interference (wheat/corn litter OK).

**Protocol:**
1. Sugar flotation procedure that incorporates two centrifugation sequences.
2. Microscopic examination of the processed specimen to detect ova and parasites.
3. IFA microscopic exam for Giardia/Crypto.

**Day(s) Test Set Up:** Monday through Saturday
- AM

**Reported Time:** Next Day

**Comments:** Sugar flotation with two centrifugation sequences; microscopic examination for ova and parasites, including Giardia cysts.

The IFA test will detect the antigen of Giardia species and most cryptosporidia. It will not detect some species of cryptosporidium that are associated with birds and reptiles.

To rule Giardia and cryptosporidium in avian/non-mammalian, order Avian/Nonmammalian Giardia/Cryptosporidium (#1530).

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### Feline Panel 859

**Specimen Required:**
- 1 LTT
- Air dried peripheral blood smears
- 1 SST or 1 RTT
- Minimum: 1 mL serum

1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)

**Day(s) Test Set Up:** Monday through Sunday
- AM/PM

**Reported Time:** Same Day/See Comments

**Comments:** FIP and FIV performed Mon - Sat AM, reported in afternoon.

### Feline Panel 881

**Specimen Required:**
- 1 LTT
- Air dried peripheral blood smears
- 1 SST or 1 RTT
- Minimum: 1 mL serum

1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)

**Day(s) Test Set Up:** Monday through Sunday
- AM/PM

**Reported Time:** Same Day
### Feline Panel 882

**Specimen Required:**
- 1 LTT
- 1 SST or 1 RTT, 1 mL serum
- Air dried peripheral blood smears
- 1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)

**Day(s) Test Set Up:** Monday through Sunday

**Reported Time:**

**Comments:**
- This test contains all the components of #57 plus the FIP Titer.
- FIP and FIV performed Mon - Sat AM, reported in afternoon.

### Feline Viral I 865

**Specimen Required:**
- 0.5 mL serum, SST or RTT

**Day(s) Test Set Up:** Monday through Sunday

**Reported Time:**

### Feline Viral II 78

**Specimen Required:**
- 1 SST or 1 RTT
- Minimum: 0.2 mL serum

**Day(s) Test Set Up:** Monday through Saturday

**Reported Time:**

**Comments:**
- FIP and FIV performed Mon - Sat AM, reported in afternoon.

### Feline Viral III 860

**Specimen Required:**
- 1 LTT
- Air dried peripheral blood smears
- SST or RTT
- Minimum: 0.8 mL serum

**Day(s) Test Set Up:** Monday through Saturday

**Reported Time:**

**Comments:**
- Mycoplasma hemofelis (Hemobartonella) test is a blood smear evaluation.
- FIP and FIV performed Mon - Sat AM, reported in afternoon.

### Feline Screen 5

**Specimen Required:**
- Mycoplasma hemofelis (Hemobartonella) test is a blood smear evaluation.

**Day(s) Test Set Up:** Monday through Sunday

**Reported Time:**

**Comments:**
- Mycoplasma hemofelis (Hemobartonella) test is a blood smear evaluation.

### Feline Screen w/FIV 857

**Specimen Required:**
- 1 LTT, 2 blood smears, 1.0 mL serum, SST or RTT

**Day(s) Test Set Up:** Monday through Sunday

**Reported Time:**

**Comments:**
- Mycoplasma hemofelis (Hemobartonella) test is a blood smear evaluation.
- FIV performed Mon - Sat AM, reported in afternoon.
### General Diagnostic

**2**  
Updated: 1/22/2018

| Specimen Required: | 1 LTT  
|                    | Air dried peripheral blood smears  
|                    | 1 SST or RTT, 0.5 mL serum  
|                    | 1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)  
| Day(s) Test Set Up: | Monday through Sunday  
|                    | (AM/PM)  
| Reported Time:     | Same Day  

### General Diagnostic w/ Total T4, Follow-up

**7711**  
Updated: 1/27/2018

| Specimen Required: | 1 LTT  
|                    | Air dried peripheral blood smears  
|                    | 1 SST or RTT  
|                    | 1.0 mL serum  
|                    | 1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)  
| Day(s) Test Set Up: | Monday through Sunday  
|                    | (AM/PM)  
| Reported Time:     | Same Day  
| Comments:          | Submit within 30 days of original test. Previous case ID is required to activate the discounted price.  

### General Diagnostic w/T4 and TSH Canine

**2072**  
Updated: 1/30/2018

| Specimen Required: | 1 LTT, 2 Air dried peripheral blood smears  
|                    | 1 SST or RTT with 1.0 mL serum  
|                    | 1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)  
| Day(s) Test Set Up: | Monday through Sunday  
|                    | (AM/PM)  
| Reported Time:     | Same Day  

### General Diagnostic w/ Total T4

**77**  
Updated: 1/28/2018

| Specimen Required: | 1 LTT, 2 Air dried peripheral blood smears  
|                    | 1 SST or RTT with 1.0 mL serum  
|                    | 1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)  
| Day(s) Test Set Up: | Monday through Sunday  
|                    | (AM/PM)  
| Reported Time:     | Same Day  

### General Diagnostic, Follow-up

**72**  
Updated: 1/22/2018

| Specimen Required: | 1 LTT  
|                    | Air dried peripheral blood smears  
|                    | 1 SST or RTT  
|                    | Minimum: 0.5 mL serum  
|                    | 1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)  
| Day(s) Test Set Up: | Monday through Sunday  
|                    | (AM/PM)  
| Reported Time:     | Same Day  
| Comments:          | Submit within 30 days of original test. Previous case ID is required to activate the discounted price.  

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Printed On: 2/4/2018
### Feline Panel

#### General Endocrine, Feline

**Specimen Required:**
- 2 RTT's
- 1 GTT (A grey top tube is not necessary if the RTT is centrifuged and serum is transferred to a transport tube.)

**Pre/Post cortisol samples of serum or heparinized plasma.**

**FELINE PROTOCOL:**

**NOTE:** Feline hyperadrenocorticism is very rare, we suggest consulting with an internist/clinical pathologist at the Laboratory prior to diagnostic testing.

Dexamethasone suppression test is the favored diagnostic test for hyperadrenocorticism in cats.

**Protocol:**
1. Collect a resting sample in a RTT, 0.5 mL of serum or plasma is required. Separate serum if possible and refrigerate.
2. Inject 0.125 mg of Cortrosyn IM or IV, (1/2 vial).
3. Collect a sample exactly 30 min and 60 min post injection in a RTT, label clearly as to the status (post), and preserve in the same manner as the first sample.

- **Day(s) Test Set Up:** Monday through Sunday (AM/PM)
- **Reported Time:** Same Day
- **Comments:** Cortisol performed Mon - Sat, AM/PM

Extreme lipemia may interfere with assay.

Prednisone, prednisolone, and other corticosteroids (except dexamethasone) will cross react. Recommend these drugs be discontinued at least 48 hrs before testing.

#### Geriatric Panel, Feline, Follow-up

**Specimen Required:**
- 1 LTT
- Air dried peripheral blood smears
- 1 SST or RTT

Minimum: 0.5 mL serum
- 1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)
- **Reported Time:** Same Day
- **Comments:** Submit within 30 days of original sample.
Previous case ID is required to activate the discounted price.

#### Glucocorticoids-TDM

**Specimen Required:**
- 1.0 ml serum, SST or RTT

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)
- **Reported Time:** Same Day
- **Comments:** Run after 2 weeks, 1 month, then every 2 to 4 months
Glucocorticoids include Prednisone, Prednisolone, Dexamethasone, etc.
**Liver Chemistry Panel**

**1084**

Updated: 1/22/2018

<table>
<thead>
<tr>
<th>Specimen Required:</th>
<th>1 SST or RTT Minimum: 0.5 mL serum and 1 SST or RTT for post bile acids Minimum: 0.1 mL serum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre Sample:</td>
<td>12 hour fasting sample</td>
</tr>
<tr>
<td>Post Sample:</td>
<td>2 hour post prandial</td>
</tr>
<tr>
<td>Bile acids testing is used in place of BSP or blood ammonia. Helpful in assessing liver function. Use a standard meal such as CD. Post prandial values in normal dogs/cats do not usually exceed 20 umol/L.</td>
<td></td>
</tr>
</tbody>
</table>

**Day(s) Test Set Up:** Monday through Sunday

**Reported Time:** Same Day

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**Liver Profile**

**85**

Updated: 1/22/2018

<table>
<thead>
<tr>
<th>Specimen Required:</th>
<th>1 LTT Air dried peripheral blood smears 1 SST or RTT Minimum: 0.5 mL serum and 1 SST or RTT for post bile acids sample Minimum: 0.1 mL serum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre Sample:</td>
<td>12 hour fasting sample</td>
</tr>
<tr>
<td>Post Sample:</td>
<td>2 hour post prandial</td>
</tr>
<tr>
<td>Bile acids testing is used in place of BSP or blood ammonia. Helpful in assessing liver function. Use a standard meal such as CD. Post prandial values in normal dogs/cats do not usually exceed 20 umol/L.</td>
<td></td>
</tr>
</tbody>
</table>

**Day(s) Test Set Up:** Monday through Sunday

**Reported Time:** Same Day

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**Ova and Parasite Combo w/IFA**

**2213**

Updated: 2/2/2018

**Specimen Required:** Fresh feces Minimum: 10 gm feces

The stool should not be contaminated with clay kitty litter which causes interference (wheat/corn litter ok).

**PROTOCOL:**

1) Sugar flotation procedure that incorporates two centrifugation sequences.

2) Microscopic examination of the processed specimen to detect ova and parasites.

3) IFA microscopic examination for Giardia/Crypto.

**Day(s) Test Set Up:** Monday through Saturday

**Reported Time:** Next Day

**Comments:** Sugar flotation with two centrifugation sequences; microscopic examination for ova and parasites, including Giardia cysts.

The IFA test will detect the antigen of Giardia species and most cryptosporidia. It will not detect some species of cryptosporidium that are associated with birds and reptiles.

To rule giardia and cryptosporidium in avian/non-mammalian, order Avian/Nonmammalian Giardia/Cryptosporidium (#1530).

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**Senior Feline Screen w/CBC**

**899**

Updated: 2/2/2018

<table>
<thead>
<tr>
<th>Specimen Required:</th>
<th>Air dried peripheral blood smears 1 SST or RTT, 0.5 mL serum 1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre Sample:</td>
<td>12 hour fasting sample</td>
</tr>
<tr>
<td>Post Sample:</td>
<td>2 hour post prandial</td>
</tr>
<tr>
<td>Bile acids testing is used in place of BSP or blood ammonia. Helpful in assessing liver function. Use a standard meal such as CD. Post prandial values in normal dogs/cats do not usually exceed 20 umol/L.</td>
<td></td>
</tr>
</tbody>
</table>

**Day(s) Test Set Up:** Monday through Sunday

**Reported Time:** Same Day

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**Ova and Parasite**

**Giardia/Cryptosporidium (IFA)**

**Specimen Required:** Fresh feces Minimum: 10 gm feces

The stool should not be contaminated with clay kitty litter which causes interference (wheat/corn litter ok).

**PROTOCOL:**

1) Sugar flotation procedure that incorporates two centrifugation sequences.

2) Microscopic examination of the processed specimen to detect ova and parasites.

3) IFA microscopic examination for Giardia/Crypto.

**Day(s) Test Set Up:** Monday through Saturday

**Reported Time:** Next Day

**Comments:** Sugar flotation with two centrifugation sequences; microscopic examination for ova and parasites, including Giardia cysts.

The IFA test will detect the antigen of Giardia species and most cryptosporidia. It will not detect some species of cryptosporidium that are associated with birds and reptiles.

To rule giardia and cryptosporidium in avian/non-mammalian, order Avian/Nonmammalian Giardia/Cryptosporidium (#1530).
### Senior Feline Screen w/Free T4

**Updated:** 1/30/2018

<table>
<thead>
<tr>
<th>Test</th>
<th>Specimen Required</th>
<th>Day(s) Test Set Up</th>
<th>Reported Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glucose</td>
<td>1.0 mL serum, SST or RTT</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
<tr>
<td>Phosphorus</td>
<td>ALP (Alkaline Phosphatase)</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
<tr>
<td>Blood Urea Nitrogen (BUN)</td>
<td>ALT (Alanine Transaminase)</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
<tr>
<td>Creatinine</td>
<td>Total T4</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
<tr>
<td>Potassium</td>
<td>Phosphorus</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
</tbody>
</table>

### Special Feline w/CBC

**Updated:** 2/4/2018

<table>
<thead>
<tr>
<th>Test</th>
<th>Specimen Required</th>
<th>Day(s) Test Set Up</th>
<th>Reported Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBC w/Differential</td>
<td>1 LTT</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
<tr>
<td>Glucose</td>
<td>ALP (Alkaline Phosphatase)</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
<tr>
<td>Blood Urea Nitrogen (BUN)</td>
<td>ALT (Alanine Transaminase)</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
<tr>
<td>Creatinine</td>
<td>Total T4</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
<tr>
<td>Potassium</td>
<td>Phosphorus</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
<tr>
<td>FeLV, ELISA</td>
<td>FIP (FCoV) Screen, IFA</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
<tr>
<td>FIV</td>
<td>Total T4</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
<tr>
<td>Mycoplasma hemofelis (Hemobartonella)</td>
<td>FIP (FCoV) Screen, IFA</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
<tr>
<td>FeLV, ELISA</td>
<td>Total T4</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
</tbody>
</table>

### Special Feline w/Chemistry Screen

**Updated:** 2/2/2018

<table>
<thead>
<tr>
<th>Test</th>
<th>Specimen Required</th>
<th>Day(s) Test Set Up</th>
<th>Reported Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemistry Screen</td>
<td>1 SST or RTT</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
<tr>
<td>Glucose</td>
<td>ALP (Alkaline Phosphatase)</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
<tr>
<td>Blood Urea Nitrogen (BUN)</td>
<td>ALT (Alanine Transaminase)</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
<tr>
<td>Creatinine</td>
<td>Total T4</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
<tr>
<td>Potassium</td>
<td>Phosphorus</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
<tr>
<td>Calcium</td>
<td>ALP (Alkaline Phosphatase)</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
<tr>
<td>TSH Canine</td>
<td>ALT (Alanine Transaminase)</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
<tr>
<td>TSH Canine</td>
<td>Total T4</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
<tr>
<td>FIP (FCoV) Screen, IFA</td>
<td>Calcium</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
<tr>
<td>FeLV, ELISA</td>
<td>ALP (Alkaline Phosphatase)</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
<tr>
<td>FIV</td>
<td>Creatinine</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
<tr>
<td>Mycoplasma hemofelis (Hemobartonella)</td>
<td>Total T4</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
<tr>
<td>FIP (FCoV) Screen, IFA</td>
<td>Total T4</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
<tr>
<td>Total T4</td>
<td>Calcium</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
</tbody>
</table>

### Special Feline w/TSH Canine

**Updated:** 1/25/2018

<table>
<thead>
<tr>
<th>Test</th>
<th>Specimen Required</th>
<th>Day(s) Test Set Up</th>
<th>Reported Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSH Canine</td>
<td>1.0 mL serum, SST or RTT</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
<tr>
<td>Glucose</td>
<td>ALP (Alkaline Phosphatase)</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
<tr>
<td>Blood Urea Nitrogen (BUN)</td>
<td>ALT (Alanine Transaminase)</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
<tr>
<td>Creatinine</td>
<td>Total T4</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
<tr>
<td>Potassium</td>
<td>Phosphorus</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
<tr>
<td>Calcium</td>
<td>ALP (Alkaline Phosphatase)</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
<tr>
<td>TSH Canine</td>
<td>ALT (Alanine Transaminase)</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
<tr>
<td>TSH Canine</td>
<td>Total T4</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
<tr>
<td>FIP (FCoV) Screen, IFA</td>
<td>Calcium</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
<tr>
<td>FeLV, ELISA</td>
<td>ALP (Alkaline Phosphatase)</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
<tr>
<td>FIV</td>
<td>Creatinine</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
<tr>
<td>Mycoplasma hemofelis (Hemobartonella)</td>
<td>Total T4</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
<tr>
<td>FIP (FCoV) Screen, IFA</td>
<td>Total T4</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
<tr>
<td>Total T4</td>
<td>Calcium</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
</tbody>
</table>

### Feline Panel

**Printed On:** 2/4/2018
### Feline Panel

#### Special Feline w/General Diag, (no Total T4) 856
- **Specimen Required:** 1 LTT, Air dried peripheral blood smears
  1 SST or RTT, 0.5 mL serum
  1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)
- **Day(s) Test Set Up:** Monday through Sunday (AM/PM)
- **Reported Time:** Same Day
- **Comments:** This panel does not include a T4.
  FIP and FIV performed Mon - Sat AM, reported in afternoon.

#### Special Profile 861 861
- **Specimen Required:** 1 LTT
  Air dried peripheral blood smears
  1 SST or RTT, 0.5 mL serum
  1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)
- **Day(s) Test Set Up:** Monday through Sunday (AM/PM)
- **Reported Time:** Same Day

#### Thyroid III 864
- **Specimen Required:** 1 RTT or SST
  Minimum: 1 mL serum
- **Day(s) Test Set Up:** Monday through Sunday (AM)
- **Reported Time:** Same Day

#### Thyroid IV Panel, Feline 875
- **Specimen Required:** 1 RTT or SST
  Minimum: 1 mL serum
- **Day(s) Test Set Up:** Monday through Sunday (AM/PM)
- **Reported Time:** Next Day

#### Thyroid Screen 49
- **Specimen Required:** 1 RTT or SST
  Minimum: 1 mL serum
- **Day(s) Test Set Up:** Monday through Sunday (AM/PM)
- **Reported Time:** Same Day
### TLI, Cobalamin and Folate
**689**

**Specimen Required:**
1.0 mL RTT fasted 12 - 18 hours (Diabetic animals 6 - 8 hr) non-hemolyzed serum.

Cobalamin and Folate are light sensitive. It is recommended to wrap serum tube in paper or aluminum foil.

**Day(s) Test Set Up:**
Monday, Wednesday, Friday (AM)

**Reported Time:**
Same Day

---

### Total Body Diagnostic
**3**

**Specimen Required:**
1 LTT
Air dried peripheral blood smears
1 SST or RTT
Minimum: 0.5 mL serum
1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)
5 mL urine; indicate method of collection.

**Day(s) Test Set Up:**
Monday through Sunday (AM/PM)

**Reported Time:**
Same Day

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### Total Body Diagnostic, Follow-up
**1003**

**Specimen Required:**
1 LTT
Air dried peripheral blood smears
1 SST or RTT
Minimum: 0.5 mL serum
1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)
5 mL urine; indicate method of collection.

**Day(s) Test Set Up:**
Monday through Sunday (AM/PM)

**Reported Time:**
Same Day

**Comments:**
Submit within 30 days of original test. Previous case ID is required to activate the discounted price.

---

### Total Body Diagnostic, w/o UA
**35**

**Specimen Required:**
1 LTT
Air dried peripheral blood smears
1 SST or RTT
Minimum: 0.5 mL serum
1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)

**Day(s) Test Set Up:**
Monday through Sunday (AM/PM)

**Reported Time:**
Same Day
Total Body Diagnostic, w/o UA, Follow-up

**1035**

**Updated:** 1/22/2018

**Specimen Required:**
- 1 LTT
- Air dried peripheral blood smears
- 1 SST or RTT
- Minimum: 0.5 mL serum
- 1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)

**Day(s) Test Set Up:**
- Monday through Sunday

**Reported Time:**
- Same Day

**Comments:**
Submit within 30 days of original test. Previous case ID is required to activate the discounted price.

---

Wellness II

**1711**

**Updated:** 1/22/2018

**Specimen Required:**
- 1 SST or RTT, 0.5 mL serum
- 1 LTT
- Air dried peripheral blood smears
- 1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)
- 5 mL urine; indicate method of collection.

**Day(s) Test Set Up:**
- Monday through Sunday

**Reported Time:**
- Same Day

---

Wellness III

**1712**

**Updated:** 1/22/2018

**Specimen Required:**
- 1 SST or RTT, 0.5 mL serum
- 1 LTT
- Air dried peripheral blood smears
- 1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)

**Day(s) Test Set Up:**
- Monday through Sunday

**Reported Time:**
- Same Day

---

Total Feline Panel

**858**

**Updated:** 2/2/2018

**Specimen Required:**
- 1 LTT, 2 blood smears, 1.0 mL serum, SST or RTT

**Day(s) Test Set Up:**
- Monday through Sunday

**Reported Time:**
- Same Day

**Comments:**
- FIP and FIV performed Mon - Sat AM, reported in afternoon.

---

Wellness I

**1710**

**Updated:** 1/22/2018

**Specimen Required:**
- 1 SST or RTT, 0.5 mL serum
- 1 LTT
- Air dried peripheral blood smears
- 1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)

**Day(s) Test Set Up:**
- Monday through Sunday

**Reported Time:**
- Same Day

---

Printed On: 2/4/2018
Wellness IV
1713

Specimen Required:
- 1 SST or RTT, 0.5 mL serum
- 1 LTT
- Air dried peripheral blood smears
- 1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)
- 5 mL urine; indicate method of collection.

Day(s) Test Set Up: Monday through Sunday (AM/PM)
Reported Time: Same Day
ACE Inhibitors-TDM

Specimen Required: 1 SST or RTT, 0.5 mL serum
5 mL urine; indicate method of collection.

Day(s) Test Set Up: Monday through Sunday
(AM/PM)

Reported Time: Same Day

Comments: Run after 1 week, 1 month, then every 3 to 6 months.

Addison’s Disease Panel-TDM

Specimen Required: 1 SST or 1 RTT, 0.5 mL serum

Day(s) Test Set Up: Monday through Sunday
(AM/PM)

Reported Time: Same Day

Comments: Initially every 1 to 2 weeks, then every 3 to 4 months after stabilized.

Amitriptyline/Clomipramine-TDM

Specimen Required: 1 LTT
Air dried peripheral blood smears
1 SST or RTT, 0.5 mL serum

Day(s) Test Set Up: Monday through Sunday
(AM/PM)

Reported Time: Same Day

Comments: Run after 1 month, then yearly

Amlodipine-TDM

Specimen Required: 1 SST or RTT, 0.5 mL serum
5 mL urine; indicate method of collection.

Day(s) Test Set Up: Monday through Sunday
(AM/PM)

Reported Time: Same Day

Comments: Run 1 week after starting drug or adjusting dose, then 1 month later. Thereafter, every 3 to 6 months.

Basic Health Profile I

Specimen Required: 1 LTT
Air dried peripheral blood smears
1 SST or RTT, 0.5 mL serum
1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube).

Day(s) Test Set Up: Monday through Sunday
(AM/PM)

Reported Time: Same Day

Basic Health Profile II

Specimen Required: 1 LTT
Air dried peripheral blood smears
1 SST or RTT, 0.5 mL serum
1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube).

Day(s) Test Set Up: Monday through Sunday
(AM/PM)

Reported Time: Same Day
### Bile Acids Panel

**46**  
Updated: 1/22/2018

**Specimen Required:** 1 SST or RTT for each, pre and post  
Minimum: 0.5 mL serum, each  
Pre Sample: 12 hour fasting sample  
Post Sample: 2 hour post prandial  
Bile acids testing is used in place of BSP or blood ammonia. Helpful in assessing liver function. Use a standard meal such as CD. Post prandial values in normal dogs/cats do not usually exceed 20 umol/L.

**Day(s) Test Set Up:** Monday through Sunday

(AM/PM)

**Reported Time:** Same Day

**Comments:** PLEASE NOTE: The animal should be off Actigall (Ursodiol) 48 hours prior to running a bile acid study.

### Chemistry Screen

**1**  
Updated: 2/4/2018

**Specimen Required:** 1 SST or RTT  
Minimum: 0.5 mL serum  
1 GTT (a grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube).

**Day(s) Test Set Up:** Monday through Sunday

(AM/PM)

**Reported Time:** Same Day

**Comments:** Submit within 30 days of original test. Previous case ID is required to activate the discounted price.

### Calcitriol-TDM

**5020**  
Updated: 1/22/2018

**Specimen Required:** 1 SST or RTT, 0.5 mL serum  
5 mL urine; indicate method of collection.

**Day(s) Test Set Up:** Monday through Sunday

(AM/PM)

**Reported Time:** Same Day

**Comments:** Run at 1 week, 1 month, then every 2 to 4 months.

### Chemistry Screen, Follow-up

**71**  
Updated: 2/4/2018

Glucone Glucose  
Blood Urea Nitrogen (BUN)  
Creatinine  
Sodium  
Potassium  
Calcium  
Chloride  
Carbon Dioxide (CO2)  
Anion Gap  
Total Protein  
Albumin  
Globulin  
Albumin/Globulin Ratio  
Bilirubin, Total  
ALP (Alkaline Phosphatase)  
ALT (Alanine Transaminase)  
AST (Aspartate Transaminase)  
GGT (Gamma-glutamyltransferase)  
Cholesterol  
Calculated Osmolality

**Specimen Required:** 1 SST or RTT  
Minimum: 0.5 mL serum  
1 GTT (a grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube).

**Day(s) Test Set Up:** Monday through Sunday

(AM/PM)

**Reported Time:** Same Day

**Comments:** Submit within 30 days of original test. Previous case ID is required to activate the discounted price.
**Coagulation Panel I**

**Specimen Required:** 1 BTT, Centrifuge, separate plasma and refrigerate.

Citrate tubes (BTT) provided by Phoenix Laboratory hold 2.7 mL of blood. Tubes filled with less than 2.0 mL whole blood (approximately half full) have excess anticoagulant for the volume of blood which may affect the PT and APTT results. If collecting a smaller volume of blood, <2.0 mL, the blood to anticoagulant ratio should be 9:1.

THE RATIO OF BLOOD TO ANTICOAGULANT IS CRITICAL FOR VALID COAGULATION RESULTS.

**Protocol:**

1. Draw fresh venous blood into BTT (blue top, buffered sodium citrate tube) until full. Gently mix by inverting 4-5 times. NO CLOTTING SHOULD BE OBSERVED IN THE TUBE. Please remember, if collecting a smaller volume of blood, <2.0 mL, the blood to anticoagulant ratio should be 9:1.

For proper dilution, do not fill beyond the top of the tube label.

2. Cool to 4 degrees C (refrigerator temperature), until analysis.

3. If delay greater than 24 hours is expected prior to analysis, the BTT should be spun in a centrifuge, the plasma separated and placed in a plain plastic vial to be frozen until analysis.

**Day(s) Test Set Up:** Monday through Sunday

**Reported Time:** Same Day

**Comments:** Citrate tubes (BTT) provided by Phoenix Laboratory hold 2.7 mL of blood. Tubes filled with less than 2.0 mL whole blood (approximately half full) have excess anticoagulant for the volume of blood which may affect the PT and APTT results. However, for proper dilution, do not fill beyond the top of the tube label. If collecting a smaller volume of blood, blood to anticoagulant ratio should be 9:1.

