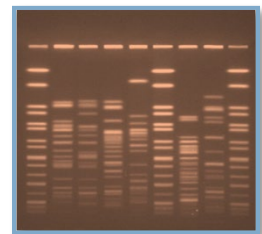
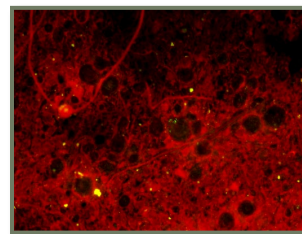
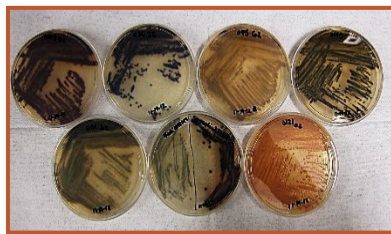




**Scientific Laboratory Division - NM Department of Health  
Biological Sciences Bureau**



**Directory of Services  
2023**

**Michael Edwards, Ph.D., Division Director  
Adam Aragon, MS., Biological Sciences Bureau Chief  
1101 Camino de Salud, N.E.  
Albuquerque, NM 87102**

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# GENERAL INFORMATION

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**CAP # 6694801**

**FDA # 35005; FERN # 538**

**EPA # 141001-2011**

The Biological Sciences Bureau of the New Mexico Department of Health Scientific Laboratory Division (SLD) offers clinical, animal, environmental, water, food, and dairy testing of infectious disease pathogens of public health significance. This Directory offers a comprehensive listing of our testing services and contains a brief explanation of each test, along with analytical time and specimen submission requirements, and provides contact information if you have questions or need any clarifications.

The operating hours of SLD are Monday through Friday from 8 am to 5 pm. We conduct emergency testing only upon the request of the Epidemiology and Response Division (ERD). The Directory of Services does not contain our fee schedule. You can find the Fee Schedule at the SLD website, located here;

<http://nmhealth.org/publication/view/general/1495/>. We update the Directory of Services and the Fee Schedule annually, but please remember that we might change the fees and services that we offer at any time.

In order for us to carry out quality and safe testing, here are a few reminders:

- ✓ Please ensure that specimens are collected and handled according to the proper requirements addressed below.
- ✓ Please ensure that complete data information is available on the request form as addressed below.
- ✓ Please ensure that shipment of specimens/samples adheres with DOT and IATA guidelines, for the shipment of biohazardous materials, as addressed below.

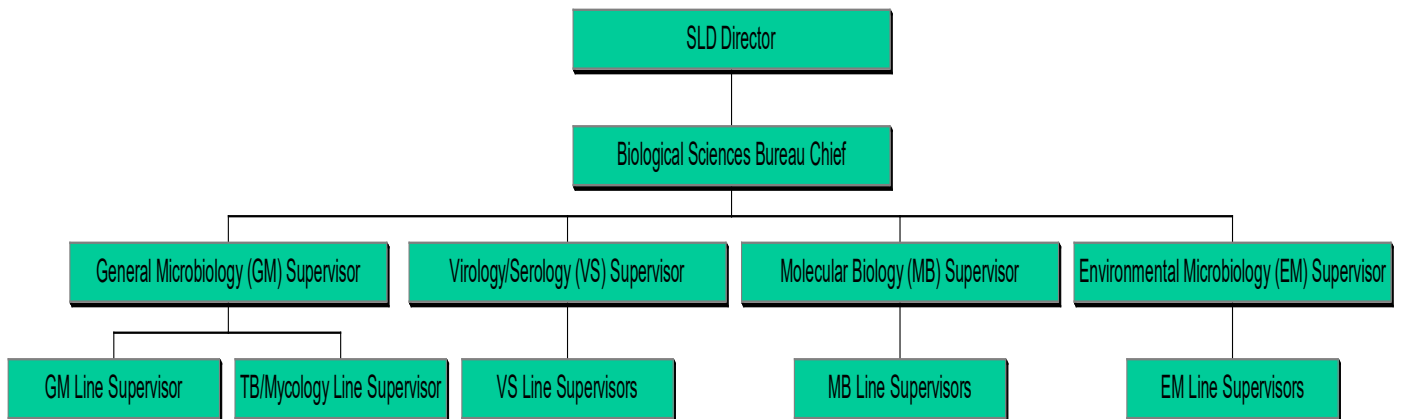
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# BIOLOGICAL SCIENCES BUREAU

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## ORGANIZATIONAL CHART

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## CONTACT INFORMATION

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| NAME          | TITLE         | PHONE/FAX    | COMMENTS                                                                             |
|---------------|---------------|--------------|--------------------------------------------------------------------------------------|
| Adam Aragon   | BSB Chief     | 505-383-9122 | Contact for general inquiries                                                        |
| Lisa Onischuk | GM Supervisor | 505-383-9128 | Contact for inquiries regarding bacteriology, mycobacteriology, and mycology testing |

|                                          |                             |                               |                                                                       |
|------------------------------------------|-----------------------------|-------------------------------|-----------------------------------------------------------------------|
| Hailey Griego Johnson                    | GM Line Supervisor          | 505-383-9127                  | Contact for inquiries regarding bacteriology                          |
| Sara Jones                               | TB/Mycology Line Supervisor | 505-383-9126                  | Contact for inquiries regarding mycobacteriology and mycology testing |
| Shivanna Moriarty                        | VS Supervisor               | 505-383-9124                  | Contact for inquiries regarding virology or serology testing          |
| Nicole Chase                             | VS Line Supervisor          | 505-383-9125                  | Contact for inquiries regarding virology or serology testing          |
| Joclin Nicasio                           | VS Line Supervisor          | 505-383-9133                  | Contact for inquiries regarding virology or serology testing          |
| Dr. Pascale Léonard                      | MB Supervisor               | 505-383-9130                  | Contact for inquiries regarding molecular testing                     |
| Celina Phelps                            | MB Line Supervisor          | 505-383-9160                  | Contact for inquiries regarding molecular testing                     |
| Anastacia Griego Fisher                  | MB Line Supervisor          | 505-383-9161                  | Contact for inquiries regarding Next Generation Sequencing            |
| Paul Torres                              | EM Supervisor               | 505-383-9129                  | Contact for inquiries regarding food, water, and dairy testing        |
| Carlos Gonzales                          | EM Line Supervisor          | 505-383-9104                  | Contact for inquiries regarding food, water, and dairy testing        |
| Jennifer Hollander                       | EM Line Supervisor          | 505-383-9131                  | Contact for inquiries regarding food, water, and dairy testing        |
|                                          |                             |                               |                                                                       |
|                                          |                             |                               |                                                                       |
| SLD Front Desk                           |                             | 505-383-9000;<br>505-383-9150 | Contact for general inquiries and if uncertain whom to call           |
| Epidemiology and Response Division (ERD) |                             | 505-827-0006                  |                                                                       |
| BSB Fax                                  |                             | 505-383-9121                  |                                                                       |
| SLD Fax                                  |                             | 505-383-9011                  |                                                                       |
| Specimen Receiving Phone                 |                             | 505-383-9068;<br>505-383-9059 | For inquiries regarding courier service                               |
| Kit Prep Phone                           |                             | 505-383-9056                  | For kits                                                              |
| Kit Prep Fax                             |                             | 505-383-9062                  | For kits                                                              |

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# CLINICAL TESTING

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## CLINICAL TEST REQUEST FORM

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The SLD clinical request form can be found on our website, located here  
[nmhealth.org/publication/view/form/6380/](http://nmhealth.org/publication/view/form/6380/)



# SLD CLINICAL TEST REQUEST FORM

Scientific Laboratory Division  
1101 Camino de Salud N.E.  
Albuquerque, NM 87102

SLD LAB NO. ONLY  
ONE FORM PER SPECIMEN

PLEASE PRINT LEGIBLY

SLD Form 101 v4.0 Revised 12/20 USER CODES →→

SLD DATE

USE >>> <<<TIME

ONLY STAMP

51000 (Epidemiology)  
52000 (PHD: General)  
52110 (PHD: Prenatal)  
52120 (PHD: Family Plan)  
52340 (PHD: Refugee)

52325 (PHD: Adult Hepatitis)  
52330 (PHD: TB Program)  
51006 (EIP)  
70704 (OMI)  
Other: (Enter Number)

Please limit  
to one code  
per form

## SUBMITTER INFORMATION

SUBMITTER CODE

FACILITY NAME

ADDRESS

City State Zip Code

PHONE

ATTENTION:

CLINICIAN NAME

PHONE # ( )

## PATIENT INFORMATION

PATIENT NAME

GENDER ☐ MALE ☐ FEMALE ☐ TRANSGENDER

DATE OF BIRTH MM/DD/YYYY: / /

ADDRESS

City State Zip Code

Phone Number

PATIENT ID (MRN#)

SOCIAL SECURITY

OTHER ID (HIV#)

RACE: Check all that apply.

☐ American Indian/Alaskan Native ☐ Asian ☐ Black/African American

☐ Native Hawaiian/Pacific Islander ☐ White ☐ Other

ETHNICITY: ☐ Hispanic ☐ Non-Hispanic

## SPECIMEN INFORMATION

SPECIMEN TYPE  
☐ Clinical  
☐ Reference

CLINICAL SYMPTOMS  
☐ Asymptomatic  
☐ Symptomatic: Date of onset: MM / DD / YYYY

Specimen Collection  
Date/Time Collected / / Military Time

## ANALYSIS REQUESTED

For Details: <http://nmhealth.org/publication/view/general/1495/>

### BACTERIOLOGY

☐ B. anthracis  
☐ B. cereus/S. aureus  
☐ Culture, OMI  
☐ Culture, OMI anaerobic  
☐ Campylobacter species:  
☐ E. coli 0157:H7  
☐ EIP Group A Streptococcus  
☐ EIP Group B Streptococcus  
☐ EIP S. pneumoniae isolate  
☐ GC culture  
☐ Haemophilus influenzae typing  
☐ Listeria monocytogenes  
☐ Legionella culture

☐ N. meningitidis typing  
☐ Plague FA and culture  
☐ Salmonella, serotype:  
☐ Shigella, serotype:  
☐ Shiga Toxin test/isolation  
☐ Tularemia culture  
☐ Vibrio  
☐ Yersinia enterocolitica:  
☐ Other:

### AFB/TUBERCULOSIS/MYCOLOGY

☐ Aerobic actinomycetes  
☐ AFB Culture  
☐ AFB Reference Isolate  
☐ Suspected ID:  
☐ Fungal/Yeast Culture  
☐ Fungal/Yeast Reference Isolate  
☐ Suspected ID:

### MOLECULAR

☐ Pertussis (Bordetella sp.) PCR  
☐ Other: (ERD only)

### Other (Specify):

☐ 2019 Novel Coronavirus RT-PCR

☐ Influenza RT-PCR (Per Epidemiology Guidance)

Rapid Test: Pos Neg Not Performed

☐ Dengue/Chikungunya PCR

☐ Ebola PCR

☐ Other: (ERD only)

## SUBMISSION PROCEDURES

The accuracy and reliability of a test result are dependent on:

- Proper specimen collection, patient identification that matches identification provided on specimen.
- Proper labeling of specimen to include unique identifying information to connect it to the corresponding request form. Two identifiers are required on the specimen per CAP regulation GEN.40491. Examples of

acceptable identifiers include but are not limited to: patient name, date of birth, hospital number, social security number, requisition number, accession number, and unique random number. A location (e.g. hospital room number) is not an acceptable identifier.

- Proper labeling and completion of form to include:
  - Patient name (first and last)
  - Patient ID
  - Patient's gender
  - Patient date of birth
  - Date of collection
  - Time of collection
  - Submitter code and name
  - Specimen source
  - Test requested
  - Provider (Clinician) name
  - Provider (Clinician) phone number
- Legibility of form
- Proper packaging and shipping (ensuring proper temperature and adherence to DOT and IATA regulations)
  - Please see specific specimen or sample collection requirements below for each test.
  - Estimated Turnaround Time is the average time from receipt of properly submitted samples to the time when test results are available. The Estimated Turnaround Time is based on normal values and normal business hours; if results are needed sooner, please call the appropriate section.
  - Call Epidemiology and Response Division (Epi) at 505-827-0006 if a select agent is suspected and notify lab section.

## GENERAL REJECTION CRITERIA

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Rejection criteria include compromised specimen (leaking, broken, etc.), unlabeled specimen, or specimen with a single identifier, incomplete or no request form (see items listed above). Please see specific rejection criteria for each test below.

## TESTS OFFERED

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### Adenovirus

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**Description:** Cell culture procedure for the isolation of adenovirus.

**Specimen:** Send specimen swab in viral transport medium (eye, respiratory, throat or nasopharyngeal) or send stool, tissue, urine in sterile container. Refer to virus isolation specimen handling instructions.

**Normal Value:** No virus isolated.

**Analysis Requested:** Virus Isolation. Agent suspected: Adenovirus.

**Estimated Turnaround Time:** 14-30 working days.

**Collection:** See “Virus Isolation” for collection guidelines.

**Handling:** If the specimen can be delivered to the laboratory within 72 hours, refrigerate at 2-8°C (35 – 46°F); if not then freeze at -70°C (-94°F) or on dry ice. Do not freeze virus isolation specimens at -20°C (-4°F), such as in a household type freezer.

**Shipping:** Pack the specimen in an insulated container with sufficient dry ice or ice packs to maintain a constant temperature throughout shipment. If the specimen is frozen, it must be shipped on dry ice and arrive frozen at the laboratory. If dry ice is used, the specimen must be placed in a sealed container to protect it from CO<sub>2</sub>. Deliver to the laboratory via the established overnight courier system, or as quickly as possible.

**Special requirements:** Do not freeze virus isolation specimens at -20°C (-4°F), such as in a household type freezer.

**Rejection criteria:** Samples older than 72 hours (and not frozen) will be rejected.

**Contact:** Virology/Serology Supervisor (505-383-9124) or VS Line Supervisor (505-383-9125).

## Aerobic Culture, Reference

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See “ID of Bacteria, Gram negative or Gram positive”

## Aerobic Actinomycetes

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**Description:** Isolation and identification of Aerobic Actinomycetes through smear and culture methods: morphology, growth characteristics, MALDI-TOF and/or conventional biochemicals or molecular sequencing.

**Specimen:** Sputum- fresh, early morning specimens are optimal; sterile body fluids, exudates, abscess material, tissue, scabs, or crusty lesions- collect in sterile container (TB kit) Isolated organism on appropriate media.

**Normal Value:** No aerobic Actinomycetes isolated.

**Analysis Requested:** AFB/Tuberculosis/Mycology, Aerobic actinomycetes.

**Estimated Turnaround Time:** 4–6 weeks.

**Collection:** Send clinical specimen in TB Kit or isolate on appropriate media

**Handling:** Refrigerate clinical fluid/sputum specimens and send as soon as possible. Culture isolates and scab/lesion material may be refrigerated or stored at room temperature.

**Shipping:** Clinical specimens should be sent cold, on an ice pack. Culture isolates may be sent on an ice pack or at room temperature.

**Special Requirements:** N/A

**Rejection criteria:** See General Rejection Criteria. Additionally, clinical specimens received as a dry swab, or either clinical specimens or culture isolates that are obviously desiccated, received in preservative such as formalin or otherwise compromised will be rejected.

**Contact:** GM Supervisor (505-383-9128), or TB Line Supervisor (505-383-9126).

## Aeromonas or Plesiomonas

---

**Description:** Identification or confirmation of Aeromonas or Plesiomonas spp. from bacterial isolates or suspected clinical specimens by culture methods: morphology, growth characteristics, MALDI-TOF and/or conventional biochemicals.

**Specimen:** Aeromonas or Plesiomonas are most commonly found in blood, wound or stool specimens. Send isolate on appropriate plate or tube media, such as MacConkey or any non-selective media. Stool specimens should be collected in the acute stage of disease before initiation of treatment. Collect stool in enteric transport media, such as Cary-Blair. Refrigerate and send ASAP.

**Normal Value:** N/A

**Analysis Requested:** On general clinical request form: ID of Bacteria, Gram Negative \_\_\_\_\_; write “Aeromonas or Plesiomonas”

**Estimated Turnaround Time:** 1 – 3 weeks

**Collection:** Stool specimens should be collected in the acute stage of disease before initiation of treatment. Collect stool in enteric transport media, such as Cary-Blair, and refrigerate. Contact General Microbiology for other clinical specimens. See Enteric culture for additional collection instructions.

**Handling:** refrigerate stool specimen in enteric transport.

**Shipping:** Send isolate at room temperature, or cold on an ice pack. Send stool in enteric transport media, cold, on an ice pack to arrive at the lab less than 48 hours from collection.

**Special Requirements:** N/A

**Rejection criteria:** See General Rejection Criteria. Stool specimen not in enteric transport media or received >48 hours from collection will be rejected.

**Contact:** General Microbiology Supervisor (505-383-9128) or GM Line Supervisor (505-383-9127).

## Anaerobic Culture, Reference

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See “ID of Bacteria, Anaerobe”

## AFB/Tuberculosis, ID isolate

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**Description:** Mycobacterial isolate referred for identification, or already identified *M. tuberculosis* complex submitted per 7.4.3.13 NM Administrative code requirement.

**Specimen:** Pure culture isolates on media such as L-J slant, Middlebrook 7H11 agar or, broth culture (MGIT).

**Normal Value:** Not applicable.

**Analysis Requested:** AFB Reference Isolate, Suspected ID: (please include)

**Estimated Turnaround Time:** 1–6 weeks for identification or susceptibility if requested; N/A otherwise. Susceptibility testing is a send-out, turnaround time N/A.

**Collection:** N/A

**Handling:** N/A

**Shipping:** Send isolate at room temperature or refrigerated, on an ice pack.

**Special Requirements:** *M. tuberculosis* complex must be shipped Category A (See Packaging and Shipping section)

**Rejection criteria:** See General Rejection Criteria, uninoculated or obviously compromised isolate will be rejected.

**Contact:** GM Supervisor (505-383-9128), or TB Line Supervisor (505-383-9126).

## AFB/Tuberculosis, culture

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**Description:** Smear from sterile clinical specimen or processed concentrate, real-time PCR, and Culture by solid and liquid media for Acid Fast Bacilli (Mycobacterium species). If Positive, includes Identification by PCR and/or MALDI TOF and/or sequencing. Drug susceptibility testing for MTBC is a send-out, to the California Public Health Laboratory, as directed by TB Control Program.

**Specimen:** Send clinical material in TB Kit. (See specimen and collection instructions below).

**Specimen: Sputum, natural**

Obtain Tuberculosis specimen collection 50 ml centrifuge tube from SLD kit preparation department (see Transport and Shipping).

a) Instruct the patient in advance about the importance of a good quality and an adequate quantity of sputum specimen. Emphasize the difference between sputum (lower respiratory secretions) and saliva or upper airway secretions. It may be

helpful to place a mark on the sputum collection tube at the 3-10ml mark so the patient can easily see the minimum quantity of sputum required.

b) Collect in early AM, immediately after waking up, before eating or drinking.