**Coagulation Panel II**

**Specimen Required:** 1 BTT, Centrifuge, separate plasma and refrigerate.

1 LTT, 2 blood smears

Citrate tubes (BTT) provided by Phoenix Laboratory hold 2.7 mL of blood. Tubes filled with less than 2.0 mL whole blood (approximately half full) have excess anticoagulant for the volume of blood which may affect the PT and APTT results. If collecting a smaller volume of blood, <2.0 mL, the blood to anticoagulant ratio should be 9:1.

THE RATIO OF BLOOD TO ANTICOAGULANT IS CRITICAL FOR VALID COAGULATION RESULTS.

**Protocol:**

1. Draw fresh venous blood into BTT (blue top, buffered sodium citrate tube) until full. Gently mix by inverting 4-5 times. NO CLOTTING SHOULD BE OBSERVED IN THE TUBE. Please remember, if collecting a smaller volume of blood, <2.0 mL, the blood to anticoagulant ratio should be 9:1.

For proper dilution, do not fill beyond the top of the tube label.

2. Cool to 4 degrees C (refrigerator temperature), until analysis.

3. If delay greater than 24 hours is expected prior to analysis, the BTT should be spun in a centrifuge, the plasma separated and placed in a plain plastic vial to be frozen until analysis.

**Day(s) Test Set Up:** Monday through Sunday

**Reported Time:** Same Day

**Comments:** Citrate tubes (BTT) provided by Phoenix Laboratory hold 2.7 mL of blood. Tubes filled with less than 2.0 mL whole blood (approximately half full) have excess anticoagulant for the volume of blood which may affect the PT and APTT results. However, do not fill beyond the top of the tube label. If collecting a smaller volume of blood, blood to anticoagulant ratio should be 9:1.
### General Panel

<table>
<thead>
<tr>
<th>Coagulation Panel III</th>
<th>Cobalamin and Folate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>18</strong></td>
<td><strong>2689</strong></td>
</tr>
</tbody>
</table>

**Specimen Required:**
- 1 BTT, Centrifuge, separate plasma and refrigerate.
- 1 LTT, 2 blood smears

Citrate tubes (BTT) provided by Phoenix Laboratory hold 2.7 mL of blood. Tubes filled with less than 2.0 mL whole blood (approximately half full) have excess anticoagulant for the volume of blood which may affect the PT and APTT results. If collecting a smaller volume of blood, <2.0 mL, the blood to anticoagulant ratio should be 9:1.

**Protocol:**
1. Draw fresh venous blood into BTT (blue top, buffered sodium citrate tube) until full. Gently mix by inverting 4-5 times. NO CLOTTING SHOULD BE OBSERVED IN THE TUBE. Please remember, if collecting a smaller volume of blood, <2.0 mL, the blood to anticoagulant ratio should be 9:1.

For proper dilution, do not fill beyond the top of the tube label.

2. Cool to 4 degrees C (refrigerator temperature), until analysis.

3. If delay greater than 24 hours is expected prior to analysis, the BTT should be spun in a centrifuge, the plasma separated and placed in a plain plastic vial to be frozen until analysis.

**Day(s) Test Set Up:**
Monday through Sunday

**Reported Time:**
Same Day

**Comments:**
Citrate tubes (BTT) provided by Phoenix Laboratory hold 2.7 mL of blood. Tubes filled with less than 2.0 mL whole blood (approximately half full) have excess anticoagulant for the volume of blood which may affect the PT and APTT results. However, for proper dilution, do not fill beyond the top of the tube label. If collecting a smaller volume of blood, blood to anticoagulant ratio should be 9:1.

**Specimen Required:** 0.75 mL serum, RTT

Cobalamin and Folate are light sensitive. It is recommended to wrap serum tube in paper or aluminum foil. Frozen and protected from light.

**Day(s) Test Set Up:**
Monday, Wednesday, Friday (AM)

**Reported Time:**
Same Day

### Diabetes Mellitus Panel-TDM

| **5012** |

**Specimen Required:**
- 1 SST or 1 RTT, 0.5 mL serum
- 1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)
- 5 mL urine; indicate method of collection.

**Day(s) Test Set Up:**
Monday through Sunday

**Reported Time:**
Same Day

**Comments:**
Run one month after starting treatment, then every 3 to 4 months, more often if patient's condition dictates.

### Diazepam-TDM

| **4004** |

**Specimen Required:**
- 1 SST or 1 RTT, 0.5 mL serum

**Day(s) Test Set Up:**
Monday through Sunday

**Reported Time:**
Same Day

**Comments:**
Run after 5 days, 15 days, then every 3 to 6 months.
### Digoxin-TDM

**5007**

**Specimen Required:** 1 RTT (do not use SST for collection)

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

**Comments:** Run 3 to 5 days after starting or changing dose then every 4 to 6 months.

### Diuretics-TDM

**5017**

**Specimen Required:** 1 SST or 1 RTT, 0.5 mL serum

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

**Comments:** Run 1 week after starting drug or adjusting dose, then 1 month later. Thereafter, every 3 to 6 months.

### Electrolyte Screen

**16**

**Specimen Required:** 1 SST or RTT, Minimum: 0.5 mL serum

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

### Fecal Parasite Screen Combo w/ IFA

**2409**

**Specimen Required:** Fresh feces

**Minimum:** 10 gm feces

**Day(s) Test Set Up:** Monday through Saturday (AM)

**Reported Time:** Next Day

**Comments:** Sugar flotation with two centrifugation sequences; microscopic examination for ova and parasites, including Giardia cysts.

The IFA test will detect the antigen of Giardia species and most cryptosporidia. It will not detect some species of cryptosporidium that are associated with birds and reptiles.

To rule giardia and cryptosporidium in avian/non-mammalian, order Avian/Nonmammalian Giardia/Cryptosporidium (#1530).

### Fluoxetine (Prozac)-TDM

**5022**

**Specimen Required:** 1 SST or RTT, 0.5 mL serum

1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

**Comments:** Run after 1 month, then every 3 to 6 months
### General Diagnostic

**Specimen Required:**
- 1 LTT
- Air dried peripheral blood smears
- 1 SST or RTT, 0.5 mL serum
- 1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)

**Day(s) Test Set Up:**
- Monday through Sunday
  - (AM/PM)

**Reported Time:**
- Same Day

### General Diagnostic, Follow-up

**Specimen Required:**
- 1 LTT
- Air dried peripheral blood smears
- 1 SST or RTT
- Minimum: 0.5 mL serum
- 1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)

**Day(s) Test Set Up:**
- Monday through Sunday
  - (AM/PM)

**Reported Time:**
- Same Day

**Comments:**
Submit within 30 days of original test. Previous case ID is required to activate the discounted price.

### General Diagnostic w/T4 and TSH Canine

**Specimen Required:**
- 1 LTT, 2 Air dried peripheral blood smears
- 1 SST or RTT with 1.0 mL serum
- 1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)

**Day(s) Test Set Up:**
- Monday through Sunday
  - (AM/PM)

**Reported Time:**
- Same Day

### General Diagnostic w/Total T4

**Specimen Required:**
- 1 LTT, 2 Air dried peripheral blood smears
- 1 SST or RTT with 1.0 mL serum
- 1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)

**Day(s) Test Set Up:**
- Monday through Sunday
  - (AM/PM)

**Reported Time:**
- Same Day

### Immune Anemia Panel

**Specimen Required:**
- 1 LTT
- Air dried peripheral blood smears
- 1 SST or RTT
- Minimum: 0.5 mL serum
- 1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)

**Day(s) Test Set Up:**
- Monday through Saturday
  - (AM/PM)

**Reported Time:**
- Same Day

**Comments:**
Coombs performed in the afternoons, reported that PM.
Canine and Feline only.
Note: Discontinue Corticosteroid use a minimum 2-3 weeks prior to testing. Corticosteroids can cause false negative Coombs results.
### Liver Chemistry Panel

**1084**

**Updated:** 1/22/2018

<table>
<thead>
<tr>
<th>Test</th>
<th>Specimen Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albumin</td>
<td>1 SST or RTT, 0.5 mL serum and 1 SST or RTT for post bile acids, 0.1 mL serum</td>
</tr>
<tr>
<td>ALP (Alkaline Phosphatase)</td>
<td>Pre Bile Acids Sample Post Bile Acids Sample</td>
</tr>
<tr>
<td>ALT (Alternate Transaminase)</td>
<td>GGT (Gamma-glutamyltransferase) Globulin A/G Ratio Pre Bile Acids Sample Post Bile Acids Sample</td>
</tr>
<tr>
<td>AST (Aspartate Transaminase)</td>
<td>Bilirubin, Direct Bilirubin, Total</td>
</tr>
<tr>
<td>Bilirubin, Direct</td>
<td></td>
</tr>
<tr>
<td>Bilirubin, Total</td>
<td></td>
</tr>
</tbody>
</table>

**Specimen Required:** 1 SST or RTT

**Minimum:** 0.5 mL serum and 1 SST or RTT for post bile acids

**Pre Sample:** 12 hour fasting sample

**Post Sample:** 2 hour post prandial

**Bile acids testing is used in place of BSP or blood ammonia. Helpful in assessing liver function. Use a standard meal such as CD. Post prandial values in normal dogs/cats do not usually exceed 20 umol/L.**

#### Day(s) Test Set Up:

Monday through Sunday (AM/PM)

**Reported Time:** Same Day

### Liver Profile

**85**

**Updated:** 1/22/2018

<table>
<thead>
<tr>
<th>Test</th>
<th>Specimen Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBC w/Differential</td>
<td>Bilirubin, Total GGT (Gamma-glutamyltransferase) Total Protein Globulin A/G Ratio Pre Bile Acids Sample Post Bile Acids Sample</td>
</tr>
<tr>
<td>Albumin</td>
<td></td>
</tr>
<tr>
<td>ALP (Alkaline Phosphatase)</td>
<td></td>
</tr>
<tr>
<td>ALT (Alternate Transaminase)</td>
<td></td>
</tr>
<tr>
<td>AST (Aspartate Transaminase)</td>
<td></td>
</tr>
<tr>
<td>Bilirubin, Direct</td>
<td></td>
</tr>
<tr>
<td>Bilirubin, Total</td>
<td></td>
</tr>
</tbody>
</table>

**Specimen Required:** 1 LTT

**Minimum:** 0.5 mL serum and 1 SST or RTT for post bile acids

**Pre Sample:** 12 hour fasting sample

**Post Sample:** 2 hour post prandial

**Bile acids testing is used in place of BSP or blood ammonia. Helpful in assessing liver function. Use a standard meal such as CD. Post prandial values in normal dogs/cats do not usually exceed 20 umol/L.**

#### Day(s) Test Set Up:

Monday through Sunday (AM/PM)

**Reported Time:** Same Day

### L-thyroxine-TDM

**5021**

**Updated:** 1/22/2018

<table>
<thead>
<tr>
<th>Test</th>
<th>Specimen Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBC w/Differential</td>
<td>Cholesterol Total T4</td>
</tr>
<tr>
<td>Albumin</td>
<td></td>
</tr>
<tr>
<td>ALP (Alkaline Phosphatase)</td>
<td></td>
</tr>
<tr>
<td>ALT (Alternate Transaminase)</td>
<td></td>
</tr>
<tr>
<td>AST (Aspartate Transaminase)</td>
<td></td>
</tr>
<tr>
<td>Bilirubin, Direct</td>
<td></td>
</tr>
<tr>
<td>Bilirubin, Total</td>
<td></td>
</tr>
</tbody>
</table>

**Specimen Required:** 1 LTT

**Minimum:** 0.5 mL serum and 1 SST or RTT, 0.3 mL serum

**Pre Sample:** 12 hour fasting sample

**Post Sample:** 2 hour post prandial

**Bile acids testing is used in place of BSP or blood ammonia. Helpful in assessing liver function. Use a standard meal such as CD. Post prandial values in normal dogs/cats do not usually exceed 20 umol/L.**

#### Day(s) Test Set Up:

Monday through Sunday (AM/PM)

**Reported Time:** Same Day

**Comments:** Run after 1 month, then every 3 to 6 months.

#### Methimazole-TDM I

**4001**

**Updated:** 1/23/2018

<table>
<thead>
<tr>
<th>Test</th>
<th>Specimen Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBC w/Differential</td>
<td>ALP (Alkaline Phosphatase) Total T4 Blood Urea Nitrogen (BUN) Creatinine ALT (Alternate Transaminase)</td>
</tr>
<tr>
<td>Albumin</td>
<td></td>
</tr>
<tr>
<td>ALP (Alkaline Phosphatase)</td>
<td></td>
</tr>
<tr>
<td>ALT (Alternate Transaminase)</td>
<td></td>
</tr>
<tr>
<td>AST (Aspartate Transaminase)</td>
<td></td>
</tr>
<tr>
<td>Bilirubin, Direct</td>
<td></td>
</tr>
<tr>
<td>Bilirubin, Total</td>
<td></td>
</tr>
</tbody>
</table>

**Specimen Required:** 1 LTT

**Minimum:** 0.5 mL serum and 1 SST or RTT, 0.3 mL serum

**Pre Sample:** 12 hour fasting sample

**Post Sample:** 2 hour post prandial

**Bile acids testing is used in place of BSP or blood ammonia. Helpful in assessing liver function. Use a standard meal such as CD. Post prandial values in normal dogs/cats do not usually exceed 20 umol/L.**

#### Day(s) Test Set Up:

Monday through Sunday (AM/PM)

**Reported Time:** Same Day

**Comments:** Run at 1 month, then every 4 to 6 months.

**Generic:** Methimazole, **Brand:** Tapazole

### Methimazole-TDM II

**4007**

**Updated:** 1/23/2018

<table>
<thead>
<tr>
<th>Test</th>
<th>Specimen Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBC w/Differential</td>
<td>ALP (Alkaline Phosphatase) Total T4 Blood Urea Nitrogen (BUN) Creatinine ALT (Alternate Transaminase)</td>
</tr>
<tr>
<td>Albumin</td>
<td></td>
</tr>
<tr>
<td>ALP (Alkaline Phosphatase)</td>
<td></td>
</tr>
<tr>
<td>ALT (Alternate Transaminase)</td>
<td></td>
</tr>
<tr>
<td>AST (Aspartate Transaminase)</td>
<td></td>
</tr>
<tr>
<td>Bilirubin, Direct</td>
<td></td>
</tr>
<tr>
<td>Bilirubin, Total</td>
<td></td>
</tr>
</tbody>
</table>

**Specimen Required:** 1 LTT

**Minimum:** 0.5 mL serum and 1 SST or RTT, 0.3 mL serum

**Pre Sample:** 12 hour fasting sample

**Post Sample:** 2 hour post prandial

**Bile acids testing is used in place of BSP or blood ammonia. Helpful in assessing liver function. Use a standard meal such as CD. Post prandial values in normal dogs/cats do not usually exceed 20 umol/L.**

#### Day(s) Test Set Up:

Monday through Sunday (AM/PM)

**Reported Time:** Same Day

**Comments:** Run at 1 month, then every 4 to 6 months.

**Generic:** Methimazole, **Brand:** Tapazole
### General Panel

#### NSAIDS-TDM

**Code:** 5009  
**Updated:** 1/22/2018

<table>
<thead>
<tr>
<th>CBC w/Differential</th>
<th>Total Bilirubin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood Urea Nitrogen (BUN)</td>
<td>Total Protein</td>
</tr>
<tr>
<td>Creatinine</td>
<td>Albumin</td>
</tr>
<tr>
<td>ALP (Alkaline Phosphatase)</td>
<td>Urinalysis</td>
</tr>
</tbody>
</table>

**Specimen Required:**  
1 LTT  
Air dried peripheral blood smears  
1 SST or RTT, 0.5 mL serum  
5 mL urine; indicate method of collection.

**Day(s) Test Set Up:** Monday through Sunday  
(AM/PM)

**Reported Time:** Same Day

**Comments:** Run after 2 weeks, 1 month and then every 3 to 6 months  
NSAIDS include: Rimadyl, Ectogesic, Deramaxx, Metacam, Xubrin, Pericox

#### Oncology Profile

**Code:** 8502  
**Updated:** 1/22/2018

<table>
<thead>
<tr>
<th>CBC w/Differential</th>
<th>Total Protein</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glucose</td>
<td>ALP (Alkaline Phosphatase)</td>
</tr>
<tr>
<td>Blood Urea Nitrogen (BUN)</td>
<td>ALT (Alanine Transaminase)</td>
</tr>
<tr>
<td>Creatinine</td>
<td>Calcium</td>
</tr>
</tbody>
</table>

**Specimen Required:**  
1 LTT  
1 SST or RTT  
Minimum: 0.3 mL serum  
Air dried peripheral blood smears

**Day(s) Test Set Up:** Monday through Sunday  
(AM/PM)

**Reported Time:** Same Day

**Comments:**  
This test is for monitoring effects of chemotherapy.

### Ova and Parasite Combo w/IFA

**Code:** 2213  
**Updated:** 2/2/2018

**Specimen Required:**  
Fresh feces  
Minimum: 10 gm feces

**Reported Time:**Same Day

**Comments:**  
The stool should not be contaminated with clay kitty litter which causes interference (wheat/corn litter ok).

**Protocol:**

1) Sugar flotation procedure that incorporates two centrifugation sequences.

2) Microscopic examination of the processed specimen to detect ova and parasites.

3) IFA microscopic examination for Giardia/Crypto.

**Day(s) Test Set Up:** Monday through Saturday  
(AM)

**Reported Time:** Next Day

**Comments:**  
Sugar flotation with two centrifugation sequences; microscopic examination for ova and parasites, including Giardia cysts.

The IFA test will detect the antigen of Giardia species and most cryptosporidia. It will not detect some species of cryptosporidium that are associated with birds and reptiles.

To rule giardia and cryptosporidium in avian/non-mammalian, order Avian/Nonmammalian Giardia/Cryptosporidium (#1530).

### Phenobarbital-TDM

**Code:** 5008  
**Updated:** 1/22/2018

<table>
<thead>
<tr>
<th>CBC w/Differential</th>
<th>AST (Aspartate Transaminase)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phenobarbital, Single Sample</td>
<td>Total Protein</td>
</tr>
<tr>
<td>Total Bilirubin</td>
<td>ALP (Alkaline Phosphatase)</td>
</tr>
<tr>
<td>Albumin</td>
<td>GGT (Gamma-glutamyltransferase)</td>
</tr>
<tr>
<td>ALT (Alanine Transaminase)</td>
<td></td>
</tr>
</tbody>
</table>

**Specimen Required:**  
Air dried peripheral blood smears  
1 SST or RTT, 0.5 mL serum  
1 RTT (for phenobarbital) Do not use SST for collection.

**Day(s) Test Set Up:** Monday through Sunday  
(AM/PM)

**Reported Time:** Same Day

**Comments:** Run every 6 months
### General Panel

#### Pre-op Panel 850

- **Specimen Required:**
  - 1 LTT
  - 1 SST or RTT (microtainer for avians)
- **Minimum:** 0.2 mL serum
- **Day(s) Test Set Up:** Monday through Sunday (AM/PM)
- **Reported Time:** Same Day

**CBC w/Differential**

**Glucose**

**Blood Urea Nitrogen (BUN)**

**Creatinine**

**Total Protein**

**ALP (Alkaline Phosphatase)**

**ALT (Alanine Transaminase)**

**Renal Panel I 5015**

- **Specimen Required:**
  - 1 LTT
  - 1 SST or RTT, 0.3 mL serum
  - 5 mL urine; indicate method of collection.
- **Day(s) Test Set Up:** Monday through Sunday (AM/PM)
- **Reported Time:** Same Day
- **Comments:** Run every 3 to 6 months depending on clinical signs/stage.

**Hematocrit (HCT)**

**Blood Urea Nitrogen (BUN)**

**Creatinine**

**Calcium**

**Phosphorus**

**Urine Protein/Creatinine Ratio**

**Urinalysis**

**Renal Panel II 5016**

- **Specimen Required:**
  - 1 LTT, 2 blood smears, 1.0 ml serum, SST or RTT, 5 ml Urine
- **Day(s) Test Set Up:** Monday through Sunday (AM/PM)
- **Reported Time:** Same Day
- **Comments:** Run every 3 to 6 months depending on clinical signs.

**CBC w/Differential**

**Blood Urea Nitrogen (BUN)**

**Creatinine**

**Potassium**

**Calcium**

**Phosphorus**

**Urinalysis**

**Renal Panel, Basic 5116**

- **Specimen Required:**
  - 1 SST or 1 RTT
- **Minimum:** 0.1 mL serum
- **5 mL urine; indicate method of collection**
- **Day(s) Test Set Up:** Monday through Sunday (AM/PM)
- **Reported Time:** Same Day

**Blood Urea Nitrogen (BUN)**

**Creatinine**

**Urinalysis**

Printed On: 2/4/2018
Renal Profile
5025
Updated: 1/22/2018

Specimen Required:
1 LTT
1 SST or RTT, 0.3 mL serum

Day(s) Test Set Up:
Monday through Sunday
(AM/PM)

Reported Time:
Same Day

Comments:
Run every 3 to 6 months depending on clinic signs.

Senior Screen
11
Updated: 1/25/2018

Specimen Required:
1.0 ml serum, SST or RTT

Day(s) Test Set Up:
Monday through Sunday
(AM/PM)

Reported Time:
Same Day

Thyroid Screen, (other than canine/feline)
67
Updated: 1/28/2018

Specimen Required:
1 RTT or SST
Minimum: 1 mL serum

Day(s) Test Set Up:
Monday through Saturday
(PM)

Reported Time:
Same Day

Total Body Diagnostic
3
Updated: 1/22/2018

Specimen Required:
1 LTT
Air dried peripheral blood smears
1 SST or RTT, 0.5 mL serum
1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)

Day(s) Test Set Up:
Monday through Sunday
(AM/PM)

Reported Time:
Same Day
<table>
<thead>
<tr>
<th>Test Description</th>
<th>Specimen Required</th>
<th>Day(s) Test Set Up</th>
<th>Reported Time</th>
</tr>
</thead>
</table>
| **Total Body Diagnostic, Follow-up 1003**     | 1 LTT  
Air dried peripheral blood smears  
1 SST or RTT  
Minimum: 0.5 mL serum  
1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)  
5 mL urine; indicate method of collection. | Monday through Sunday (AM/PM) | Same Day       |
| **Total Body Diagnostic, w/o UA Follow-up 1035** | 1 LTT  
Air dried peripheral blood smears  
1 SST or RTT  
Minimum: 0.5 mL serum  
1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.) | Monday through Sunday (AM/PM) | Same Day       |
| **Wellness I 1710**                           | 1 SST or RTT, 0.5 mL serum  
1 LTT  
Air dried peripheral blood smears  
1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.) | Monday through Sunday (AM/PM) | Same Day       |
### Wellness II
#### 1711
Specimen Required:
- 1 SST or RTT, 0.5 mL serum
- 1 LTT
- 1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)
- 5 mL urine; indicate method of collection.

Day(s) Test Set Up: Monday through Sunday (AM/PM)
Reported Time: Same Day

### Wellness IV
#### 1713
Specimen Required:
- 1 SST or RTT, 0.5 mL serum
- 1 LTT
- 1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)
- 5 mL urine; indicate method of collection.

Day(s) Test Set Up: Monday through Sunday (AM/PM)
Reported Time: Same Day

### Wellness III
#### 1712
Specimen Required:
- 1 SST or RTT, 0.5 mL serum
- 1 LTT
- 1 GTT (A grey top tube is not necessary if the SST submitted has complete separation after centrifugation, or the RTT is centrifuged and serum is transferred to a transport tube.)
- 5 mL urine; indicate method of collection.

Day(s) Test Set Up: Monday through Sunday (AM/PM)
Reported Time: Same Day
4Dx Plus (Tick Born Disease Screen)

Specimen Required: 0.5 mL serum SST/RTT

Day(s) Test Set Up: Monday through Saturday
(AM)

Reported Time: Same Day

Comments: For the detection of Dirofilaria immitis antigen, antibody to Anaplasma phagocytophilum/Anaplasma platys, antibody to Ehrlicia canis/Ehrlichia ewingii.
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Acid Fast Stain (Acid Fast Bacteria)

**501**

Stain, Microscopic Exam

**Specimen Required:** Bacterial culture swab with transport medium, tissue, feces, mucosal scraping, aspirate

OR

Air-dried slides prepared with a thin film of one of the above.

**Normal Test Value:** Negative

**Day(s) Test Set Up:** Monday through Sunday (AM)

**Reported Time:** 1 Day

**Comments:** Positive results reported as Acid fast bacteria observed.

ACTH Plasma

**697**

Chemiluminescent Assay

**Specimen Required:** 1 LTT

1.0 mL plasma, spin down immediately and separate from cells.

Freeze as soon as possible.

**Day(s) Test Set Up:** Monday, Wednesday, Friday (AM)

**Reported Time:** Same Day

**Test Alias:** Endogenous ACTH

**Comments:** Frozen Plasma stable for 14 days. Avoid grossly hemolysed and/or lipemic samples.

See report for reference ranges.

ACTH Response (2 Cortisol samples)

**39**

Chemiluminescent Assay

**Specimen Required:** 1 RTT, each sample, pre and post

Minimum: 0.5 mL serum, each sample

DO NOT USE SST TO COLLECT OR SPIN DOWN SAMPLE

**CANINE PROTOCOL:**

1. Collect a resting sample in a RTT, 0.5 mL of serum is required. Separate serum (RTT, CTT) if possible and refrigerate.

2. Inject 0.25 mg (250 ug) of Cortrosyn IM or IV (1 vial).

3. Collect a second sample EXACTLY 1 HOUR post injection in RTT, label clearly as to the collection status (post), and preserve in the same manner as the first sample.

**NOTE:** The test has been validated using Cortrosyn. Although compounded gels are available, they vary greatly in peak times and are not recommended.

**ALTERNATE CANINE PROTOCOL** (Microdose):

In order to keep Cortrosyn costs down, use the specific dose of 5 ug/kg IV - up to the maximum dose of 250 ug (one vial) per dog. Whatever is left over can then be split into aliquots of 25 ug or 50 ug using small plastic syringes. Normally 1 mL of sterile physiologic saline is used as diluent. If so, 25 ug would be 100 uL or 0.1 mL and 50 ug would be 200 uL or 0.2 mL. The aliquots can then be frozen for up to 6 months with no loss of activity as long as they are not thawed and refrozen.

**FELINE PROTOCOL:** See ACTH Response - Feline (3 cortisol samples), test #1039.

**Normal Test Value:**

Canine:

Pre: 0 - 10 ug/dL

Post: 8 - 22 ug/dL

> 25 ug/dL:

(hyperadrenocorticism/stress response)

< 2 ug/dL:

(hypoadrenocorticism)

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

**Comments:** Pre and Post sample required.

In addition to diagnosis of naturally occurring hyperadrenocorticism.
(Cushing’s disease), this is the only diagnostic test for hypoadrenocorticism (Addison’s disease), iatrogenic hyperadrenocorticism, and monitoring response to medical therapy of Cushing’s disease.

Prednisone, prednisolone, and other corticosteroids (except dexamethasone) will cross react. Recommend these drugs be discontinued at least 48 hrs before testing. If the patient has been on steroids >14 days, discontinue steroids for two weeks prior to testing. If <14 days, discontinue for 48 hours prior to testing.

INTERPRETATION
HYPOADRENOCORTICISM:
Pre and post cortisol <2 ug/dL are supportive of hypoadrenocorticism but need to be interpreted in light of other clinical findings and history.

Failure to stimulate can occur with iatrogenic hyperadrenocorticism, dogs being treated for hyperadrenocorticism and Addison’s disease.

ACTH Response, Feline
1039
Chemiluminescent Assay
Updated: 2/4/2018

Specimen Required: 3 RTT, CTT Minimum: 0.5 mL for each sample, Pre, 30 minutes post, 60 minutes post

DO NOT USE SST TO COLLECT OR SPIN DOWN SAMPLE

FELINE PROTOCOL:
NOTE: Feline hyperadrenocorticism is very rare and a dexamethasone suppression test is recommended to establish the diagnosis. We suggest consulting with an internist/clinical pathologist at the Laboratory prior to diagnostic testing.

Dexamethasone suppression test is the favored diagnostic test for hyperadrenocorticism in cats.

1. Collect a resting sample in a RTT or CTT, 0.5 mL of serum is required. Separate serum if possible and refrigerate.

2. Inject 0.125 mg of Cortrosyn IM or IV, (1/2 vial).

3. Collect a sample exactly 30 min and 60 min post injection in a RTT or CTT, label clearly as to the status (post-30, post60), and preserve in the same manner as the first sample.

Normal Test Value:
Healthy:
Pre 0.5-6 ug/dL Post 5-15 ug/dL
Hypoadrenocorticism:
<2 ug/dL

Day(s) Test Set Up: Monday through Saturday (AM/PM)

Reported Time: Same Day

Comments:
Prednisone, prednisolone, and other corticosteroids (except dexamethasone) will cross react. If the patient has been on steroids >14 days, discontinue steroids for two weeks prior to testing. If <14 days, discontinue for 48 hours prior to testing.

Latrogenic hyperadrenocorticism can occur with long term glucocorticoids or progestins (e.g. megesterol acetate). These cats will have low to undetectable cortisol, failure to stimulate and low ACTH concentrations. They do not have abnormal electrolyte concentrations as
### Activated Clotting Time (ACT) Tube

**Update:** 2/2/2018

**Specimen Required:** Special tubes containing diatomaceous earth are available from the Laboratory which can be used in the clinic or field as a general screen for problems with the intrinsic coagulation pathway. Abnormal results indicate the need for complete coagulation screen which can provide more definitive information.

**Protocol:**
1. Tube should be pre-warmed to 37 degrees C (body temperature) in a water bath, held in hand, or placed close to the body.
2. Draw 2 mL fresh venous blood into warmed tube. Start timer when blood first enters tube.
3. Invert tube 5 times to mix the whole blood with activating agent and then keep warm at 37 degrees C.
4. Observe tube every 5 seconds by tilting to monitor for the first unmistakable but non-solid clot. **END POINT - STOP TIMER.**

**NOTE:** The time to first clot is temperature dependent. Keep tube at or near 37 degrees C during test.

**Normal Test Value:**
- Equine: within 2 - 2.5 min
- Canine: less than or equal to 100 seconds
- Feline: less than or equal to 90 seconds

**Interpretation:** Prolonged values are associated with marked thrombocytopenia (<10,000 /μL) and abnormalities in the intrinsic and common pathway. If abnormal a coagulation panel with CBC is recommended.

**Comments:** Price listed is for cost of tube provided by the Laboratory.

### Activated Partial Thromboplastin Time (APTT)

**Update:** 2/4/2018

**Specimen Required:** 1 BTT, Centrifuge, separate plasma and refrigerate.

Citrate tubes (BTT) provided by Phoenix Laboratory hold 2.7 mL of blood. Tubes filled with less than 2.0 mL whole blood (approximately half full) have excess anticoagulant for the volume of blood which may affect the PT and APTT results. If collecting a smaller volume of blood, <2.0 mL, the blood to anticoagulant ratio should be 9:1.

**Protocol:**
1. Draw fresh venous blood into BTT (blue top, buffered sodium citrate tube) until full. Gently mix by inverting 4-5 times. NO CLOTTING SHOULD BE OBSERVED IN THE TUBE. Please remember, If collecting a smaller volume of blood, the blood to anticoagulant ratio should be 9:1. For proper dilution, do not fill beyond the top of the tube label.
2. Cool to 4 degrees C (refrigerator temperature), until analysis.
3. If delay greater than 24 hours is expected prior to analysis, the BTT should be spun in a centrifuge, the plasma separated and placed in a plain plastic vial to be frozen until analysis.

**Normal Test Value:**
- Canine: 7.0 - 18.0 seconds
- Feline: 7.6 - 25.2 seconds
- Equine: 25.0 - 45.0 seconds

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

**Test Alias:** APTT

**Comments:** Citrate tubes (BTT) provided by Phoenix Laboratory hold 2.7 mL of blood. Tubes filled with less than 2.0 mL whole blood have excess anticoagulant for the volume of blood which may affect the PT and APTT results. If collecting a smaller volume of blood, blood to anticoagulant ratio should be 9:1. This test is included in Coagulation Panels I, II, and III (see Specialty Panels - General).
### Albumin

**101**

Spectrophotometry  
Updated: 1/23/2018

- **Specimen Required:** 1 SST or RTT  
  Minimum: 0.5 mL serum
- **Normal Test Value:** See Report
- **Day(s) Test Set Up:** Monday through Sunday  
  (AM/PM)
- **Reported Time:** Same Day

### ALP (Alkaline Phosphatase)

**102**

Spectrophotometry  
Updated: 1/23/2018

- **Specimen Required:** 1 SST or RTT, 0.5 mL serum  
  Minimum: 0.1 mL serum
- **Normal Test Value:** See Report
- **Day(s) Test Set Up:** Monday through Sunday  
  (AM/PM)
- **Reported Time:** Same Day

### ALT (Alanine Transaminase)

**129**

Spectrophotometry  
Updated: 1/23/2018

- **Specimen Required:** 1 SST or RTT  
  Minimum: 0.1 mL serum
- **Normal Test Value:** See Report
- **Day(s) Test Set Up:** Monday through Sunday  
  (AM/PM)
- **Reported Time:** Same Day

### Amylase

**103**

Spectrophotometry  
Updated: 1/23/2018

- **Specimen Required:** 1 SST or RTT, 0.5 mL serum  
  Minimum: 0.1 mL serum
- **Normal Test Value:** See Report
- **Day(s) Test Set Up:** Monday through Sunday  
  (AM/PM)
- **Reported Time:** Same Day

### Amylase and Lipase

**22**

Spectrophotometry  
Updated: 1/23/2018

- **Specimen Required:** 1 SST or RTT, 1 mL serum  
  Minimum: 0.2 mL serum
- **Normal Test Value:** See Report
- **Day(s) Test Set Up:** Monday through Sunday  
  (AM/PM)
- **Reported Time:** Same Day

### Amylase and Lipase, Add-on

**62**

Spectrophotometry  
Updated: 1/23/2018

- **Specimen Required:** 1 SST or RTT, 1 mL serum  
  Minimum: 0.2 mL serum
- **Normal Test Value:** See Report
- **Day(s) Test Set Up:** Monday through Sunday  
  (AM/PM)
- **Reported Time:** Same Day

  **Comments:** Available as add-on to an existing panel.  
  Previous case ID is required to activate the discounted price.

### ANA (Antinuclear Antibody), Canine/Feline

**602**

IFA  
Updated: 1/28/2018

- **Specimen Required:** 1 SST or RTT, 1 mL serum  
  Minimum: 0.2 mL serum
  Steroids will affect this test result.
- **Normal Test Value:** Negative
- **Day(s) Test Set Up:** Tuesday, Thursday  
  (AM)
- **Reported Time:** Same Day

  **Test Alias:** Antinuclear Antibody (ANA)  
  Canine/Feline

  **Comments:** If positive, confirmatory titer run  
  Wednesday and Friday.
ANA, Add-On

Specimen Required: 1 SST or RTT, 1 mL serum
Minimum: 0.2 mL serum
Steroids will affect this test result.

Day(s) Test Set Up: Tuesday, Thursday (AM)
Reported Time: Same Day
Comments: If positive, confirmatory titer run Wednesday and Friday.

Antinuclear Antibody (ANA) Canine/Feline

Specimen Required: 1 SST or RTT, 1 mL serum
Minimum: 0.2 mL serum
Steroids will affect this test result.

Normal Test Value: Negative

Day(s) Test Set Up: Tuesday, Thursday (AM)
Reported Time: Same Day
Test Alias: ANA (Antinuclear Antibody), Canine/Feline
Comments: If positive, confirmatory titer run Wednesday and Friday.

APTT

Specimen Required: 1 BTT, Centrifuge, separate plasma and refrigerate.

Citrate tubes (BTT) provided by Phoenix Laboratory hold 2.7 mL of blood. Tubes filled with less than 2.0 mL whole blood (approximately half full) have excess anticoagulant for the volume of blood which may affect the PT and APTT results. If collecting a smaller volume of blood, <2.0 mL, the blood to anticoagulant ratio should be 9:1.

THE RATIO OF BLOOD TO ANTICOAGULANT IS CRITICAL FOR VALID COAGULATION RESULTS.

Protocol:

1. Draw fresh venous blood into BTT (blue top, buffered sodium citrate tube) until full. Gently mix by inverting 4-5 times. NO CLOTTING SHOULD BE OBSERVED IN THE TUBE. Please remember, If collecting a smaller volume of blood, the blood to anticoagulant ratio should be 9:1.

   For proper dilution, do not fill beyond the top of the tube label.

2. Cool to 4 degrees C (refrigerator temperature), until analysis.

3. If delay greater than 24 hours is expected prior to analysis, the BTT should be spun in a centrifuge, the plasma separated and placed in a plain plastic vial to be frozen until analysis.

Normal Test Value:

Canine: 7.0 - 18.0 seconds
Feline: 7.6 - 25.2 seconds
Equine: 25.0 - 45.0 seconds

Day(s) Test Set Up: Monday through Sunday (AM/PM)
Reported Time: Same Day
Test Alias: Activated Partial Thromboplastin Time (APTT)
Partial Thromboplastin Time (PTT)
Comments: Citrate tubes (BTT) provided by Phoenix Laboratory hold 2.7 mL of blood. Tubes filled with less than 2.0 mL whole blood have excess anticoagulant for the volume of blood which may affect the PT and APTT results. If collecting a smaller volume of blood, blood to anticoagulant ratio should be 9:1.

This test is included in Coagulation Panels I, II, and III (see Specialty
### AST (Aspartate Transaminase) 128

**Spectrophotometry**  
**Updated:** 1/23/2018

**Specimen Required:** 1 SST or 1 RTT  
Minimum: 0.1 mL serum

**Normal Test Value:** See Report  
**Day(s) Test Set Up:** Monday through Sunday  
(AM/PM)  
**Reported Time:** Same Day  
**Updated:** 1/22/2018

### Avian/Nonmammalian Hematocrit 356

**Centrifugation**  
**Updated:** 1/22/2018

**Specimen Required:** 1 M-GRNTT or 1 M-LTT or 1 heparin capillary tube  
**Normal Test Value:** See Report  
**Day(s) Test Set Up:** Monday through Saturday  
(AM/PM)  
**Reported Time:** Same Day  
**Comments:** Included in a CBC.

### Avian/Nonmammalian WBC Estimate and Differential 930

**Manual**  
**Updated:** 1/22/2018

**Specimen Required:** Air dried blood smears. Thoroughly dry slides before inserting into slide holders.  
**Normal Test Value:** See Report  
**Day(s) Test Set Up:** Monday through Sunday  
(AM/PM)  
**Reported Time:** Same Day  
**Test Alias:** WBC Estimate and Differential, Avian/Nonmammalian

### Avian/Reptile CBC 36

**Manual**  
**Updated:** 2/4/2018

**Specimen Required:** 1 M-GRNTT or 1 M-LTT  
Air dried peripheral blood smears  
Minimum: 100 µL whole blood for CBC

If you are able to submit a green microtainer, a WBC count and estimate from the slide made here will be performed. If you send peripheral blood smears, a WBC estimate will be done from review of the peripheral blood smears.

The WBC count that looks most accurate will be reported. It is always best to submit well-prepared, fresh, air-dried peripheral blood smears with your blood sample to prevent cell lysis and cell clumping.

**Normal Test Value:** See Report  
**Day(s) Test Set Up:** Monday through Sunday  
(AM/PM)  
**Reported Time:** Same Day  
**Test Alias:** CBC, Avian/Nonmammalian  
**Comments:** Includes CBC, differential, and hematocrit  
Available as a "follow-up" to be performed within 30 days of original CBC. Previous case ID is required to activate the discounted price.

### Avian/Reptile CBC, Follow-Up 1036

**Manual / Centrifugation**  
**Updated:** 2/2/2018

**Specimen Required:** 1 M-GRNTT or M-LTT  
Air dried peripheral blood smears  
Minimum: 100 µL whole blood for CBC

If you are able to submit a green microtainer, a WBC count and estimate from the slide made here will be performed. If you send peripheral blood smears, a WBC estimate will be done from review of the peripheral blood smears. The WBC count that looks most accurate will be reported. It is always best to submit well-prepared, fresh, air-dried peripheral blood smears with your blood sample to prevent cell lysis and cell clumping.

**Day(s) Test Set Up:** Monday through Sunday  
(AM/PM)  
**Reported Time:** Same Day  
**Comments:** Includes CBC, differential, and hematocrit.
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### Bile Acids

**Specimen Required:** 1 SST or 1 RTT  
Minimum: 0.1 mL serum  
Label either “Pre” or “Post”  
Pre Sample: 12 hour fasting sample  
Post Sample: 2 hour post prandial  
Use a standard meal such as CD. Post prandial values in normal dogs/cats do not usually exceed 20 umol/L.  
**Normal Test Value:** See Report  
**Day(s) Test Set Up:** Monday through Sunday (AM/PM)  
**Reported Time:** Same Day  
**Comments:** This is a single sample evaluation, Pre OR Post sample. If BOTH Pre and Post are needed, order Panel #46 (Bile Acids Panel). See Specialty Panels-General for collection instructions.  
Minimum recommendations = Feeding 2 tsp <10 LBS, 2 tbsp > 10 LBS of canned, high quality food.  
GI motility abnormalities such as vomiting or diarrhea may affect results.  
If bilirubin is elevated then bile acids are not necessary; they will be increased as well.  
PLEASE NOTE: The animal should be off Actigall (Ursodiol) 48 hours prior running a bile acids study.

### Bilirubin, Indirect

**Specimen Required:** 1 SST  
Minimum: 0.1 mL serum  
**Normal Test Value:** See Report  
**Day(s) Test Set Up:** Monday through Sunday (AM/PM)  
**Reported Time:** Same Day  
**Comments:** Total Bilirubin - Direct Bilirubin = Indirect Bilirubin

### Bilirubin, Total

**Specimen Required:** 1 SST  
Minimum: 0.1 mL serum  
**Normal Test Value:** See Report  
**Day(s) Test Set Up:** Monday through Sunday (AM/PM)  
**Reported Time:** Same Day

### Blood Smear Evaluation

**Specimen Required:** 1 LTT  
Air dried peripheral blood smears  
**Normal Test Value:** See Report  
**Day(s) Test Set Up:** Monday through Sunday (AM/PM)  
**Reported Time:** Same Day  
**Comments:** Includes evaluation of RBC & WBC morphology, platelets, parasites, and slide review.

### Bilirubin, Direct

**Specimen Required:** 1 SST  
Minimum: 0.1 mL serum  
**Normal Test Value:** See Report  
**Day(s) Test Set Up:** Monday through Sunday (AM/PM)  
**Reported Time:** Same Day  
**Comments:** Add-on performed at N/C

### Blood Typing, Canine - DEA 1

**Specimen Required:** 1 LTT  
Air dried peripheral blood smears  
**Normal Test Value:** Reported DEA 1 Positive or DEA 1 Negative  
**Day(s) Test Set Up:** Monday through Saturday (AM)  
**Reported Time:** Same Morning  
**Comments:** Types for DEA 1 only. Call the Lab for universal blood donor information.
**Blood Typing, Feline**

*611*

**Specimen Required:** 1 LTT
Minimum: 1 mL whole blood

**Normal Test Value:** Reported as A, B, or AB

**Day(s) Test Set Up:** Monday through Saturday (AM)

**Reported Time:** Same Day

---

**Blood Urea Nitrogen (BUN)**

*108*

**Specimen Required:** 1 SST or 1 RTT, 0.1 mL serum

**Normal Test Value:** See Report

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

---

**Blood Urea Nitrogen (BUN) and Creatinine**

*48*

**Specimen Required:** 1 SST or RTT, 0.5 mL serum
Minimum: 0.1 mL serum

**Normal Test Value:** See Report

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

**Comments:** Test includes BUN and Creatinine only, no ratio.

---

**Brucella Screen, Canine**

*201*

**Specimen Required:** 1 SST or 1 RTT
Minimum: 0.5 mL serum

**Normal Test Value:** Negative

**Day(s) Test Set Up:** Monday through Saturday (AM)

**Reported Time:** Same Day

**Comments:** Positive results should be confirmed by AGID. This is a send-out test to Cornell University (SO4 - Brucellosis Confirmation). Additional charges will apply. This will not be sent without client approval.
Calcium

Specimen Required: 1 SST
Minimum: 0.1 mL serum

Normal Test Value: See Report

Day(s) Test Set Up: Monday through Sunday
(AM/PM)

Reported Time: Same Day

Canine Dexamethasone Suppression

Specimen Required: Specimen Required: 3 - RTT, minimum 0.5 mL serum Drawn as Pre, 4 our post and 8 hour post injection.

DO NOT USE SST TO COLLECT OR SPIN DOWN SAMPLE

PLEASE NOTE: Submit all three samples together. Centrifuge, separate serum into a sterile transport tube (RTT, CTT), and refrigerate or freeze until transport to the Lab.

NOTE: During the low dose dexamethasone suppression test, patient stress should be kept to a minimum. No other diagnostic procedures or grooming should be performed during the testing period.

PROTOCOL (Canine):

Low Dose:
1. Collect 0.5 mL serum pre-injection. (RTT, CTT)
2. Inject 0.01 mg/kg dexamethasone sodium phosphate IV.
3. Collect 2 post samples at 3-4 and 8 hours post injection. (RTT, CTT)

High Dose:
1. Collect 0.5 mL serum pre-injection. (RTT, CTT)
2. Inject 0.1 mg/kg dexamethasone sodium phosphate IV.
3. Collect 2 post samples at 4 and 8 hours post injection. Label each tube accordingly. (RTT, CTT)

DO NOT FREEZE SPECIMENS IN GLASS TUBES.

Normal Test Value: SEE COMMENTS

Day(s) Test Set Up: Monday through Sunday
(AM/PM)

Reported Time: Same Day

Test Alias: Dexamethasone Suppression

Comments: A dexamethasone suppression is done to CONFIRM clinical suspicion of hyperadrenocorticism. Stressful diseases (ill diabetics, renal failure, etc.) and current drug therapy may cause false positives.

Prednisone, prednisolone, and other corticosteroids (except dexamethasone) will cross react. Long term steroid
therapy will suppress adrenal function. Recommend these drugs be discontinued at least 48 hrs before testing. If the patient has been on steroids >14 days, discontinue steroids for two weeks prior to testing. If <14 days, discontinue for 48 hours prior to testing.

Extra charge for more than 3 samples - please call the Laboratory for information.

**LDDST INTERPRETATION:**
Confirmation of hyperadrenocorticism:
- Normal: 8 hr post < 1.0 ug/dL
- Hyperadrenocorticism: 8 hr post > 1.4 ug/dL
- Equivocal: 8 hr post 1.0-1.4 ug/dL

Discrimination (pituitary dependent vs primary adrenal disease) - Only if the 8 hr post is >1.4 ug/dL and there is a clinical suspicion of hyperadrenocorticism, then pituitary dependent disease is confirmed if:
1) 4 hr cortisol is <1.4 ug/dL OR
2) 4 hr or 8 hr cortisols are less than 50% of the baseline (but 8 hr still >1.4 ug/dL).

*Note:
Up to 40% of pituitary dependent and adrenal dependent hyperadrenocorticoic dogs do not show suppression. These dogs require HDDST, ACTH concentrations and/or abdominal imaging for further characterization.

**HDDST INTERPRETATION:**
A high dose dexamethasone suppression test (HDDST) is done on previously confirmed cases of hyperadrenocorticism to help determine the origin (i.e. pituitary or adrenal gland).
*If the 8 hr post-dex cortisol is < 1.4 ug/dL or <50% of the baseline, then pituitary dependent disease is confirmed.

If the 8 hr result is >/= 1.4 ug/dL or >50% of baseline, then the origin may be either pituitary or adrenal gland. Further testing (e.g. endogenous ACTH, diagnostic imaging) might be necessary.

---

**Carbon Dioxide (CO2)**

**111**

**Spectrophotometry**

**Updated: 1/28/2018**

**Specimen Required:** 1 SST or RTT, 1 mL serum
**Minimum:** 0.1 mL serum

**Normal Test Value:** See Report

**Day(s) Test Set Up:** Monday through Sunday

**Reported Time:** Same Day

**Comments:** Total CO2 is an estimate of serum bicarbonate.

**CBC w/Diff, Fibrinogen, Plasma Protein**

**34**

**Refractometry/Flow Cytometry**

**Updated: 1/22/2018**

**Specimen Required:** 1 LTT
Air dried peripheral blood smears

**Normal Test Value:** See Report

**Day(s) Test Set Up:** Monday through Sunday

**Reported Time:** Same Day

**CBC w/Differential**

**44**

**Flow Cytometry**

**Updated: 1/22/2018**

**Specimen Required:** 1 LTT
Air-dried smears

**Normal Test Value:** See Report

**Day(s) Test Set Up:** Monday through Sunday

**Reported Time:** Same Day

**Comments:** Available as a follow-up if ordered within 30 days of original sample.

**CBC w/Differential and Plasma Protein**

**24**

**Refractometry/Flow Cytometry**

**Updated: 1/22/2018**

**Specimen Required:** 1 LTT
Air dried peripheral blood smears

**Normal Test Value:** See Report

**Day(s) Test Set Up:** Monday through Sunday

**Reported Time:** Same Day

**Test Alias:** Plasma Protein and CBC w/Differential
CBC, Avian/Nonmammalian
Updated: 2/4/2018

**Specimen Required:** 1 M-GRNTT or 1 M-LTT
- Air dried peripheral blood smears
- Minimum: 100 uL whole blood for CBC

If you are able to submit a green microtainer, a WBC count and estimate from the slide made here will be performed. If you send peripheral blood smears, a WBC estimate will be done from review of the peripheral blood smears.

The WBC count that looks most accurate will be reported. It is always best to submit well-prepared, fresh, air-dried peripheral blood smears with your blood sample to prevent cell lysis and cell clumping.

**Normal Test Value:** See Report

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

**Test Alias:** Avian/Reptile CBC

**Comments:** Includes WBC, differential, and hematocrit
- Available as a “follow-up” to be performed within 30 days of original CBC. Previous case ID is required to activate the discounted price.

CBC, Follow-up
Updated: 1/22/2018

**Specimen Required:** 1 LTT
- Air dried peripheral blood smears

**Normal Test Value:** See Report

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

**Comments:** To be performed within 30 days of original CBC. Previous case ID is required to activate the discounted price.

Cerebrospinal Fluid Analysis
Updated: 2/4/2018

**Specimen Required:** CSF in Lavender Top Tube (LTT)
- 1 mL preferred
- ALSO - Submit CSF in plain Clear Top Tube (CTT) if requesting culture.
- Serology can be performed in LTT, CTT, or RTT specimens.

**Protocol:**
1. To minimize blood contamination, it is recommended to allow the CSF to drip into a small EDTA tube.
2. If a culture is to be performed, a small amount must be placed in a sterile clear top tube (CTT) or on a culturette swab.
3. All CSF specimens receive nucleated cell count, RBC count, glucose, microprotein, and cytology.
4. We request at least 1 mL, but of course, will work with any volume to try to give the most information possible.
5. If only a small amount of CSF is collected (<0.5 mL), please prioritize testing desired.

**Normal Test Value:** Descriptive Report

**Day(s) Test Set Up:** Monday through Sunday
- Run as received

**Reported Time:** Same Day

**Test Alias:** Cytology, CSF Analysis

**Comments:** EDTA (Lavender Top Tube) inhibits bacterial growth.
- If culture is required, use plain CTT or sterile transport tube.

Chloride
Updated: 1/23/2018

**Specimen Required:** SST, 1 mL serum
- Minimum: 0.1 mL serum

**Normal Test Value:** See Report

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day
### Cholesterol

**113**

Spectrophotometry

**Specimen Required:** SST, 1 mL serum
Minimum: 0.1 mL serum

**Normal Test Value:**
- Canine: 150 - 275 mg/dL
- Feline: 75 - 175 mg/dL
- Equine: 75 - 130 mg/dL

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

### Cobalamin (B12)

**70**

Chemiluminescent Assay

**Specimen Required:**
- 0.5 fasted 12 - 18 hours (diabetic animals 6 - 8 hours) non-hemolyzed serum.
- Cobalamin is light sensitive. It is recommended to wrap serum tube in paper or aluminum foil.

**Normal Test Value:** See Report

**Day(s) Test Set Up:** Monday, Wednesday, Friday (AM)

**Reported Time:** Next Day

### Clostridium perfringens Enterotoxin (A-E)

**529**

ELISA

**Specimen Required:** Fresh liquid feces in sterile container (RTT)
Refrigerate after collection. Refrigeration of the specimen will prevent substantial loss of ELISA reactivity, if there is toxin present.

**Normal Test Value:** See Report

**Day(s) Test Set Up:** Monday through Saturday (AM)

**Reported Time:** 24 hours

**Comments:** Intestinal disease caused by *C. perfringens* can occur as a result of food poisoning, antibiotic treatment, a change in diet, or other environmental stresses. The symptoms usually involve diarrhea with fecal mucus. Clostridia are normal in feces of animals, but only the toxigenic strains are capable of causing enteritis and enterotoxemia. For this reason, the recovery of *C. perfringens* on culture or seeing clostridial spores on a stained slide is not diagnostic of a pathogenic state. The enterotoxin must be detected in order to achieve an accurate diagnosis. This test detects *Clostridium perfringens* enterotoxin (types A-E). To determine which toxins are involved, the pathogen must be isolated and tested. Current methods available for this determination include PCR and injection into live animals (mice or guinea pigs).

### Coggins, AGID

**614**

AGID

**Specimen Required:** SST, 1 mL serum or RTT
USDA Equine Anemia Special Form or Global Vet Link Form required. Please print clearly as illegible documents can cause delay. Veterinarian signature REQUIRED on USDA form. Blood tube MUST be labeled with animal’s name.