(1) Remove dentures, if any. Rinse mouth and gargle with water to remove excess oral flora. Do not use mouthwash or toothpaste.

(2) If patient has difficulty producing sputum, running a hot shower and breathing in the water vapor usually helps to loosen the respiratory secretions.

(3) Take two to four deep breaths, and then give several deep coughs to produce a lower respiratory specimen. Hold the 50 ml centrifuge tube against the lower lip and release the sputum specimen into the tube. Attempt to collect 3-10 ml sputum for best quality. Less than 3 ml will not be able to detect TB if present, and will be rejected.

c) Do not add any preservatives to tube. Screw cap on tight, wrap Parafilm around cap, and place properly labeled specimen container in zip-lock plastic bag with absorbent material. Ensure request form is completed and AFB/Tuberculosis Culture is checked. (Please submit one specimen container per bag and 1 requisition per specimen.

d) Specimens should be sent on the same day as collection, shipped cold on an ice pack. Hold in refrigerator if not sent immediately.

#### **Sputum collection schedule:**

1. At baseline, patients suspected of pulmonary tuberculosis should have a minimum of three consecutive sputum specimens collected 8 - 24 hours apart; at least one should be an early morning specimen. Consideration should be given to supervising the collection of at least one of these initial specimens.

2. Patients who had positive AFB smears at the time of diagnosis, collect one sputum specimen per week until three consecutive sputum specimens are AFB smear negative (AFB smear conversion).

3. Once AFB smear conversion has been achieved, collect, at a minimum, one sputum specimen per month until two consecutive specimens are negative on culture.

4. Monthly sputum specimens must be collected on MDR-TB (isoniazid and rifampin resistant) cases throughout the course of treatment.

5. Please call the TB Control Program at (505) 827-2471 with any questions.

#### **Specimen: Gastric Lavage**

Specimen must be neutralized prior to sending, notify SLD contact prior to collection.

#### **Specimen: Stool/Feces**

Notify SLD contact prior to submission.

#### **Specimen: Urine**

**Collection:** Once daily, first thing after waking. Consecutive collections should occur for 3 – 5 days and collections must be greater than 24 hours apart. Avoid pooled, mid-stream, or 24 hour collections. Screw cap on tight, wrap Parafilm around cap, and place properly labeled specimen tube in plastic zip-lock bag with absorbent material. Can collect in 50 mL conical tube or collection cup.

#### **Specimen: Tissue**

**Collection:** Collect aseptically, and submit in 5 ml sterile saline.

#### **Specimen: CSF or other sterile body fluids**

**Collection:** Collect aseptically in sterile screw cap tube. Submit 5-50 ml to increase the chance of detecting mycobacterial organisms.

#### **Specimens: Blood**

SLD does not perform AFB culture on blood specimens.

**Normal Value:** No Acid Fast Bacilli isolated.

**Analysis Requested:** AFB/Tuberculosis, culture.

**Estimated Turnaround Time:** 6-8 weeks. Results of AFB direct smears and direct PCR on new patients are reported within 1 working day of specimen receipt unless otherwise notified. Please note that identification and susceptibility (if needed) of *M. tuberculosis* complex (MTBC) is free of charge. Each specimen must be linked to a corresponding request form by unique identifying information.

**Handling:** Refrigerate samples after collection.

**Shipping:** Courier service (State subsidized DMC courier, or other courier service). Ship samples as they are collected. Do not batch them. Send cold on an ice pack. Do not freeze.

**Special requirements:** Use sterile 50 ml centrifuge tubes, supplied by SLD in TB specimen collection kits. Do not use collection cups, as they tend to leak. For each specimen, submit a legible, completed requisition form.

**Rejection criteria:** Broken or leaking tubes, specimen in preservative (formalin), inadequate specimen volume (less than 3 ml for sputum, or less than 0.5 ml specimen in container for other sources, specimens received on a swab, in a swab transport device, or in gauze, paper towel, etc., Sputum specimens collected less than 8 hours apart, urine specimens collected less than 1 day (24hrs) apart, or specimens > 7 days old upon receipt. Specimens received at improper temperature or with evidence of improper handling or packaging will be rejected.

**Contact:** GM Supervisor (505-383-9128), or TB Line Supervisor (505-383-9126).

### AFB/Mycobacterium – Real-Time PCR

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**Description:** Amplification of *Mycobacterium* DNA by real-time PCR, includes differentiation of MTBC and NTM.

**Specimen:** Bronchial wash/lavage, cerebral spinal fluid, lymph node aspirate, fluid from a wound or sterile body fluid, peritoneal fluid, pleural fluid, sputum, tissue, urine, on new patients, or on cultures submitted to the General Microbiology section for AFB/Tuberculosis testing.

**Normal Value:** No *Mycobacterium* spp. DNA detected

**Analysis Requested:** See AFB/Tuberculosis above.

**Estimated Turnaround Time:** 1 working day from receipt of sample from General Microbiology section.

**Collection:** See AFB/Tuberculosis above.

**Handling:** See AFB/Tuberculosis above.

**Shipping:** See AFB/Tuberculosis above.

**Special Requirements:** See AFB/Tuberculosis above.

**Rejection criteria:** See AFB/Tuberculosis above.

**Contact:** Molecular Biology Supervisor (505-383-9130), MB Line Supervisor (505-383-9160).

### AFB susceptibility for *Mycobacterium tuberculosis* (TB) complex

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**Description:** Susceptibility testing of first isolates of *Mycobacterium tuberculosis* complex and/or on additional isolates if development of drug resistance is suspected. Drugs tested include isoniazid, ethambutol, rifampin, and pyrazinamide. Please contact TB section regarding further susceptibility testing. First and second line drug susceptibilities are performed by the California Department of Public Health. Molecular Detection of Drug Resistance (MDDR) is performed by the California Department of Public Health or CDC at request of the TB control program and prior approval by the CDC.

**Specimen:** Isolate

**Normal Value:** Susceptible.

**Analysis Requested:** This test is automatically included with any *M. tuberculosis* complex isolated and identified at SLD; see AFB culture. For previously isolated AFB, see AFB/Tuberculosis, ID isolate

**Estimated Turnaround Time:** Variable, generally 1-3 weeks

**Collection:** N/A

**Handling:** N/A

**Shipping:** Send isolate room temperature, or cold on an ice pack.

**Special Requirements:** Notify GM TB section contact prior to sending.

**Rejection criteria:** See General Rejection Criteria

**Contact:** General Microbiology Supervisor (505-383-9128) or TB Line Supervisor (505-383-9126).

## Arboviruses

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### Contact:

Please contact Virology/Serology Supervisor (505-383-9124) or VS Line Supervisor (505-383-9125) for these tests.

- St. Louis, Eastern
- Venezuelan
- Western Equine encephalitis
- California encephalitis
- Colorado tick fever
- Dengue types 1–4 serology (for PCR see below)
- West Nile
- Other

## Arbovirus, Real-Time RT-PCR

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**Description:** EUA Triplex Real-Time RT-PCR detects Zika virus in amniotic fluid; chikungunya, dengue and Zika viruses in serum, CSF, and urine; Triplex PCRs that detect dengue virus RNA will reflex to the Dengue Real-Time RT-PCR for determination of serotype (see Dengue below). Please note that if only dengue or chikungunya are suspected, the Triplex testing will not be approved by state epidemiologists (EUA requirement). See **Dengue, real-time PCR**, below.

**Specimen:** Serum sample from venous whole blood collected in red-top or serum separator (red-marble or tiger-top) tube. Cerebrospinal fluid; Urine; Amniotic Fluid.

**Normal Value:** No chikungunya, dengue or Zika RNA detected by real-time RT-PCR.

**Analysis Requested:** Arbovirus ID

**Estimated Turnaround Time:** 4 working days from receipt of sample.

**Collection:** For serum, collect specimen by drawing blood into a serum separator tube. After allowing clot to form, centrifuge specimen and transfer serum to a sterile container to avoid hemolysis. At least 1.0 mL\* of serum or CSF is required for testing.

Transfer serum or CSF to a plastic tube measuring approximately 50 mm tall and 15 mm in diameter (e.g., 1.8 mL cryotube or 2.0 mL microtube) with screw cap and secure with a small piece of thermoplastic, self-sealing lab film. For other fluids (urine, amniotic fluid), provide 0.5–1.0 mL of the specimen in a sterile screw capped vial secured with a small piece of thermoplastic, self-sealing lab film. Please ensure a tight seal as leaking specimens cannot be accepted.

**Handling:** Submit refrigerated sample as soon as possible after collection. If shipment will be delayed, specimen must be frozen at -20°C (-4°F) and shipped on dry ice.

**Shipping:** Ship refrigerated specimens with -20°C (-4°F) cold packs. If the specimen is frozen, it must be shipped with dry ice to ensure that the specimen does not thaw.

**Special requirements:** Must be shipped on dry ice if specimen is frozen. **If Zika testing is not needed**, but only dengue or chikungunya, please refer to **Dengue, real-time PCR** assay below.

**Rejection criteria:** Plasma or whole blood. Sample does not arrive frozen at SLD. Urine, CSF and/or amniotic fluid is received WITHOUT a serum sample for that patient.

**Contact: Epidemiology and Response Division (505-827-0006) must be contacted and testing approved BEFORE sending any specimen to SLD.** Please contact Molecular Biology Supervisor (505-383-9130), MB Line Supervisor (505-383-9160) OR, Virology/Serology Supervisor (505-383-9124) or VS Line Supervisor (505-383-9125).

### Arbovirus, Zika IgM Serology

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**Description:** IgM antibody capture enzyme-linked immunosorbent assay for the presumptive detection of antibodies to Zika virus in persons meeting the CDC's epidemiological criteria for testing.

**Specimens:** 2.5ml serum (5ml preferred)

**Normal Value:** Negative.

**Analysis Requested:** Arbovirus ID, including Zika. (Check "Other" box in serology section of SLD submission form and write in "Arbovirus ID, including Zika" if not already entered.

**Estimated Turnaround Time:** 5 working days after receipt of specimen.

**Collection:** Collect specimen by drawing blood into a serum separator tube. After allowing clot to form, centrifuge specimen and transfer serum to a sterile container to avoid hemolysis.

**Handling:** Submit refrigerated serum as soon as possible after collection. If shipment will be delayed, specimen must be frozen at -20°C (-4°F) and shipped on dry ice.

**Shipping:** Ship refrigerated specimens with -20°C (-4°F) cold packs. If the specimen is frozen, it must be shipped with dry ice to ensure that the specimen does not thaw.

**Special requirements:** Must be shipped on dry ice if specimen is frozen.

**Rejection criteria:** Whole blood samples. Samples received unrefrigerated will also be rejected.

**Contact: Epidemiology and Response Division (505-827-0006) must be contacted, and testing approved BEFORE sending any specimen to SLD.** Contact Virology/Serology Supervisor (505-383-9124) or VS Line Supervisor (505-383-9125) for additional instructions, if needed.

### Bacillus anthracis, culture

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**Description:** Culture for *B. anthracis* or rule out *B. anthracis* from submitted isolate or clinical specimen. Confirmation by real-time PCR, see *Bacillus anthracis*, real-time PCR confirmation below

**Specimen:** Blood, sputum, wound, stool, or isolated *Bacillus*. Refer to American Society for Microbiology Sentinel Level Clinical Microbiology Guidelines at <https://asm.org/Articles/Policy/Laboratory-Response-Network-LRN-Sentinel-Level-C>

**Normal Value:** No *Bacillus anthracis* isolated by culture.

**Analysis Requested:** *B. anthracis*

**Estimated Turnaround Time:** 3-7 working days.

**Collection:** Send clinical specimen or isolate in appropriate medium.

**Handling:** Follow manufacturer instructions on specimen transport devices. Viable isolates may be refrigerated or room temperature.

**Shipping:** Refrigerated, on an ice pack or room temperature.

**Special Requirements:** Notify ERD and GM prior to sending

**Rejection criteria:** See General Rejection Criteria.

**Contact:** GM Supervisor (505-383-9128), or GM Line Supervisor (505-383-9127)

## Bacillus anthracis, real-time PCR confirmation

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**Description:** DNA amplification.

**Specimen:** Culture/Raw sample from General Microbiology/ Environmental Microbiology Sections.

**Normal Value:** *B. anthracis* DNA detected by real-time PCR.

**Analysis Requested:** See culture above.

**Estimated Turnaround Time:** 1 day.

**Collection:** See criteria for culture submission above.

**Handling:** See criteria for culture submission above.

**Shipping:** See criteria for culture submission above.

**Special Requirements:** See criteria for culture submission above.

**Rejection criteria:** See criteria for culture submission above.

**Contact:** Molecular Biology Supervisor (505-383-9130), MB Line Supervisor (505-383-9160).

## Bacillus cereus, culture

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**Description:** Isolation and identification of *Bacillus cereus* from stool or vomitus as requested through ERD. Toxin and/or other testing sent out to CDC.

**Specimen:** Stool or vomitus

**Normal Value:** No *Bacillus cereus* isolated by culture.

**Analysis Requested:** *B. cereus*/*S. aureus* (please indicate if *B. cereus* only is needed).

**Estimated Turnaround Time:** 3-7 working days; if send out, turnaround time N/A

**Collection:** Place freshly collected stool in enteric transport kit, such as Cary-Blair (see enteric culture for collection instructions). Use a clean, sealable container for vomitus.

**Handling:** Refrigerate deliver to lab ASAP.

**Shipping:** Ship cold, on an ice pack.

**Special Requirements:** Stool in enteric transport medium must be received at SLD within 48 hours of collection. Vomitus must be received within 24 hours of collection.

**Rejection criteria:** See General Rejection Criteria, stool sample in enteric transport received beyond 48 hours of collection, vomitus received beyond 24 hours of collection.

**Contact:** GM Supervisor, (505-383-9128), or GM Line Supervisor (505-383-9127).

## Bordetella genus, real-time PCR

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**Description:** Amplification of Bordetella DNA. If Bordetella DNA is detected, the Bordetella species real-time PCR is performed to speciate the Bordetella. This assay includes targets for Bordetella genes and a human housekeeping gene. PCR of the housekeeping gene is used for quality control of the specimen. When insufficient human cells are collected on the swab it reflects a poor collection technique and may result in a false negative result for Bordetella. Thus results are inconclusive when the housekeeping gene is out of the expected range and the Bordetella genes are also negative.

**Specimen:** Refrigerated/frozen nasopharyngeal (NP) swab.

**Normal Value:** No Bordetella DNA detected.

**Analysis Requested:** Bordetella genus, real-time PCR.

**Estimated Turnaround Time:** Negatives/Positives = 4 working days; Inconclusives = 6 working days.

**Collection:** Collection kits are available from SLD that contain a nasopharyngeal swab made of rayon, Dacron® or flocked Nylon NP swab. After inoculating swab, as per kit instructions, return the swab to the plastic tube in which the swab was provided.

**Handling:** Ambient: 4 hours; Refrigerated: 2 days; Frozen: 2 weeks.

**Shipping:** Ship with -20°C (-4°F) cold packs and following DOT/IATA regulations.

**Special requirements:** N/A

**Rejection criteria:**

- Calcium-alginate swabs (shown to inhibit PCR).
- Respiratory aspirates or Nasal swabs.
- Swabs in transport medium.

**Contact:** Molecular Biology Supervisor (505-383-9130), MB Line Supervisor (505-383-9160).

### **Bordetella species, real-time PCR**

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**Description:** Amplification of Bordetella species DNA.

**Specimen:** Extracted DNA sample from Bordetella Genus real-time PCR (see above). Submitter does not need to submit an additional swab for this test if one was submitted for Bordetella genus testing.

**Normal Value:** N/A. The normal value is one of the species that can be speciated using this assay.

**Analysis Requested:** See Bordetella genus, real-time PCR

**Estimated Turnaround Time:** 4 working days.

**Collection:** See Bordetella genus, real-time PCR.

**Handling:** See Bordetella genus, real-time PCR.

**Shipping:** See Bordetella genus, real-time PCR.

**Special requirements:** N/A

**Rejection criteria:** See Bordetella genus, real-time PCR.

**Contact:** Molecular Biology Supervisor (505-383-9130), MB Line Supervisor (505-383-9160).

### **Borrelia burgdorferi, serology**

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**Contact:** Please contact Virology/Serology Supervisor (505-383-9124) or VS line Supervisor (505-383-9125) for this test.

### **Brucella abortus, serology**

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**Description:** Direct agglutination procedure for detection of antibody to *B. abortus* in serum.

**Specimen:** Send 2 mL acute and convalescent serum.

**Normal value:** <1:20 dilution.

**Analysis Requested:** Brucella antibody.

**Estimated Turnaround Time:** 5 days

**Collection:** Collect specimen by drawing blood into a double gel serum separator tube that does not contain preservatives. After allowing clot to form, centrifuge specimen, transfer serum to a sterile container and freeze at -20°C (-4°F).

**Handling:** Specimen must be frozen at -20°C (-4°F) and shipped on dry ice.

**Shipping:** Specimen must be shipped with dry ice to ensure that the specimen does not thaw.

**Special requirements:** Must be shipped on dry ice since specimen is frozen. Must be approved by the ERD. Results reported to ERD only.

**Rejection criteria:** Samples not frozen will be rejected. Samples received on the clot will also be rejected.

**Contact:** Virology/Serology Supervisor (505-383-9124) or VS Line Supervisor (505-383-9125).

## Brucella, culture

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**Description:** Culture for *Brucella* sp. from clinical specimen, or identification of *Brucella* sp. from submitted isolate.

**Specimen:** Blood, tissue, bone marrow, other body fluid or culture isolate. Refer to American Society for Microbiology Sentinel Level Clinical Microbiology Guidelines at <https://asm.org/Articles/Policy/Laboratory-Response-Network-LRN-Sentinel-Level-C>

**Normal Value:** No *Brucella* species isolated by culture.

**Analysis Requested:** ID of Bacteria, Gram negative: \_\_\_\_\_ (please write “*Brucella*” in space provided).

**Estimated Turnaround Time:** 1- 5 weeks. May require send-out. If send-out then turnaround time N/A.

**Collection:** Clinical specimen in appropriate transport media, isolate on culture medium.

**Handling:** N/A

**Shipping:** Clinical specimens should be collected in appropriate transport media. Isolate may be shipped cold or at room temperature.

**Special Requirements:** Notify ERD, and General Microbiology prior to sending.

**Rejection criteria:** See General Rejection Criteria. Uninoculated or obviously compromised specimen will be rejected.

**Contact:** GM Supervisor (505-383-9128), or GM Line Supervisor (505-383-9127).

## Burkholderia mallei or Burkholderia pseudomallei culture

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**Description:** Culture for *Burkholderia mallei* or *B.pseudomallei* from clinical specimen, or confirm *Burkholderia mallei* or *B.pseudomallei* from submitted isolate.