**Normal Test Value:** Negative

**Day(s) Test Set Up:** Monday through Saturday (AM)

**Reported Time:** Up to 48 hours

**Test Alias:** EIA, AGID

**Comments:** Ran 1 time per day, Mon - Sat

### Coggins, STAT

**601**

ELISA

**Specimen Required:** SST, 1 mL serum or RTT
USDA Equine Anemia Special Form or Global Vet Link Form required. Please print clearly as illegible documents can cause delay. Veterinarian signature REQUIRED on USDA form. Blood tube MUST be labeled with animal’s name.

**Normal Test Value:** Negative

**Day(s) Test Set Up:** Monday through Saturday (AM/PM)

**Reported Time:** Same Day

**Test Alias:** EIA, ELISA

**Comments:** Ran 2 times daily Mon - Fri, Sat AM only See also Coggins (test code #614).
**Complex Tissue Histopatology**

**Specimen Required:** Tissue in formalin (at least 10:1 formalin to tissue ratio to optimize fixation). If formalin fixation is not available, wrap specimen(s) in moist paper towel and place in plastic bags. Pack with ice. Prevent freezing.

**Normal Test Value:** Full report provides gross description, microscopic description and interpretation and comments.

**Day(s) Test Set Up:** Monday, Tuesday, Wednesday, Thursday, Sunday (PM)

**Reported Time:** 1 - 5 Days / See Comments

**Test Alias:** Histopathology, Complex Tissue - Full Report

**Comments:** Complex Tissue:
1 - 4 samples from one site (one surgical site or one organ type) where L+W+H > 15 cm in aggregate.

Each entire organ (examples: brain, heart, lung, spleen, liver, gallbladder, pancreas, 1 kidney, 1 eyeball, 1 ear canal, 1 mammary chain, 1-2 ovaries or testicals).

Each sample requiring decalcification (examples: 1 digit, tail, mandible, maxilla).

Please see Histopathology Explanation Sheet for further information and helpful tips on tissue submission.

Reported Time: Larger samples and bony tissues may require longer fixation of decalcification prior to processing. Exact time of reporting is dependent on tissue size and type.

---

**Coombs**

**Specimen Required:** 1 LTT
Minimum: 1 mL EDTA whole blood
Steroids will affect this test result.

**Normal Test Value:** Negative

**Day(s) Test Set Up:** Monday through Saturday (AM)

**Reported Time:** Same Day

**Comments:** Available to existing canine/feline panels.

Note: Discontinue Corticosteroid use a minimum of 2 - 3 weeks prior to testing. Corticosteroids can cause false negative Coombs results.

---

**Coombs, Add-On**

**Specimen Required:** 1 LTT
Minimum: 1 mL EDTA whole blood
Steroids will affect this test result.

**Normal Test Value:** See Report

**Day(s) Test Set Up:** Monday through Saturday (AM)

**Reported Time:** Same Day

**Comments:** Available as add-on to existing canine/feline panels. Previous case ID is required to activate the discounted price.

Note: Discontinue Corticosteroid use a minimum 2-3 weeks prior to testing. Corticosteroids can cause false negative Coombs results.
### Coronavirus (FIP) Titer, Feline

**217**

**Updated:** 1/22/2018

**Specimen Required:** 1 SST or RTT, 0.5 mL serum
- Minimum: 0.1 mL serum
- or
- Abdominal Fluid
- Minimum: 0.1 mL

**Normal Test Value:** See Report

**Day(s) Test Set Up:** Monday through Saturday (AM)

**Reported Time:** Same Day

**Test Alias:** Feline Coronavirus (FIP), IFA Titer

**Comments:**
- FIP (FCoV) Titered, IFA
- This is a quantitative titer testing method. It is NOT specific for FIP.
- Test involves eight serial dilutions ranging from 1:100 to 1:25,600.

### Coronavirus Screen (FIP), Feline

**209**

**Updated:** 1/31/2018

**Specimen Required:** 1 SST or 1 RTT
- 0.5 mL serum
- Minimum: 0.1 mL serum
- or
- Abdominal Fluid
- Minimum: 0.1 mL

**Normal Test Value:** See Report

**Day(s) Test Set Up:** Monday through Saturday (AM)

**Reported Time:** Same Day

**Test Alias:** Feline Coronavirus (FIP), Screen

**Comments:**
- FIP (FCoV) Screen, IFA
- This test is NOT specific for FIP.
- Testing performed at dilutions of 1:100 and 1:6400.

### Coronavirus Titer, Canine

**613**

**Updated:** 1/22/2018

**Specimen Required:** 1 SST or RTT
- 0.5 mL serum
- Minimum: 0.1 mL serum

**Normal Test Value:** See Report

**Day(s) Test Set Up:** Monday through Saturday (AM)

**Reported Time:** Same Day

**Test Alias:** Canine Coronavirus (FIP), IFA Titer

**Comments:**
- This test screens for antibodies to canine coronavirus.

### Cortisol/Creatinine Ratio

**234**

**Updated:** 2/4/2018

**Specimen Required:** Urine, 3-4 mL
- Please use urine tubes for transport.

**Normal Test Value:** See Report

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

**Test Alias:** Urine Cortisol/Creatinine Ratio

**Comments:**
- High urine cortisol/creatinine ratio (> 20 x 10^-6) provides additional support for canine hyperadrenocorticism but is not specific for that condition. Many disorders cause an increased result. If not increased, hyperadrenocorticism is extremely unlikely.
- If the patient has been on steroids for >14 days, discontinue for 2 weeks prior to testing. If <14 days, discontinue for 48 hours prior to testing.
- If there is a high clinical suspicion of Cushing's disease, consider an ACTH response test to measure steroid hormones (atypical Cushing's).
- Note that both cortisol and creatinine have been converted to moles to get this ratio.

### Creatine Kinase (CK)

**116**

**Updated:** 1/23/2018

**Specimen Required:** 1 SST or RTT, 1 mL serum
- Minimum: 0.1 mL

**Normal Test Value:** See Report

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

### Creatinine

**115**

**Updated:** 1/22/2018

**Specimen Required:** 1 SST or RTT, 0.5 mL serum
- Minimum: 0.25 mL

**Normal Test Value:**
- Canine: 0.6 - 1.6 mg/dL
- Feline: 1.0 - 2.0 mg/dL
- Equine: 1.2 - 2.0 mg/dL

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day
**Creatinine, Urine**

- **Updated:** 1/25/2018
- **Specimen Required:** 1 mL fresh urine
  - Please use urine tubes for transport.
- **Normal Test Value:** Normals given when ordered with UPCR or UCCR
- **Day(s) Test Set Up:** Monday through Sunday
  - (AM/PM)
- **Reported Time:** Same Day

**Cremation Services**

- **Updated:** 1/28/2018
- **Specimen Required:** Cremation offered as a follow-up service to necropsy at an additional charge for those animals which have been sent to the Laboratory.
- **Comments:** Cremation services are available for those animals which have been sent to the Laboratory for necropsy. Call Laboratory for pricing.

**Crossmatch Complete (Major & Minor)**

- **Updated:** 1/22/2018
- **Specimen Required:**
  - Recipient: RTT and LTT
  - Donor: RTT and LTT
- **Normal Test Value:** See Report
- **Day(s) Test Set Up:** Monday through Saturday
  - (AM)
- **Reported Time:** Same Day
- **Comments:**
  - Contains Major and Minor Crossmatch.
  - Major: Determines if donor's RBCs are compatible with the recipient's serum.
  - Minor: Determines if donor's plasma is compatible with the recipient's RBCs.
  - A crossmatch is used prior to transfusion to determine if the blood to be transfused is compatible with the animal that will be receiving the transfusion.
  - Individual charge for each tested donor. Canine or feline only.

**Crossmatch, Major - Canine and Feline**

- **Updated:** 1/25/2018
- **Specimen Required:**
  - Recipient: 1 RTT
  - Donor: 1 LTT
  - serum and plasma must be free from hemolysis.
- **Normal Test Value:** See Report
- **Day(s) Test Set Up:** Monday through Saturday
  - (AM)
- **Reported Time:** Same Day
- **Comments:**
  - Determines if donor's RBCs and recipient's plasma are compatible.
  - See also Crossmatch Complete (Major and Minor) test #27.

**Crossmatch, Minor - Canine and Feline**

- **Updated:** 1/25/2018
- **Specimen Required:**
  - Recipient: LTT
  - Donor: RTT
  - serum and plasma must be free from hemolysis.
- **Normal Test Value:** See Report
- **Day(s) Test Set Up:** Monday through Saturday
  - (AM)
- **Reported Time:** Same Day
- **Comments:**
  - Determines if donor's plasma and recipient's RBCs are compatible.
  - See also Crossmatch Complete (Major and Minor) test #27.

**CSF Analysis, Multiple Site**

- **Updated:** 1/28/2018
- **Specimen Required:**
  - Please see CSF Analysis for collection protocol and notes.
- **Normal Test Value:** Descriptive Report
- **Day(s) Test Set Up:** Monday through Sunday
  - Run as received
- **Reported Time:** Same Day
- **Test Alias:** Cytology, CSF, Multiple Site
### CSF Microprotein

<table>
<thead>
<tr>
<th><strong>Test</strong></th>
<th><strong>Updated</strong></th>
<th><strong>Specimen Required</strong></th>
<th><strong>Normal Test Value</strong></th>
<th><strong>Day(s) Test Set Up</strong></th>
<th><strong>Reported Time</strong></th>
<th><strong>Test Alias</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>CSF Microprotein</td>
<td>1/22/2018</td>
<td>0.3 mL CSF Please use CTT for transport.</td>
<td>See Report</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
<td>Microprotein, CSF</td>
</tr>
</tbody>
</table>

### Culture and Sensitivity, Milk

<table>
<thead>
<tr>
<th><strong>Test</strong></th>
<th><strong>Updated</strong></th>
<th><strong>Specimen Required</strong></th>
<th><strong>Normal Test Value</strong></th>
<th><strong>Day(s) Test Set Up</strong></th>
<th><strong>Reported Time</strong></th>
<th><strong>Comments</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Culture and Sensitivity, Milk</td>
<td>2/4/2018</td>
<td>1 mL milk in CTT</td>
<td>No Growth</td>
<td>Monday through Sunday (AM)</td>
<td>36 - 72 Hours</td>
<td>Results are quantitated and reported as CFU/mL.</td>
</tr>
</tbody>
</table>

### Culture ID/Sensitivity if Indicated, Avian

<table>
<thead>
<tr>
<th><strong>Test</strong></th>
<th><strong>Updated</strong></th>
<th><strong>Specimen Required</strong></th>
<th><strong>Normal Test Value</strong></th>
<th><strong>Day(s) Test Set Up</strong></th>
<th><strong>Reported Time</strong></th>
<th><strong>Comments</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Culture ID/Sensitivity if Indicated, Avian</td>
<td>2/4/2018</td>
<td>Swab, plate, fluid or tissue</td>
<td>Varies with source</td>
<td>Monday through Sunday (AM/PM)</td>
<td>36 - 60 Hours</td>
<td>Screening for gram negative rods, and predominant growth of enterococcus in domestic (non-poultry) birds. Susceptibilities will automatically be run on up to 2 isolates of gram negative rod for an additional charge per isolate. Predominant growth of enterococcus will be reported but sensitivity will not be run unless requested. Includes gram stain.</td>
</tr>
</tbody>
</table>

### Culture, Aerobic (Id Only)

<table>
<thead>
<tr>
<th><strong>Test</strong></th>
<th><strong>Updated</strong></th>
<th><strong>Specimen Required</strong></th>
<th><strong>Normal Test Value</strong></th>
<th><strong>Day(s) Test Set Up</strong></th>
<th><strong>Reported Time</strong></th>
<th><strong>Comments</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Culture, Aerobic (Id Only)</td>
<td>2/4/2018</td>
<td>Transport Swab media or plate. Fluid or tissue in CTT or sterile tube</td>
<td>Identification only</td>
<td>Monday through Sunday (AM/PM)</td>
<td>36 - 60 hours</td>
<td>No sensitivities provided with &quot;ID Only&quot;. Additional charge for sensitivities requested. For &quot;Fungal ID&quot; order a &quot;Culture, Fungus&quot; (test code 504). Do not submit samples in lavender top tube; EDTA is bacteriostatic.</td>
</tr>
</tbody>
</table>

### Culture ID and Sensitivity, Routine

<table>
<thead>
<tr>
<th><strong>Test</strong></th>
<th><strong>Updated</strong></th>
<th><strong>Specimen Required</strong></th>
<th><strong>Normal Test Value</strong></th>
<th><strong>Day(s) Test Set Up</strong></th>
<th><strong>Reported Time</strong></th>
<th><strong>Comments</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Culture ID and Sensitivity, Routine</td>
<td>1/23/2018</td>
<td>Bacterial culture swab with transport medium. Fluid in CTT or sterile tube. Fresh tissue in CTT or sterile tube. Note: Please moisten with small amount of sterile saline (free of preservative) if piece of tissue is small enough to dehydrate en route to Laboratory. Culture site and animal species required for proper processing.</td>
<td>Varies with culture site.</td>
<td>Monday through Sunday (AM/PM)</td>
<td>36 - 60 hours</td>
<td>Sensitivity and gram stain included. Do not submit samples in lavender top tube; EDTA is bacteriostatic.</td>
</tr>
</tbody>
</table>
### Culture, Aerobic ID/Aerobic ID

**Specimen Required:** Bacterial culture swab with transport medium.
Fluid in CTT or sterile tube.
Fresh tissue in CTT or sterile tube.
Note: Please moisten with small amount of sterile saline (free of preservative) if piece of tissue is small enough to dehydrate en route to Laboratory.

Culture site and animal species required for proper processing.

**Normal Test Value:** See Report

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** 36 - 72 hours

**Comments:** ID Only. Sensitivities can be requested on aerobic pathogens for an additional charge. Anaerobic sensitivities are not available.

Includes gram stain.

### Culture, Anaerobic ID Only

**Specimen Required:** Bacterial culture swab with transport medium.
Fluid or tissue in a CTT or sterile tube.

Culture site and species required for proper processing.

**Normal Test Value:** Varies with culture site.

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** 48 - 72 Hours

**Comments:** Anaerobic sensitivities are not available.

### Culture, Blood

**Specimen Required:** Two aerobic blood culture bottles should be submitted (available upon request). Blood should be drawn from two sites (i.e. left jugular, right saphenous), at least one hour apart.

1. Label each blood culture bottle with the date, time, and draw site.
2. Thoroughly disinfect blood draw sites (shave if needed). Inoculate the bottles with up to 3mL of blood.
   NOTE: If less than 3mL is used for inoculation, there may be a delay before the blood culture is detected as positive.
3. After inoculation, the bottles can be incubated at 37 °C, or left at room temperature until pick up. DO NOT REFRIGERATE.
4. Upon receipt, cultures are incubated for 7 days and are subcultured at regular intervals.
5. Anaerobic blood culture bottles are no longer available.

**Normal Test Value:** No growth

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** 24 hr preliminary report

**Comments:** Culture includes susceptibility panel. Bottles are held 7 days and subcultured at regular intervals.
### Culture, Feces

**519**

<table>
<thead>
<tr>
<th>Culture</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Specimen Required:</strong> Fresh feces OR Fresh mammal feces submitted in enteric transport media (optional).</td>
</tr>
<tr>
<td>Enteric transport media is available from Phoenix Laboratory at no charge. Can also submit fresh mammal feces in clean container or use routine culture swab. Please submit avian and reptile samples as routine culture &amp; sensitivity.</td>
</tr>
<tr>
<td><strong>COLLECTION:</strong></td>
</tr>
<tr>
<td>1. Specimen should be collected in a dry and clean container. The stool must not be contaminated with urine, water, litter, or organic matter.</td>
</tr>
<tr>
<td>2. Mucoid, bloody, or watery portions of the stool should be sampled if present.</td>
</tr>
<tr>
<td>3. Place sample into vial using the attached collection spoon, adding enough specimen to reach the FILL LINE.</td>
</tr>
<tr>
<td>4. Carefully break up the specimen using the spoon.</td>
</tr>
<tr>
<td>5. Tighten the cap and mix by inversion until it is thoroughly mixed.</td>
</tr>
<tr>
<td>6. Label each vial with patient information.</td>
</tr>
<tr>
<td>7. Return filled container to the Laboratory WITHOUT refrigeration or incubation.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Day(s) Test Set Up:</th>
<th>Monday through Sunday (AM/PM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reported Time:</td>
<td>36 - 60 Hours</td>
</tr>
<tr>
<td>Test Alias:</td>
<td>Culture, Salmonella Salmonella Culture (Stool Culture)</td>
</tr>
<tr>
<td>Comments:</td>
<td>Screening for Salmonella and Campylobacter. Screening for Shigella, Yersinia, and Vibrio available upon requested. Culture includes sensitivities on up to 2 pathogens isolated. Susceptibilities are not performed on Campylobacter.</td>
</tr>
</tbody>
</table>

### Culture, Fungal

**504**

<table>
<thead>
<tr>
<th>Culture</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Specimen Required:</strong> Hair or nail clippings in CTT OR Skin scrapings in CTT OR Bacterial culture swab with transport medium. Fluid in CTT or sterile tube. Fresh tissue in CTT or sterile tube. Note: Please moisten with small amount of sterile saline (free of preservative) if piece of tissue is small enough to dehydrate en route to Laboratory.</td>
</tr>
<tr>
<td>Culture site and animal species required for proper processing.</td>
</tr>
<tr>
<td><strong>Normal Test Value:</strong> No pathogens</td>
</tr>
<tr>
<td><strong>Day(s) Test Set Up:</strong> Monday through Sunday (AM/PM)</td>
</tr>
<tr>
<td><strong>Reported Time:</strong> Preliminary reported at 1 week.</td>
</tr>
<tr>
<td><strong>Comments:</strong> Updates reported weekly on Sunday. Hair, nail, and skin samples are finaled after 2 weeks. All other samples are finaled after 4 weeks.</td>
</tr>
</tbody>
</table>

### Culture, ID and Sensitivity, Equine Uterine

**508**

<table>
<thead>
<tr>
<th>Culture</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Specimen Required:</strong> Bacterial swab with transport medium</td>
</tr>
<tr>
<td><strong>Normal Test Value:</strong> No Beta-hemolytic streptococci isolated</td>
</tr>
<tr>
<td><strong>Day(s) Test Set Up:</strong> Monday through Sunday (AM/PM)</td>
</tr>
<tr>
<td><strong>Reported Time:</strong> 36 - 60 Hours</td>
</tr>
<tr>
<td><strong>Comments:</strong> Culture includes sensitivities on up to 2 isolates. No growth cultures are finaled after 60 hours of incubation. See combo test #862 Equine Uterine Screen for combo test with uterine cytology.</td>
</tr>
</tbody>
</table>
**Culture, Mycoplasma**

Updated: 2/4/2018

**Specimen Required:** Swab in Mycoplasma Transport Media
Exudates from eye, nostril, trachea, synovial fluid and/or genitals.
Sample collection should be made with synthetic swabs. Cotton tips and wooden stick swabs inhibit growth of Mycoplasma. Media should be frozen or refrigerated before and after collection. Transport to the Laboratory as soon as possible.

**Normal Test Value:** No Mycoplasma isolated.

**Day(s) Test Set Up:** Monday through Sunday

**Reported Time:** Preliminary report at 1 week

**Comments:** Mycoplasma sensitivities are not available. To rule out Ureaplasma, contact our SendOut department, (test #SO111).

---

**Culture, Salmonella**

Updated: 2/4/2018

**Specimen Required:** Fresh feces OR Fresh mammal feces submitted in enteric transport media (optimal).
Enteric transport media is available from Phoenix Laboratory at no charge.
Can also submit fresh mammal feces in clean container or use routine culture swab.
Please submit avian and reptile samples as routine culture & sensitivity.

**COLLECTION:**
1. Specimen should be collected in a dry and clean container. The stool must not be contaminated with urine, water, litter, or organic matter.
2. Mucoid, bloody, or watery portions of the stool should be sampled if present.
3. Place sample into vial using the attached collection spoon, adding enough specimen to reach the FILL LINE.
4. Carefully break up the specimen using the spoon.
5. Tighten the cap and mix by inversion until it is thoroughly mixed.
6. Label each vial with patient information.
7. Return filled container to the Laboratory WITHOUT refrigeration or incubation.

**Day(s) Test Set Up:** Monday through Sunday

**Reported Time:** 36 - 60 Hours

**Test Alias:** Culture, Feces
Salmonella Culture (Stool Culture)

**Comments:** Screening for Salmonella and Campylobacter. Screening for Shigella, Yersinia, and Vibrio available upon requested. Culture includes sensitivities on up to 2 pathogens isolated. Susceptibilities are not performed on Campylobacter.
Culture, Urine w/Sensitivity

Specimen Required: 1 mL urine in sterile container, (CTT or urine transport tube).
Whenever possible, urine should be collected by cystocentesis. If not possible, collect catheterized or free-catch urine sample into sterile container. Colony counts are not possible if a plate, broth, or swab is submitted. Refrigerate urine sample after collection.

Normal Test Value: No pathogens
Day(s) Test Set Up: Monday through Sunday (AM/PM)
Reported Time: 36 - 60 hours
Comments: Culture includes sensitivities on up to 2 isolates. Cultures are quantitated and reported as CFU/mL. No growth cultures are finaled after 48 hours of incubation.

Culture, Urine w/Sensitivity, Add-on

Specimen Required: 1 mL urine in sterile container (CTT or urine transport tube).
Whenever possible, urine should be collected by cystocentesis. If not possible, collect catheterized or free-catch urine sample into sterile container. Colony counts are not possible if a plate, broth, or swab is submitted. Refrigerate urine sample after collection.

Normal Test Value: No pathogens
Day(s) Test Set Up: Monday through Sunday (AM/PM)
Reported Time: 36 - 60 hours
Comments: Add on test for urine samples that have already been submitted for testing. Must add on test within 7 days of original submission.

Culture, Urine w/Urinalysis

Specimen Required: 1 mL urine in sterile container in addition to 5 mL urine
Whenever possible, urine should be collected by cystocentesis. When this is not possible, free-catch urine into sterile container. Urine collected on a swab will not allow a colony count to be provided. Refrigerate urine sample after collection.

Normal Test Value: See Report
Day(s) Test Set Up: Monday through Sunday (AM/PM)
Reported Time: 36 - 60 Hours
Test Alias: Urinalysis and Urine Culture w/ Sensitivity
Comments: Culture includes sensitivities on up to 2 isolates. Cultures are quantitated and reported as CFU/mL. No growth cultures are finaled after 48 hours of incubation.

Cytology, Body Cavity Fluid

Specimen Required: Fluid in 1 LTT
Fluid in 1 plain CTT (if culture required)
Air dried slides
Clinical History
Transtracheal washes and other saline washes are test code Cytology #318 only.

Normal Test Value: Descriptive Report
Day(s) Test Set Up: Monday through Saturday Run as received
Reported Time: Reviewed on Days
Test Alias: Cytology, Joint/Synovial Fluid
Comments: Descriptive report contains nucleated cell count, specific gravity, total protein, and cytology. Each additional source is charged $25.35
**Cytology, Bone Marrow**

**Updated: 2/4/2018**

Specimen Required: 4 - 6 air dried, unstained thin smears of bone marrow and spicule's. Please THOROUGHLY DRY slides before closing transport container. Complete history including concurrent CBC results.

Protocol:
1. Any bone which contains red marrow can be used as a site for aspiration or core biopsy. For small animals, collection sites include proximal femur, humerus, and iliac crest. For adult large animals, collection sites include the sternum, ribs and ilium (tuber coxae).

2. The bone marrow aspiration site should be aseptically prepared and a local or general anesthetic given.

3. Using a bone marrow biopsy needle and stylet make an incision in the skin then advance the biopsy needle and stylet, go through the cortical bone usually 0.5 - 1 cm deep.

4. Remove the stylet and gently aspirate the specimen into sterile syringe containing 0.3 ml of 2-3% EDTA (or no EDTA if using a petri dish). As soon as marrow fills the hub of the syringe, release the plunger and remove the syringe. ASPIRATION OF A LARGER VOLUME USUALLY RESULTS IN EXCESSIVE CONTAMINATION OF THE MARROW WITH PERIPHERAL BLOOD.

5. Marrow material is expelled from the EDTA syringe onto a glass slide held at an angle of 45 degrees. Spicules will tend to stick to the slide and contaminating blood will run off. Spicules should be removed with forceps and placed on a glass slide.

6. Smears are prepared by gentle squash technique. Slides are pulled apart quickly lengthwise from each other. Let the weight of the top slide spread the bone spicules. DO NOT PRESS SLIDES TOGETHER. ALLOW SLIDES TO AIR DRY. Using this technique, make at least 4 slides. Do not refrigerate the marrow slides.

7. Any remaining material should be placed into a small EDTA tube. NOTE: EVALUATION OF A CBC COLLECTED ON THE SAME DAY OR WITHIN 24 HOURS AS THE MARROW ASPIRATE IS ABSOLUTELY ESSENTIAL FOR AN ACCURATE INTERPRETATION OF THE MARROW FINDINGS.

**Normal Test Value:** Descriptive Report

**Day(s) Test Set Up:** Monday through Saturday

**Run as received**

**Reported Time:** Reviewed on Days

---

**Cytology, Bone Marrow (with CBC)**

**Updated: 2/4/2018**

Specimen Required: 1. 4 - 6 air dried, unstained thin smears of bone marrow. Please THOROUGHLY DRY slides before closing transport container. Complete history including concurrent CBC results.

2. 1 LTT Air dried peripheral blood smears

Please see collection protocol in Test #304, Bone Marrow Cytology

Normal Test Value: Descriptive Report

**Day(s) Test Set Up:** Monday through Saturday

**Run as received**

**Reported Time:** Reviewed on Days

---

**Cytology, Buffy Coat**

**Updated: 2/2/2018**

Specimen Required: 1 LTT

**Normal Test Value:** Descriptive Report

**Day(s) Test Set Up:** Monday through Saturday

**Run as received**

**Reported Time:** Reviewed on Days
**Cytology, CSF Analysis**

*Updated: 2/4/2018*

**Specimen Required:**

- CSF in Lavender Top Tube (LTT)
- 1 mL preferred
- ALSO - Submit CSF in plain Clear Top Tube (CTT) if requesting culture.
- Serology can be performed in LTT, CTT, or RTT specimens.

**Protocol:**

1. To minimize blood contamination, it is recommended to allow the CSF to drip into a small EDTA tube.
2. If a culture is to be performed, a small amount must be placed in a sterile clear top tube (CTT) or on a culturette swab.
3. All CSF specimens receive nucleated cell count, RBC count, glucose, microprotein, and cytology.
4. We request at least 1 mL, but of course, will work with any volume to try to give the most information possible.
5. If only a small amount of CSF is collected (<0.5 mL), please prioritize testing desired.