**Specimen:** Blood, wound culture, tissue, bone marrow, urine, sputum (or lower respiratory specimen), or culture isolate. Refer to American Society for Microbiology Sentinel Level Clinical Microbiology Guidelines at <https://asm.org/Articles/Policy/Laboratory-Response-Network-LRN-Sentinel-Level-C>

**Normal Value:** No *Burkholderia mallei* or *pseudomallei* detected.

**Analysis Requested:** ID of Bacteria, Gram negative: \_\_\_\_\_ (please write “*Burkholderia mallei* or *pseudomallei*” in space provided).

**Estimated Turnaround Time:** 1- 5 weeks. May require send-out. If send-out then turnaround time N/A.

**Collection:** Clinical specimen in appropriate transport media, isolate on culture medium.

**Handling:** N/A

**Shipping:** Clinical specimens should be collected in appropriate transport media. Isolate may be shipped cold or room temperature.

**Special Requirements:** Notify ERD, and General Microbiology prior to sending.

**Rejection criteria:** See General Rejection Criteria. Uninoculated or obviously compromised specimen will be rejected.

**Contact:** GM Supervisor (505-383-9128), or GM Line Supervisor (505-383-9127).

## Campylobacter, culture

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**Description:** Isolation of *Campylobacter* from feces and confirmation testing of *Campylobacter* isolates by culture and speciation by MALDI-TOF. May include sendout to CDC

**Specimen:** Send feces/stool in Enteric Transport Kit to arrive at the lab < 48 hrs from collection time for diagnosis/confirmation. Specimen can be room temp or refrigerated; preferably refrigerated on an ice pack. Send isolate on campy plate in campy gas pack or in liquid media such as Campy-thio or an aliquot of Enteric Transport Media (if sending isolate in liquid media please write: “bacterial isolate in (type of media)” at bottom of request form).

**Analysis Requested:** *Campylobacter* species \_\_\_\_\_.

**Normal Value:** No *Campylobacter* species isolated by culture.

**Estimated Turnaround Time:** 1-3 weeks.

**Collection:** See enteric culture for instructions on stool sample collection.

**Handling:** If performing non-culture based method, please ensure stool specimen with known or suspect *Campylobacter* is quickly inoculated to enteric transport and refrigerated until shipping. Send ASAP.

**Shipping:** Ship cold on an ice pack. Isolates may be sent at room temperature or cold, on an icepack. If possible, send isolate in a campy gas (microaerophilic) pouch.

**Special Requirements:** Please write your laboratory result, e.g.; "Campy EIA +" next to *Campylobacter* species \_\_\_\_ on clinical request form.

**Rejection criteria:** See General Rejection Criteria.

**Contact:** GM Supervisor (505-383-9128, or GM Line Supervisor (505-383-9127).

### **Candida auris, or Candida spp., non-albicans**

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**Description:** Identification of yeast isolate for hospital acquired infectious disease surveillance (HAI) for the Antimicrobial Resistant Laboratory Network (ARLN) identified by culture, MALDI TOF and/or sequencing.

**Special Requirements:** Notify ERD, and General Microbiology prior to sending.

See "Yeast/Mold Culture"

### **CRE Panel: CRE, Carbapenemase producing and/or Carbapenem Resistant Enterobacterales**

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**Description:** Enterobacterales resistant to any carbapenem (minimum inhibitory concentrations of  $\geq 4$   $\mu\text{g/ml}$  or zone diameter  $\leq 19\text{mm}$  for meropenem, imipenem, or doripenem or  $\geq 2$   $\mu\text{g/ml}$ ;  $\leq 18\text{mm}$  for ertapenem) or Enterobacterales that exhibit evidence of carbapenemase production demonstrated by a recognized test (e.g., CarbaNP, polymerase chain reaction (PCR) for KPC, NDM, VIM, IMP, OXA-48). Note: for bacteria that have intrinsic imipenem non-susceptibility (*Morganella*, *Proteus*, *Providencia* spp), resistance to carbapenems other than imipenem is required.

**Specimen:** Bacterial isolate and susceptibility report.

**Normal Value:** N/A

**Analysis Requested:** CRE Panel, please write in organism ID next to CRE: \_\_\_\_\_

**Estimated Turnaround Time:** 2 working days for mCIM (modified carbapenem inactivation method), 7 working days for CRE Panel unless further testing needed such as CDC/ARLN send out.

**Collection:** isolate on culture medium, such as BAP, MAC, TSA or nutrient agar.

**Handling:** Refrigerate immediately upon growth of isolate.

**Shipping:** Send cold, on an ice pack. Do not freeze.

**Special Requirements:** Carbapenemase producing Enterobacteriaceae plasmids are not stable. Keep isolate refrigerated until shipment. Avoid multiple sub-cultures. Please include copy of susceptibility report with submission.

**Rejection criteria:** See General Rejection Criteria. Uninoculated or obviously compromised specimen will be rejected.

**Contact:** GM Supervisor (505-383-9128), or GM Line Supervisor (505-383-9127).

### **CRE Panel, CRPa, Carbapenemase producing and/or Carbapenem Resistant Pseudomonas aeruginosa**

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**Description:** *Pseudomonas aeruginosa* resistant to any carbapenem (minimum inhibitory concentrations of  $\geq 8$   $\mu\text{g/ml}$  or zone diameter breakpoint  $\leq 15\text{mm}$  for meropenem, imipenem, or doripenem) and  $\text{MIC} \geq 16$   $\mu\text{g/ml}$  or zone diameter  $\leq 17$  mm (nonsusceptible) for cefepime or ceftazidime or *Pseudomonas aeruginosa* that exhibit evidence of carbapenemase

production demonstrated by a recognized test (e.g., mCIM positive, polymerase chain reaction (PCR) for KPC, NDM, VIM, IMP, OXA-48).

**Specimen:** Bacterial isolate and susceptibility report.

**Normal Value:** N/A

**Analysis Requested:** CRE Panel, check CRPa (*P. aeruginosa*)

**Estimated Turnaround Time:** 2 working days, for mCIM (modified carbapenem inactivation method), 7 working days for CRE Panel unless further testing is needed, such as CDC/ARLN send out

**Collection:** isolate on culture medium, such as BAP, MAC, TSA or nutrient agar.

**Handling:** Refrigerate immediately upon growth of isolate.

**Shipping:** Send cold, on an ice pack. Do not freeze.

**Special Requirements:** Carbapenemase producing plasmids are not stable. Keep isolate refrigerated until shipment. Avoid multiple sub-cultures. Please include copy of susceptibility report with submission.

**Rejection criteria:** See General Rejection Criteria. Uninoculated or obviously compromised specimen will be rejected.

**Contact:** GM Supervisor (505-383-9128), or GM Line Supervisor (505-383-9127).

### **CRE Panel: Carbapenemase producing and/or Carbapenem Resistant *Acinetobacter baumannii***

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**Description:** *Acinetobacter baumannii* resistant to any carbapenem (minimum inhibitory concentrations of  $\geq 8$   $\mu\text{g/ml}$  for imipenem, meropenem, or doripenem or zone diameter breakpoint  $\leq 14\text{mm}$  for meropenem and doripenem or  $\leq 18\text{mm}$  for imipenem) or *Acinetobacter baumannii* that are non-susceptible, or exhibit evidence of carbapenemase production demonstrated by a recognized PCR test.

**Specimen:** Bacterial isolate and susceptibility report.

**Normal Value:** N/A

**Analysis Requested:** CRE Panel, check Other: and write in *Acinetobacter baumannii*

**Estimated Turnaround Time:** 7 working days for CRE Panel unless further testing is needed, such as CDC/ARLN send out

**Collection:** isolate on culture medium, such as BAP, MAC, TSA or nutrient agar.

**Handling:** Refrigerate immediately upon growth of isolate.

**Shipping:** Send cold, on an ice pack. Do not freeze.

**Special Requirements:** Carbapenemase producing plasmids are not stable. Keep isolate refrigerated until shipment. Avoid multiple sub-cultures. Please include copy of susceptibility report with submission.

**Rejection criteria:** See General Rejection Criteria. Uninoculated or obviously compromised specimen will be rejected.

**Contact:** GM Supervisor (505-383-9128), or GM Line Supervisor (505-383-9127).

### **Chikungunya virus Real-Time RT-PCR**

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See Arbovirus, Real-Time RT-PCR if Zika virus testing is also required.

See below Dengue virus, Real-Time RT-PCR if only dengue/chikungunya testing is required.

### **Cholera**

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See “*Vibrio cholerae*”

### **Clostridium botulinum**

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Contact ERD and General Microbiology Section. This is a send out. GM Supervisor (505-383-9128), or GM Line Supervisor (505-383-9127).

### **Clostridium difficile**

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**Description:** Clinical specimens identified as positive for *C. difficile* for inclusion in a Centers for Disease Control collaborative study. Currently isolate submission to SLD is not required

**Contact:** GM Supervisor (505-383-9128), or GM Line Supervisor (505-383-9127).

### **Clostridium perfringens toxin**

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**Description:** Contact ERD and General Microbiology Section. Isolation and identification of *Clostridium perfringens* from stool as requested through ERD. Toxin and/or other testing sent out to CDC.

**Specimen:** Stool.

**Normal value:** N/A

**Analysis Requested:** Other: \_\_\_\_\_; please write *Clostridium perfringens* toxin in the space provided.

**Collection:** Stool specimen in clean container or enteric transport media, such as Cary Blair (see enteric culture for collection instructions).

**Handling:** Refrigerate and send ASAP.

**Shipping:** Send cold, on an ice pack.

**Special Requirements:** Contact ERD and the General Microbiology Section prior to sending.

**Rejection criteria:** See General Rejection Criteria.

**Contact:** GM Supervisor (505-383-9128), or GM Line Supervisor (505-383-9127).

### **Coccidioides**

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**Description:** Identification of fungal isolate by morphology and molecular sequencing (see Yeast/Mold Sequencing)

**Specimen:** Send isolate on tube media such as Sabourad Dextrose Agar, IMA or Mycosel.

**Normal Value:** No *Coccidioides immitis/posadasii* isolated.

**Analysis Requested:** Fungal/Yeast Reference isolate, Suspected ID, please write "Coccidioides"

**Estimated Turnaround Time:** 1-2 weeks.

**Collection:** Send isolate on culture media such as Sabourad Dextrose Agar, IMA or Mycosel.

**Handling:** N/A

**Shipping:** Send at room temperature.

**Special Requirements:** Please call General Microbiology prior to sending.

**Rejection criteria:** See General Rejection Criteria.

**Contact:** GM Supervisor (505-383-9128), or TB Line Supervisor (505-383-9126).

### **2019 Novel Coronavirus, real-time RT-PCR**

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**Description:** Amplification of SARS CoV RNA.

**Specimen:** Extracted RNA sample from clinical respiratory samples real-time PCR.

**Normal Value:** The normal value is No SARS CoV RNA detected.

**Analysis Requested:** 2019 Novel Coronavirus RT-PCR, real-time PCR

**Estimated Turnaround Time:** 2 working days.

**Collection:** See <https://www.nmhealth.org/publication/view/general/6386/>.

**Handling:** If the specimen can be delivered to the laboratory within 72 hours, refrigerate at 2-8°C (35 – 46°F); if not then freeze at -70°C (-94°F) or on dry ice. Do not freeze specimens at -20°C (-4°F), such as in a household type freezer.

**Shipping:** Pack the specimen in an insulated container with sufficient dry ice or ice packs to maintain a constant temperature throughout shipment. If the specimen is frozen, it must be shipped on dry ice and arrive frozen at the laboratory. If dry ice is used, the specimen must be placed in a sealed container to protect it from CO<sub>2</sub>. Deliver to the laboratory via the established overnight courier system, or as quickly as possible.

**Special Requirements:** Do not freeze specimens at -20°C (-4°F), such as in a household type freezer. Check Virus Isolation box on General Clinical Request form and check Influenza as agent suspected.

**Rejection criteria:** Refrigerated samples older than 72 hours and frozen specimens not received on dry ice will be rejected.

**Contact:** Virology/Serology Supervisor (505-383-9124) or VS Line Supervisor (505-383-9125).

## 2019 Novel Coronavirus, IgG Serology

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**Description:** A chemiluminescent microparticle immunoassay (CMIA) intended for the qualitative detection of IgG antibodies to SARS-CoV-2 in human serum

**Specimen:** 2ml of serum.

**Normal Value:** The normal value is SARS-CoV-2 IgG overall Negative.

**Analysis Requested:** Other (Specify):\_ 2019 Novel Coronavirus IgG Serology

**Estimated Turnaround Time:** 5 working days.

**Collection:** Collect specimen by drawing blood into a double gel serum separator tube that does not contain preservatives. After allowing clot to form, centrifuge specimen and transfer serum to a sterile container.

**Handling:** Refrigerated serum must be tested within 7 days of collection. If shipment will take longer, specimen must be frozen at -20°C (-4°F) and shipped on dry ice.

**Shipping:** Ship refrigerated specimens with -20°C (-4°F) cold packs. If the specimen is frozen, it must be shipped with dry ice to ensure that the specimen does not thaw.

**Special Requirements:** Must be shipped on dry ice if specimen is frozen.

**Rejection criteria:** Samples older than 7 days (and not frozen) will be rejected. Samples received on the clot will also be rejected.

**Contact:** Virology/Serology Supervisor (505-383-9124) or VS Line Supervisor (505-383-9125).

## Corynebacterium diphtheriae

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See "Diphtheria Culture"

## Cryptococcus

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See "Yeast/Mold Culture"

## Cytomegalovirus culture

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**Description:** Cell culture procedure for the isolation of cytomegalovirus.

**Specimen:** Urine, bronchoalveolar lavage (BAL), throat swab or wash, saliva, sputum, aspirates, CSF, tissue, other.

**Normal Value:** No virus isolated.

**Analysis Requested:** Virus Isolation. Agent suspected: CMV.

**Estimated Turnaround Time:** 21-30 working days.

**Collection:** See “Virus Isolation” for collection guidelines.

**Handling:** Refrigerate specimen at 2-8°C (35.6 – 46.4°F). The specimen must be delivered to the laboratory as soon as possible, and within 72 hours of collection. Specimens which are to be tested specifically for CMV should not be frozen, as this may decrease viral infectivity.

**Shipping:** Pack the specimen in an insulated container with sufficient ice packs to maintain a constant temperature throughout shipment. Deliver to the laboratory via the established overnight courier system, or as quickly as possible.

**Special Requirements:** It is best not to freeze specimen, as this may decrease viral infectivity.

**Rejection criteria:** Samples older than 72 hours (and not frozen) will be rejected.

**Contact:** Virology/Serology Supervisor (505-383-9124) or VS Line Supervisor (505-383-9125).

### Dengue virus, Chikungunya virus Real-Time RT-PCRs

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**Description:** This dengue/chikungunya assay is performed on samples for which Zika real-time PCR is **not** needed as the FDA EUA for Zika testing has set requirements. The dengue assay is also performed on samples tested by the Arbovirus real-time RT-PCR (see above) and for which dengue virus was detected. If Zika virus testing is also required, please see Arbovirus, Real-Time RT-PCR.

**Specimen:** A single sample is used for the amplification of both chikungunya virus RNA and dengue virus RNA. Serum sample from venous whole blood collected in red-top or serum separator (red-marble or tiger-top) tube.

**Normal Value:** No chikungunya RNA detected by real-time RT-PCR. No dengue RNA detected by real-time RT-PCR.

**Analysis Requested:** Dengue/Chikungunya PCR.

**Estimated Turnaround Time:** 2 working days from receipt of sample.

**Collection:** Follow serum collection devices’ manufacturer’s instructions for proper collection and separation.

**Handling:** If dry ice is not available, we recommend that separated serum is maintained on ice or in a refrigerator for NO LONGER THAN 2 hours before it is frozen at -20°C or below.

**Shipping:** Separated serum sample is frozen at -20°C and shipped on dry ice.

**Special Requirements:** Separated serum sample must be shipped on dry ice.

**Rejection criteria:** Plasma or whole blood. Sample does not arrive frozen at SLD.

**Contact:** Molecular Biology Supervisor (505-383-9130), MB Line Supervisor (505-383-9160).

### Diphtheria culture

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**Description:** Isolation and identification of *Corynebacterium diphtheriae* from culture, clinical specimens or isolated organism. Confirmation and toxin testing may be referred to the Centers for Disease Control and Prevention. Please call Epidemiology and Response Division, and General Microbiology prior to sending.

**Specimen:** Throat ,nasal, or wound swab in routine bacterial collection system. Pseudo-membrane in leak proof container with saline.

**Normal Value:** No *Corynebacterium diphtheriae* isolated by culture.

**Analysis Requested:** ID of Bacteria, Gram positive: \_\_\_\_\_; please write “Diphtheria” in the space provided.

**Estimated Turnaround Time:** 2 weeks. May require send out; turnaround time, N/A.

**Collection:** Routine bacterial collection swab, pseudomembrane in leak proof container with saline, or send isolated organism.

**Handling:** N/A

**Shipping:** Send clinical specimen cold, on an ice pack. Isolated organism may be sent cold or room temperature.

**Special Requirements:** Notify ERD and General Microbiology prior to sending.

**Rejection criteria:** See General Rejection Criteria.

**Contact:** GM Supervisor (505-383-9128), or GM Line Supervisor (505-383-9127).

### **Ebola virus Real-time RT-PCR**

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**Description:** Amplification of Ebola virus RNA. Requires pre-approval from ERD (call 505-827-0006). Results reported only to ERD.

**Specimen:** Two PLASTIC collection tubes with a minimum of 4ml each of whole blood. Tubes with EDTA are preferred, but tubes with CPS, Citrate, or with clot activator are also acceptable.

**Normal Value:** No Ebola RNA detected by real-time PCR.

**Analysis Requested:** Ebola PCR.

**Estimated Turnaround Time:** 6 hours from receipt of sample.

**Collection:** Collect whole blood. Do not centrifuge or open the tubes.

**Handling:** See Shipping below.

**Shipping:** Ship on freezer packs to maintain sample at 2-8C, or frozen on dry ice.

**Special Requirements:** Do not submit in glass or heparinized collection tubes.

**Rejection criteria:** Samples not received cold at SLD. Samples in glass tubes and serum will be rejected.

**Contact:** Molecular Biology Supervisor (505-383-9130), MB Line Supervisor (505-383-9160).

### **EIP Isolate**

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**Description:** New Mexico Emerging Infections Program (EIP) bacterial isolates requested for Epidemiological investigation as part of a CDC collaborative study.

**Specimen:** Isolates of *Streptococcus pneumoniae*, Group B Streptococcus, or Group A Streptococcus isolated from sterile sites including blood, CSF, pleural fluid, peritoneal fluid, joint, bone, muscle, and internal body sites. Send isolate on appropriate media. On Clinical Request form, EIP Isolate, check appropriate organism name for corresponding isolate sent. See separate instructions for *N. meningitidis* and *H. influenzae* typing.

**Normal Value:** N/A

**Analysis Requested:** EIP isolate.

**Estimated Turnaround Time:** N/A

**Collection:** N/A

**Handling:** N/A

**Shipping:** Ship bacterial isolates cold, on an ice pack or room temperature. Do not freeze.

**Special Requirements:** On General Clinical Request form, check "EIP Isolate Group A streptococcus, Group B streptococcus or S.pneumoniae isolate" See separate instructions for *N. meningitidis* and *H. influenzae* typing

**Rejection criteria:** See General Rejection Criteria.

**Contact:** GM Supervisor (505-383-9128), or GM Line Supervisor (505-383-9127).

### **E. coli O157:H7**

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**Description:** Isolation and identification of *E. coli* O157:H7 from clinical specimens, or identification and confirmation of bacterial isolate. Shiga toxin test included, see shiga toxin

**Specimen:** Isolated organism on appropriate media at room temp or stool specimen in enteric transport media or broth, such as MacConkey broth. Enteric transport media should be received within 48 hours of collection for diagnosis/confirmation.

**Normal Value:** No *E. coli* O157 isolated by culture.

**Analysis Requested:** *E. coli* O157:H7

**Estimated Turnaround Time:** 2 weeks after isolation.

**Collection:** See enteric culture for collection of stool sample.

**Handling:** N/A

**Shipping:** Enteric transport media should be shipped cold, on an ice pack and be received within 48 hours of collection. Bacterial isolates may be shipped cold or room temperature.

**Special Requirements:** N/A

**Rejection criteria:** See General Rejection Criteria. Non-viable or obviously compromised specimen will be rejected.

**Contact:** GM Supervisor (505-383-9128), or GM Line Supervisor (505-383-9127).

## Enteric culture

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**Description:** For outbreak investigation. Should have prior Epidemiology approval or authorization. If kits are available, Biofire GI panel will be performed. Culture reflexed if pathogenic bacteria detected. (please note, this does not include non-culturable EPEC, ETEC, or EAEC)

**Specimen:** Stool in Enteric Transport Media, such as Cary-Blair. Stool specimens should be collected in the acute stage of disease before initiation of treatment. Must be received within 48 hrs of collection; Call GM first (505) 383-9128 or (505) 383-9127.

**Normal Value:** Not detected (each target organism listed)

**Analysis Requested:** Bacteriology; check enteric organisms suspected as directed by Epidemiology. Use Other, write in "Biofire" if directed by Epidemiology. Please note suspected *Staph aureus* or *Bacillus cereus* is not included on Biofire enteric panel. See separate test.

**Estimated Turnaround Time:** 1-2 days Biofire; 5 working days -4 weeks for enteric bacterial pathogen culture.

**Collection:** See below.

### Stool specimen

Enteric Transport Medium is available from the SLD kit preparation department (Shipping and Transport). Patient should pass stool into a clean dry pan, newspaper, or special container mounted to the toilet for this purpose. With the scoop provided in the lid of the container, transfer enough of the specimen into enteric transport medium to reach the fill-line (approximately a walnut sized portion, or 5ml diarrheal stool). Do not fill vial above the indicator line. Overfilling results in improper specimen preservation. Do not use toilet paper to collect stool because it may be impregnated with barium salts, which are inhibitory to some fecal pathogens. The specimen should not be mixed with urine, but semisolid to solid feces can be scooped out of urine if necessary.

### Rectal swab

**Not** acceptable for Biofire screen, but can be used for individual culture tests. Can be used for patients (usually children) unable to pass a specimen. Pass the tip of a sterile swab approximately one inch beyond the anal sphincter. Carefully rotate the swab to sample the anal crypts, and withdraw the swab. Feces should be visible on the swab for detection of diarrheal pathogens by culture only. Check specific analysis requested in General Microbiology section of clinical test request form. Send the swab in a transport media (enteric transport media can be used, or bacterial culturette).

**Handling:** Refrigerate stool in enteric transport media, and send to lab to ensure receipt in less than 48hrs from collection. Rectal swabs should be received in less than 24 hrs from collection.

**Shipping:** Ship cold, on an ice pack or room temperature.

**Special Requirements:** Notify GM prior to sending. Ensure stool in enteric transport media is collected and delivered to the lab, for receipt in less than 48 hours from collection, and rectal swabs are received in the lab within 24 hours of collection.

**Rejection criteria:** Stool not in transport medium received >2 hours from collection. Stool in enteric transport media received >48 hrs from collection, rectal swabs received >24 hrs from collection. frozen or grossly leaking specimen.

**Contact:** GM Supervisor (505-383-9128), or GM Line Supervisor (505-383-9127).

### Enterovirus, culture

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**Description:** Cell culture procedure for the isolation of enterovirus.

**Specimen:** CSF, skin lesions, stool, throat swab, nasopharyngeal swab, tissue, other.

**Normal Value:** No virus isolated.

**Analysis Requested:** Virus Isolation. Agent suspected: Enterovirus.

**Estimated Turnaround Time:** 14-30 working days.

**Collection:** See "Virus Isolation" for collection guidelines.

**Handling:** Place CSF or stool specimens into a sterile container without viral transport medium. Place swab or tissue into viral transport medium. Keep specimen refrigerated until shipment. The specimen must be delivered to the laboratory as soon as possible, and within 72 hours of collection.

**Shipping:** Pack the specimen in an insulated container with sufficient dry ice or ice packs to maintain a constant temperature throughout shipment. If the specimen is frozen, it must be shipped on dry ice and arrive frozen at the laboratory. If dry ice is used, the specimen must be placed in a sealed container to protect it from CO<sub>2</sub>. Deliver to the laboratory via the established overnight courier system, or as quickly as possible.

**Special Requirements:** N/A

**Rejection criteria:** Samples older than 72 hours that are not frozen will be rejected.

**Contact:** Virology/Serology Supervisor (505-383-9124) or VS Line Supervisor (505-383-9125).

### Francisella tularensis, culture

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See "Tularemia, culture"

### Francisella tularensis, serology

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See "Tularemia, serology"

### Fungal/Yeast Culture

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**Description:** Culture for yeast /mold from a clinical specimen. Identification by morphology and growth characteristics. May include MALDI TOF and/or molecular sequencing (see Yeast/Mold Sequencing) Grossly mixed clinical specimens are minimally identified.

**Specimen:** Send clinical material such as tissue, sputum, CSF, skin or nail scraping in sterile container. Consult with General Microbiology TB section for special fungal cultures such as Blastomyces, Coccidioides, Histoplasma, Paracoccidioides, Sporothrix (dimorphic fungi) or if Candida auris is suspected.

**Normal Value:** No yeast or fungus isolated.

**Analysis Requested:** Fungal/Yeast Culture

**Estimated Turnaround Time:** Variable based on colony growth characteristics. Generally 2-6 weeks.

**Collection:** Sputum- fresh, early morning specimens are optimal; sterile body fluids, exudates, abscess material, tissue, scabs, or crusty lesions- collect in sterile container (TB kit).

**Handling:** Refrigerate clinical fluid/sputum specimens and send as soon as possible. Culture isolates and dermatologic material may be stored at room temperature.

**Shipping:** Send clinical specimens cold, on an ice pack. Send isolates at room temperature.

**Special Requirements:** N/A

**Rejection criteria:** See General Rejection Criteria. Additionally, clinical specimens received in preservative such as formalin, or culture isolates that are non-viable, uninoculated or obviously compromised will be rejected.

**Contact:** General Microbiology Supervisor (505-383-9128) or TB Line Supervisor (505-383-9126).

## Fungal/Yeast Reference Isolate

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**Description:** Culture for yeast /mold or a fungal or yeast isolate referred for identification. Identification by morphology and growth characteristics. May include MALDI TOF and/or molecular sequencing (see Yeast/Mold Sequencing,).

**Specimen:** Send specimen isolate on media such as Sabourad Dextrose Agar slant. Consult with General Microbiology TB section for special fungal cultures such as Blastomyces, Coccidioides, Histoplasma, Paracoccidioides, Sporothrix (dimorphic fungi) or if Candida auris is suspected.

**Normal Value:** No yeast or fungus isolated.

**Analysis Requested:** Fungal/Yeast Reference Isolate, Suspected ID: please include.

**Estimated Turnaround Time:** Variable based on colony growth characteristics. Generally 2-6 weeks.

**Collection:** Culture isolates on appropriate media.

**Handling:** Culture isolates and dermatologic material may be refrigerated or stored at room temperature.

**Shipping:** Send isolates at room temperature or refrigerated, on an ice pack.

**Special Requirements:** N/A

**Rejection criteria:** See General Rejection Criteria. Additionally, clinical specimens received in preservative such as formalin, or culture isolates that are non-viable, uninoculated or obviously compromised will be rejected.

**Contact:** General Microbiology Supervisor (505-383-9128) or TB Line Supervisor (505-383-9126).

## GC culture

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**Description:** Culture procedure for the isolation and identification of *Neisseria gonorrhoeae* limited to GISP participants.

**Specimen:** Male urethral exudate or swab, inoculated to Modified Thayer Martin (MTM) agar /JEMBEC plate or isolate submitted on appropriate culture media.

**Normal Value:** *Neisseria gonorrhoeae* not isolated by culture.

**Analysis Requested:** GC culture.

**Estimated Turnaround Time:** N/A

**Specimen:** Male urethral swab.

**Collection:** Use sterile thin Dacron, rayon, or non-toxic cotton swab. Insert swab into the urethra 2cm and gently rotate swab. If exudate can be expressed, this can be sampled directly. Inoculate swab directly on MTM/JEMBEC plate by rolling in a "z" pattern to sufficiently transfer the specimen. Remove a CO<sub>2</sub> tablet from the foil pouch and place in the well (may use forceps). Do not add water to the well. Secure the top of the plate tightly and label the plate with patient information. Place the plate in the plastic bag provided, seal securely, and incubate in an inverted position (this will prevent condensation from dripping on the agar). MTM and JEMBEC product information is available at [www.remel.com](http://www.remel.com), product code R10310.

**Handling:** Remove plate from incubator and send with completed request form to SLD. Do not open the plastic bag as this provides environmental maintenance to support the growth of GC. May incubate overnight and send the following day.

**Shipping:** Ambient temperature. Please do not refrigerate or freeze plate.

**Rejection criteria:** If instructions on correct use of JEMBEC have not been followed or if the plate is expired, un-inoculated, or shows signs of being refrigerated, frozen or desiccated.

**Contact:** GM Supervisor (505-383-9128), or GM Line Supervisor (505-383-9127).

## H. influenzae typing

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**Description:** Agglutination test with type-specific antisera for serogroups of *Haemophilus influenzae* from sterile sites, such as Blood or CSF. Includes participation in EIP project. Non-typeable isolates are confirmed

**Specimen:** Send isolate on appropriate plate or tube medium (sealed chocolate agar plate preferred).

**Normal Value:** N/A

**Analysis Requested:** *H. influenzae* typing.

**Estimated Turnaround Time:** N/A ; serotype result is provided by verbal notification or secure email within 2 working days of receipt..

**Collection:** N/A

**Handling:** N/A

**Shipping:** Ship ambient/room temperature or on an ice pack.

**Special Requirements:** N/A

**Rejection criteria:** See General Rejection Criteria. Non-viable, un-inoculated, or obviously compromised (such as desiccated) isolate will be rejected.

**Contact:** GM Supervisor (505-383-9128), or GM Line Supervisor (505-383-9127).

## Hepatitis A Diagnosis (IgM only)

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**Description:** Chemiluminescent immunoassay for the detection of IgM antibody to Hepatitis A (anti-HAV-IgM).

**Specimen:** 5 ml serum.

**Normal Value:** Nonreactive.

**Analysis Requested:** Hepatitis A Diagnosis (IgM only).

**Estimated Turnaround Time:** 5 working days. Emergency testing available through ERD (call 505-827-0006).

**Collection:** Collect specimen by drawing blood into a double gel serum separator tube that does not contain preservatives. After allowing clot to form, centrifuge specimen and transfer serum to a sterile container.

**Handling:** Refrigerated serum must be tested within 7 days of collection. If shipment will take longer, specimen must be frozen at -20°C (-4°F) and shipped on dry ice.

**Shipping:** Ship refrigerated specimens with -20°C (-4°F) cold packs. If the specimen is frozen, it must be shipped with dry ice to ensure that the specimen does not thaw.

**Special requirements:** Must be shipped on dry ice if specimen is frozen.

**Rejection criteria:** Samples older than 7 days (and not frozen) will be rejected. Samples received on the clot will also be rejected.

**Contact:** Virology/Serology Supervisor (505-383-9124) or VS Line Supervisor (505-383-9125).

## Hepatitis A Immune Status

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**Description:** Chemiluminescent immunoassay for detection of IgG antibody to Hepatitis A.

**Specimen:** 5 ml serum.

**Normal Value:** Nonreactive.

**Analysis Requested:** Hepatitis A Immune Status.

**Estimated Turnaround Time:** 5 working days.

**Collection:** Collect specimen by drawing blood into a serum separator tube that does not contain preservatives. After allowing clot to form, centrifuge specimen and transfer serum to a sterile container.

**Handling:** Refrigerated serum must be tested within 8 days of collection. If shipment will take longer, specimen must be frozen at -20°C (-4°F) and shipped on dry ice.

**Shipping:** Ship refrigerated specimens with -20°C (-4°F) cold packs. If the specimen is frozen, it must be shipped with dry ice to ensure that the specimen does not thaw.

**Special requirements:** Must be shipped on dry ice if specimen is frozen.

**Rejection criteria:** Samples older than 8 days (and not frozen) will be rejected. Samples received on the clot will also be rejected.

**Contact:** Virology/Serology Supervisor (505-383-9124) or VS Line Supervisor (505-383-9125).

### Hepatitis B Pre-Vaccination

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**Description:** Chemiluminescent immunoassays for the detection of antibody to Hepatitis B core antigen (anti-HBc), and antibody to Hepatitis B surface antigen (anti-HBs).

**Specimen:** 5 ml serum.

**Normal Value:** Nonreactive.

**Analysis Requested:** Hepatitis B Pre-Vaccination.

**Estimated Turnaround Time:** 5 working days.

**Collection:** Collect specimen by drawing blood into a serum separator tube that does not contain preservatives. After allowing clot to form, centrifuge specimen, transfer serum to a sterile container.

**Handling:** Refrigerated serum must be tested within 7 days of collection. If shipment will take longer, specimen must be frozen at -20°C (-4°F) and shipped on dry ice.

**Shipping:** Ship refrigerated specimens with -20°C (-4°F) cold packs. If the specimen is frozen, it must be shipped with dry ice to ensure that the specimen does not thaw.

**Special requirements:** Must be shipped on dry ice if specimen is frozen.

**Rejection criteria:** Samples older than 7 days (and not frozen) will be rejected. Samples received on the clot will also be rejected.

**Contact:** Virology/Serology Supervisor (505-383-9124) or VS Line Supervisor (505-383-9125).

### Hepatitis B Prenatal Screen

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**Description:** Chemiluminescent immunoassay for the detection of Hepatitis B surface antigen (HBsAg).

**Reflex testing:** If HBsAg positive, assays for the detection total antibody to Hepatitis B core antigen (anti-HBc) and IgM antibody to Hepatitis B core antigen (anti-HBc IgM) are run.

**Specimen:** 5 ml serum.

**Normal Value:** Nonreactive.

**Analysis Requested:** Hepatitis B Pre-natal Screen.

**Estimated Turnaround Time:** 5 working days

**Collection:** Collect specimen by drawing blood into a double gel serum separator tube that does not contain preservatives. After allowing clot to form, centrifuge specimen and transfer serum to a sterile container.

**Handling:** Refrigerated serum must be tested within 6 days of collection. If shipment will take longer, specimen must be frozen at -20°C (-4°F) and shipped on dry ice.

**Shipping:** Ship refrigerated specimens with -20°C (-4°F) cold packs. If the specimen is frozen, it must be shipped with dry ice to ensure that the specimen does not thaw.

**Special requirements:** Must be shipped on dry ice if specimen is frozen.

**Rejection criteria:** Samples older than 6 days (and not frozen) will be rejected. Samples received on the clot will also be rejected.

**Contact:** Virology/Serology Supervisor (505-383-9124) or Line Supervisor (505-383-9125).

### **Hepatitis B Post-Vaccination**

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**Description:** Chemiluminescent immunoassay for establishing immune status to Hepatitis B after immunization. This test is for the detection of antibody to Hepatitis B surface antigen (anti-HBs).

**Specimen:** 5 ml serum.

**Normal Value:** Reactive.

**Analysis Requested:** Hepatitis B Post-Vaccination.

**Estimated Turnaround Time:** 5 working days.

**Collection:** Collect specimen by drawing blood into a double gel serum separator tube that does not contain preservatives. After allowing clot to form, centrifuge specimen and transfer serum to a sterile container.

**Handling:** Refrigerated serum must be tested within 7 days of collection. If shipment will take longer, specimen must be frozen at -20°C (-4°F) and shipped on dry ice.

**Shipping:** Ship refrigerated specimens with -20°C (-4°F) cold packs. If the specimen is frozen, it must be shipped with dry ice to ensure that the specimen does not thaw.

**Special requirements:** Must be shipped on dry ice if specimen is frozen.

**Rejection criteria:** Samples older than 7 days (and not frozen) will be rejected. Samples received on the clot will also be rejected.

**Contact:** Virology/Serology Supervisor (505-383-9124) or VS Line Supervisor (505-383-9125).

### **Hepatitis B High Risk (Contact to HBV positive)**

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**Description:** Chemiluminescent immunoassays for the detection of Hepatitis B surface antigen (HBsAg), antibody to Hepatitis B core Ag (anti-HBc) and antibody to Hepatitis B surface antigen (anti-HBs).

Reflex testing: EIA for the detection of IgM antibody to Hepatitis B core antigen (anti-HBc IgM) is run if:

- HBsAg negative, total anti-HBc positive and total anti-HBs negative
- HBsAg positive, total anti-HBc positive and total anti-HBs negative

Reflex testing will NOT be run if total anti-HBs is positive, unless specifically requested by submitter.

**Specimen:** 5 ml serum.

**Normal Value:** Nonreactive.

**Analysis Requested:** Hepatitis B High Risk (Contact to HBV positive)

**Estimated Turnaround Time:** 5 working days.

**Collection:** Collect specimen by drawing blood into a double gel serum separator tube that does not contain preservatives. After allowing clot to form, centrifuge specimen and transfer serum to a sterile container.

**Handling:** Refrigerated serum must be tested within 6 days of collection. If shipment will take longer, specimen must be frozen at -20°C (-4°F) and shipped on dry ice.

**Shipping:** Ship refrigerated specimens with -20°C (-4°F) cold packs. If the specimen is frozen, it must be shipped with dry ice to ensure that the specimen does not thaw.

**Special requirements:** Must be shipped on dry ice if specimen is frozen.

**Rejection criteria:** If the sample is more than 6 days old and not frozen, the sample will be rejected for all tests. Samples received on the clot will also be rejected.

**Contact:** Virology/Serology Supervisor (505-383-9124) or VS Line Supervisor (505-383-9125).

## Hepatitis B High Risk and HCV

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**Description:** Chemiluminescent immunoassay for the detection of Hepatitis B surface antigen (HBsAg), antibody to Hepatitis B core (anti-HBc), antibody to Hepatitis B surface antigen (anti-HBs) and antibody to Hepatitis C (anti-HCV).