**Normal Test Value:** Descriptive Report

**Day(s) Test Set Up:** Monday through Sunday

**Reported Time:** Same Day

**Test Alias:** Cerebrospinal Fluid Analysis

**Comments:** EDTA (Lavender Top Tube) inhibits bacterial growth. If culture is required, use plain CTT or sterile transport tube.

---

**Cytology, Joint/Synovial Fluid**

*Updated: 2/4/2018*

**Specimen Required:**

- Fluid in 1 LTT
- Fluid in 1 plain CTT (if culture required)
- Air dried slides
- Clinical History
- Transtracheal washes and other saline washes are test code Cytology #318 only.
- Please specify site.

**Normal Test Value:** Descriptive Report

**Day(s) Test Set Up:** Monday through Saturday

**Reported Time:** Reviewed on Days

**Test Alias:** Cytology, Body Cavity Fluid

**Comments:** Descriptive report contains nucleated cell count, specific gravity, total protein, and cytology. Each additional source is charged $25.35

---

**Cytology, Lymph Node**

*Updated: 1/22/2018*

**Specimen Required:** For collection protocols see: Cytology, Fine Needle Aspirate/Tissue Impression

**Normal Test Value:** Descriptive Report

**Day(s) Test Set Up:** Monday through Saturday

**Reported Time:** Reviewed on Days

**Test Alias:** Cytology, Body Cavity Fluid

**Comments:** Multiple lymph nodes are charged as one.

---

**Cytology, CSF, Multiple Site**

*Updated: 1/28/2018*

**Specimen Required:** Please see CSF Analysis for collection protocol and notes.

**Normal Test Value:** Descriptive Report

**Day(s) Test Set Up:** Monday through Sunday

**Reported Time:** Same Day

**Test Alias:** CSF Analysis, Multiple Site
Cytology, Routine, Full

**Specimen Required:** 3 - 5 air dried slides, unstained or tissue imprints
Complete history and location of lesion essential for accurate result.

**FINE NEEDLE ASPIRATE PROTOCOL:**
1. If the cytology is a fine needle aspirate, use a 21g. - 25g. Needle and 3-12 mL syringe depending on material/tissue aspirated. The softer the tissue, the smaller the syringe and needle necessary for aspiration.
2. Insert the needle into the mass (avoid the center of larger lesions as they are apt to be necrotic). In order to get the most representative sample the needle should be directed in at least 3 different directions with suction applied.
3. Release the negative pressure slowly and withdraw the needle from the mass.
4. Remove the needle, fill the syringe with air, replace the needle and force the cellular material onto a slide or slides.
5. Cover the material on the slide with another slide, allow the material to spread and then horizontally pull the slides apart without pressure. This must be done quickly to avoid clot formation.
6. Quickly air dry the slides. DO NOT HEAT FIX. Try to make 3 - 5 slides from each lesion. Do not package the slides for transport until thoroughly dried. Do not refrigerate slides.
7. If the cytology is a paracentesis (abdominal or thoracic), the fluid should be placed in a LTT, and a plain CTT if culture is desired. Direct and sediment smears may also be submitted.

**TISSUE IMPRESSION PROTOCOL:**
1. Impression smears can be made from an excised mass using the TOUCH IMPRINT TECHNIQUE. Ballot tissue onto paper towel, then onto slides.
2. Quickly air dry the slides. DO NOT HEAT FIX.
3. Do not package the slides for transport until thoroughly dried. Do not refrigerate slides.

Note that impression smears of ulcerated, dermal lesions are often of low diagnostic utility.

**Normal Test Value:** Descriptive/Interpretative Report

**Day(s) Test Set Up:** Monday through Saturday
Run as received

**Reported Time:** Reviewed on Days

**Comments:** Price shown is for one source. Additional sources $25.35 each.

---

Cytology, Routine, Each Additional Source

**Specimen Required:** 3 - 5 air dried slides, unstained or tissue imprints

**Normal Test Value:** Descriptive Report

**Day(s) Test Set Up:** Monday through Saturday
(AM/PM)

**Reported Time:** Same Day

---

Cytology, Routine, Mini

**Specimen Required:** 3 - 5 air dried slides, unstained or tissue imprints

**Normal Test Value:** See Report

**Day(s) Test Set Up:** Monday through Saturday
(AM/PM)

**Reported Time:** Same Day

**Comments:** These reports will provide diagnosis and comments sections for fine needle aspirates of skin masses, lymph nodes, internal organs, smears of discharges, etc., but will not contain a detailed microscopic description. The mini cytologies are not available for fluid cytologies.

---

Cytology

**Normal Test Value:** without cell count, specific gravity, or protein concentration.

**Day(s) Test Set Up:** Monday through Saturday
Run as received

**Reported Time:** Reviewed on Days

**Comments:** Price shown is for one source. Additional sources $25.35 each.
### Cytology, Routine, Mini, Additional Source

**5318**

**Cytology**

**Updated:** 2/4/2018

**Specimen Required:** 3 - 5 air dried slides, unstained or tissue imprints

**Normal Test Value:** See Report

**Day(s) Test Set Up:** Monday through Saturday (AM/PM)

**Reported Time:** Same Day

**Comments:** These reports will provide diagnosis and comments sections for fine needle aspirates of skin masses, lymph nodes, internal organs, smears of discharge, etc., but will not contain a detailed microscopic description. The mini cytologies are not available for fluid cytologies.

### Cytology, Transtracheal Wash

**318**

**Cytology**

**Updated:** 1/22/2018

**Specimen Required:** 2 - 4 Air dried slides, unstained

- Fluid in LTT
- Fluid in CTT (if culture required)

**Clinical History**

**Normal Test Value:** A descriptive/interpretative report

- (without cell count, specific gravity, or protein concentration).

**Day(s) Test Set Up:** Monday through Saturday

- Run as received

**Reported Time:** Reviewed on Days

**Comments:** Slides are read Mon-Sat. Also, part of Canine Breeding Panel, test #1647, with serum progesterone.

### Cytology, Vaginal Smears for Estrus

**318**

**Cytology**

**Updated:** 2/4/2018

**Specimen Required:** Air dried slides,

(For good cell exfoliation, gently roll the swab across the surface of the slide.)

Dry thoroughly before placing in slide container.

Submitting more than one slide is preferable.

**Normal Test Value:** Descriptive Report

**Day(s) Test Set Up:** Monday through Saturday

- Run as received

**Reported Time:** Reviewed on Days

**Comments:** Slides are read Mon-Sat. Also, part of Canine Breeding Panel, test #1647, with serum progesterone.

**VAGINAL CYTOLOGY FOR ESTRUS PROTOCOL:**

1. Insert the cotton tip swab against the caudodorsal surface of the vaginal vault (avoid the vulva and clitoral fossa) and advance the swab in a craniodorsal direction until it passes over the ischial arch. The swab should reach the pelvic canal.

2. Rotate the swab 360 degrees in each direction and withdraw.

3. For optimal exfoliation, gently roll the swab across the surface of slide, DO NOT SMEAR.

4. Dry thoroughly before placing in slide container. Do not refrigerate slides.

5. Concurrent progesterone concentration recommended (test #1647).
**D-Dimer**

**Updated: 2/4/2018**

**Specimen Required:** 1 BTT, Centrifuge, separate plasma and refrigerate.

Citrate tubes (BTT) provided by Phoenix Laboratory hold 2.7 mL of blood. Tubes filled with less than 2.0 mL whole blood (approximately half full) have excess anticoagulant for the volume of blood which may affect the PT and APTT results. If collecting a smaller volume of blood, the blood to anticoagulant ratio should be 9:1.

THE RATIO OF BLOOD TO ANTICOAGULANT IS CRITICAL FOR VALID COAGULATION RESULTS.

**Protocol:**

1. Draw fresh venous blood into BTT (blue top, buffered sodium citrate tube) until full. Gently mix by inverting 4-5 times. NO CLOTTING SHOULD BE OBSERVED IN THE TUBE. Please remember, If collecting a smaller volume of blood, the blood to anticoagulant ratio should be 9:1.

   For proper dilution, do not fill beyond the top of the tube label.

2. Cool to 4 degrees C (refrigerator temperature), until analysis.

3. If delay greater than 24 hours is expected prior to analysis, the BTT should be spun in a centrifuge, the plasma separated and placed in a plain plastic vial to be frozen until analysis.

**Normal Test Value:** < 200 ug/mL

**Day(s) Test Set Up:** Monday through Saturday (AM)

**Reported Time:** Same Day

---

**Dermatophilus Prep**

**Updated: 1/25/2018**

**Specimen Required:** Hair and skin sample

**Normal Test Value:** Negative

**Day(s) Test Set Up:** Monday through Sunday (AM)

**Reported Time:** Same Day

**Test Alias:** Rain Scald (Dermatophilis Prep)

**Comments:** Screening for Dermatophilus congoensis (also known as dermatophilosis, Rain Rot, Rain Scald, streptothricosis).
Dexamethasone Suppression

Chemiluminescent Assay  Updated: 2/4/2018

**Specimen Required:** Specimen Required: 3 - RTT, minimum 0.5 mL serum Drawn as Pre, 4 our post and 8 hour post injection.

DO NOT USE SST TO COLLECT OR SPIN DOWN SAMPLE

PLEASE NOTE: Submit all three samples together. Centrifuge, separate serum into a sterile transport tube (RTT,CTT), and refrigerate or freeze until transport to the Lab.

NOTE: During the low dose dexamethasone suppression test, patient stress should be kept to a minimum. No other diagnostic procedures or grooming should be performed during the testing period.

**PROTOCOL (Canine):**

**Low Dose:**
1. Collect 0.5 mL serum pre-injection. (RTT,CTT)
2. Inject 0.01 mg/kg dexamethasone sodium phosphate IV.
3. Collect 2 post samples at 3-4 and 8 hours post injection. (RTT,CTT)

**High Dose:**
1. Collect 0.5 mL serum pre-injection. (RTT,CTT)
2. Inject 0.1 mg/kg dexamethasone sodium phosphate IV.
3. Collect 2 post samples at 4 and 8 hours post injection. Label each tube accordingly. (RTT,CTT)

DO NOT FREEZE SPECIMENS IN GLASS TUBES.

**Normal Test Value:** SEE COMMENTS

**Day(s) Test Set Up:** Monday through Sunday
(AM/PM)

**Reported Time:** Same Day

**Test Alias:** Canine Dexamethasone Suppression

**Comments:** A dexamethasone suppression is done to CONFIRM clinical suspicion of hyperadrenocorticism. Stressful diseases (ill diabetics, renal failure, etc.) and current drug therapy may cause false positives.

Prednisone, prednisolone, and other corticosteroids (except dexamethasone) will cross react. Long term steroid therapy will suppress adrenal function. Recommend these drugs be discontinued at least 48 hrs before testing. If the patient has been on steroids >14 days, discontinue steroids for two weeks prior to testing. If <14 days, discontinue for 48 hours prior to testing.

Extra charge for more than 3 samples - please call the Laboratory for information.

**LDDST INTERPRETATION:**
Confirmation of hyperadrenocorticism:
Normal: 8 hr post < 1.0 ug/dL
Hyperadrenocorticism: 8 hr post > 1.4 ug/dL
Equivocal: 8 hr post 1.0-1.4 ug/dL

Discrimination (pituitary dependent vs primary adrenal disease) - Only if the 8 hr post is >1.4 ug/dL and there is a clinical suspicion of hyperadrenocorticism, then pituitary dependent disease is confirmed if:
1) 4 hr cortisol is <1.4 ug/dL
2) 4 hr or 8 hr cortisols are less than 50% of the baseline (but 8 hr still >1.4 ug/dL).

Note:
Up to 40% of pituitary dependent and adrenal dependent hyperadrenocorticoid dogs do not show suppression. These dogs require HDDST, ACTH concentrations and/or abdominal imaging for further characterization.

**HDDST INTERPRETATION:** A high dose dexamethasone suppression test (HDDST) is done on previously confirmed cases of hyperadrenocorticism to help determine the origin (i.e. pituitary or adrenal gland).

*If the 8 hr post-dex cortisol is < 1.4 ug/dL or <50% of the baseline, then pituitary dependent disease is confirmed. If the 8 hr result is >/= 1.4 ug/dL or >50% of baseline, then the origin may be either pituitary or adrenal gland. Further testing (e.g. endogenous ACTH, diagnostic imaging) might be needed.*
**Dexamethasone Suppression, Equine**

**2038**

*Chemiluminescent Assay*  
Updated: 2/2/2018

**Specimen Required:** Specimen Required: 2 samples: Pre/Post 2 RTT Minimum: 0.5 mL serum (each)  
DO NOT USE SST TO COLLECT OR SPIN DOWN SAMPLE

**Protocol:**
1. Begin test between 4-6 PM.
2. Draw a pre-injection blood sample into a RTT and label "PRE".
3. Inject 40 ug/kg of Dexamethasone intramuscularly.
4. Nineteen hours post-injection, draw a blood sample into a RTT and label "POST-19".
5. Submit both samples at one time.

**Normal Test Value:** For interpretation please see report.  
Normal horses: cortisol \( \leq 1.0 \text{ ug/dL} \)  
19 hours post-dexamethasone

**Day(s) Test Set Up:** Monday through Sunday  
**(AM/PM)**

**Reported Time:** Same Day

**Comments:** Prednisone, prednisolone, and other corticosteroids (except dexamethasone) will cross react. Recommend these drugs be discontinued at least 48 hrs before testing. If the patient has been on steroids >14 days, discontinue steroids for two weeks prior to testing. If <14 days, discontinue for 48 hours prior to testing.

Current recommendations for the diagnosis of Equine Cushing’s disease is an Endogenous ACTH (697). Results must be interpreted with clinical signs and other conditions should be ruled out. Also, if performing this test in the fall (starting in September), interpret a failure to suppress with caution. False positive results occasionally occur at that time of year.

---

**Digoxin**

**235**

*Spectrophotometry*  
Updated: 1/22/2018

**Specimen Required:** Specimen Required: DO NOT USE SST FOR COLLECTION  
Minimum: 0.5 mL serum

**Protocol:** Studies have shown that SST Vacutainer tubes may cause elevation of values of approximately 30%.

**Normal Test Value:** Therapeutic Range: 0.9 - 2.0 ng/mL  
Toxicity can occur at concentrations above 3.0 ng/mL.

**Day(s) Test Set Up:** Monday through Sunday  
*Run as received*

**Reported Time:** Same Day

**Comments:** Draw 4-8 hours after last dose.  
This test can be ordered STAT and will be run when received.

---

**Distemper, FA (Canine)**

**621**

*IFA*  
Updated: 1/22/2018

**Specimen Required:** LTT or conjunctival smears, or both

**Normal Test Value:** Negative

**Day(s) Test Set Up:** Monday through Saturday  
**(AM)**

**Reported Time:** Next Day
EIA, AGID
614
Updated: 1/28/2018

Specimen Required: SST, 1 mL serum or RTT

USDA Equine Anemia Special Form or Global Vet Link Form required. Please print clearly as illegible documents can cause delay. Veterinarian signature REQUIRED on USDA form. Blood tube MUST be labeled with animal's name.

Normal Test Value: Negative

Day(s) Test Set Up: Monday through Saturday

Reported Time: Up to 48 hours

Test Alias: Coggins, AGID

Comments: Ran 1 time per day, Mon - Sat

EIA, ELISA
601
Updated: 1/31/2018

Specimen Required: SST, 1 mL serum or RTT

USDA Equine Anemia Special Form or Global Vet Link Form required. Please print clearly as illegible documents can cause delay. Veterinarian signature REQUIRED on USDA form. Blood tube MUST be labeled with animal's name.

Normal Test Value: Negative

Day(s) Test Set Up: Monday through Saturday

Reported Time: Up to 48 hours

Test Alias: Coggins, STAT

Comments: Ran 2 times daily Mon - Fri, Sat AM only See also Coggins (test code #614).

Endogenous ACTH
697
Chemiluminescent Assay
Updated: 2/4/2018

Specimen Required: 1 LTT

1.0 mL plasma, spin down immediately and separate from cells. Freeze as soon as possible.

Day(s) Test Set Up: Monday, Wednesday, Friday

Reported Time: Same Day

Test Alias: ACTH Plasma

Comments: Frozen Plasma stable for 14 days. Avoid grossly hemolysed and/or lipemic samples. See report for reference ranges.

Erythrocyte Sedimentation Rate (ESR)
123
Wintrobe
Updated: 1/22/2018

Specimen Required: 1 LTT

1 mL absolute minimum

Normal Test Value: See Report

Day(s) Test Set Up: Monday through Saturday

Reported Time: Same Day

Electrolyte Screen
16
Ion Selective Electrode
Updated: 1/22/2018

Specimen Required: 1 SST or RTT, 0.5 mL serum

Minimum: 0.5 mL serum

Normal Test Value: See Report

Day(s) Test Set Up: Monday through Sunday

Reported Time: Same Day

Comments: Includes sodium, potassium, chloride, TCO2.

Ethylene Glycol
625
Enzymatic
Updated: 1/31/2018

Specimen Required: LTT/GRNTT

0.5 mL plasma, separated from cells as soon as possible.

Day(s) Test Set Up: Monday through Saturday

Reported Time: Run as received

Reported Time: Same Day

Comments: Ethylene glycos levels peak in canines 2 hours after ingestion.
Exotic CBC (Small Mammal)

Specimen Required: 1 M-LTT
Air dried peripheral blood smears

Normal Test Value: See Report

Day(s) Test Set Up: Monday through Sunday
(AM/PM)

Reported Time: Same Day

Comments: Includes Hct, WBC estimate, and differential.
Used for "short" sample specimens.
### Fecal Baermann

**Updated:** 2/2/2018

<table>
<thead>
<tr>
<th><strong>Specimen Required:</strong></th>
<th>Fresh feces, 3-5 grams</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Normal Test Value:</strong></td>
<td>Negative</td>
</tr>
<tr>
<td><strong>Day(s) Test Set Up:</strong></td>
<td>Monday through Sunday (AM/PM)</td>
</tr>
<tr>
<td><strong>Reported Time:</strong></td>
<td>24 hour test</td>
</tr>
<tr>
<td><strong>Test Alias:</strong></td>
<td>Lungworm (Fecal Baermann)</td>
</tr>
<tr>
<td><strong>Comments:</strong></td>
<td>This is a qualitative test, reporting presence or absence of lungworm larvae. Test does not rule out Filaroides sp. (Dog lungworm). To rule out Filaroides, submit sputum smear for cytology, or fecal for Ova &amp; Parasite (#213).</td>
</tr>
</tbody>
</table>

### Fecal Parasite Screen

**Updated:** 1/22/2018

<table>
<thead>
<tr>
<th><strong>Specimen Required:</strong></th>
<th>Fresh feces</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PROTOCOL:</strong></td>
<td>1) Sugar flotation procedure that incorporates two centrifugation sequences 2) Microscopic examination of the processed specimen to detect ova and parasites</td>
</tr>
<tr>
<td><strong>Normal Test Value:</strong></td>
<td>None seen</td>
</tr>
<tr>
<td><strong>Day(s) Test Set Up:</strong></td>
<td>Monday through Saturday (AM)</td>
</tr>
<tr>
<td><strong>Reported Time:</strong></td>
<td>Next Day</td>
</tr>
<tr>
<td><strong>Comments:</strong></td>
<td>Sugar flotation with two centrifugation sequences; microscopic examination for ova and parasites, including Giardia cysts. Giardia/Crypto IFA (test code #240 or #241) is recommended to confirm the presence of Giardia as noted.</td>
</tr>
</tbody>
</table>

### Fecal Fat

**Updated:** 1/22/2018

<table>
<thead>
<tr>
<th><strong>Specimen Required:</strong></th>
<th>3-5 grams Fresh feces</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Normal Test Value:</strong></td>
<td>Negative (Normal stool contains little or no fat)</td>
</tr>
<tr>
<td><strong>Day(s) Test Set Up:</strong></td>
<td>Monday through Saturday (AM/PM)</td>
</tr>
<tr>
<td><strong>Reported Time:</strong></td>
<td>Same Day</td>
</tr>
<tr>
<td><strong>Comments:</strong></td>
<td>Microscopic Examination</td>
</tr>
</tbody>
</table>

### Fecal Parasite Trichrome Stain

**Updated:** 1/25/2018

<table>
<thead>
<tr>
<th><strong>Specimen Required:</strong></th>
<th>Fresh feces collected within 24 hours or feces in fecal fixative (Proto-fix brand). Proto-fix is supplied by the lab.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Normal Test Value:</strong></td>
<td>No protozoa observed</td>
</tr>
<tr>
<td><strong>Day(s) Test Set Up:</strong></td>
<td>Monday through Sunday (AM)</td>
</tr>
<tr>
<td><strong>Reported Time:</strong></td>
<td>Same Day</td>
</tr>
<tr>
<td><strong>Test Alias:</strong></td>
<td>Trichrome Stain</td>
</tr>
<tr>
<td><strong>Comments:</strong></td>
<td>Screening for presence of protozoa. To rule out giardia, order Giardia/Cryptosporidium (IFA) #240.</td>
</tr>
</tbody>
</table>

### Fecal Fat/Trypsin

**Updated:** 1/25/2018

<table>
<thead>
<tr>
<th><strong>Specimen Required:</strong></th>
<th>3-5 grams Fresh feces</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Normal Test Value:</strong></td>
<td>Fecal Fat: Negative (normal stool contains little or no fat) Trypsin: Positive (Normal stool should have some trypsin activity)</td>
</tr>
<tr>
<td><strong>Day(s) Test Set Up:</strong></td>
<td>Monday through Saturday (AM/PM)</td>
</tr>
<tr>
<td><strong>Reported Time:</strong></td>
<td>Same Day</td>
</tr>
<tr>
<td><strong>Comments:</strong></td>
<td>In dog and cats, serum TLI is more accurate in detecting pancreatic exocrine insufficiency.</td>
</tr>
</tbody>
</table>

### Fecal Trypsin

**Updated:** 1/28/2018

<table>
<thead>
<tr>
<th><strong>Specimen Required:</strong></th>
<th>Fresh feces</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Normal Test Value:</strong></td>
<td>Positive (Normal stool should have some trypsin activity)</td>
</tr>
<tr>
<td><strong>Day(s) Test Set Up:</strong></td>
<td>Monday through Saturday (AM/PM)</td>
</tr>
<tr>
<td><strong>Reported Time:</strong></td>
<td>Same Day</td>
</tr>
<tr>
<td><strong>Comments:</strong></td>
<td>Gel digestion</td>
</tr>
</tbody>
</table>

**Printed On:** 2/4/2018
### Fecal, Quantitative

**1409**

**Specimen Required:** Fresh feces
- Minimum: 1 gram

**Day(s) Test Set Up:** Monday through Sunday (AM)

**Reported Time:** Same Day

**Test Alias:** Quantitative Fecal

**Comments:** Results will be reported out as type of parasite, and number of eggs per gram of feces.

### Feline Coronavirus (FIP), IFA Titer

**217**

**Specimen Required:** 1 SST or RTT, 0.5 mL serum
- Minimum: 0.1 mL serum
- or
- Abdominal Fluid
- Minimum: 0.1 mL

**Normal Test Value:** See Report

**Day(s) Test Set Up:** Monday through Saturday (AM)

**Reported Time:** Same Day

**Test Alias:** Coronavirus (FIP) Titer, Feline FIP (FCoV) Titered, IFA

**Comments:** This is a quantitative titer testing method. It is NOT specific for FIP. Test involves eight serial dilutions ranging from 1:100 to 1:25,600.

### Feline Immunodeficiency Virus (FIV)

**668**

**Specimen Required:** SST or RTT or LTT
- Minimum: 300 uL

**Normal Test Value:** Negative

**Day(s) Test Set Up:** Monday through Saturday (AM)

**Reported Time:** Same Day

**Test Alias:** FIV

**Comments:** Recommend repeat in 6-8 weeks, if result is weak positive. Vaccinated cats will have a positive antibody response indistinguishable from that of infected cats for at least one year post vaccination.

### Feline Leukemia Virus (FeLV), Elisa

**321**

**Specimen Required:** 1 SST or RTT
- 0.5 mL serum
- EDTA Plasma (LTT) can be used
- 0.5 mL plasma

**Normal Test Value:** Negative

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

**Test Alias:** FeLV, ELISA

### FeLV, Add-On

**361**

**Specimen Required:** 1 SST or RTT
- 0.5 mL serum
- EDTA Plasma (LTT) can be used
- 0.5 mL plasma

**Normal Test Value:** Negative

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

**Comments:** Available as add-on to an existing panel. Previous case ID is required to activate the discounted price.
### FeLV, ELISA

**Specimen Required:**
- 1 SST or RTT
- 0.5 mL serum
- EDTA Plasma (LTT) can be used
- 0.5 mL plasma

**Normal Test Value:** Negative

**Day(s) Test Set Up:** Monday through Sunday

**Reported Time:** Same Day

**Test Alias:** Feline Leukemia Virus (FeLV), Elisa

### FIBLV, IFA (Buffy Coat or Bone Marrow)

**Specimen Required:**
- LTT for Buffy Coat
  - Min: 0.5-1 mL whole blood
  - or Unstained slides of Bone Marrow

**Normal Test Value:** Negative

**Day(s) Test Set Up:**
- Monday, Tuesday, Wednesday, Thursday (AM)
- Next Day

**Reported Time:** Same Day

**Comments:** Slides must be prepared within 72 hours of collection.

### Fibrinogen

**Specimen Required:**
- 1 LTT
- 0.5 mL whole blood

**Normal Test Value:**
- Canine: 100 - 400 mg/dL
- Feline: 100 - 400 mg/dL
- Equine: 100 - 400 mg/dL
- Bovine: 100 - 500 mg/dL

**Day(s) Test Set Up:** Monday through Sunday

**Reported Time:** Same Day

### FIP (FCoV) Screen, Add-on

**Specimen Required:**
- 1 SST or 1 RTT
- 0.5 mL serum
- Absolute Minimum: 0.2 mL serum
- or abdominal/thoracic fluid, 0.1 mL minimum.
- EDTA plasma okay.

**Normal Test Value:** See Report

**Day(s) Test Set Up:** Monday through Saturday

**Reported Time:** Same Day

**Comments:** Available as add-on to an existing panel. Previous case ID is required to activate the discounted price. FIP performed Mon - Sat AM, reported in afternoon. Test can be performed on abdominal or thoracic fluid.

### FIP (FCoV) Screen, IFA

**Specimen Required:**
- 1 SST or 1 RTT
- 0.5 mL serum
- Minimum: 0.1 mL serum
- or Abdominal Fluid
  - Minimum: 0.1 mL

**Normal Test Value:** See Report

**Day(s) Test Set Up:** Monday through Saturday

**Reported Time:** Same Day

**Comments:** Testing performed at dilutions of 1:100 and 1:6400.

**Test Alias:** Coronavirus Screen (FIP), Feline Feline Coronavirus (FIP), Screen

**Comments:** This test is NOT specific for FIP.
**FIP (FCoV) Titered, IFA**

**Specimen Required:**
1 SST or RTT, 0.5 mL serum
Minimum: 0.1 mL serum
or
Abdominal Fluid
Minimum: 0.1 mL

**Normal Test Value:**
See Report

**Day(s) Test Set Up:**
Monday through Saturday
(AM)

**Reported Time:**
Same Day

**Test Alias:**
Coronavirus (FIP) Titer, Feline
Feline Coronavirus (FIP), IFA Titer

**Comments:**
This is a quantitative titer testing method. It is NOT specific for FIP.

Test involves eight serial dilutions ranging from 1:100 to 1:25,600.