Reflex testing: EIA for the detection of IgM antibody to Hepatitis B core antigen (anti-HBcIgM) is run if:

- HBsAg negative, total anti-HBc positive and total anti-HBs negative
- HBsAg positive, total anti-HBc positive and total anti-HBs negative

Reflex testing will NOT be run if total anti-HBs is positive, unless specifically requested by submitter.

**Specimen:** 5 ml serum.

**Normal Value:** Nonreactive.

**Analysis Requested:** Hepatitis B High Risk and HCV.

**Estimated Turnaround Time:** 5 working days.

**Collection:** Collect specimen by drawing blood into a double gel serum separator tube that does not contain preservatives. After allowing clot to form, centrifuge specimen and transfer serum to a sterile container.

**Handling:** Refrigerated serum must be tested within 6 days of collection. If shipment will take longer, specimen must be frozen at -20°C (-4°F) and shipped on dry ice.

**Shipping:** Ship refrigerated specimens with -20°C (-4°F) cold packs within one day of collection. If the specimen is frozen, it must be shipped with dry ice to ensure that the specimen does not thaw.

**Special requirements:** Must be shipped on dry ice if specimen is frozen.

**Rejection criteria:** If the sample is more than 6 days old and not frozen, the sample will be rejected for all tests. Samples received on the clot will also be rejected.

**Contact:** Virology/Serology Supervisor (505-383-9124) or VS Line Supervisor (505-383-9125).

## Hepatitis C Antibody

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**Description:** Chemiluminescent immunoassay for the detection of antibody to Hepatitis C (anti-HCV).

**Specimen:** 5 ml serum.

**Normal Value:** Nonreactive.

**Analysis Requested:** Hepatitis C Antibody (Anti-HCV).

**Estimated Turnaround Time:** 5 working days.

**Collection:** Collect specimen by drawing blood into a double gel serum separator tube that does not contain preservatives. After allowing clot to form, centrifuge specimen and transfer serum to a sterile container.

**Handling:** Refrigerated serum must be tested within 7 days of collection. If shipment will take longer, specimen must be frozen at -20°C (-4°F) and shipped on dry ice.

**Shipping:** Ship refrigerated specimens with -20°C (-4°F) cold packs. If the specimen is frozen, it must be shipped with dry ice to ensure that the specimen does not thaw.

**Special requirements:** Must be shipped on dry ice if specimen is frozen.

**Rejection criteria:** Samples older than 7 days (and not frozen) will be rejected. Samples received on the clot will also be rejected.

**Contact:** Virology/Serology Supervisor (505-383-9124) or VS Line Supervisor (505-383-9125).

### Hepatitis A, B and C Diagnostic Panel (Acute)

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**Description:** Chemiluminescent immunoassays for the detection of IgM to Hepatitis A (anti-HAV-IgM), IgM to Hepatitis B core antigen (anti-HBc IgM), Hepatitis B surface antigen (HBsAg) and total antibody to Hepatitis C (anti-HCV).

**Specimen:** 5 ml serum.

**Normal Value:** Nonreactive.

**Analysis Requested:** Hepatitis A, B, and C Diagnostic Panel (Acute).

**Estimated Turnaround Time:** 5 working days.

**Collection:** Collect specimen by drawing blood into a double gel serum separator tube that does not contain preservatives. After allowing clot to form, centrifuge specimen and transfer serum to a sterile container.

**Handling:** Refrigerated serum must be tested within 6 days of collection. If shipment will take longer, specimen must be frozen at -20°C (-4°F) and shipped on dry ice.

**Shipping:** Ship refrigerated specimens with -20°C (-4°F) cold packs. If the specimen is frozen, it must be shipped with dry ice to ensure that the specimen does not thaw.

**Special requirements:** Must be shipped on dry ice if specimen is frozen.

**Rejection criteria:** If the sample is more than 6 days old and not frozen, the sample will be rejected for all tests. Samples received on the clot will also be rejected.

**Contact:** Virology/Serology Supervisor (505-383-9124) or VS Line Supervisor (505-383-9125).

### Herpes simplex, culture

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**Description:** Cell culture procedure for the isolation of Herpes simplex virus.

**Specimen:** Genital, urethral, nasopharyngeal, throat, tissue or vesicle swab in viral transport medium or CSF in sterile container without viral transport medium.

**Normal Value:** No virus isolated.

**Analysis Requested:** Virus Isolation. Agent suspected: HSV.

**Estimated Turnaround Time:** 14-30 working days.

**Collection:** See "Virus Isolation" for collection guidelines.

**Handling:** If the specimen can be delivered to the laboratory within 72 hours, refrigerate at 2-8°C (35 – 46°F); if not then freeze at -70°C (-94°F) or on dry ice. Do not freeze virus isolation specimens at -20°C (-4°F), such as in a household type freezer.

**Shipping:** Pack the specimen in an insulated container with sufficient dry ice or ice packs to maintain a constant temperature throughout shipment. If the specimen is frozen, it must be shipped on dry ice and arrive frozen at the laboratory. If dry ice is used, the specimen must be placed in a sealed container to protect it from CO<sub>2</sub>. Deliver to the laboratory via the established overnight courier system, or as quickly as possible.

**Special Requirements:** Do not freeze virus isolation specimens at -20°C (-4°F), such as in a household type freezer.

**Rejection criteria:** Samples older than 72 hours that are not frozen will be rejected.

**Contact:** Virology/Serology Supervisor (505-383-9124) or VS Line Supervisor (505-383-9125)

### Histoplasma capsulatum, culture

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See "Yeast/Mold Culture"

## HIV Antigen/Antibody Combo

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**Description:** Chemiluminescent immunoassay for detection of antigen and antibody to human immunodeficiency virus types 1 and 2 (HIV Ag/Ab Combo). Confirmatory testing (Geenius HIV 1/2 Supplemental Assay) will be performed on all specimens that are repeatedly reactive by immunoassay.

**Specimen:** 5 mL of serum.

**Normal Value:** Non-reactive.

**Analysis Requested:** HIV-1 antibody.

**Estimated Turnaround Time:** 5 working days.

**Collection:** Collect specimen by drawing blood into a double gel serum separator tube that does not contain preservatives. After allowing clot to form, centrifuge specimen and transfer serum to a sterile container.

**Handling:** Refrigerated serum must be tested within 7 days of collection. If shipment will take longer, specimen must be frozen at -20°C (-4°F) and shipped on dry ice.

**Shipping:** Ship refrigerated specimens with -20°C (-4°F) cold packs. If the specimen is frozen, it must be shipped with dry ice to ensure that the specimen does not thaw.

**Special requirements:** Must be shipped on dry ice if specimen is frozen.

**Rejection criteria:** Samples older than 7 days (and not frozen) will be rejected. Samples received on the clot will also be rejected.

**Contact:** Virology/Serology Supervisor (505-383-9124) or VS Line Supervisor (505-383-9125).

## ID of bacteria, anaerobe

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**Description:** Identification of an anaerobic bacterial isolate by morphology, growth characteristics, MALDI-TOF and/or biochemical tests and/or 16S sequence

**Specimen:** Bacterial isolate on appropriate media. Please indicate gram stain morphology.

**Normal Value:** N/A

**Analysis Requested:** ID of Bacteria, Anaerobe\_\_\_\_\_; please indicate gram stain morphology.

**Estimated Turnaround Time:** 1-4 weeks.

**Collection:** N/A

**Handling:** N/A

**Shipping:** Send at room temperature, or cold, on an ice pack. If possible, send isolate in an anaerobic pouch.

**Special Requirements:** N/A

**Rejection criteria:** See General Rejection Criteria. Un-inoculated, non-viable or obviously compromised (such as frozen or desiccated) isolate will be rejected.

**Contact:** GM Supervisor (505-383-9128), or GM Line Supervisor (505-383-9127).

## ID of bacteria, gram positive or gram negative

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**Description:** Identification of an aerobic bacterial isolate by morphology, growth characteristics, MALDI-TOF and/or biochemical tests and/or 16S sequencing.

**Specimen:** Bacterial isolate on appropriate tube media. Please indicate gram stain morphology.

**Normal Value:** N/A

**Analysis Requested:** ID of Bacteria, Gram negative\_\_\_\_\_; please indicate gram stain morphology;  
or ID of Bacteria, Gram positive\_\_\_\_\_; please indicate gram stain morphology.

**Estimated Turnaround Time:** 1-4 weeks.

**Collection:** N/A

**Handling:** N/A

**Shipping:** Send isolate at room temperature, or cold, on an ice pack.

**Special Requirements:** N/A

**Rejection criteria:** See General Rejection Criteria. Un-inoculated, non-viable, or obviously compromised (such as frozen or desiccated) isolate will be rejected.

**Contact:** GM Supervisor (505-383-9128), or GM Line Supervisor (505-383-9127).

### Influenza virus type A & B, culture

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**Description:** Cell culture procedure for the isolation of Influenza virus type A and B.

**Specimen:** NP, nasal, or throat swab; nasal aspirate; nasal wash; dual NP/throat swab; bronchoalveolar lavage (BAL); bronchial wash; tracheal aspirate; sputum; lung tissue All specimens must be placed into viral transport medium.

**Normal Value:** No virus isolated.

**Analysis Requested:** Virus isolation: Agent suspected: Influenza.

**Estimated Turnaround Time:** 14-30 working days.

**Collection:** See "Virus Isolation" for collection guidelines.

**Handling:** If the specimen can be delivered to the laboratory within 72 hours, refrigerate at 2-8°C (35 – 46°F); if not then freeze at -70°C (-94°F) or on dry ice. Do not freeze virus isolation specimens at -20°C (-4°F), such as in a household type freezer.

**Shipping:** Pack the specimen in an insulated container with sufficient dry ice or ice packs to maintain a constant temperature throughout shipment. If the specimen is frozen, it must be shipped on dry ice and arrive frozen at the laboratory. If dry ice is used, the specimen must be placed in a sealed container to protect it from CO<sub>2</sub>. Deliver to the laboratory via the established overnight courier system, or as quickly as possible.

**Special Requirements:** Do not freeze virus isolation specimens at -20°C (-4°F), such as in a household type freezer.

**Rejection criteria:** Samples older than 72 hours (and not frozen) will be rejected.

**Contact:** Virology/Serology Supervisor (505-383-9124) or VS Line Supervisor (505-383-9125).

### Influenza AND 2019 Novel Coronavirus, real-time RT-PCR

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**Description:** Amplification of Influenza and SARS CoV RNA.

**Specimen:** Nasopharyngeal swab, nasal swab, throat swab, nasal aspirate, or nasal wash.

**Normal Value:** The normal value is No Influenza and No SARS CoV RNA detected.

**Analysis Requested:** Check box for Influenza RT-PCR .

**Estimated Turnaround Time:** 5 working days.

**Collection:** Follow specimen collection devices' manufacturer instructions for proper collection methods. Viral transport packs provided by SLD also include instructions for collection of specimens. See also "Virus Isolation" for collection guidelines. Swab specimens should be collected using only swabs with a synthetic tip, such as rayon or Dacron, and an aluminum or plastic shaft. Calcium alginate swabs and cotton swabs with wooden shafts are unacceptable. All respiratory specimens must be placed into viral transport medium.

**Handling:** If the specimen can be delivered to the laboratory within 72 hours, refrigerate at 2-8°C (35 – 46°F); if not then freeze at -70°C (-94°F) or on dry ice. Do not freeze specimens at -20°C (-4°F), such as in a household type freezer.

**Shipping:** Pack the specimen in an insulated container with sufficient dry ice or ice packs to maintain a constant temperature throughout shipment. If the specimen is frozen, it must be shipped on dry ice and arrive frozen at the laboratory. If dry ice is used, the specimen must be placed in a sealed container to protect it from CO<sub>2</sub>. Deliver to the laboratory via the established overnight courier system, or as quickly as possible.

**Special Requirements:** Do not freeze specimens at -20°C (-4°F), such as in a household type freezer. Check Virus Isolation box on General Clinical Request form and check Influenza as agent suspected.

**Rejection criteria:** Refrigerated samples older than 72 hours and frozen specimens not received on dry ice will be rejected.

**Contact:** Virology/Serology Supervisor (505-383-9124) or VS Line Supervisor (505-383-9125).

### Legionella, culture

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**Description:** Culture for *Legionella* species or confirmation of Legionella isolate. If confirmed, Serotype testing may be referred to the Centers for Disease Control and Prevention.

**Specimen:** Send isolate on BCYE (buffered charcoal yeast extract agar) or send sputum, pleural fluid, bronchial lavage (BAL), tissue or other respiratory specimen (not throat swab), in specimen container. Send raw specimens refrigerated. Do not send urine specimens, as they will be rejected.

**Normal Value:** No Legionella species isolated by culture.

**Analysis Requested:** Legionella culture.

**Estimated Turnaround Time:** 2-3 weeks. Suspect positive cultures may be sent to the CDC for confirmation and additional testing; turnaround time for results from CDC, N/A.

**Specimen:** Respiratory secretions (sputum, bronchial and tracheal aspirates, washings, bronchoscopy, bronchoalveolar lavage (BAL), lung biopsy pleural fluid, pericardial fluid, lung tissue, and other sources if high clinical suspicion of disease. Throat swabs are not acceptable.

**Collection:** Collect sample in acute phase of infection, before beginning antimicrobial therapy. Place specimen in sterile screw capped cup or tube. Do **not** add preservative, such as formalin.

**Handling:** Refrigerate after collection.

**Shipping:** Ship refrigerated specimens with cold packs.

**Special requirements:** Transport quickly as isolation may be compromised due to overgrowth of commensal bacteria.

**Rejection criteria:** "Test of cure" cultures should not be used to monitor a patient's response to therapy. Throat swabs are not acceptable. Urine specimens will be rejected. Specimens received in preservative, such as formalin, will be rejected.

**Contact:** General Microbiology Supervisor (505-383-9128) or GM Line Supervisor (505-383-9127).

### Listeria monocytogenes

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**Description:** Confirmation of *Listeria monocytogenes* isolate. Isolate may be forwarded to CDC for further testing

**Specimen:** Send isolate on appropriate plate or tube medium.

**Normal Value:** N/A

**Analysis Requested:** L. monocytogenes

**Estimated Turnaround Time:** 1-2 weeks, CDC send out; turnaround time N/A.

**Collection:** N/A

**Handling:** Refrigerate or room temperature.

**Shipping:** Bacterial isolates may be shipped cold, on an ice pack or at room temperature.

**Special Requirements:** N/A

**Rejection criteria:** See General Rejection Criteria.

**Contact:** General Microbiology Supervisor (505-383-9128) or GM Line Supervisor (505-383-9127).

### Measles (Rubeola) virus antibody

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See "Rubeola (Measles)"

## Mumps virus, culture

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**Description:** Cell culture method for the detection of mumps virus.

**Specimen:** Buccal or throat swab in viral transport medium; urine or CSF in sterile container.

**Normal Value:** No virus isolated.

**Analysis Requested:** Virus isolation: Agent suspected: Mumps.

**Estimated Turnaround Time:** 14-30 working days.

**Collection:** See "Virus Isolation" for throat, urine, or CSF collection instructions. For collection of buccal swabs, refer to <http://www.cdc.gov/mumps/lab/specimen-collect.html>.

**Handling:** If the specimen can be delivered to the laboratory within 72 hours, refrigerate at 2-8°C (35 – 46°F); if not then freeze at -70°C (-94°F) or on dry ice. Do not freeze virus isolation specimens at -20°C (-4°F), such as in a household type freezer.

**Shipping:** Pack the specimen in an insulated container with sufficient dry ice or ice packs to maintain a constant temperature throughout shipment. If the specimen is frozen, it must be shipped on dry ice and arrive frozen at the laboratory. If dry ice is used, the specimen must be placed in a sealed container to protect it from CO<sub>2</sub>. Deliver to the laboratory via the established overnight courier system, or as quickly as possible.

**Special requirements:** Do not freeze virus isolation specimens at -20°C (-4°F), such as in a household type freezer.

**Rejection criteria:** Samples older than 72 hours that are not frozen will be rejected.

**Contact:** Virology/Serology Supervisor (505-383-9124) or VS Line Supervisor (505-383-9125).

## Mumps virus, Immune Status

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**Description:** Enzyme immunoassay method for detection of antibody to mumps virus.

**Specimen:** 5 ml serum.

**Normal Value:** Immune.

**Analysis Requested:** Mumps Immune Status.

**Estimated Turnaround Time:** 5 working days

**Collection:** Collect specimen by drawing blood into a double gel serum separator tube that does not contain preservatives. After allowing clot to form, centrifuge specimen and transfer serum to a sterile container.

**Handling:** Refrigerated serum must be tested within 5 days of collection. If shipment will take longer, specimen must be frozen at -20°C (-4°F) and shipped on dry ice.

**Shipping:** Ship refrigerated specimens with -20°C (-4°F) cold packs. If the specimen is frozen, it must be shipped with dry ice to ensure that the specimen does not thaw.

**Special requirements:** Must be shipped on dry ice if specimen is frozen.

**Rejection criteria:** Samples older than 5 days (and not frozen) will be rejected. Samples received on the clot will also be rejected.

**Contact:** Virology/Serology Supervisor (505-383-9124) or VS Line Supervisor (505-383-9125).

## Mycobacterium tuberculosis (TB)

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See "AFB/ Tuberculosis"

## Neisseria meningitidis serotyping

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**Description:** Agglutination test with type-specific antisera for serogroups of *Neisseria meningitidis* from sterile sites. Includes participation in the EIP project. (Please order "*N. meningitidis* typing" only on clinical request form). Non-typeable isolates are confirmed.

**Specimen:** Send isolate on appropriate plate or tube media. Sealed chocolate agar plate is preferred.

**Normal Value:** N/A

**Analysis Requested:** *N. meningitidis* typing.

**Estimated Turnaround Time:** N/A ; serotype result is provided by verbal or secure email notification within 2 working days of receipt

**Collection:** N/A

**Handling:** N/A

**Shipping:** Send isolate at room temperature, or cold on an ice pack.

**Special Requirements:** N/A

**Rejection criteria:** See General Rejection Criteria. Non-viable, un-inoculated, or obviously compromised (such as frozen or desiccated) isolate will be rejected.

**Contact:** General Microbiology Supervisor (505-383-9128) or GM Line Supervisor (505-383-9127).

### Next Generation Sequencing – Enterics Whole Genome Sequencing

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**Description:** Sequencing of clinical and environmental isolates of enteric bacteria. *Campylobacter*, *Escherichia coli*, *Listeria*, *Salmonella*, *Shigella*, and *Vibrio* will be processed. **Epidemiology and Response Division (505-827-0006) must be contacted and testing approved BEFORE sending any other specimen to SLD.** The following results may be provided depending on the species isolated: Bacterial ID, Serotype for *Escherichia coli*, *Listeria*, *Salmonella*, *Shigella*, and *Vibrio*, Pathotype detected for *E. coli/Shigella* and Toxin genes detected for *E. coli/Shigella* (Shigatoxin genes *stx1* and *stx2*) and *Vibrio*.