---

**FIV, Add-on**

**Specimen Required:**
RTT preferred (LTT acceptable)
Minimum: 0.1 mL serum or plasma

**Normal Test Value:**
Negative

**Day(s) Test Set Up:**
Monday through Saturday
(AM)

**Reported Time:**
Same Day

**Comments:**
Recommend repeat in 6-8 weeks, if result is weak positive.

Vaccinated cats will have a positive antibody response indistinguishable from that of infected cats for at least one year post vaccination.

Available as add-on to existing panel. Previous case ID is required to activate the discounted price.
### Free T4

**2247**

Chemiluminescent Assay  

**Specimen Required:** 1 SST or 1 RTT  
Minimum 0.5 mL serum  

**Normal Test Value:** See Report  

**Day(s) Test Set Up:** Monday through Sunday  

**Reported Time:** Same Day  

**Updated:** 1/23/2018

### Fructosamine

**195**

Spectrophotometry  

**Specimen Required:** 1 SST or RTT  
Minimum: 0.5 mL serum  

**Normal Test Value:**  
Feline Interpretation:  
**Excellent** <350 umol/L  
or normal for non-diabetic felines.  
**Good** 350 - 450 umol/L control for diabetic felines.  
**Fair** 450 - 600 umol/L  
**Poor** >600 umol/L  

Canine Interpretation:  
**Excellent** <400 umol/L  
or normal for non-diabetic canines.  
**Good** 400 - 500 umol/L  
**Fair** 500 - 650 umol/L  
**Poor** >650 umol/L  

**Day(s) Test Set Up:** Monday through Sunday  
(AM/PM)  

**Reported Time:** Same Day  

**Updated:** 1/22/2018

### Free T4, Add-on

**1247**

Chemiluminescent Assay  

**Specimen Required:** 1 SST or 1 RTT,  
Minimum 0.5 mL serum  

**Normal Test Value:** See Report  

**Day(s) Test Set Up:** Monday through Sunday  

**Reported Time:** Same Day  

**Comments:** Available as an add-on to an existing panel.  
Previous case ID is required to activate the discounted price.  

**Updated:** 1/23/2018

### Comments:

Severe hemolysis will falsely increase fructosamine concentration.  

Along with other clinical information, fructosamine can aid in the differentiation between acute/transient hyperglycemia and persistent hyperglycemia associated with diabetes mellitus.  

Fructosamine serves as a marker of glycemic control over the previous 2-3 weeks. Alterations of serum protein turnover can affect fructosamine concentration.
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**GGT (Gamma-glutamyltransferase)**

**Updated: 1/23/2018**

**Specimen Required:** 1 SST or RTT, 0.5 mL serum
Minimum: 0.1 mL serum

**Normal Test Value:** See Report

**Day(s) Test Set Up:** Monday through Sunday
(AM/PM)

**Reported Time:** Same Day

**Giardia ELISA**

**Updated: 1/28/2018**

**Specimen Required:** Fresh feces

**Normal Test Value:** Negative

**Day(s) Test Set Up:** Monday through Saturday
(AM)

**Reported Time:** Same Day

**Giardia/Cryptosporidium (IFA)**

**Updated: 2/2/2018**

**Specimen Required:** Fresh feces
Minimum: 3-5 gm feces

The stool should not be contaminated with clay kitty litter which causes interference (wheat/corn litter okay).

**Normal Test Value:** Negative

**Day(s) Test Set Up:** Monday through Saturday
(AM)

**Reported Time:** Same Day

**Comments:**

The IFA test will detect the antigen of Giardia species and most cryptosporidia. It will not detect some species of cryptosporidia that are associated with birds and reptiles. To rule giardia and cryptosporidium in avian/non-mammalian, order Avian/Nonmammalian Giardia/Cryptosporidium (#1530).

**Giardia/Cryptosporidium, Add-on**

**Updated: 2/2/2018**

**Specimen Required:** Fresh feces
Minimum: 3-5 gm feces

The stool should not be contaminated with clay kitty litter which causes interference (wheat/corn litter okay).

This test only available as add on when ordering an O&P.

**Normal Test Value:** Negative

**Day(s) Test Set Up:** Monday through Saturday
(AM)

**Reported Time:** Same Day

**Comments:**

The IFA test will detect the antigen of Giardia species and most cryptosporidia. It will not detect some species of cryptosporidia that are associated with birds and reptiles. To rule giardia and cryptosporidium in avian/non-mammalian, order Avian/Nonmammalian Giardia/Cryptosporidium (#1530).

Offered as Add-On test to O&P (must be requested within 3 days of original submission).

**Globulin**

**Updated: 1/23/2018**

**Specimen Required:** 1 SST or RTT, 0.5 mL serum minimum

**Normal Test Value:** See Report

**Day(s) Test Set Up:** Monday through Sunday
(AM/PM)

**Reported Time:** Same Day

**Comments:**

Total protein and albumin are needed for calculation of globulin and are included in this test cost.
Glucose, Multiple Samples

**Specimen Required:** Grey Top Tubes (GTT)
Minimum: 1.0 mL sodium fluoride plasma for each sample.

Completely fill tube to allow for proper dilution. Or, collect samples in SSTs or RTTs. Centrifuge SST or RTT within 30 minutes of draw. Separate serum into transport tubes and refrigerate.

In monitoring dogs and cats with diabetes mellitus, serial glucose measurements allow assessment of insulin therapy and determination of how the regimen (insulin dose, type, frequency, or dietary manipulation) should be altered to improve glycemic control of the diabetes.

The normal insulin and feeding regimen should be used during the glucose curve. Ideally, blood should be sampled every 2 hours between 2 insulin doses (for 12 hours if the animal is receiving insulin twice daily, for 24 hours if the animal is receiving insulin once daily). Ideally, blood samples should be collected every 2 hours for the glucose curve during as much of the day as possible (e.g. 8 am - 6 pm)

**ASSESSMENT:**
Evaluate response to treatment in light of clinical signs, owner observations, physical findings, blood glucose curve, glycated hemoglobin A1C, and fructosamine concentrations.

General (Ideal) Guidelines:
- **Diabetic dog:** Maintain blood glucose between 100 - 250 mg/dL throughout the day and night.
- **Diabetic cat:** Maintain blood glucose between 100 - 300 mg/dL throughout the day and night.

**Normal Test Value:** See assessment above

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

**Comments:** Price noted is for 7 samples drawn.

Glucose, Plasma

**Specimen Required:** Gray Top Tube (1 GGT)
Minimum: 1 mL plasma

**Normal Test Value:** See Report

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

**Comments:** Plasma glucose may be falsely decreased due to insufficient volume and/or hemolysis in gray top tube.

Glucose, Serum

**Specimen Required:** 1 SST or RTT, 0.5 mL serum or GTT if unable to centrifuge SST or RTT.

**Normal Test Value:** See Report

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

**Comments:** Specimens submitted in GTT will be reported as plasma glucose.

Gram Stain

**Specimen Required:** Submit air-dried slides, swab, fluid or tissue.

**Normal Test Value:** Varies with culture site.

**Day(s) Test Set Up:** Monday through Sunday (AM)

**Reported Time:** Same Day

**Comments:** Collection site/source and species required for proper interpretation.
### Heartworm (Adult) Antigen, ELISA

**Specimen Required:** 1 SST or 1 RTT  
0.5 mL serum  
Minimum: 0.1 mL serum  
**Normal Test Value:** Negative  
**Day(s) Test Set Up:** Monday through Sunday (AM/PM)  
**Reported Time:** Same Day  
**Comments:** Testing recommended in dogs 7 months and older. Test sensitivity is limited to detection of adult female heartworm antigen. Immature heartworms, including microfilaria, are not detected. (See Microfilaria #212). This test is not recommended for use in cats as they usually have a low worm load (see Heartworm Antibody #629). Also see Heartworm Panel #58 in the Canine section of Specialty Panels.

### Heartworm Panel

**Specimen Required:** 1 SST or RTT  
0.5 mL serum  
Minimum: 0.1 mL serum  
1 LTT  
**Normal Test Value:** Negative  
**Day(s) Test Set Up:** Monday through Sunday (AM/PM)  
**Reported Time:** Same Day  
**Comments:** Contains: Heartworm Antigen and Microfilaria

### Heartworm, Antibody

**Specimen Required:** 1 mL serum  
Minimum: 0.5 mL  
**Normal Test Value:** Negative  
**Day(s) Test Set Up:** Monday through Saturday (AM/PM)  
**Reported Time:** Same Day  
**Comments:** This test is recommended for cats.

### Hematocrit (HCT)

**Specimen Required:** 1 LTT  
**Normal Test Value:** See Report  
**Day(s) Test Set Up:** Monday through Sunday (AM/PM)  
**Reported Time:** Same Day  
**Comments:** Included in CBC
Hemobartonella felis (Mycoplasma hemofelis)

Specimen Required: 1 LTT, Minimum 0.3 mL EDTA whole blood fresh blood slides

Normal Test Value: Negative

Day(s) Test Set Up: Monday through Sunday (AM/PM)

Reported Time: Same Day

Test Alias: Mycoplasma Hemofelis (Hemobartonella)

Comments: Exam of blood smear for Mycoplasma hemofelis (H. felis) is included in the CBC.

Hemobartonella felis has been reclassified as Mycoplasma sp. Molecular testing (PCR) can differentiate Mycoplasma hemofelis (large form Hemobartonella) from Mycoplasma hemominutum (small form Hemobartonella). See also test #SO1638 Mycoplasma (Hemobartonella) hemofelis (PCR).

Histology Immunohistochemical Stain

Specimen Required: Tissue in formalin or Paraffin embedded tissue

Normal Test Value: See Report

Day(s) Test Set Up: Tuesday

Test Alias: Immunohistochemical Stains

Comments: Consult with the anatomic or clinical pathologist who recommended the additional stain. There may be more than one stain needed. Also, it is possible that the additional stains are not done in-house and therefore different charges apply. Call for pricing.

Histology, Recuts

Reported Time: 2 - 3 Days

Test Alias: Recuts

Comments: Price is for the first recut slide only. Contact the lab for total recut charges (including shipping costs where applicable). Outside our courier areas, slides will be shipped via FedEx at an additional charge. Slide recuts usually require 2-3 days for processing.

Histopathology Explanations

Specimen Required: Tissue in formalin (at least 10:1 formalin to tissue ratio to optimize fixation). If formalin fixation is not available, place specimen(s) in plastic bags and pack with ice. Prevent freezing.

For helpful information on submitting your samples, reprints of “Hints for Submitting Tissues for Histopathology” and “Histology Explanations” are available. Please call the Laboratory.

Normal Test Value: Descriptive report

Day(s) Test Set Up: Monday, Tuesday, Wednesday, Thursday, Sunday (PM)

Reported Time: 1 - 3 Days/See Comments

Comments: Reported Time: Larger samples and bony tissues may require longer fixation or decalcification prior to processing. Exact time of reporting is dependent on tissue size.

Fee Explanations:

Single Tissue:
1-4 samples from one site (one surgical site or organ type), where length + width + height is less than 15cm in aggregate.

Code Name
400 Mini Report-Single Tissue $54.65
441 Each Additional Single Tissue Order (Mini) $24.80
401 Full Report-Single Tissue $62.90
419 Each Additional Single Tissue Order (Full) $30.75

Complex Tissue:
Each 1-4 samples from one site (one surgical site or one organ type), where length + width + height is greater than 15 cm in aggregate.

Each entire organ (examples: brain, heart, lung, spleen, liver, gallbladder, pancreas, one kidney, one eyeball, one ear canal, one mammary chain, 1-2 ovaries or testicles).

Each tissue requiring decalcification (examples: one digit, tail, mandible,
<table>
<thead>
<tr>
<th>Code</th>
<th>Name</th>
<th>Description</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>463</td>
<td>Mini Report-Complex Tissue</td>
<td>$85.95</td>
<td></td>
</tr>
<tr>
<td>403</td>
<td>Full Report-Complex Tissue</td>
<td>$98.35</td>
<td></td>
</tr>
</tbody>
</table>

Please note: additional single tissue or skin punch biopsy orders (codes 441 or 419) may be combined with complex tissue orders.

Skin Punch Biopsies: 1-4 skin punches (4-8 mm)

<table>
<thead>
<tr>
<th>Code</th>
<th>Name</th>
<th>Description</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>423</td>
<td>Mini Report - Skin Punch Biopsy</td>
<td>$54.65</td>
<td></td>
</tr>
<tr>
<td>441</td>
<td>Each Additional Order (Mini)</td>
<td>$24.80</td>
<td></td>
</tr>
<tr>
<td>425</td>
<td>Full Report-Skin Punch Biopsy</td>
<td>$62.90</td>
<td></td>
</tr>
<tr>
<td>419</td>
<td>Each Additional Order (Full)</td>
<td>$30.75</td>
<td></td>
</tr>
<tr>
<td>407</td>
<td>Limb Dissection</td>
<td>$125.25</td>
<td></td>
</tr>
</tbody>
</table>

Includes gross and microscopic evaluation of amputated limb.

Bone Marrow Core Collection Protocol:

1. Any bone which contains red marrow can be used as a site for aspiration or core biopsy. The most commonly used sites are proximal femur, humerus, and iliac crest (in small animals).

2. The bone marrow aspiration/biopsy site should be surgically prepared and a local anesthetic given. Take biopsy after aspiration, using same skin incision but different location for biopsy sample.

3. Very slowly and gently advance the needle using clockwise-counterclockwise motion until adequate marrow obtained (approx. 5-10mm core).

4. Withdraw needle 2-3mm, then advance tip 2-3mm at a slightly different angle. This ensures specimen is cut prior to removing needle. Caution: Too much pressure may bend the needle.

5. Rotate needle with quick, full twists in both directions to ensure specimen is cut, slowly remove with alternating twisting motions.

6. Do not damage specimen by forcing it through narrow distal tip. Introduce probe through distal tip so specimen exits through needle hub/proximal end.

7. Immediately place specimen in adequate amount of 10% buffered formalin and submit to the Laboratory.

Histopathology, Complex Tissue - Full Report

<table>
<thead>
<tr>
<th>Specimen Required:</th>
<th>Tissue in formalin (at least 10:1 formalin to tissue ration to optimize fixation). If formalin fixation is not available, wrap specimen(s) in moist paper towel and place in plastic bags. Pack with ice. Prevent freezing.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal Test Value:</td>
<td>Full report provides gross description, microscopic description and interpretation and comments.</td>
</tr>
<tr>
<td>Day(s) Test Set Up:</td>
<td>Monday, Tuesday, Wednesday, Thursday, Sunday (PM)</td>
</tr>
<tr>
<td>Reported Time:</td>
<td>1 - 5 Days / See Comments</td>
</tr>
<tr>
<td>Test Alias:</td>
<td>Complex Tissue Histopathology</td>
</tr>
<tr>
<td>Comments:</td>
<td>Complex Tissue: 1 - 4 samples from one site (one surgical site or one organ type) where L+W+H &gt; 15 cm in aggregate. Each entire organ (examples: brain, heart, lung, spleen, liver, gallbladder, pancreas, 1 kidney, 1 eyeball, 1 ear canal, 1 mammary chain, 1-2 ovaries or testicles). Each sample requiring decalcification (examples: 1 digit, tail, mandible, maxilla). Please see Histopathology Explanation Sheet for further information and helpful tips on tissue submission. Reported Time: Larger samples and bony tissues may require longer fixation of decalcification prior to processing. Exact time of reporting is dependent on tissue size and type.</td>
</tr>
</tbody>
</table>
Histopathology, Limb Dissection

407

Histopathology

Updated: 2/4/2018

**Specimen Required:** Submit limb in plastic bags on ice. DO NOT freeze or fix.

**Normal Test Value:** Descriptive Report

**Day(s) Test Set Up:** Monday through Friday

**Reported Time:** 1 - 2 Weeks

**Test Alias:** Limb Dissection

**Comments:** Preliminary report in 24-48 hours. Final report approximately 2 weeks later, if primary bony lesions require decalcification.

In-house dissection at your clinic with submission of formalin-fixed representative specimens of the mass, lymph nodes and surgical margins is typically favored over submission of a whole limb, because this will facilitate fixation and surgical margins will distort/change during shipment.

Histopathology, Single Tissue - Full Report

401

Histopathology

Updated: 1/23/2018

**Specimen Required:** Tissue in formalin (at least 10:1 formalin to tissue ratio to optimize fixation). If formalin fixation is not available, wrap specimen(s) in moist paper towel and place in plastic bags. Pack with ice. Prevent freezing.

**Normal Test Value:** Full report provides gross description, microscopic description and interpretation and comments.

**Day(s) Test Set Up:** Monday, Tuesday, Wednesday, Thursday, Sunday (PM)

**Reported Time:** 1 - 3 Days / See Comments

**Comments:** Single Tissue: 1-4 samples from one site (one surgical site) or one organ type where L+W+H <15 cm in aggregate.

NOTE: Fine Needle/Tru-Cut/Endoscopy orders now fall under the Single Tissue section. Please see the Histopathology Explanation Sheet for further information and helpful tips on tissue submission.

Reported Time: Larger samples and bony tissues may require longer fixation or decalcification prior to processing. Exact time of reporting is dependent on tissue size.

Bone Marrow Core Collection Protocol:

1. Any bone which contains red marrow can be used as a site for aspiration or core biopsy. Most commonly used sites are proximal femur humerus, and iliac crest (in small animals).

2. The bone marrow aspiration/biopsy site should be surgically prepared and a local anesthetic given. Take biopsy after aspiration, using same skin incision but different location with an 11-13 g Jamshidi bone biopsy needle.

3. Very slowly and gently advance the needle using clockwise-counterclockwise motion until adequate marrow obtained (approx. 5-10 mm core).

4. Withdraw needle 2-3 mm, then advance tip 2-3 mm at a slightly different angle. This ensures specimen is cut prior to removing needle.

5. Rotate needle with quick, full twists in both directions to ensure specimen is cut, slowly remove with alternating twisting motions.
6. Do not damage specimen by forcing it through narrow distal tip. Introduce probe through distal tip so specimen exits through needle hub/proximal end.

7. Immediately place specimen in adequate amount of 10% buffered formalin and submit to Laboratory.

---

**Histopathology, Single Tissue - Mini Report**

**Specimen Required:**
Tissue in formalin (at least 10:1 formalin to tissue ratio to optimize fixation). If formalin fixation is not available, wrap specimen(s) in moist paper towel and place in plastic bags. Pack with ice. Prevent freezing.

**Normal Test Value:**
Mini report provides gross description, microscopic description and interpretation comments.

**Day(s) Test Set Up:**
Monday, Tuesday, Wednesday, Thursday, Sunday (PM)

**Reported Time:**
1 - 3 Days / See Comments

**Comments:**
Single Tissue: 1-4 samples from one site (one surgical site) or one organ type where L+W+H < 15 cm in aggregate.

NOTE: Fine Needle/Tru-Cut/Endoscopy orders now fall under the Single Tissue section. Please see Histopathology Explanation Sheet for further information and helpful tips on tissue submission.

Reported Time: Larger samples and bony tissues may require longer fixation or decalcification prior to processing. Exact time of reporting is dependant on tissue size.

---

**Histopathology, Skin Punch Biopsies - Full 425**

**Specimen Required:**
Tissue in formalin (at least 10:1 formalin to tissue ratio to optimize fixation). If formalin fixation is not available, wrap specimen(s) in moist paper towel and place in plastic bags. Pack with ice. Prevent freezing.

**Normal Test Value:**
Full report provides gross description, microscopic description and interpretation comments.

**Day(s) Test Set Up:**
Monday, Tuesday, Wednesday, Thursday, Sunday (PM)

**Reported Time:**
1 - 3 Days / See Comments

**Comments:**
1-4 Skin Punch Biopsies (1-8 mm)

Please see test code #419 for additional biopsy orders. See Histopathology Explanation Sheet for further information and helpful tips on tissue submission.

---

**Histopathology, Skin Punch Biopsies - Mini 423**

**Specimen Required:**
Tissue in formalin (at least 10:1 formalin to tissue ratio to optimize fixation). If formalin fixation is not available, wrap specimen(s) in moist paper towel and place in plastic bags. Pack with ice. Prevent freezing.

**Day(s) Test Set Up:**
Monday, Tuesday, Wednesday, Thursday, Sunday (AM)

**Reported Time:**
1 - 3 Days / See Comments

**Comments:**
1-4 Skin Punch Biopsies (1-8 mm)

Please see test code #441 for additional biopsy orders. See Histopathology Explanation Sheet for further information and helpful tips on tissue submission.
Histopathology, Special Stains

**813**

Specimen Required: Formalin Fixed Tissue

Day(s) Test Set Up: Monday through Friday

Reported Time: See Comments

Comments: PLEASE NOTE: IHC stains are not included in this category. Please see Test code #1667 Immunohistochemical Stains (IHC Stains).

If stain requested before noon, will be done the same day.

PLEASE NOTE: Price above is PER stain.
### IgA, Canine

**Updated:** 1/25/2018

**IgA, Canine**

<table>
<thead>
<tr>
<th>Specimen Required:</th>
<th>1 SST or RTT Minimum: 0.5 mL serum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal Test Value:</td>
<td>See Report</td>
</tr>
<tr>
<td>Day(s) Test Set Up:</td>
<td>Monday through Saturday (AM)</td>
</tr>
<tr>
<td>Reported Time:</td>
<td>24 hours</td>
</tr>
</tbody>
</table>

### IgG, Immunoglobulin G, Camelid

**Updated:** 2/2/2018

**IgG, Immunoglobulin G, Camelid**

<table>
<thead>
<tr>
<th>Specimen Required:</th>
<th>1 SST or RTT Minimum: 1 mL serum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal Test Value:</td>
<td>See Report</td>
</tr>
<tr>
<td>Day(s) Test Set Up:</td>
<td>Monday through Sunday (AM/PM)</td>
</tr>
<tr>
<td>Reported Time:</td>
<td>24 hours</td>
</tr>
<tr>
<td>Comments:</td>
<td>Acceptable for Alpaca, Llama, and Camel</td>
</tr>
</tbody>
</table>

### IgG, Immunoglobulin G, Equine

**Updated:** 1/31/2018

**IgG, Immunoglobulin G, Equine**

<table>
<thead>
<tr>
<th>Specimen Required:</th>
<th>1 SST or RTT Minimum: 1 mL serum or Colostrum Minimum: 1 mL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal Test Value:</td>
<td>See Report</td>
</tr>
<tr>
<td>Day(s) Test Set Up:</td>
<td>Monday through Sunday (AM/PM)</td>
</tr>
<tr>
<td>Reported Time:</td>
<td>24 hours</td>
</tr>
<tr>
<td>Comments:</td>
<td>Final at 24 hours.</td>
</tr>
</tbody>
</table>

### Immunization Screen I, Feline

**Updated:** 1/22/2018

**Immunization Screen I, Feline**

<table>
<thead>
<tr>
<th>Specimen Required:</th>
<th>1 SST or RTT Minimum: 0.5 mL serum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal Test Value:</td>
<td>Titer &gt; 1:50 considered a protective level under normal circumstances. Titer &lt; 1:50 recommend vaccination.</td>
</tr>
<tr>
<td>Day(s) Test Set Up:</td>
<td>Monday (AM)</td>
</tr>
<tr>
<td>Reported Time:</td>
<td>Same Day</td>
</tr>
<tr>
<td>Test Alias:</td>
<td>Vaccination (Immunization) Screen I, Feline</td>
</tr>
<tr>
<td>Comments:</td>
<td>This screen is limited to feline calici and herpes virus. Also available is Immunization Screen II which screens for feline panleukopenia and herpes virus, and Immunization Screen III which screens for all three viruses.</td>
</tr>
</tbody>
</table>

### Immunization Screen II, Feline

**Updated:** 1/22/2018

**Immunization Screen II, Feline**

<table>
<thead>
<tr>
<th>Specimen Required:</th>
<th>1 SST or RTT Minimum: 0.5 mL serum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal Test Value:</td>
<td>Titer &gt;1:50 considered a protective level under normal circumstances. Titer &lt;1:50 recommend vaccination.</td>
</tr>
<tr>
<td>Day(s) Test Set Up:</td>
<td>Monday (AM)</td>
</tr>
<tr>
<td>Reported Time:</td>
<td>Same Day</td>
</tr>
<tr>
<td>Test Alias:</td>
<td>Vaccination (Immunization) Screen II, Feline</td>
</tr>
<tr>
<td>Comments:</td>
<td>This screen is limited to feline panleukopenia and herpes virus. Also available is Immunization Screen I which tests for feline calici and herpes virus, and Immunization Screen III which screens for all three viruses.</td>
</tr>
</tbody>
</table>
**Immunization Screen III, Feline**

*Updated: 1/22/2018*

**Specimen Required:** 1 SST or RTT  
0.5 mL serum

**Normal Test Value:**  
Titer > 1:50 considered a protective level under normal circumstances.  
Titer < 1:50 recommend vaccination.

**Day(s) Test Set Up:** Monday  
**Reported Time:** Same Day

**Test Alias:** Vaccination (Immunization) Screen III, Feline  
**Comments:** This screen is inclusive of Feline Immunization Screens I and II. Limited to feline panleukopenia, herpes, and calici viruses.

---

**Immunization Screen, Canine**

*Updated: 1/28/2018*

**Specimen Required:** 1 SST or 1 RTT,  
Minimum: 0.5 mL serum

**Normal Test Value:**  
> 1:50 Considered protective under normal circumstances.  
< 1:50 Recommend vaccination.

**Day(s) Test Set Up:** Monday, Thursday  
**Reported Time:** Same Day

**Test Alias:** Vaccination Screen, Canine  
**Comments:** This test screens for antibodies to canine distemper and parvovirus.

---

**Immunohistochemical Stains**

*Updated: 1/23/2018*

**Specimen Required:**  
Tissue in formalin or Paraffin embedded tissue

**Normal Test Value:** See Report

**Day(s) Test Set Up:** Tuesday

**Test Alias:** Histology Immunohistochemical Stain  
**Comments:** Consult with the anatomic or clinical pathologist who recommended the additional stain. There may be more than one stain needed. Also, it is possible that the additional stains are not done in-house and therefore different charges apply. Call for pricing.

---

**Insulin**

*Updated: 1/23/2018*

**Specimen Required:** 1 SST or RTT  
Minimum: 0.5 mL serum  
Sample should be tested or frozen within 24 hours.

**Normal Test Value:** See Report

**Day(s) Test Set Up:** Monday, Wednesday, Friday  
**Reported Time:** Late Afternoon

**Comments:** In combination with clinical signs and concurrent blood glucose concentration, determination of serum insulin may be useful in diagnosing an insulinoma. In assessing whether the serum insulin concentration is appropriate, it must be compared to the serum glucose concentration (taken concurrently; included in the cost of insulin test). Measurement of serum insulin concentrations is most useful when the blood glucose concentration is 59 mg/dL or less.