**Specimen:** Send isolate on appropriate plate or tube media. Follow directions for Enteric Culture, above.

**Normal Value:** N/A

**Analysis Requested:** Bacteriology; check enteric organisms suspected as directed by Epidemiology..

**Estimated Turnaround Time:** 7 business days from receipt of isolate from submitter or the General Microbiology Section.

**Collection:** See Enteric Culture, above.

**Handling:** See Enteric Culture, above.

**Shipping:** Send isolate at room temperature, or cold on an ice pack.

**Special Requirements:** N/A

**Rejection criteria:** See Enteric Culture, above.

**Contact:** Molecular Biology Section Supervisor (505-383-9130) or MB NGS Line Supervisor (505-383-9161).

### Nocardia

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See “Aerobic actinomycetes”

### Norovirus RT-PCR

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**Description:** RT-PCR test for Norovirus Groups I and II. Requires pre-approval from ERD (call 505-827-0006). Results reported only to ERD.

**Specimen:** Stool, vomitus.

**Normal Value:** Nonreactive.

**Analysis Requested:** Other – Norovirus.

**Estimated Turnaround Time:** 5 working days.

**Collection:** Collect specimen in a clean container.

**Handling:** Refrigerated specimen must be tested within 14 days of collection. Do not freeze specimen.

**Shipping:** Ship refrigerated specimens with -20°C (-4°F) cold packs.

**Special requirements:** Requires pre-approval from ERD (call 505-827-0006).

**Rejection criteria:** Samples older than 14 days will be rejected.

**Contact:** Virology/Serology Supervisor (505-383-9124) or VS Line Supervisor (505-383-9125).

## OMI culture

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**Description:** An aerobic bacterial culture provided for the Office of the Medical Investigator

**Specimen:** Fluid or swab samples collected in appropriate transport media.

**Normal Value:** No growth or normal flora.

**Analysis Requested:** Culture, OMI.

**Estimated Turnaround Time:** 3 -14 working days.

**Collection:** Blood culture bottles, fluid or tissue in sterile container, or swab samples in transport (culturettes) follow manufacturer instructions for collection and transport.

**Handling:** Collect in transport device or blood culture bottle and store at room temperature. Deliver to lab ASAP.

**Shipping:** Send at room temperature ASAP for receipt in lab ≤24 hours from collection.

**Special Requirements:** N/A

**Rejection criteria:** See General Rejection Criteria. Obviously compromised, such as frozen or desiccated specimens will be rejected. Fastidious bacteria are not likely to survive in transport devices beyond 24 hours from collection, therefore specimens >24 hours from collection may be rejected.

**Contact:** General Microbiology Supervisor (505-383-9128) or GM Line Supervisor (505-383-9127).

## OMI culture, anaerobic

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**Description:** An anaerobic bacterial culture provided for the Office of the Medical Investigator. Includes aerobic culture.

**Specimen:** Fluid or swab samples collected in appropriate anaerobic transport media.

**Normal Value:** No anaerobes isolated by culture.

**Analysis Requested:** Culture, OMI anaerobic.

**Estimated Turnaround Time:** 3-21 working days.

**Collection:** Blood culture bottles (anaerobic), swab samples or fluid in appropriate anaerobic transport devices or conditions. Follow manufacturer instructions on transport devices.

**Handling:** Collect in transport device or blood culture bottle, and store at room temperature. Deliver to lab ASAP

**Shipping:** Send at room temperature ASAP to be received in lab ≤24 hours from collection.

**Special Requirements:** N/A

**Rejection criteria:** See General Rejection Criteria. Obviously compromised, such as frozen or desiccated specimens will be rejected. Fastidious bacteria are not likely to survive in transport devices or clinical material beyond 24 hours from collection, therefore specimens >24 hours from collection may be rejected

**Contact:** General Microbiology Supervisor (505-383-9128) or GM Line Supervisor (505-383-9127).

## Paracoccidioides

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See "Yeast/Mold culture"

## Parainfluenza virus Types 1, 2, 3, culture

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**Description:** Cell culture procedure for the isolation of Parainfluenza virus types 1, 2, 3.

**Specimen:** Respiratory specimen in viral transport medium.

**Normal Value:** No virus isolated.

**Analysis Requested:** Virus isolation: Agent suspected: Parainfluenza.

**Estimated Turnaround Time:** 14-30 working days.

**Collection:** See "Virus Isolation" for collection guidelines.

**Handling:** If the specimen can be delivered to the laboratory within 72 hours, refrigerate at 2-8°C (35 – 46°F); if not then freeze at -70°C (-94°F) or on dry ice. Do not freeze virus isolation specimens at -20°C (-4°F), such as in a household type freezer.

**Shipping:** Pack the specimen in an insulated container with sufficient dry ice or ice packs to maintain a constant temperature throughout shipment. If the specimen is frozen, it must be shipped on dry ice and arrive frozen at the laboratory. If dry ice is used, the specimen must be placed in a sealed container to protect it from CO<sub>2</sub>. Deliver to the laboratory via the established overnight courier system, or as quickly as possible.

**Special requirements:** Do not freeze virus isolation specimens at -20°C (-4°F), such as in a household type freezer.

**Rejection criteria:** Samples older than 72 hours that are not will be rejected.

**Contact:** Virology/Serology Supervisor (505-383-9124) or VS Line Supervisor (505-383-9125).

### Parasites, blood (Giemsa stain)

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This is a send out

**Contact:** General Microbiology Supervisor (505-383-9128) or GM Line Supervisor (505-383-9127).

### Plague, culture

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**Description:** Isolation and identification of *Yersinia pestis* by culture methods. Available on an emergency basis through Epidemiology. Animal testing provided as routine surveillance (see separate section).

**Specimen:** Blood culture bottles, lymph node aspirates or tissue, lower respiratory specimen, such as sputum, or a bacterial isolate. Refer to American Society for Microbiology Sentinel Level Clinical Microbiology Guidelines at <https://asm.org/Articles/Policy/Laboratory-Response-Network-LRN-Sentinel-Level-C>

**Normal Value:** No *Yersinia pestis* isolated by culture.

**Analysis Requested:** Plague Culture.

**Estimated Turnaround Time:** 7 to 10 working days

**Collection:** Blood Culture Bottles, follow manufacturer instructions for collection and transport. Lymph node aspirate and tissue may be collected in a sterile container. A small amount of sterile saline may be added to prevent desiccation. Sputum should be collected in a sterile container and refrigerated.

**Handling:** N/A

**Shipping:** Send specimens (except respiratory) or isolates at room temperature. Respiratory specimens should be sent cold, on an ice pack.

**Special Requirements:** Contact ERD and General Microbiology prior to sending.

**Rejection criteria:** See General Rejection Criteria. Non-viable isolates, or obviously compromised specimen will be rejected.

**Contact:** General Microbiology Supervisor (505-383-9128) or GM Line Supervisor (505-383-9127).

### Plague, serology

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See "*Yersinia pestis* (Plague), serology"

### Poliovirus, culture

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Contact Virology/Serology Supervisor (505-383-9124) or VS Line Supervisor (505-383-9125) for this test.

## Reference culture

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See "ID of Bacteria gram negative or gram positive" or "ID of Bacteria, Anaerobe".

## Respiratory Syncytial Virus, culture

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**Description:** Cell culture procedure for the isolation and identification of respiratory syncytial virus (RSV).

**Specimen:** Respiratory specimen in viral transport medium.

**Normal Value:** No virus isolated.

**Analysis Requested:** Virus isolation: Agent suspected: RSV.

**Estimated Turnaround Time:** 14-30 working days.

**Collection:** See "Virus Isolation" for collection guidelines.

**Handling:** Refrigerate specimen at 2-8°C (35 – 46°F). The specimen must be delivered to the laboratory as soon as possible, and within 72 hours of collection. Specimens which are to be tested specifically for RSV should not be frozen, as this may decrease viral infectivity.

**Shipping:** Pack the specimen in an insulated container with sufficient ice packs to maintain a constant temperature throughout shipment. Deliver to the laboratory via the established overnight courier system, or as quickly as possible.

**Special Requirements:** It is best not to freeze specimen, as this may decrease viral infectivity.

**Rejection criteria:** Samples older than 72 hours that are not frozen will be rejected.

**Contact:** Virology/Serology Supervisor (505-383-9124) or VS Line Supervisor (505-383-9125).

## Rhinovirus

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Not cultured for specifically, but detected as part of respiratory virus algorithm work-up.

## RPR (Rapid Plasma Reagin)

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See "Syphilis screen, RPR."

## Rubella virus (German measles), immune status

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**Description:** Enzyme immunoassay test for the detection for IgG antibody to rubella virus.

**Specimen:** 5 ml serum.

**Normal Value:** Immune.

**Analysis Requested:** Rubella immune status.

**Estimated Turnaround Time:** 5 working days.

**Collection:** Collect specimen by drawing blood into a double gel serum separator tube that does not contain preservatives. After allowing clot to form, centrifuge specimen and transfer serum to a sterile container.

**Handling:** Refrigerated serum must be tested within 5 days of collection. If shipment will take longer, specimen must be frozen at -20°C (-4°F) and shipped on dry ice.

**Shipping:** Ship refrigerated specimens with -20°C (-4°F) cold packs. If the specimen is frozen, it must be shipped with dry ice to ensure that the specimen does not thaw.

**Special requirements:** Must be shipped on dry ice if specimen is frozen.

**Rejection criteria:** Samples older than 5 days (and not frozen) will be rejected. Samples received on the clot will also be rejected.

**Contact:** Virology/Serology Supervisor (505-383-9124) or VS Line Supervisor (505-383-9125).

## Rubeola virus (Measles), immune status

---

**Description:** Enzyme immunoassay test for the detection for IgG antibody to rubeola virus.

**Specimen:** 5 ml serum.

**Normal Value:** Immune.

**Analysis Requested:** Rubeola immune status.

**Estimated Turnaround Time:** 5 working days.

**Collection:** Collect specimen by drawing blood a double gel serum separator tube that does not contain preservatives. After allowing clot to form, centrifuge specimen and transfer serum to a sterile container.

**Handling:** Refrigerated serum must be tested within 5 days of collection. If shipment will take longer, specimen must be frozen at -20°C (-4°F) and shipped on dry ice.

**Shipping:** Ship refrigerated specimens with -20°C (-4°F) cold packs. If the specimen is frozen, it must be shipped with dry ice to ensure that the specimen does not thaw.

**Special requirements:** Must be shipped on dry ice if specimen is frozen.

**Rejection criteria:** Samples older than 5 days (and not frozen) will be rejected. Samples received on the clot will also be rejected.

**Contact:** Virology/Serology Supervisor (505-383-9124) or VS Line Supervisor (505-383-9125).

## Rubeola virus (measles), serological diagnosis

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**Description:** Enzyme immunoassay procedure for the detection of IgM and IgG antibodies to rubeola virus. Must contact Epidemiology and Response Division first for approval (505-827-0006); also available on an emergency basis.

**Specimen:** 5 ml serum.

**Normal Value:** IgM negative.

**Analysis Requested:** Rubeola diagnosis.

**Estimated Turnaround Time:** 2 working days. Results reported only to ERD.

**Collection:** Collect specimen by drawing blood a double gel serum separator tube that does not contain preservatives. After allowing clot to form, centrifuge specimen and transfer serum to a sterile container.

**Handling:** Refrigerated serum must be tested within 2 days of collection. If shipment will take longer, specimen must be frozen at -20°C (-4°F) and shipped on dry ice.

**Shipping:** Ship refrigerated specimens with -20°C (-4°F) cold packs. If the specimen is frozen, it must be shipped with dry ice to ensure that the specimen does not thaw.

**Special requirements:** Must be shipped on dry ice if specimen is frozen. Must be approved by the ERD (call 505-827-0006). Results reported to ERD only.

**Rejection criteria:** Samples older than 2 days (and not frozen) will be rejected. Samples received on the clot will also be rejected.

**Contact:** Virology/Serology Supervisor (505-383-9124) or VS Line Supervisor (505-383-9125).

## Rubeola virus (measles), virus culture

---

**Description:** Cell culture method for the detection of measles virus.

**Specimen:** Nasopharyngeal or throat swab in viral transport medium; urine or CSF in sterile container.

**Normal Value:** No virus isolated.

**Analysis Requested:** Virus isolation: Agent suspected: Measles.

**Estimated Turnaround Time:** 14-30 working days.

**Collection:** See "Virus Isolation" for collection guidelines.

**Handling:** If the specimen can be delivered to the laboratory within 72 hours, refrigerate at 2-8°C (35 – 46°F); if not then freeze at -70°C (-94°F) or on dry ice. Do not freeze virus isolation specimens at -20°C (-4°F), such as in a household type freezer.

**Shipping:** Pack the specimen in an insulated container with sufficient dry ice or ice packs to maintain a constant temperature throughout shipment. If the specimen is frozen, it must be shipped on dry ice and arrive frozen at the laboratory. If dry ice is used, the specimen must be placed in a sealed container to protect it from CO<sub>2</sub>. Deliver to the laboratory via the established overnight courier system, or as quickly as possible.

**Special requirements:** Do not freeze virus isolation specimens at -20°C (-4°F), such as in a household type freezer.

**Rejection criteria:** Samples older than 72 hours that are not frozen will be rejected.

**Contact:** Virology/Serology Supervisor (505-383-9124) or VS Line Supervisor (505-383-9125).

## Salmonella, culture

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See “*Salmonella*, serotype”

## Salmonella, serotype

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**Description:** Isolation and identification of *Salmonella* spp. from clinical specimens. Includes serotype of positive cultures. Confirmation and serotype performed on all *Salmonella* isolates for epidemiologic purposes. Test request includes *Salmonella* culture, and serotype if applicable.

**Specimen:** Stool specimen in enteric transport kit within 48 hours of collection for diagnosis/confirmation, at room temperature or refrigerated. Send isolates on appropriate tube transport medium.

**Normal Value:** *Salmonella* culture: No *Salmonella* isolated by culture. Serotype: N/A

**Analysis request:** *Salmonella*, serotype: \_\_\_\_\_

**Estimated Turnaround Time:** 1–4 weeks; may require send out.

**Collection:** See Enteric culture for stool collection instructions.

**Handling:** N/A

**Shipping:** Send stool specimen in enteric transport kit within 48 hours of collection, cold, on an ice pack. Send isolates on appropriate tube transport medium at room temperature or cold, on an ice pack.

**Special Requirements:** N/A

**Rejection criteria:** See General Rejection Criteria. Non-viable, uninoculated isolate, or obviously compromised specimen will be rejected.

**Contact:** General Microbiology Supervisor (505-383-9128) or GM Line Supervisor (505-383-9127).

## Shigella, culture

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See “*Shigella*, serotype”

## Shigella, serotype

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**Description:** Isolation and identification of *Shigella* spp. from clinical specimens. Includes serotype of positive cultures. Confirmation and serotype performed on *Shigella* isolates for epidemiologic purposes. Test request includes *Shigella* culture, and serotype if applicable.

**Specimen:** Send refrigerated stool specimen in enteric transport kit within 48 hours of collection for diagnosis/confirmation.. Send isolates on appropriate tube transport medium.

**Normal Value:** *Shigella* culture: No *Shigella* isolated by culture. Serotype: Not applicable.

**Analysis Requested:** *Shigella*, serotype: \_\_\_\_\_

**Estimated Turnaround Time:** 1-4 weeks; may require send out, turnaround time N/A.

**Collection:** See Enteric culture for stool collection instructions

**Handling:** N/A

**Shipping:** Send stool in enteric transport media cold, on an ice pack. Send isolates cold or at room temperature.

**Special Requirements:** N/A

**Rejection criteria:** See General Rejection Criteria. Non-viable, uninoculated isolate, or obviously compromised specimen will be rejected.

**Contact:** General Microbiology Supervisor (505-383-9128) or GM Line Supervisor (505-383-9127).

## Shiga toxin

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**Description:** Detection of Shiga Toxins I and II in stool specimens, broth cultures or isolated colonies by a real-time PCR and/or EIA method. Test request includes identification and complete or partial serotype of the Shiga Toxin producing *E. coli* for epidemiologic purpose, if applicable.

**Specimen:** Isolated organism on appropriate media at room temperature or stool specimen in enteric transport media; send refrigerated. Enteric transport media should be received within 48 hours of collection for diagnostic test. Stool in MacConkey broth is also acceptable.

**Normal Value:** No Shiga Toxin detected.

**Analysis Requested:** Shiga Toxin test/isolation

**Estimated Turnaround Time:** 1 – 4 weeks. May require send out; turnaround time N/A for send out.

**Collection:** See Enteric culture for stool collection instructions.

**Handling:** Stool in enteric transport media or MacConkey broth should be refrigerated until shipment.

**Shipping:** Send stool in enteric transport or MacConkey broth cold, on an ice pack. Isolates may be shipped cold or at room temperature.

**Special Requirements:** N/A

**Rejection criteria:** See General Rejection Criteria. Non-viable, uninoculated isolate, or obviously compromised specimen will be rejected.

**Contact:** General Microbiology Supervisor (505-383-9128) or GM Line Supervisor (505-383-9127).

## Sin Nombre Virus Human IgM

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**Description:** IgM antibody capture enzyme-linked immunosorbent assay for the detection of antibodies to Sin Nombre virus in persons meeting the CDC's epidemiological criteria for testing. Epidemiology and Response Division approval required (505-827-0006).

**Specimen:** 1 mL of serum (2.5 mL preferred).

**Normal Value:** Nonreactive.

**Analysis Requested:** SNV Hantavirus

**Estimated Turnaround Time:** 5 working days.

**Collection:** Collect specimen by drawing blood into a double gel serum separator tube that does not contain preservatives. After allowing clot to form, centrifuge specimen and transfer serum to a sterile container.

**Handling:** Refrigerated specimen must be tested within 5 days of collection. Longer delays require that specimen be frozen and shipped frozen.

**Shipping:** Ship refrigerated specimens with -20°C (-4°F) cold packs and frozen specimens on dry ice.

**Special requirements:** Requires pre-approval from ERD (call 505-827-0006).

**Rejection criteria:** Rejection criteria include compromised specimen (leaking, broken, etc.), unlabeled specimen, or specimen with a single identifier, incomplete or no request form.

**Contact:** Virology/Serology Supervisor (505-383-9124) or VS Line Supervisor (505-383-9125).

## **Sporothrix schenckii**

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See "Yeast/Mold culture"

## **Staphylococcus aureus, culture (foodborne only)**

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**Description:** Isolation and identification of *Staphylococcus aureus* from fecal specimens or vomitus as requested through Epidemiology. Toxin and/or other testing performed by the Centers for Disease Control and Prevention. Please contact General Microbiology Section.

**Specimen:** Send stool specimen in enteric transport kit within 48 hours of collection, refrigerated. Send vomitus in a clean container, refrigerated, within 24 hours of collection.