Equine insulin and glucose levels have been suggested for diagnosing pituitary adenoma/Cushing's disease, but can be abnormal in any disease causing insulin resistance.

Testing not recommended on samples >24 hours old due to rapid deterioration.
**Knott's Test (Microfilaria)**

**212**

Microscopic Examination  
Updated: 1/22/2018

**Specimen Required:** 1 LTT  
Minimum: 1 mL EDTA whole blood

**Normal Test Value:** Negative

**Day(s) Test Set Up:** Monday through Sunday  
(AM/PM)

**Reported Time:** Same Day

**Test Alias:** Microfilaria (Knott's Test)

**Comments:** Included in Heartworm Panel. Recommend testing only in dogs 7 months of age and older.

---

**KOH Preparation/Wet Mount**

**510**

Microscopic Examination  
Updated: 1/25/2018

**Specimen Required:** Skin scrapings; hair

**Normal Test Value:** Negative

**Day(s) Test Set Up:** Monday through Sunday  
(AM)

**Reported Time:** Same Day

**Test Alias:** Potassium Hydroxide (KOH) Preparation  
Wet Mount/KOH Preparation

**Comments:** Screening for presence of fungal elements. It is strongly recommended that a fungal culture be run to confirm KOH prep results.
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Lactate Dehydrogenase (LDH)

Specimen Required: 1 SST or RTT
Minimum 0.5 mL serum

Day(s) Test Set Up: Monday through Sunday
(AM/PM)
Reported Time: Same Day

LH (Luteinizing Hormone)

Specimen Required: 1 SST or RTT, 0.2 mL serum
Markedly hemolyzed or lipemic samples should not be used.

Normal Test Value: Positive or Negative

Day(s) Test Set Up: Monday through Saturday
(AM)
Reported Time: Same Day

Comments:

OVARIAN REMNANT DETERMINATION:
Test when the dog is NOT showing signs of estrus:
A positive result means high LH concentrations, indicating no ovarian tissue.
A negative result means low LH concentrations, indicating the presence of ovarian tissue.
(Occasionally false positives may occur with the 24 hr LH surge.)

OVULATION TIMING IN THE BITCH
The duration of the LH peak varies from dog to dog and lasts only 24 hours in approximately 40% of the bitches. For this reason, serum should be tested for LH every day beginning on the 4th or 5th day of proestrus or when vaginal cytology approaches 50% cornification. When a positive result is obtained this is considered "Day 0". A progesterone test should be done 3 ("Day 3") days later to confirm a rise in progesterone. If the detected increase in LH was the actual preovulatory surge, progesterone concentrations should increase above 2 ng/mL within 3 days and stay elevated. If the progesterone remains low, less than 2 ng/mL, it indicates that a proestrus fluctuation in LH was identified. Continue daily testing until the true LH surge occurs.

The LH surge is designated as "Day 0". Days 4 through 7 post LH surge encompass the true fertile period with peak fertility on Days 5 and 6. Breeding on Days 2, 4, and 6 post LH surge will completely cover the fertile period and maximize viable sperm numbers on the bitch's most fertile days.

NOTE: This test has not been validated for, but has been used in, cats with similar interpretations as in dogs.
### Limb Dissection

**407**  
Histopathology  
**Updated:** 2/4/2018

- **Specimen Required:** Submit limb in plastic bags on ice. DO NOT freeze or fix.
- **Normal Test Value:** Descriptive Report
- **Day(s) Test Set Up:** Monday through Friday
- **Reported Time:** 1 - 2 Weeks
- **Test Alias:** Histopathology, Limb Dissection
- **Comments:** Preliminary report in 24-48 hours. Final report approximately 2 weeks later, if primary bony lesions require decalcification.
  
  In-house dissection at your clinic with submission of formalin-fixed representative specimens of the mass, lymph nodes and surgical margins is typically favored over submission of a whole limb, because this will facilitate fixation and surgical margins will distort/change during shipment.

### Lipase

**124**  
Spectrophotometry  
**Updated:** 1/22/2018

- **Specimen Required:** 1 SST or 1 RTT  
  Minimum: 0.5 mL serum
- **Normal Test Value:** Canine: 0 - 425 U/L  
  Feline: 0 - 200 U/L
- **Day(s) Test Set Up:** Monday through Sunday  
  (AM/PM)
- **Reported Time:** Same Day

### Lipid Panel w/T4

**2217**  
Spectrophotometry  
**Updated:** 1/31/2018

- **Specimen Required:** 0.5 mL serum, SST or RTT
- **Normal Test Value:** See Report
- **Day(s) Test Set Up:** Monday through Sunday  
  (AM/PM)
- **Reported Time:** Same Day
- **Comments:** Cholesterol, Trig, T4

### Lungworm (Fecal Baermann)

**236**  
Sedimentation  
**Updated:** 2/2/2018

- **Specimen Required:** Fresh feces, 3-5 grams
- **Normal Test Value:** Negative
- **Day(s) Test Set Up:** Monday through Sunday  
  (AM/PM)
- **Reported Time:** 24 hour test
- **Test Alias:** Fecal Baermann
- **Comments:** This is a qualitative test, reporting presence or absence of lungworm larvae. Test does not rule out Filaroides sp. (Dog lungworm). To rule out Filaroides, submit sputum smear for cytology, or fecal for Ova & Parasite (#213).
### Magnesium

**125**

**Updated:** 1/23/2018

**Specimen Required:** 1 SST or 1 RTT  
Minimum: 0.5 mL serum

**Normal Test Value:** See Report

**Day(s) Test Set Up:** Monday through Sunday  
(AM/PM)

**Reported Time:** Same Day

**Normal Test Value:** See Report

**Day(s) Test Set Up:** Monday through Sunday  
(AM/PM)

**Reported Time:** Same Day

**Microfilaria (Knott’s Test)**

**212**

**Updated:** 1/22/2018

**Specimen Required:** 1 LTT  
Minimum: 1 mL EDTA whole blood

**Normal Test Value:** Negative

**Day(s) Test Set Up:** Monday through Sunday  
(AM/PM)

**Reported Time:** Same Day

**Test Alias:** Knott’s Test (Microfilaria)

**Comments:** Included in Heartworm Panel.  
Recommend testing only in dogs 7 months of age and older.

**Microprotein, CSF**

**118**

**Updated:** 1/22/2018

**Specimen Required:** 0.3 mL CSF  
Please use CTT for transport.

**Normal Test Value:** See Report

**Day(s) Test Set Up:** Monday through Sunday  
(AM/PM)

**Reported Time:** Same Day

**Test Alias:** CSF Microprotein

**Mycoplasma Hemofelis (Hemobartonella)**

**328**

**Updated:** 2/3/2018

**Specimen Required:** 1 LTT,  
Minimum 0.3 mL EDTA whole blood  
fresh blood slides

**Normal Test Value:** Negative

**Day(s) Test Set Up:** Monday through Sunday  
(AM/PM)

**Reported Time:** Same Day

**Test Alias:** Hemobartonella felis (Mycoplasma hemofelis)

**Comments:** Exam of blood smear for Mycoplasma hemofelis (H. felis) is included in the CBC.

Hemobartonella felis has been reclassified as Mycoplasma sp.  
Molecular testing (PCR) can differentiate Mycoplasma hemofelis (large form Hemobartonella) from Mycoplasma hemominutum (small form Hemobartonella). See also test #SO1638 Mycoplasma (Hemobartonella) hemofelis (PCR).
Necropsy

Specimen Required: Whole body
AND AS MUCH HISTORY AS POSSIBLE

Refrigerate as soon as possible. If refrigeration is not available, pack body with ice packs.
Prevent freezing.

Normal Test Value: Descriptive Report

Day(s) Test Set Up: Monday through Friday

Reported Time: Prelim: 48 hours

Comments:
Please call the Laboratory for pricing information which is determined by species, weight, and specific requests or if a legal proceeding may occur.

Prelim Diagnosis: 48 hours

Final Diagnosis: 10 - 14 days, unless special studies are required.

Includes:
1. Gross examination of entire body, all internal organs, including brain (excluding spinal cord, unless specifically requested). Spinal cord examination is an additional charge. Please call lab for info.

2. Microscopic description

3. Diagnosis

4. Ancillary lab testing as needed by pathologist.

Please call the Laboratory regarding toxicology.

Cremation is available for an additional cost. Please call the Laboratory for current price information. Indicate if you require a private or non-private cremation on the original test request form when ordering a necropsy. If your clinic uses Gateway Pet Memorial for cremation services, they will pick up here at the Laboratory, take care of the cremation request, and bill your clinic directly.

Private cremations will be returned to your clinic by Gateway Pet Memorial.
**Occult Blood**

**341**

Updated: 1/22/2018

**Specimen Required:** Feces, fresh (at least a pea sized sample)

**Normal Test Value:** Negative

**Day(s) Test Set Up:** Monday through Saturday (AM/PM)

**Reported Time:** Same Day

**Comments:** Patient should be on NON-MEAT diet for 72 hours prior to sample collection. (This includes pet foods containing meat or poultry products.) High doses of vitamin C (>250 mg/day) can cause false negative results. Discontinue supplements, fruits and vegetables high in vitamin C for 72 hours prior to testing.

---

**Ova and Parasite**

**213**

Updated: 2/2/2018

**Specimen Required:** Fresh feces

**Protocol:**

1) Gross examination of the feces for larvae, tapeworm segments, etc.
2) Direct wet mount slide of feces examined microscopically for motility and larvae. This step is necessary to detect trichomonads, giardia, and other parasites that may only be present in trophozoite form.
3) Sugar flotation procedure that incorporates two centrifugation sequences
4) Microscopic examination of the processed specimen to detect ova and parasites

**Normal Test Value:** Negative

**Day(s) Test Set Up:** Monday through Saturday (AM)

**Reported Time:** Next Day

**Comments:** Sugar flotation with two centrifugation sequences; microscopic examination for ova and parasites, including Giardia cysts. Giardia/Crypto IFA (test code #240 or #241) is recommended to confirm the presence of Giardia as noted.
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**Partial Thromboplastin Time (PTT)**

**343**

**Endpoint Clot Detection**  Updated: 2/4/2018

**Specimen Required:** 1 BTT, Centrifuge, separate plasma and refrigerate.

Citrate tubes (BTT) provided by Phoenix Laboratory hold 2.7 mL of blood. Tubes filled with less than 2.0 mL whole blood (approximately half full) have excess anticoagulant for the volume of blood which may affect the PT and APTT results. If collecting a smaller volume of blood, <2.0 mL, the blood to anticoagulant ratio should be 9:1.

THE RATIO OF BLOOD TO ANTICOAGULANT IS CRITICAL FOR VALID COAGULATION RESULTS.

**Protocol:**

1. Draw fresh venous blood into BTT (blue top, buffered sodium citrate tube) until full. Gently mix by inverting 4-5 times. NO CLOTTING SHOULD BE OBSERVED IN THE TUBE. Please remember, If collecting a smaller volume of blood, the blood to anticoagulant ratio should be 9:1.

   For proper dilution, do not fill beyond the top of the tube label.

2. Cool to 4 degrees C (refrigerator temperature), until analysis.

3. If delay greater than 24 hours is expected prior to analysis, the BTT should be spun in a centrifuge, the plasma separated and placed in a plain plastic vial to be frozen until analysis.

**Normal Test Value:**

- Canine: 7.0 - 18.0 seconds
- Feline: 7.6 - 25.2 seconds
- Equine: 25.0 - 45.0 seconds

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

**Comments:**

- Used to detect parvovirus antibody, differentiating between IgG and IgM.
- Can also be used to evaluate for adequate titer post vaccine.

**Parvovirus Antibody, Serum**

**215**

**IFA**  Updated: 1/22/2018

**Specimen Required:** 1 SST or RTT, 1 mL serum

- Minimum: 0.5 mL serum

**Normal Test Value:** Variable

**Day(s) Test Set Up:** Monday through Saturday (AM)

**Reported Time:** Same Day

**Comments:**

- Used to detect parvovirus antibody, differentiating between IgG and IgM.
- Can also be used to evaluate for adequate titer post vaccine.

**PCV (Packed Cell Volume)**

**PCV**  Updated: 1/24/2018

**Comments:**

- Please order Hct, Test #326.

The PCV is the proportion of packed cells of the sample, generally meant to be the percentage of the blood comprised of RBCs. The hematocrit is determined by an automated cell counter that is calibrated for each species of animal.

When sample volume is limited, the Laboratory uses a microhematocrit method. The centrifuges for the microhematocrit determination are calibrated to assure the correct RPM is used in order to maximize sample precision.
Phenobarbital, Peak and Trough

Specimen Required: 2 RTT
Minimum: 0.5 mL serum/each sample
Label accordingly.

Trough: Just prior to next dose
Peak: 4-6 hours post dose

Protocol:
1. Select the desired dosing regimen and administer the drug until steady state is reached (2 weeks after change in dose).
2. Collect the sample as trough (preferably just prior to next dose) and peak (preferably 4-6 hours post dose).

Normal Test Value: Optimal therapeutic range:
- 15-40 ug/mL Canine
- 23-28 ug/mL Feline
- 15-20 ug/mL Equine

Day(s) Test Set Up: Monday through Sunday
(AM/PM)

Reported Time: Same Day

Comments: In dogs with well-controlled seizures, after steady state is reached (2 weeks after a change in dose), trough levels of phenobarbital should be monitored periodically.

Ideally, these samples should be collected as a fasting sample prior to the next dose (i.e. if the dog receives phenobarbital at 8am and 8pm, the blood should be collected at 8am or 8pm, prior to phenobarbital administration).

When toxicity is suspected, (or sometimes in animals with poorly controlled seizures), trough and peak serum phenobarbital concentration determination may be helpful. The time of peak blood phenobarbital concentrations is variable; usually a sample collected 4-6 hours after phenobarbital administration may be considered adequate for peak serum phenobarbital concentration.

Phenobarbital, Single Sample

Specimen Required: 1 RTT
Minimum: 0.5 mL serum

Drawn as single sample, trough or peak. Trough levels usually are most helpful.

Trough: Just prior to next dose
Peak: 4-6 hours post dose

Protocol:
1. Select the desired dosing regimen and administer the drug until steady state is reached (2 weeks after change in dose).
2. Collect the sample as trough (preferably just prior to next dose) or peak (preferably 4-6 hours post dose).

Normal Test Value: Optimal therapeutic range:
- 15-40 ug/mL Canine
- 15-40 ug/mL Feline
- 15-20 ug/mL Equine

Day(s) Test Set Up: Monday through Saturday
(AM/PM)

Reported Time: Same Day

Test Alias: Primidone (Phenobarbital), Single Sample

Comments: The half-life of phenobarbital varies widely among individual animals, therefore monitoring of serum levels aids in establishing an appropriate dose. Phenobarbital concentrations are also useful for evaluating owner compliance. Phenobarbital is the active component of primidone.

Phosphorus

Specimen Required: 1 SST or RTT, 0.5 mL serum
Minimum: 0.1 mL serum

Normal Test Value: See Report

Day(s) Test Set Up: Monday through Sunday
(AM/PM)

Reported Time: Same Day
<table>
<thead>
<tr>
<th>Test</th>
<th>Specimen Required</th>
<th>Minimum:</th>
<th>Normal Test Value</th>
<th>Day(s) Test Set Up:</th>
<th>Reported Time:</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plasma Protein</td>
<td>1 LTT</td>
<td>0.1 mL</td>
<td>Refractometry</td>
<td>Monday through Sunday</td>
<td>Same Day</td>
<td>Also available paired with CBC and differential.</td>
</tr>
<tr>
<td>Potassium</td>
<td>1 SST or RTT, 0.5 mL serum</td>
<td>0.1 mL</td>
<td>Ion Selective Electrode</td>
<td>Monday through Sunday</td>
<td>Same Day</td>
<td></td>
</tr>
<tr>
<td>Plasma Protein and CBC w/Differential</td>
<td>1 LTT</td>
<td></td>
<td>Refractometry/Flow Cytometry</td>
<td>Monday through Sunday</td>
<td>Same Day</td>
<td></td>
</tr>
<tr>
<td>Platelet Count, Automated</td>
<td>1 LTT</td>
<td></td>
<td>Flow Cytometry</td>
<td>Monday through Sunday</td>
<td>Same Day</td>
<td></td>
</tr>
<tr>
<td>Platelet Count, Manual</td>
<td>1 LTT</td>
<td></td>
<td>Hemacytometer</td>
<td>Monday through Sunday</td>
<td>Same Day</td>
<td></td>
</tr>
<tr>
<td>Potassium Bromide (KBr)</td>
<td>1 RTT or SST</td>
<td></td>
<td>Spectrophotometry</td>
<td>Monday, Wednesday, Friday</td>
<td>Same Day</td>
<td></td>
</tr>
<tr>
<td>Potassium Hydroxide (KOH) Preparation</td>
<td>Skin scrapings; hair</td>
<td></td>
<td>Microscopic Examination</td>
<td>Monday through Sunday</td>
<td>Same Day</td>
<td></td>
</tr>
</tbody>
</table>

### Reference
- Normal Test Values vary by species (Canine, Equine, Feline).
- Membrane erythrocytes should be ruled-out before hematology test setup.
- Recept test setup time based on availability of sample.
- Timing of sample collection is not critical for this test setup.

**Printed On:** 2/4/2018
### Primidone (Phenobarbital), Single Sample

**Specimen Required:** 1 RTT
- **Minimum:** 0.5 mL serum
- Drawn as single sample, trough or peak. Trough levels usually are most helpful.
- **Trough:** Just prior to next dose
- **Peak:** 4-6 hours post dose

**Protocol:**
1. Select the desired dosing regimen and administer the drug until steady state is reached (2 weeks after change in dose).
2. Collect the sample as trough (preferably just prior to next dose) or peak (preferably 4-6 hours post dose).

**Normal Test Value:** Optimal therapeutic range:
- 15-40 ug/mL Canine
- 15-40 ug/mL Feline
- 15-20 ug/mL Equine

**Day(s) Test Set Up:** Monday through Saturday (AM/PM)
**Reported Time:** Same Day

**Test Alias:** Phenobarbital, Single Sample

**Comments:** The half-life of phenobarbital varies widely among individual animals, therefore monitoring of serum levels aids in establishing an appropriate dose. Phenobarbital concentrations are also useful for evaluating owner compliance. Phenobarbital is the active component of primidone.

### Progesterone

**Specimen Required:** 1 RTT
- **Minimum:** 0.3 mL serum
- A serum sample is preferred.

**Protocol:**
- Ideal preparation of sample is suggested when using outside carriers:
  - After drawing blood into the tube, keep the tube in an upright position at room temperature allowing clot formation.
  - Centrifuge within 20-30 minutes. Serum can be poured off an SST into a plastic transport tube (use a pipette for collecting serum from a RTT).
  - Use an "Overnight" or "NextDay" transport service to insure prompt delivery. To prevent deterioration of sample in the event of delayed delivery, use commercially prepared "cool packs" when packaging your sample.

**Normal Test Value:** See Report
- There are no normal ranges as progesterone concentration varies according to ovarian activity.

**Day(s) Test Set Up:** Monday through Saturday (AM/PM)
**Reported Time:** Same Day

**Comments:**
- **Mare:** Corpus luteal values are 7-8 ng/mL by 6 days of ovulation. There is a transient decrease at 28 days of pregnancy to around 5 ng/mL and then concentration increases to day 50 and plateaus at day 140 (15-20 ng/mL). Values then decline so that at 180-200 days levels are below 1 ng/mL.
- **Cow:** Levels of 6 ng/mL are required to maintain pregnancy.
- **Camelids:** Values about 2.0 ng/mL indicate luteal activity.
### Progesterone, Canine

**547**

**Chemiluminescent Assay**

**Specimen Required:** 1 RTT

**Normal Test Value:** See Report

**Day(s) Test Set Up:** Monday through Sunday

**Reported Time:** Same Day

**Comments:** This test code is for canine use only. After the initial test, follow-up testing is offered. Use test code #747, Progesterone Follow-up, Canine.

*Canine:

To best predict optimal breeding dates, results should be interpreted in conjunction with vaginal cytology (Canine Breeding Panel, Test #1647). At ovulation, serum progesterone concentration ranges from 4-10 ng/mL. Optimal breeding (fresh semen) is 2 days after ovulation (if frozen semen: 4 days after ovulation).

For timing of whelping, progesterone decreases to <2 ng/mL 36-48 hours prior to whelping.

This test code is for canine use only. All other species use Progesterone test code #647

### Protein Electrophoresis

**31**

**Agarose Gel Electrophoresis**

**Specimen Required:** 1 SST or RTT

**Normal Test Value:** See Report

**Day(s) Test Set Up:** Monday, Thursday (AM)

**Reported Time:** Same Day

**Comments:** Can be performed on body cavity effusions to assist in diagnosis of FIP.

### Protein Electrophoresis, Urine

**1031**

**Agarose Gel Electrophoresis**

**Specimen Required:** Urine

**Normal Test Value:** See Report

**Day(s) Test Set Up:** Monday, Thursday (AM)

**Reported Time:** Next Day

**Comments:** Must allow one extra day for urine concentration.

### Progesterone, Canine, Follow-up

**747**

**Chemiluminescent Assay**

**Specimen Required:** RTT

**Normal Test Value:** See Report

**Day(s) Test Set Up:** Monday through Saturday

**Reported Time:** Same Day

**Comments:** This is to be used for canine prebreeding or prewhelping if multiple testing is needed. Previous case ID is required to activate the discounted price.
Prothrombin Time (PT)

Specimen Required: 1 BTT, Centrifuge, separate plasma and refrigerate.

Citrate tubes (BTT) provided by Phoenix Laboratory hold 2.7 mL of blood. Tubes filled with less than 2.0 mL whole blood (approximately half full) have excess anticoagulant for the volume of blood which may affect the PT and APTT results. If collecting a smaller volume of blood, <2.0 mL, the blood to anticoagulant ratio should be 9:1.

THE RATIO OF BLOOD TO ANTICOAGULANT IS CRITICAL FOR VALID COAGULATION RESULTS.

Protocol:

1. Draw fresh venous blood into BTT (blue top, buffered sodium citrate tube) until full. Gently mix by inverting 4-5 times. NO CLOTTING SHOULD BE OBSERVED IN THE TUBE. Please remember, if collecting a smaller volume of blood, <2.0 mL, the blood to anticoagulant ratio should be 9:1.

For proper dilution, do not fill beyond the top of the tube label.

2. Cool to 4 degrees C (refrigerator temperature), until analysis.

3. If delay greater than 24 hours is expected prior to analysis, the BTT should be spun in a centrifuge, the plasma separated and placed in a plain plastic vial to be frozen until analysis.

Normal Test Value: Canine: 6.0 - 13.0 seconds
Feline: 9.0 - 14.0 seconds
Equine: 8.5 - 11.5 seconds

Day(s) Test Set Up: Monday through Sunday
Run as received

Reported Time: Same Day

Comments: Citrate tubes that are less than full contain excess anticoagulant for the volume of blood which may affect the PT and APTT result. Included in Coagulation Profiles I, II, and III (see Specialty Panels section under General).
Quantitative Fecal
1409

Centrifugation/Microscopic Updated: 1/28/2018

**Specimen Required:** Fresh feces
Minimum: 1 gram

**Day(s) Test Set Up:** Monday through Sunday (AM)

**Reported Time:** Same Day

**Test Alias:** Fecal, Quantitative

**Comments:** Results will be reported out as type of parasite, and number of eggs per gram of feces.
### Rain Scald (Dermatophilis Prep)

<table>
<thead>
<tr>
<th>Specimen Required:</th>
<th>Hair and skin sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal Test Value:</td>
<td>Negative</td>
</tr>
<tr>
<td>Day(s) Test Set Up:</td>
<td>Monday through Sunday (AM)</td>
</tr>
<tr>
<td>Reported Time:</td>
<td>Same Day</td>
</tr>
<tr>
<td>Test Alias:</td>
<td>Dermatophilus Prep</td>
</tr>
<tr>
<td>Comments:</td>
<td>Screening for Dermatophilus congolensis (also known as dermatophilosis, Rain Rot, Rain Scald, streptothricosis).</td>
</tr>
</tbody>
</table>

### RBC (Red Blood Cell Count)

<table>
<thead>
<tr>
<th>Specimen Required:</th>
<th>1 LTT</th>
</tr>
</thead>
</table>
| Normal Test Value: | Canine: 5.5 - 8.5 mil/uL  
Feline: 5.0 - 10.0 mil/uL  
Equine: 6.5 - 12.5 mil/uL |
| Day(s) Test Set Up:| Monday through Sunday (AM/PM) |
| Reported Time:     | Same Day |
| Test Alias:        | None    |
| Comments:          | Included in CBC |

### Recuts

| Reported Time: | 2 - 3 Days |
| Test Alias:    | Histology, Recuts |
| Comments:      | Price is for the first recut slide only. Contact the lab for total recut charges (including shipping costs where applicable). Outside our courier areas, slides will be shipped via FedEx at an additional charge. Slide recuts usually require 2-3 days for processing. |

### Relaxin, Canine/Feline for Pregnancy

| Specimen Required: | 0.5 mL serum SST/RTT OR 0.5 mL plasma LTT/GRNTT  
Minimum: 0.5 mL heparinized plasma, serum, or whole blood  
Markedly hemolyzed or lipemic samples should not be used. |
| Day(s) Test Set Up:| Monday through Saturday (AM) |
| Reported Time:     | Same Day |
| Normal Test Value: | Positive or Negative |
| Comments:          | Relaxin rises after implantation of a fertilized egg. Implantation occurs 26-31 days after the LH surge.  
Negative samples: Any negative result is considered indicative of non-pregnancy; however, two negative results one week apart may be required for confirmation of this status, especially when date of mating is unknown.  
Positive samples: A positive result is considered indicative of pregnancy. A weak positive result may be observed at the beginning of the pregnancy. It is recommended to repeat the test on a fresh sample one week later to confirm pregnancy. |
### Resting Cortisol

**2231**  
Chemiluminescent Assay  
Updated: 2/4/2018

**Specimen Required:**  
1 RTT  
1 mL serum

**Normal Test Value:**  
See Report

**Day(s) Test Set Up:**  
Monday through Saturday  
(AM/PM)

**Reported Time:**  
Same Day

**Comments:**  
A patient with a resting cortisol >2.0 ug/dL has a 99% chance of NOT having Addison's Disease.

With a resting cortisol of <2.0 ug/dL, an ACTH response test is needed to rule-in Addison's Disease. This interpretation is valid if no oral or topical steriods have been given in the last 6 weeks.

If the patient has been on steroids for >14 days, discontinue for 2 weeks prior to testing. If <14 days, discontinue for 48 hours prior to testing.

A resting cortisol cannot be used to rule-in or rule-out Hyperadrenocorticism. A LDDS and/or ACTH response test needs to be performed.

### Rodenticide (anticoagulant) Screen

**RS**  
Updated: 2/4/2018

**Specimen Required:**  
1 BTT, Centrifuge, separate plasma and refrigerate.

Citrate tubes (BTT) provided by Phoenix Laboratory hold 2.7 mL of blood. Tubes filled with less than 2.0 mL whole blood (approximately half full) have excess anticoagulant for the volume of blood which may affect the PT and APTT results. If collecting a smaller volume of blood, <2.0 mL, the blood to anticoagulant ratio should be 9:1.

THE RATIO OF BLOOD TO ANTICOAGULANT IS CRITICAL FOR VALID COAGULATION RESULTS.

**Protocol:**

1. Draw fresh venous blood into BTT (blue top, buffered sodium citrate tube) until full. Gently mix by inverting 4-5 times. NO CLOTTING SHOULD BE OBSERVED IN THE TUBE. Please remember, If collecting a smaller volume of blood, <2.0 mL, the blood to anticoagulant ratio should be 9:1.

For proper dilution, do not fill beyond the top of the tube label.

2. Cool to 4 degrees C (refrigerator temperature), until analysis.

3. If delay greater than 24 hours is expected prior to analysis, the BTT should be spun in a centrifuge, the plasma separated and placed in a plain plastic vial to be frozen until analysis.

### Reticulocyte

**3336**  
Flow Cytometry  
Updated: 1/22/2018

**Specimen Required:**  
1 LTT or 1 L-MT

**Normal Test Value:**  
See Report

**Day(s) Test Set Up:**  
Monday through Sunday  
(AM/PM)

**Reported Time:**  
Same Day

**Comments:**  
This is included in a CBC when a canine or feline hematocrit is < 30%.

This test includes a retic, RBC and an absolute retic.

If the canine absolute reticulocyte is > 150,000/µL, the anemia is considered regenerative.

If the feline absolute reticulocyte is > 50,000/µL, the anemia is considered regenerative.
### Salmonella Culture (Stool Culture)

**519**

**Specimen Required:** Fresh feces OR Fresh mammal feces submitted in enteric transport media (optimal).

Enteric transport media is available from Phoenix Laboratory at no charge. Can also submit fresh mammal feces in clean container or use routine culture swab. Please submit avian and reptile samples as routine culture & sensitivity.

**COLLECTION:**
1. Specimen should be collected in a dry and clean container. The stool must not be contaminated with urine, water, litter, or organic matter.
2. Mucoid, bloody, or watery portions of the stool should be sampled if present.
3. Place sample into vial using the attached collection spoon, adding enough specimen to reach the FILL LINE.
4. Carefully break up the specimen using the spoon.
5. Tighten the cap and mix by inversion until it is thoroughly mixed.
6. Label each vial with patient information.
7. Return filled container to the Laboratory WITHOUT refrigeration or incubation.

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** 36 - 60 Hours

**Test Alias:** Culture, Feces, Culture, Salmonella

**Comments:** Screening for Salmonella and Campylobacter. Screening for Shigella, Yersinia, and Vibrio available upon requested. Culture includes sensitivities on up to 2 pathogens isolated. Susceptibilities are not performed on Campylobacter.

### SDH (Sorbitol Dehydrogenase)

**131**

**Specimen Required:** 1 SST or 1 RTT Minimum 0.2 mL serum

**Normal Test Value:** See Report

**Day(s) Test Set Up:** Monday through Sunday (AM/PM)

**Reported Time:** Same Day

**Comments:** This test is included in the equine chemistry screen and all panels that include equine chemistries.

### Second Opinion, Pathology

**PSO**

**Histopathology or Cytology**

**Reported Time:** Variable

**Comments:** There is no charge for second opinions provided by pathologists affiliated with our Laboratory. If a second opinion is required by a pathologist outside of the Laboratory, charges will vary depending on the number of slides recut for transport, the carrier charges, and any charges added by outside pathologist. Recuts usually require 2-3 days for processing. We routinely use a "Next Day" delivery service for second opinion delivery. Please call the Lab for current cost information.

### Semen Evaluation

**32**

**Microscopic/Cytologic Examination**

**Specimen Required:** Semen Minimum: 1 - 2 mL

**Normal Test Value:** See Report

**Day(s) Test Set Up:** Monday through Saturday (AM/PM)

**Reported Time:** Same Day

**Comments:** Includes sperm count, pH and cytology. Cytology read-out Mon - Sat AM only.
### Semen Motility

**350**  
Microscopic Examination  
Updated: 1/22/2018  

**Specimen Required:** Semen  
Minimum: 1-2 mL  

**Normal Test Value:** See Report  

**Day(s) Test Set Up:** Monday through Saturday  
(AM/PM)  

**Reported Time:** Same Day  

**Comments:** SAMPLE MUST BE TESTED WITHIN ONE HOUR OF COLLECTION. Keep sample warm (37 degrees C.) while transporting to lab.

### Sodium

**130**  
Ion Selective Electrode  
Updated: 1/23/2018  

**Specimen Required:** 1 SST or RTT  
Minimum: 0.1 mL serum  

**Normal Test Value:** See Report  

**Day(s) Test Set Up:** Monday through Sunday  
(AM/PM)  

**Reported Time:** Same Day

### Sodium and Potassium

**19**  
Ion Selective Electrode  
Updated: 1/22/2018  

**Specimen Required:** 1 SST or RTT  
Minimum: 0.1 mL serum  

**Normal Test Value:** See Report  

**Day(s) Test Set Up:** Monday through Sunday  
(AM/PM)  

**Reported Time:** Same Day

### Sperm Count

**351**  
Microscopic Examination  
Updated: 1/22/2018  

**Specimen Required:** Semen in sterile container  

**Normal Test Value:** See Report  

**Day(s) Test Set Up:** Monday through Saturday  
(AM/PM)  

**Reported Time:** Same Day  

**Comments:** Included in semen evaluation.
**T3 (Triiodothyronine)**

**651**

Chemiluminescent Assay

**Updated: 1/23/2018**

**Specimen Required:** 1 RTT

Minimum: 1.0 mL serum

**Normal Test Value:** See Report

**Day(s) Test Set Up:** Monday through Sunday

(AM/PM)

**Reported Time:** Same Day as set up

---

**T3 Suppression I**

**9**

Chemiluminescent Assay

**Updated: 2/2/2018**

**Specimen Required:** 2 samples: Pre T4/Post T4

Minimum: 0.1 mL serum (each) T4 sample collected

2 SST or 2 RTT

Minimum: 0.5 mL serum (each)

All samples should be submitted at one time to allow performance on the same instrument run.

**Protocol:**

1. Day 1: Collect baseline (pre) T4 sample. Label tube “pre”
2. Day 1 & 2: Administer 25 ug of T3 supplement (Cytobin or Cytomel) every 8 hours for 7 doses.
3. Day 3: Administer the last (7th) dose of T3 supplement on the morning of the third day and 2-4 hours later draw sample for a second T4 determination. Label tube “post”.

**Interpretation of Post suppression T4 concentration:**

Normal cats: < 1.5 ug/dL or suppression greater than 50% of pre-T4 value.

Inconclusive: 1.5 - 2.0 ug/dL

Hyperthyroid: > 2.0 ug/dL

**Normal Test Value:** See Report

**Day(s) Test Set Up:** Monday through Sunday

(AM/PM)

**Reported Time:** Same Day

**Comments:**

If the post T4 sample is not adequately suppressed, it may be due to:

1) the cat did not receive an adequate amount of T3, or
2) the cat is hyperthyroid.

Measurement of T3 concentration in the pre and post suppression samples (Test #1009 - T3 Suppression II) can be useful in verifying that the patient received the hormone supplementation.
**T3 Suppression II**

**1009**

**Specimen Required:**
- 2 samples: Pre T3 and T4/Post T3 and T4
- 2 SST or 2 RTT
- Minimum: 0.5 mL serum (each)

All samples should be submitted at one time to allow analysis on the same instrument run.

**PROTOCOL:**
1. **Day 1:** Collect baseline (pre) T3 and T4 sample. Label tube "Pre".
2. **Day 1 & 2:** Administer 25 ug of T3 supplement (Cytobin or Cytomel) every 8 hours t.i.d. for 7 doses.
3. **Day 3:** Administer the last (7th) dose of T3 supplement on the morning of the third day and 2-4 hours later draw sample for a second T3 and T4 determination. Label tube "Post".

**Interpretation of Post suppression T4 concentration:**
- Normal cats: < 1.5 ug/dL or suppression greater than 50% of pre-T4 value.
- Inconclusive: 1.5 - 2.0 ug/dL
- Hyperthyroid: > 2.0 ug/dL

**Day(s) Test Set Up:**
- Monday through Sunday
- Run as received

**Reported Time:**
- Same Day

**Comments:**
- If the post T4 sample is not adequately suppressed, it may be due to:
  1. The cat did not receive and adequate amount of T3, or
  2. The cat is hyperthyroid.

- If the cat received the T3, the postpill T3 concentration should be higher than the baseline T3 concentration.

---

**Therapeutic Drug Monitoring Panels (TDMP)**

**Specimen Required:**
- See individual panels

**Normal Test Value:**
- See Report

**Day(s) Test Set Up:**
- Monday through Friday

**Reported Time:**
- See individual panels

**Comments:**
- Explanation for the following disease and drug monitoring (TDMs) is found in the General Panel Section of this Test Directory.
  - ACE Inhibitors
  - Addison's Disease Panel
  - Aminoglycosides
  - Amitriptyline/Clopromazine
  - Amlodipine
  - Calcitriol
  - Cushing's Disease Panel
  - Cyclosporin
  - Diabetes Mellitus Panel
  - Diazepam
  - Digoxin
  - Diuretics
  - Methylxanthines
  - NSAIDs
  - Phenobarbital
  - Potassium Bromide
  - Prednisone
  - Prozac
  - Basic Renal
  - Renal Panel I
  - Renal Panel II
  - Soloxine
  - Methimazole (Tapazole)

- Patient education materials are available for each of these panels. Please call the marketing department at Phoenix Lab.

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**TLI, Canine**

**68**

**Specimen Required:**
- 0.5 ml serum, RTT

**Normal Test Value:**
- See Report

**Day(s) Test Set Up:**
- Monday, Wednesday, Friday (AM)

**Reported Time:**
- Same Day
### Total Protein

<table>
<thead>
<tr>
<th>Name</th>
<th>Specimen Required:</th>
<th>Normal Test Value:</th>
<th>Day(s) Test Set Up:</th>
<th>Reported Time:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Protein</td>
<td>1 SST or RTT</td>
<td>0.1 mL serum</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
</tbody>
</table>

**Normal Test Value:** See Report

**Comments:**
- Spectrophotometry
- Updated: 1/23/2018

### Total T4

<table>
<thead>
<tr>
<th>Name</th>
<th>Specimen Required:</th>
<th>Normal Test Value:</th>
<th>Day(s) Test Set Up:</th>
<th>Reported Time:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total T4</td>
<td>1 SST or RTT</td>
<td>0.5 mL serum</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
</tbody>
</table>

**Normal Test Value:** See Report

**Comments:**
- Spectrophotometry
- Updated: 1/28/2018

### Total T4, Add-On

<table>
<thead>
<tr>
<th>Name</th>
<th>Specimen Required:</th>
<th>Normal Test Value:</th>
<th>Day(s) Test Set Up:</th>
<th>Reported Time:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total T4, Add-On</td>
<td>1 SST or RTT</td>
<td>0.5 mL serum</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
</tbody>
</table>

**Normal Test Value:** See Report

**Comments:**
- Available as add-on to existing panel. Previous case ID is required to activate the discounted price.
- Spectrophotometry
- Updated: 1/23/2018

### Toxoplasmosis, IgG/IgM, Feline

<table>
<thead>
<tr>
<th>Name</th>
<th>Specimen Required:</th>
<th>Normal Test Value:</th>
<th>Day(s) Test Set Up:</th>
<th>Reported Time:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toxoplasmosis</td>
<td>1 SST or RTT, 0.2 mL serum</td>
<td>Negative</td>
<td>Monday, Wednesday, Friday (AM)</td>
<td>Same Day</td>
</tr>
</tbody>
</table>

**Comments:**
- This test code is for felines only. Positive titers will be repeated and reported on the next run day.
- IFA
- Updated: 1/31/2018

### Trichrome Stain

<table>
<thead>
<tr>
<th>Name</th>
<th>Specimen Required:</th>
<th>Normal Test Value:</th>
<th>Day(s) Test Set Up:</th>
<th>Reported Time:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trichrome Stain</td>
<td>Fresh feces collected within 24 hours or feces in fecal fixative (Proto-fix brand). Proto-fix is supplied by the lab.</td>
<td>No protozoa observed</td>
<td>Monday through Sunday (AM)</td>
<td>Same Day</td>
</tr>
</tbody>
</table>

**Comments:**
- Screening for presence of protozoa. To rule out giardia, order Giardia/Cryptosporidium (IFA) #240.
- Microscopic Examination
- Updated: 1/25/2018

### Triglycerides

<table>
<thead>
<tr>
<th>Name</th>
<th>Specimen Required:</th>
<th>Normal Test Value:</th>
<th>Day(s) Test Set Up:</th>
<th>Reported Time:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triglycerides</td>
<td>1 SST or RTT</td>
<td>0.5 mL serum</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
</tbody>
</table>

**Normal Test Value:** See Report

**Comments:**
- Patient SHOULD FAST 12 HRS PRIOR.
- Spectrophotometry
- Updated: 1/31/2018
Tritrichomonas Fecal Cultures

Specimen Required: 0.05 grams fresh feces
Feces may be submitted in “InPouch TF” test kit.
"InPouch TF” is available from Phoenix Laboratory as a CHARGEABLE supply.

IMPORTANT NOTE: The sample for this test should not be refrigerated or put in a cooler. Please submit your sample in a zip-lock bag labelled “Do Not Refrigerate.” Cold temperatures will destroy the sample for testing.

PROCEDURE:
1. Pull open wired end-tabs, tear open the pouch at the notch.
2. Open pouch sufficiently to admit a wooden applicator stick by pulling the closure tape's middle tabs apart.

INOCULATION:
1. Pick-up approximately 0.05 grams, the size of a small peppercorn, fresh feces on applicator stick.
2. Insert applicator stick with sample into the liquid of the system's upper chamber.
3. Remove specimen from stick by rubbing stick with your fingers through the walls of the pouch.

IMMEDIATE MICROSCOPE EVALUATION:
1. Close top of pouch, fold down top edge and roll 3 times. Lock roll with the wired end-tabs.
2. Inspect upper chamber of pouch microscopically under low power (20x or 40x) for the presence of trichomonads.
3. Specimen can be concentrated by placing in a vertical position for 15 minutes and looking along lower edge of upper chamber for motile trophozoites.

CULTURE AND MICROSCOPIC EVALUATION:
1. Express contents of upper chamber into lower chamber.
2. Roll down pouch until tape is at the top of the label. Lock roll with wired end tabs.
3. Incubate pouch at room temperature. Always incubate pouch in a vertical position away from direct sunlight
4. Before examining contents of pouch under the microscope, mix contents by pulling pouch up and down across the edge of a counter approximately 3 - 4 times.
5. Examine lower chamber of pouch microscopically under low power (20x or 40x) for the presence of motile trichomonads.

Normal Test Value: Negative
Day(s) Test Set Up: Monday through Sunday
(AM)
Reported Time: Negative at 12 Days
Comments: Tritrichomonas foetus is a flagellated protozoan parasite that can cause chronic large bowel diarrhea in cats. This organism exists only as a trophozoite, no cysts are formed. The trophozoite is approximately 10 - 12 microns in length. There are three to five anterior flagella and an undulating membrane with a trailing flagellum along the free edge.

TSH, (Thyroid Stimulating Hormone) Canine

Specimen Required: 1 RTT
Minimum: 0.1 mL serum

Normal Test Value: See Report
Day(s) Test Set Up: Monday through Sunday
(AM/PM)
Reported Time: Same Day
Comments: Included in Thyroid I, II and III Panels (see Specialty Panels-Canine).

TSH, Add-on

Specimen Required: 1 RTT,
Minimum: 0.1 mL serum
Normal Test Value: See Report
Day(s) Test Set Up: Monday through Sunday
(AM/PM)
Reported Time: Same Day
Comments: Included in Thyroid I, II and III Panels (see Specialty Panels-Canine).
<table>
<thead>
<tr>
<th>Test Description</th>
<th>Code</th>
<th>Specimen Required</th>
<th>Normal Test Value</th>
<th>Day(s) Test Set Up</th>
<th>Reported Time</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Uric Acid</strong></td>
<td>133</td>
<td>1 SST or RTT, Minimum: 0.1 mL serum</td>
<td>See Report</td>
<td>Monday through Sunday</td>
<td>Same Day</td>
<td>Spectrophotometry</td>
</tr>
<tr>
<td><strong>Urinalysis</strong></td>
<td>159</td>
<td>5 mL urine</td>
<td>See Report</td>
<td>Monday through Sunday</td>
<td>Same Day</td>
<td>Macroscopic/Microscopic</td>
</tr>
<tr>
<td><strong>Urinalysis and Urine Culture w/ Sensitivity</strong></td>
<td>548</td>
<td>1 mL urine in sterile container in addition to 5 mL urine</td>
<td>See Report</td>
<td>Monday through Sunday</td>
<td>Same Day</td>
<td>Macroscopic/Microscopic/Culture</td>
</tr>
<tr>
<td><strong>Urinalysis, Add-on</strong></td>
<td>169</td>
<td>5 mL urine; indicate method of collection.</td>
<td>See Report</td>
<td>Monday through Sunday</td>
<td>Same Day</td>
<td>Macroscopic/Microscopic</td>
</tr>
<tr>
<td><strong>Urinalysis, Follow-up</strong></td>
<td>1159</td>
<td>5 mL fresh urine; indicate method of collection</td>
<td>See Report</td>
<td>Monday through Sunday</td>
<td>Same Day</td>
<td>Macroscopic/Microscopic</td>
</tr>
</tbody>
</table>

*Updated: 1/23/2018*

*Updated: 1/22/2018*

*Updated: 2/4/2018*

*Updated: 1/28/2018*
### Urine Cortisol/Creatinine Ratio

**234**

Chemiluminescent  
Updated: 2/4/2018

| Specimen Required: | Urine, 3-4 mL  
Please use urine tubes for transport. |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal Test Value:</td>
<td>See Report</td>
</tr>
<tr>
<td>Day(s) Test Set Up:</td>
<td>Monday through Sunday (AM/PM)</td>
</tr>
<tr>
<td>Reported Time:</td>
<td>Same Day</td>
</tr>
<tr>
<td>Test Alias:</td>
<td>Cortisol/Creatinine Ratio</td>
</tr>
</tbody>
</table>
| Comments:          | High urine cortisol/creatinine ratio (> 20 x 10^-6) provides additional support for canine hyperadrenocorticism but is not specific for that condition. Many disorders cause an increased result. If not increased, hyperadrenocorticism is extremely unlikely.  
If the patient has been on steroids for >14 days, discontinue for 2 weeks prior to testing. If <14 days, discontinue for 48 hours prior to testing.  
If there is a high clinical suspicion of Cushing's disease, consider an ACTH response test to measure steroid hormones (atypical Cushing's).  
Note that both cortisol and creatinine have been converted to moles to get this ratio. |

### Urine Myoglobin

**259**

Precipitation  
Updated: 1/28/2018

| Specimen Required: | Urine  
Minimum:  5 mL |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal Test Value:</td>
<td>Negative</td>
</tr>
<tr>
<td>Day(s) Test Set Up:</td>
<td>Monday through Saturday (AM)</td>
</tr>
<tr>
<td>Reported Time:</td>
<td>Same Day</td>
</tr>
<tr>
<td>Comments:</td>
<td>Clinical signs, CBC, and serum biochemistry results can usually eliminate requirement for this test.</td>
</tr>
</tbody>
</table>

### Urine Protein

**185**

Spectrophotometry  
Updated: 1/28/2018

| Specimen Required: | 1 mL fresh urine  
Please use urine tubes for transport. |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal Test Value:</td>
<td>Normals given when ran as UPCR, Test #681</td>
</tr>
<tr>
<td>Day(s) Test Set Up:</td>
<td>Monday through Saturday (AM/PM)</td>
</tr>
<tr>
<td>Reported Time:</td>
<td>Same Day</td>
</tr>
</tbody>
</table>

### Urine Protein/Creatinine Ratio

**681**

Spectrophotometry  
Updated: 1/22/2018

| Specimen Required: | 1 mL fresh urine  
Preferably collected by cystocentesis.  
Hemorrhage or inflammation will affect testing. |
|--------------------|------------------------------------------------|
| Normal Test Value: | Canine/Feline: normal < 0.5  
borderline 0.5-1.0  
Values > 1.0 are suggestive of glomerular proteinuria. |
| Day(s) Test Set Up:| Monday through Sunday (AM/PM) |
| Reported Time:     | Same Day |

### Urine Fractional Excretion

**114**

ISE/Spectrophotometry  
Updated: 1/31/2018

| Specimen Required: | 1 SST or RTT  
Minimum:  0.5 mL serum, and  
1 mL fresh urine collected at same time as blood |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal Test Value:</td>
<td>See Report</td>
</tr>
<tr>
<td>Day(s) Test Set Up:</td>
<td>Monday through Saturday (AM)</td>
</tr>
<tr>
<td>Reported Time:</td>
<td>Same Day</td>
</tr>
<tr>
<td>Test Alias:</td>
<td>Fractional Excretion, Urine</td>
</tr>
<tr>
<td>Comments:</td>
<td>Measuring sodium, potassium, chloride, calcium, phosphorus, GGT, and creatinine in both blood and urine to then calculate fractional excretion.</td>
</tr>
</tbody>
</table>
### Urine Sediment Only

**Microscopic Examination**

<table>
<thead>
<tr>
<th>Specimen Required</th>
<th>Normal Test Value</th>
<th>Day(s) Test Set Up</th>
<th>Reported Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 mL fresh urine or sediment from 5 mL fresh urine</td>
<td>See Report</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
</tbody>
</table>

**Comments:** Due to poor cellular preservation, this test is not suitable for diagnosis of malignancy. Recommend submission of urine sediment smears for Cytology.

For cytologic examination:
1. Place a drop of sediment on a slide and use a second slide to spread the material forward (blood smear technique). After advancing the spreader slide 2/3 of the distance of the bottom slide, lift the spreading slide directly upward. Cells will be concentrated in a line at the smear’s end rather than spread as a feathered edge.
2. For chunky sediments, prepare a gentle squash prep. Place a drop of sediment on a slide, cover the material with a second slide to gently spread the material (do not press slides together). Rapidly pull slides apart in a horizontal motion.
3. After preparing slides (either method) - Air dry slides. Do not heat fix or refrigerate.

Definitive diagnosis of malignancy may require evaluation of tissue.

### Urine Specific Gravity

**Refractometry**

<table>
<thead>
<tr>
<th>Specimen Required</th>
<th>Normal Test Value</th>
<th>Day(s) Test Set Up</th>
<th>Reported Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mL urine</td>
<td>See Report</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
</tr>
</tbody>
</table>

**Comments:** Included in a Urinalysis, test #159.
### Vaccination (Immunization) Screen I, Feline

**ID:** 161

- **Specimen Required:** 1 SST or RTT
- **Minimum:** 0.5 mL serum
- **Day(s) Test Set Up:** Monday
- **Reported Time:** Same Day
- **Test Alias:** Immunization Screen I, Feline
- **Comments:**
  - This screen is limited to feline calici and herpes virus.  Also available is Immunization Screen II which screens for feline panleukopenia and herpes virus, and Immunization Screen III which screens for all three viruses.

- **Normal Test Value:**
  - Titer > 1:50 considered a protective level under normal circumstances.
  - Titer < 1:50 recommend vaccination.

### Vaccination (Immunization) Screen II, Feline

**ID:** 1161

- **Specimen Required:** 1 SST or RTT
- **Minimum:** 0.5 mL serum
- **Day(s) Test Set Up:** Monday
- **Reported Time:** Same Day
- **Test Alias:** Immunization Screen II, Feline
- **Comments:**
  - This screen is limited to feline calici and herpes virus.  Also available is Immunization Screen II which screens for feline panleukopenia and herpes virus, and Immunization Screen III which screens for all three viruses.

- **Normal Test Value:**
  - Titer > 1:50 considered a protective level under normal circumstances.
  - Titer < 1:50 recommend vaccination.

### Vaccination (Immunization) Screen III, Feline

**ID:** 2161

- **Specimen Required:** 1 SST or RTT
- **Minimum:** 0.5 mL serum
- **Day(s) Test Set Up:** Monday
- **Reported Time:** Same Day
- **Test Alias:** Immunization Screen III, Feline
- **Comments:**
  - This screen is inclusive of Feline Immunization Screens I and II. Limited to feline panleukopenia, herpes, and calici viruses.

- **Normal Test Value:**
  - Titer > 1:50 considered a protective level under normal circumstances.
  - Titer < 1:50 recommend vaccination.

### Vaccination Screen, Canine

**ID:** 156

- **Specimen Required:** 1 SST or 1 RTT
- **Minimum:** 0.5 mL serum
- **Day(s) Test Set Up:** Monday, Thursday
- **Reported Time:** Same Day
- **Test Alias:** Immunization Screen, Canine
- **Comments:**
  - This test screens for antibodies to canine distemper and parvovirus.

- **Normal Test Value:**
  - Titer > 1:50 Considered protective under normal circumstances.
  - < 1:50 Recommend vaccination.
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<table>
<thead>
<tr>
<th>Test Description</th>
<th>Specimen Required</th>
<th>Normal Test Value</th>
<th>Day(s) Test Set Up</th>
<th>Reported Time</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>WBC (White Blood Cell)</td>
<td>1 LTT or 1 M-LTT (Microtainer) or</td>
<td>See Report</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
<td>This test is included in a CBC (Complete Blood Count)</td>
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<tr>
<td></td>
<td>for avian/reptile samples:</td>
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<td></td>
<td>1 GRNTT or 1 M-GRN</td>
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<tr>
<td>WBC Estimate and Differential</td>
<td>Air dried peripheral blood smears</td>
<td>See Report</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
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<tr>
<td></td>
<td>Thoroughly dry slides before inserting</td>
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<tr>
<td></td>
<td>into slide holders.</td>
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<tr>
<td>WBC Estimate and Differential, Avian/Nonmammalian</td>
<td>Air dried blood smears.</td>
<td>See Report</td>
<td>Monday through Sunday (AM/PM)</td>
<td>Same Day</td>
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<td></td>
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<td>into slide holders.</td>
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<tr>
<td>Wet Mount/KOH Preparation</td>
<td>Skin scrapings; hair</td>
<td>Negative</td>
<td>Same Day</td>
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<td>Screening for presence of fungal elements. It is strongly recommended</td>
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<td>that a fungal culture be run to confirm KOH prep results.</td>
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</tbody>
</table>

Test Alias: Avian/Nonmammalian WBC Estimate and Differential
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