**Normal Value:** No *Staphylococcus aureus* colonies isolated by culture.

**Analysis Requested:** *B. cereus*/*S. aureus* (please indicate if *S. aureus* only is needed).

**Estimated Turnaround Time:** 3-7 working days; if send out, turnaround time N/A.

**Collection:** See Enteric culture for stool collection instructions, collect vomitus in a clean, sealable container.

**Handling:** Refrigerate upon collection and send ASAP.

**Shipping:** Send cold, on an ice pack.

**Special Requirements:** Stool in enteric transport medium must be received at SLD within 48 hours of collection. Vomitus must be received within 24 hours of collection.

**Rejection criteria:** See General Rejection Criteria, stool sample in enteric transport received beyond 48 hours of collection, vomitus received beyond 24 hours of collection.

**Contact:** General Microbiology Supervisor (505-383-9128) or GM Line Supervisor (505-383-9127).

## **Syphilis antibody**

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**Description:** Reagin screening test and TPPA confirmatory test to aid in the diagnosis of syphilis.

**Specimen:** 5 ml serum.

**Normal Value:** Nonreactive.

**Analysis Requested:** Syphilis antibody.

**Estimated Turnaround Time:** 5 working days

**Collection:** Collect specimen by drawing blood into a double gel serum separator tube that does not contain preservatives. After allowing clot to form, centrifuge specimen and transfer serum to a sterile container.

**Handling:** Refrigerated serum must be tested within 5 days of collection. If shipment will take longer, specimen must be frozen at -20°C (-4°F) and shipped on dry ice.

**Shipping:** Ship refrigerated specimens with -20°C (-4°F) cold packs. If the specimen is frozen, it must be shipped with dry ice to ensure that the specimen does not thaw.

**Special requirements:** Must be shipped on dry ice if specimen is frozen.

**Rejection criteria:** Samples older than 5 days (and not frozen) will be rejected. Specimens older than 5 days cannot be confirmed by TPPA even if they are frozen. Samples received on the clot will also be rejected.

**Contact:** Virology/Serology Supervisor (505-383-9124) or VS Line Supervisor (505-383-9125).

### Syphilis screen (RPR), adult

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**Description:** Reagin screening test. Confirmation of positives by *Treponema pallidum* particle agglutination (TPPA).

**Specimen:** 5 ml serum .

**Normal Value:** Nonreactive.

**Analysis Requested:** Syphilis antibody.

**Estimated Turnaround Time:** 5 working days.

**Collection:** Collect specimen by drawing blood into a double gel serum separator tube that does not contain preservatives. After allowing clot to form, centrifuge specimen and transfer serum to a sterile container.

**Handling:** Refrigerated serum must be tested within 5 days of collection. If shipment will take longer, specimen must be frozen at -20°C (-4°F) and shipped on dry ice.

**Shipping:** Ship refrigerated specimens with -20°C (-4°F) cold packs. If the specimen is frozen, it must be shipped with dry ice to ensure that the specimen does not thaw.

**Special requirements:** Must be shipped on dry ice if specimen is frozen.

**Rejection criteria:** Samples older than 5 days (and not frozen) will be rejected. Specimens older than 5 days cannot be confirmed by TPPA even if they are frozen. Samples received on the clot will also be rejected.

**Contact:** Virology/Serology Supervisor (505-383-9124) or VS Line Supervisor (505-383-9125).

### Syphilis screen (RPR), congenital

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**Description:** Reagin test and TPPA for diagnosis of congenital syphilis.

**Specimen:** 2 ml serum from infant and 2ml serum from mother.

**Normal Value:** Nonreactive.

**Analysis Requested:** Syphilis antibody.

**Estimated Turnaround Time:** 5 working days.

**Collection:** Collect specimen by drawing blood into a double gel serum separator tube that does not contain preservatives. After allowing clot to form, centrifuge specimen and transfer serum to a sterile container.

**Handling:** Refrigerated serum must be tested within 5 days of collection. If shipment will take longer, specimen must be frozen at -20°C (-4°F) and shipped on dry ice.

**Shipping:** Ship refrigerated specimens with -20°C (-4°F) cold packs. If the specimen is frozen, it must be shipped with dry ice to ensure that the specimen does not thaw.

**Special requirements:** Must be shipped on dry ice if specimen is frozen.

**Rejection criteria:** Samples older than 5 days (and not frozen) will be rejected. Specimens older than 5 days cannot be confirmed by TPPA even if they are frozen. Samples received on the clot will also be rejected.

**Contact:** Virology/Serology Supervisor (505-383-9124) or VS Line Supervisor (505-383-9125).

### Syphilis VDRL on CSF

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Contact Virology/Serology Supervisor (505-383-9124) or VS Line Supervisor (505-383-9125) for this test.

### TB Quantiferon

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**Description:** Interferon Gamma Release Assay to assist in the diagnosis of TB infection. Testing upon approval from TB program only.

**Specimen:** Blood; 5 ml minimum

**Normal Value:** Negative.

**Analysis Requested:** TB Quantiferon.

**Estimated Turnaround Time:** 5 working days depending on timing of sample arrival.

**Collection:** Collect specimens by drawing or dispensing 5 ml blood into lithium-heparin collection tubes. Hold at room temperature (17-25°C) between 15 minutes and 3 hours after blood collection.

**Handling:** Specimens must be received in the lab for testing within 48 hours of collection.

**Shipping:** Ship refrigerated with -20°C (-4°F) cold packs.

**Special requirements:** Testing must be approved by the TB Program.

**Rejection criteria:** Samples not received within 48 hours following collection will be rejected.

**Contact:** Virology/Serology Supervisor (505-383-9124) or VS Line Supervisor (505-383-9125).

## Tuberculosis (TB), culture

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See "AFB/Tuberculosis culture"

## Tularemia, culture

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**Description:** Isolation and identification of *Francisella tularensis* by culture methods.

**Specimen:** Tissue or wound in appropriate bacterial transport, aspirate in sterile container, bone marrow, or blood in blood culture bottle. Isolated organism on appropriate media. Refer to American Society for Microbiology Sentinel Level Clinical Microbiology Guidelines at <https://asm.org/Articles/Policy/Laboratory-Response-Network-LRN-Sentinel-Level-C>

**Normal Value:** No *Francisella tularensis* isolated by culture.

**Analysis Requested:** Tularemia culture.

**Estimated Turnaround Time:** 7 to 10 working days **Collection:** Tissue or wound in appropriate bacterial transport or blood in blood culture bottle. Isolated organism on appropriate media.

**Handling:** Refrigerate clinical specimens until shipment.

**Shipping:** Send clinical specimen cold, on an ice pack. Send bacterial isolates room temperature or cold.

**Special Requirements:** Please contact General Microbiology and ERD prior to sending.

**Rejection criteria:** See General Rejection Criteria. Non-viable, uninoculated isolate, or obviously compromised specimen will be rejected.

**Contact:** General Microbiology Supervisor (505-383-9128) or GM Line Supervisor (505-383-9127).

## Tularemia, serology

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**Description:** Direct agglutination procedure for the detection of antibody to tularemia in serum. Testing must be approved by ERD (call 505-827-0006). ERD-approved specimens are sent out to CDC for testing.

**Specimen:** 5 ml acute and convalescent sera.

**Normal Value:** <1:128 dilution.

**Analysis Requested:** Plague/Tularemia antibody.

**Estimated Turnaround Time:** ERD-approved specimens are sent out to CDC for testing.

**Collection:** Collect specimen by drawing blood a double gel serum separator tube that does not contain preservatives. After allowing clot to form, centrifuge specimen and transfer serum to a sterile container and freeze at -20°C (-4°F).

**Handling:** Specimen must be frozen at -20°C (-4°F) and shipped on dry ice.

**Shipping:** Specimen must be shipped with dry ice to ensure that the specimen does not thaw.

**Special requirements:** Must be shipped on dry ice since specimen is frozen. Must be approved by the ERD (call 505-827-0006). ERD-approved specimens are sent out to CDC for testing.

**Rejection criteria:** Samples not frozen will be rejected. Samples received on the clot will also be rejected.

**Contact:** Virology/Serology Supervisor (505-383-9124) or VS Line Supervisor (505-383-9125).

## Vaccinia virus

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Please contact Virology/Serology Supervisor (505-383-9124) or Line Supervisor (505-383-9125).

## Varicella zoster (VZV), culture

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**Description:** Cell culture method for the isolation of Varicella zoster Virus.

**Specimen:** Vesicular fluid or swab of lesion in viral transport medium.

**Normal Value:** No virus isolated.

**Analysis Requested:** Virus isolation: Agent suspected: VZV.

**Estimated Turnaround Time:** 14-30 working days.

**Collection:** Open lesion and collect exudates with a dry, sterile swab. Do not use wood-shafted swabs. Rub the lesion vigorously enough to ensure that skin cells or fluid are collected. Break the shaft so that the tip and remaining shaft fit entirely into a screw-capped tube containing viral transport medium. If collecting vesicular fluid, use a sterile needle and syringe and immediately inject into viral transport medium.

**Handling:** Refrigerate at 2-8°C (35 – 46°F). The refrigerated specimen must be delivered to the laboratory as soon as possible, and within 72 hours of collection. If the specimen cannot be delivered to the laboratory within 72 hours, freeze at -70°C (-94°F) or on dry ice. Do not freeze virus isolation specimens at -20°C (-4°F), such as in a household type freezer.

**Shipping:** Pack the specimen in an insulated container with sufficient dry ice or ice packs to maintain a constant temperature throughout shipment. If the specimen is frozen, it must be shipped on dry ice and arrive frozen at the laboratory. If dry ice is used, the specimen must be placed in a sealed container to protect it from CO<sub>2</sub>. Deliver to the laboratory via the established overnight courier system, or as quickly as possible.

**Special requirements:** Do not freeze virus isolation specimens at -20°C (-4°F), such as in a household type freezer.

**Rejection criteria:** Samples older than 72 hours (and not frozen) will be rejected.

**Contact:** Virology/Serology Supervisor (505-383-9124) or VS Line Supervisor (505-383-9125).

## Varicella zoster (VZV), immune status

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**Description:** Enzyme immunoassay method for the detection of IgG antibody to Varicella Zoster Virus.

**Specimen:** 5ml serum.

**Normal Value:** Reactive.

**Analysis Requested:** VZV Immune status.

**Estimated Turnaround Time:** 5 working days.

**Collection:** Collect specimen by drawing blood a double gel serum separator tube that does not contain preservatives. After allowing clot to form, centrifuge specimen and transfer serum to a sterile container.

**Handling:** Refrigerated serum must be tested within 5 days of collection. If shipment will take longer, specimen must be frozen at -20°C (-4°F) and shipped on dry ice.

**Shipping:** Ship refrigerated specimens with -20°C (-4°F) cold packs. If the specimen is frozen, it must be shipped with dry ice to ensure that the specimen does not thaw.

**Special requirements:** Must be shipped on dry ice if specimen is frozen.

**Rejection criteria:** Samples older than 5 days (and not frozen) will be rejected. Samples received on the clot will also be rejected.

**Contact:** Virology/Serology Supervisor (505-383-9124) or VS Line Supervisor (505-383-9125).

## VDRL

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See "Syphilis screen, adult"

## Vibrio cholerae

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**Description:** Culture and serotype test for a suspect *Vibrio cholerae* isolate. Contact ERD and General Microbiology Section.

**Specimen:** Send isolate on appropriate tube medium. Stool should be placed in enteric transport media such as Cary-Blair and submitted for receipt within 48 hours of collection.

**Normal Value:** No *Vibrio* species isolated by culture.

**Analysis Requested:** Vibrio. Please write "cholera" on request form.

**Estimated Turnaround Time:** 2 -5 working days for serotype, 1 - 4 weeks for isolation and identification; may require send-out, turnaround time N/A.

**Collection:** See Enteric culture for stool collection instructions.

**Handling:** N/A

**Shipping:** Send isolate at room temperature, or cold on an ice pack. Send stool in enteric transport media cold, on an ice pack.

**Special Requirements:** Please contact General Microbiology and Epidemiology prior to sending. Submit samples in the acute phase of infection, preferably before the beginning of antimicrobial therapy.

**Rejection criteria:** See General Rejection Criteria. Non-viable, uninoculated isolate, or obviously compromised specimen will be rejected.

**Contact:** General Microbiology Supervisor (505-383-9128) or GM Line Supervisor (505-383-9127).

## Vibrio culture

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**Description:** Isolation and identification of *Vibrio* species from a clinical specimen or identification of *Vibrio* species isolate by culture methods including MALDI TOF as applicable. Notify General Microbiology Section.

**Specimen:** Send isolate on appropriate tube medium. Clinical specimens such as blood, wound, eye, or feces/stool in appropriate collection devices. Place stool in enteric transport media such as Cary-Blair and submitted for receipt within 48 hours of collection.

**Normal Value:** No *Vibrio* species isolated by culture.

**Analysis Requested:** Vibrio

**Estimated Turnaround Time:** 1-4 weeks for isolation and identification; may require send out, turnaround time N/A

**Collection:** See enteric culture for stool collection procedure. Follow manufacturer instructions on bacterial collection and transport devices.

**Handling:** N/A

**Shipping:** Send bacterial isolate at room temperature, or cold on an ice pack. Send stool in enteric transport media cold, on an ice pack. Send other bacterial transport or blood culture bottles at room temperature.

**Special Requirements:** N/A

**Rejection criteria:** See General Rejection Criteria. Non-viable, uninoculated isolate, or obviously compromised specimen will be rejected. Stool not in enteric transport or received greater than 48 hours from collection.

**Contact:** General Microbiology Supervisor (505-383-9128) or GM Line Supervisor (505-383-9127).

## Virus Isolation

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**Description:** Cell culture method for the isolation and identification of virus.

**Specimen:** See below for different types of specimens. Send swabs, washes, aspirates, and tissue in viral transport medium; urine, CSF, or stool in a sterile container.

**Normal Value:** No virus isolated.

**Analysis Requested:** Virus isolation.

**Estimated Turnaround Time:** 14-30 days.

**Collection:**

1. **Nasopharyngeal (NP) swabs:** Insert fine, flexible swab through nostril to nasopharynx; rotate swab. Cut or break the shaft so that the tip and remaining shaft fit entirely into a screw-capped tube containing 2 to 3 ml of a sterile viral transport medium.
2. **Throat swabs:** Rub the posterior wall of the nasopharynx with a dry, sterile swab. Do not use wood-shafted swabs. Break the shaft so that the tip and remaining shaft fit entirely into a screw-capped tube containing 2 to 3 ml of a sterile viral transport medium.
3. **Throat washings:** Have the patient gargle with approximately 10 ml of a sterile saline solution and expectorate into a clean container. Transfer the throat washing to a sterile screw-capped tube containing viral transport medium.
4. **Vesicular fluid or skin scraping:** Open lesion and collect exudates with a dry, sterile swab. Do not use wood-shafted swabs. For isolation of varicella zoster virus, using a sterile swab, rub the lesion vigorously enough to ensure that skin cells or fluid are collected. Break the shaft so that the tip and remaining shaft fit entirely into a screw-capped tube containing 2 to 3 ml of a sterile viral transport medium.
5. **Stool:** Collect a portion of feces weighing approximately 4 to 8 grams (the size of the end of an adult thumb) and place in a clean screw-capped container. Do not add preservatives or transport medium.
6. **Rectal swab:** (Submit a rectal swab only if a stool specimen is not obtainable.) Moisten a sterile swab with transport medium, insert well into the rectum, and rub until fecal material adheres to the swab. Do not use wood-shafted swabs. Break the shaft so that the tip and remaining shaft fit entirely into a screw-capped tube containing 2 to 3 ml of a sterile viral transport medium.
7. **Cerebral spinal fluid:** Collect 2 to 4 ml of CSF in a sterile, leak proof, screw-capped tube. Do not add preservatives or transport medium.
8. **Urine:** Collect urine in a sterile, leak proof, screw-capped container. Do not add preservatives or transport medium.
9. **Biopsy/autopsy tissue:** Aseptically collect cubes of tissue, approximately 1 cc in size, and place in a sterile screw-capped container containing viral transport medium. Avoid cross-contamination of specimens by using new sterile instruments for each tissue collected; avoid bacterial contamination.

**Handling:** If the specimen can be delivered to the laboratory within 72 hours, refrigerate at 2-8°C (35.6 – 46.4°F); if not then freeze at -70°C (-94°F) or on dry ice. Do not freeze virus isolation specimens at -20°C (-4°F), such as in a household type freezer. Do not freeze specimens, which are to be tested for CMV or RSV.

**Shipping:** Pack the specimen in an insulated container with sufficient dry ice or ice packs to maintain a constant temperature throughout shipment. If the specimen is frozen, it must be shipped on dry ice and arrive frozen at the laboratory. If dry ice is used, the specimen must be placed in a sealed container to protect it from CO<sub>2</sub>. Deliver to the laboratory via the established overnight courier system, or as quickly as possible.

**Special requirements:** Do not freeze virus isolation specimens at -20°C (-4°F), such as in a household type freezer. Do not freeze specimens which are to be tested specifically for CMV or RSV.

**Rejection criteria:** Samples older than 72 hours that are not frozen will be rejected.

**Contact:** Virology/Serology Supervisor (505-383-9124) or VS Line Supervisor (505-383-9125).

## VZV Immune Status

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See “Varicella zoster (VZV), immune status”

## Yeast/Mold Culture

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See “Fungal/Yeast Culture”

## Yeast/Mold Reference Identification

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See "Fungal/Yeast Reference Isolate"

## Yeast/Mold Sequencing

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**Description:** DNA sequencing of D2 mitochondrial region of genome for identification of fungi

**Specimen:** Pure culture from General Microbiology/Environmental Microbiology Sections

**Normal Value:** N/A

**Analysis Requested:** See culture above

**Estimated Turnaround Time:** 10 working days.

**Collection:** N/A

**Handling:** N/A

**Shipping:** N/A

**Special Requirements:** N/A

**Rejection criteria:** N/A

**Contact:** Molecular Biology Supervisor (505-383-9130) or MB Line Supervisor (505-383-9160).

## Yersinia enterocolitica

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**Description:** Isolation and identification of *Yersinia* spp. from clinical specimen, or confirmation of isolated organism by culture methods, including MALDI TOF.

**Specimen:** Send stool specimen in enteric transport kit within 48 hrs of collection, or send isolated organism on tube medium.

**Normal Value:** No *Yersinia enterocolitica* isolated by culture.

**Analysis Requested:** *Yersinia enterocolitica*: \_\_\_\_\_

**Estimated Turnaround Time:** 1-4 weeks for isolation and identification.

**Collection:** See enteric culture for stool collection.

**Handling:** Refrigerate stool in enteric transport and send ASAP. Isolated bacteria may be refrigerated or room temperature.

**Shipping:** Ship stool in enteric transport media cold, on an ice pack. Bacterial isolates may be shipped cold or room temperature.

**Special Requirements:** N/A

**Rejection criteria:** See General Rejection Criteria. Stool specimen not in enteric transport media or received >48 hours from collection will be rejected. Culture isolates that are non-viable, uninoculated or obviously compromised will be rejected.

**Contact:** General Microbiology Supervisor (505-383-9128) or GM Line Supervisor (505-383-9127).

## Yersinia pestis (plague), culture

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See "Plague culture"

## Yersinia pestis (plague), serology

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**Description:** Hemagglutination and hemagglutination inhibition test for detection of antibody to *Yersinia pestis*. Testing must be approved by ERD (call 505-827-0006). ERD approved specimens are sent out to CDC for testing.

**Specimen:** 5 ml acute and convalescent sera.

**Normal Value:** <1:16 dilution.

**Analysis Requested:** Plague/Tularemia antibody.

**Estimated Turnaround Time:** ERD-approved specimens are sent out to CDC for testing.

**Collection:** Collect specimen by drawing blood a double gel serum separator tube that does not contain preservatives. After allowing clot to form, centrifuge specimen and transfer serum to a sterile container and freeze at -20°C (-4°F).

**Handling:** Specimen must be frozen at -20°C (-4°F) and shipped on dry ice.

**Shipping:** Specimen must be shipped with dry ice to ensure that the specimen does not thaw.

**Special requirements:** Must be shipped on dry ice since specimen is frozen. Must be approved by ERD (call 505-827-0006). ERD-approved specimens are sent out to CDC for testing.

**Rejection criteria:** Samples not frozen will be rejected. Samples received on the clot will also be rejected.

**Contact:** Virology/Serology Supervisor (505-383-9124) or VS Line Supervisor (505-383-9125).

### **Zika Virus Serology or RT-PCR**

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See “Arbovirus, Zika MAC\_ELISA” or “Arbovirus, Real-Time RT-PCR”

# ANIMAL TESTING

## ANIMAL TEST REQUEST FORM

The SLD animal test request form can be found on our website, located here  
<http://nmhealth.org/publication/view/form/1501/>

| NEW MEXICO<br>DEPARTMENT OF<br>HEALTH                                                                                                                                                                                                                                                                                                                                                              |                                                         | SLD ANIMAL TEST REQUEST FORM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                            | LAB NO.                                                                                          |  |                                |                                 |                                  |                                       |                                   |                                  |                              |                                 |                                  |                                 |                                 |                                 |                                 |                                     |                                |                                  |                                |                                       |
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|                                                                                                                                                                                                                                                                                                                                                                                                    |                                                         | Scientific Laboratory Division<br>1101 Camino de Salud NE<br>Albuquerque, NM 87102                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                            |                                                                                                  |  |                                |                                 |                                  |                                       |                                   |                                  |                              |                                 |                                  |                                 |                                 |                                 |                                 |                                     |                                |                                  |                                |                                       |
| PLEASE PRINT LEGIBLY and provide information for ALL shaded sections!                                                                                                                                                                                                                                                                                                                              |                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                            |                                                                                                  |  |                                |                                 |                                  |                                       |                                   |                                  |                              |                                 |                                  |                                 |                                 |                                 |                                 |                                     |                                |                                  |                                |                                       |
| SLD<br>USE > ><br>ONLY                                                                                                                                                                                                                                                                                                                                                                             |                                                         | DATE<br>< < TIME<br>STAMP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                            | USER CODE: (CHECK ONE)<br><input type="checkbox"/> 70101 (VDS)<br><input type="checkbox"/> Other |  |                                |                                 |                                  |                                       |                                   |                                  |                              |                                 |                                  |                                 |                                 |                                 |                                 |                                     |                                |                                  |                                |                                       |
| SUBMITTER INFORMATION                                                                                                                                                                                                                                                                                                                                                                              |                                                         | ANIMAL DATA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                            |                                                                                                  |  |                                |                                 |                                  |                                       |                                   |                                  |                              |                                 |                                  |                                 |                                 |                                 |                                 |                                     |                                |                                  |                                |                                       |
| SUBMITTER CODE <input type="checkbox"/> Check if: <input type="checkbox"/> VDS (125)<br>All others-Complete information below<br>SUBMITTER CODE: _____<br>FACILITY NAME: _____<br>ADDRESS: _____<br>Street/PO Box/Rural Route # _____<br>City _____ State _____ Zip Code _____<br>PHONE: ( ) _____<br>ATTENTION: _____<br>CLINICIAN NAME: (Last) _____ (First) _____<br>PHONE #: ( ) _____ - _____ |                                                         | OTHER ID or VDS# : _____<br>Animal/Number ID: _____<br>AGE : _____ month _____ day _____ year<br>Check one box to indicate proper age time frame<br>GENDER: <input type="checkbox"/> MALE <input type="checkbox"/> FEMALE<br>COLLECTION LOCATION:<br>SPECIES (Check one and indicate genus and species)<br><table border="0"><tr><td><input type="checkbox"/> Avian</td><td><input type="checkbox"/> Equine</td><td><input type="checkbox"/> Porcine</td></tr><tr><td><input type="checkbox"/> Avian-ratite</td><td><input type="checkbox"/> Elephant</td><td><input type="checkbox"/> Primate</td></tr><tr><td><input type="checkbox"/> Bat</td><td><input type="checkbox"/> Feline</td><td><input type="checkbox"/> Reptile</td></tr><tr><td><input type="checkbox"/> Bovine</td><td><input type="checkbox"/> Lapine</td><td><input type="checkbox"/> Rodent</td></tr><tr><td><input type="checkbox"/> Canine</td><td><input type="checkbox"/> Mosquitoes</td><td><input type="checkbox"/> Skunk</td></tr><tr><td><input type="checkbox"/> Caprine</td><td><input type="checkbox"/> Ovine</td><td><input type="checkbox"/> Other: _____</td></tr></table><br>Genus: _____ Species: _____ |                                            |                                                                                                  |  | <input type="checkbox"/> Avian | <input type="checkbox"/> Equine | <input type="checkbox"/> Porcine | <input type="checkbox"/> Avian-ratite | <input type="checkbox"/> Elephant | <input type="checkbox"/> Primate | <input type="checkbox"/> Bat | <input type="checkbox"/> Feline | <input type="checkbox"/> Reptile | <input type="checkbox"/> Bovine | <input type="checkbox"/> Lapine | <input type="checkbox"/> Rodent | <input type="checkbox"/> Canine | <input type="checkbox"/> Mosquitoes | <input type="checkbox"/> Skunk | <input type="checkbox"/> Caprine | <input type="checkbox"/> Ovine | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Avian                                                                                                                                                                                                                                                                                                                                                                     | <input type="checkbox"/> Equine                         | <input type="checkbox"/> Porcine                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                            |                                                                                                  |  |                                |                                 |                                  |                                       |                                   |                                  |                              |                                 |                                  |                                 |                                 |                                 |                                 |                                     |                                |                                  |                                |                                       |
| <input type="checkbox"/> Avian-ratite                                                                                                                                                                                                                                                                                                                                                              | <input type="checkbox"/> Elephant                       | <input type="checkbox"/> Primate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                            |                                                                                                  |  |                                |                                 |                                  |                                       |                                   |                                  |                              |                                 |                                  |                                 |                                 |                                 |                                 |                                     |                                |                                  |                                |                                       |
| <input type="checkbox"/> Bat                                                                                                                                                                                                                                                                                                                                                                       | <input type="checkbox"/> Feline                         | <input type="checkbox"/> Reptile                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                            |                                                                                                  |  |                                |                                 |                                  |                                       |                                   |                                  |                              |                                 |                                  |                                 |                                 |                                 |                                 |                                     |                                |                                  |                                |                                       |
| <input type="checkbox"/> Bovine                                                                                                                                                                                                                                                                                                                                                                    | <input type="checkbox"/> Lapine                         | <input type="checkbox"/> Rodent                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                            |                                                                                                  |  |                                |                                 |                                  |                                       |                                   |                                  |                              |                                 |                                  |                                 |                                 |                                 |                                 |                                     |                                |                                  |                                |                                       |
| <input type="checkbox"/> Canine                                                                                                                                                                                                                                                                                                                                                                    | <input type="checkbox"/> Mosquitoes                     | <input type="checkbox"/> Skunk                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                            |                                                                                                  |  |                                |                                 |                                  |                                       |                                   |                                  |                              |                                 |                                  |                                 |                                 |                                 |                                 |                                     |                                |                                  |                                |                                       |
| <input type="checkbox"/> Caprine                                                                                                                                                                                                                                                                                                                                                                   | <input type="checkbox"/> Ovine                          | <input type="checkbox"/> Other: _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                            |                                                                                                  |  |                                |                                 |                                  |                                       |                                   |                                  |                              |                                 |                                  |                                 |                                 |                                 |                                 |                                     |                                |                                  |                                |                                       |
| DATE SPECIMEN COLLECTED: ____/____/____ (MM/DD/YYYY)                                                                                                                                                                                                                                                                                                                                               |                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                            |                                                                                                  |  |                                |                                 |                                  |                                       |                                   |                                  |                              |                                 |                                  |                                 |                                 |                                 |                                 |                                     |                                |                                  |                                |                                       |
| SPECIMEN SOURCE ( Check one ) :                                                                                                                                                                                                                                                                                                                                                                    |                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                            |                                                                                                  |  |                                |                                 |                                  |                                       |                                   |                                  |                              |                                 |                                  |                                 |                                 |                                 |                                 |                                     |                                |                                  |                                |                                       |
| <input type="checkbox"/> Abomasum                                                                                                                                                                                                                                                                                                                                                                  | <input type="checkbox"/> Choana                         | <input type="checkbox"/> Intestine, large                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <input type="checkbox"/> Pericardial fluid | <input type="checkbox"/> Tissue biopsy                                                           |  |                                |                                 |                                  |                                       |                                   |                                  |                              |                                 |                                  |                                 |                                 |                                 |                                 |                                     |                                |                                  |                                |                                       |
| <input type="checkbox"/> Abortion material                                                                                                                                                                                                                                                                                                                                                         | <input type="checkbox"/> Cloaca                         | <input type="checkbox"/> Intestine, small                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <input type="checkbox"/> Peritoneal fluid  | <input type="checkbox"/> (site): _____                                                           |  |                                |                                 |                                  |                                       |                                   |                                  |                              |                                 |                                  |                                 |                                 |                                 |                                 |                                     |                                |                                  |                                |                                       |
| <input type="checkbox"/> Abscess : _____                                                                                                                                                                                                                                                                                                                                                           | <input type="checkbox"/> Crop                           | <input type="checkbox"/> Joint Fluid                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <input type="checkbox"/> Pleural fluid     | <input type="checkbox"/> Tracheal asp.                                                           |  |                                |                                 |                                  |                                       |                                   |                                  |                              |                                 |                                  |                                 |                                 |                                 |                                 |                                     |                                |                                  |                                |                                       |
| <input type="checkbox"/> (site): _____                                                                                                                                                                                                                                                                                                                                                             | <input type="checkbox"/> CSF                            | <input type="checkbox"/> Kidney                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <input type="checkbox"/> Prepuce           | <input type="checkbox"/> Trunk Wash                                                              |  |                                |                                 |                                  |                                       |                                   |                                  |                              |                                 |                                  |                                 |                                 |                                 |                                 |                                     |                                |                                  |                                |                                       |
| <input type="checkbox"/> Aspirate : _____                                                                                                                                                                                                                                                                                                                                                          | <input type="checkbox"/> Cyst (site): _____             | <input type="checkbox"/> Liver                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <input type="checkbox"/> Rectum            | <input type="checkbox"/> Urine                                                                   |  |                                |                                 |                                  |                                       |                                   |                                  |                              |                                 |                                  |                                 |                                 |                                 |                                 |                                     |                                |                                  |                                |                                       |
| <input type="checkbox"/> (site): _____                                                                                                                                                                                                                                                                                                                                                             | <input type="checkbox"/> Duodenum                       | <input type="checkbox"/> Liver/Spleen                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <input type="checkbox"/> Scrotum           | <input type="checkbox"/> Urethra                                                                 |  |                                |                                 |                                  |                                       |                                   |                                  |                              |                                 |                                  |                                 |                                 |                                 |                                 |                                     |                                |                                  |                                |                                       |
| <input type="checkbox"/> Blood, venous                                                                                                                                                                                                                                                                                                                                                             | <input type="checkbox"/> Ear                            | <input type="checkbox"/> Lymph node                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <input type="checkbox"/> Serum             | <input type="checkbox"/> Uterus                                                                  |  |                                |                                 |                                  |                                       |                                   |                                  |                              |                                 |                                  |                                 |                                 |                                 |                                 |                                     |                                |                                  |                                |                                       |
| <input type="checkbox"/> Bone                                                                                                                                                                                                                                                                                                                                                                      | <input type="checkbox"/> Eye                            | <input type="checkbox"/> Lung                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <input type="checkbox"/> Skin              | <input type="checkbox"/> Vagina                                                                  |  |                                |                                 |                                  |                                       |                                   |                                  |                              |                                 |                                  |                                 |                                 |                                 |                                 |                                     |                                |                                  |                                |                                       |
| <input type="checkbox"/> Bone marrow                                                                                                                                                                                                                                                                                                                                                               | <input type="checkbox"/> Feces                          | <input type="checkbox"/> Milk/Colostrum                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <input type="checkbox"/> Spleen            | <input type="checkbox"/> Wound                                                                   |  |                                |                                 |                                  |                                       |                                   |                                  |                              |                                 |                                  |                                 |                                 |                                 |                                 |                                     |                                |                                  |                                |                                       |
| <input type="checkbox"/> Brain                                                                                                                                                                                                                                                                                                                                                                     | <input type="checkbox"/> Hair                           | <input type="checkbox"/> Muscle                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <input type="checkbox"/> Stomach           | <input type="checkbox"/> (site): _____                                                           |  |                                |                                 |                                  |                                       |                                   |                                  |                              |                                 |                                  |                                 |                                 |                                 |                                 |                                     |                                |                                  |                                |                                       |
| <input type="checkbox"/> Bronchial wash                                                                                                                                                                                                                                                                                                                                                            | <input type="checkbox"/> Head                           | <input type="checkbox"/> Nail                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <input type="checkbox"/> Testis            | <input type="checkbox"/> Other: _____                                                            |  |                                |                                 |                                  |                                       |                                   |                                  |                              |                                 |                                  |                                 |                                 |                                 |                                 |                                     |                                |                                  |                                |                                       |
| <input type="checkbox"/> Cecum                                                                                                                                                                                                                                                                                                                                                                     | <input type="checkbox"/> Ileum                          | <input type="checkbox"/> Nose                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <input type="checkbox"/> Throat swab/wash  | <input type="checkbox"/> Isolate                                                                 |  |                                |                                 |                                  |                                       |                                   |                                  |                              |                                 |                                  |                                 |                                 |                                 |                                 |                                     |                                |                                  |                                |                                       |
| General Bacteriology                                                                                                                                                                                                                                                                                                                                                                               |                                                         | VIROLOGY / SEROLOGY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                            | For Rabies ONLY ( Check all that apply ) :                                                       |  |                                |                                 |                                  |                                       |                                   |                                  |                              |                                 |                                  |                                 |                                 |                                 |                                 |                                     |                                |                                  |                                |                                       |
| <input type="checkbox"/> Salmonella, serotype                                                                                                                                                                                                                                                                                                                                                      | <input type="checkbox"/> Plague/Tularemia Ab            | Victim Type: <input type="checkbox"/> Human <input type="checkbox"/> Pet <input type="checkbox"/> Livestock                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                            |                                                                                                  |  |                                |                                 |                                  |                                       |                                   |                                  |                              |                                 |                                  |                                 |                                 |                                 |                                 |                                     |                                |                                  |                                |                                       |
| <input type="checkbox"/> Plague FA                                                                                                                                                                                                                                                                                                                                                                 | <input type="checkbox"/> Rabies (Complete 'Rabies' Box) | Bite site: _____ Bite Date: ____/____/____ (MM/DD/YYYY)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                            |                                                                                                  |  |                                |                                 |                                  |                                       |                                   |                                  |                              |                                 |                                  |                                 |                                 |                                 |                                 |                                     |                                |                                  |                                |                                       |
| <input type="checkbox"/> Plague FA & Plague/Tularemia Culture                                                                                                                                                                                                                                                                                                                                      | <input type="checkbox"/> Arbovirus                      | Victim Exposed Name: _____ Last _____ First _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                            |                                                                                                  |  |                                |                                 |                                  |                                       |                                   |                                  |                              |                                 |                                  |                                 |                                 |                                 |                                 |                                     |                                |                                  |                                |                                       |
| <input type="checkbox"/> Other: _____                                                                                                                                                                                                                                                                                                                                                              | <input type="checkbox"/> Other: _____                   | Victim Address: _____ Street _____ City _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                            |                                                                                                  |  |                                |                                 |                                  |                                       |                                   |                                  |                              |                                 |                                  |                                 |                                 |                                 |                                 |                                     |                                |                                  |                                |                                       |
| TB / MYCOLOGY                                                                                                                                                                                                                                                                                                                                                                                      |                                                         | Molecular Biology<br>(For VDS use only)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                            | Description of Animal Submitted for testing _____                                                |  |                                |                                 |                                  |                                       |                                   |                                  |                              |                                 |                                  |                                 |                                 |                                 |                                 |                                     |                                |                                  |                                |                                       |
| <input type="checkbox"/> AFB culture                                                                                                                                                                                                                                                                                                                                                               | <input type="checkbox"/> Bacterial Sequencing           | Additional Comments or Requests _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                            |                                                                                                  |  |                                |                                 |                                  |                                       |                                   |                                  |                              |                                 |                                  |                                 |                                 |                                 |                                 |                                     |                                |                                  |                                |                                       |
| <input type="checkbox"/> Aerobic actinomycetes                                                                                                                                                                                                                                                                                                                                                     | <input type="checkbox"/> Campylobacter PCR              | NOTICE: The Regulations Governing Animal Control, 7 NMAC 4.2 contain the requirements for submitting animal specimens for testing for the presence of the rabies virus as well as the criteria for impounding animals for observation after they have bitten a person. The decision to impound or destroy an animal should be made in consultation with local animal control officers, appropriate medical and veterinary practitioners and the Department of Health's epidemiology and medical staff.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                            |                                                                                                  |  |                                |                                 |                                  |                                       |                                   |                                  |                              |                                 |                                  |                                 |                                 |                                 |                                 |                                     |                                |                                  |                                |                                       |
| <input type="checkbox"/> Fungal culture                                                                                                                                                                                                                                                                                                                                                            | <input type="checkbox"/> Coxiella burnetii PCR          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                            |                                                                                                  |  |                                |                                 |                                  |                                       |                                   |                                  |                              |                                 |                                  |                                 |                                 |                                 |                                 |                                     |                                |                                  |                                |                                       |
|                                                                                                                                                                                                                                                                                                                                                                                                    |                                                         | <input type="checkbox"/> Other _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                            |                                                                                                  |  |                                |                                 |                                  |                                       |                                   |                                  |                              |                                 |                                  |                                 |                                 |                                 |                                 |                                     |                                |                                  |                                |                                       |
| SLD Form 105, v2                                                                                                                                                                                                                                                                                                                                                                                   |                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                            |                                                                                                  |  |                                |                                 |                                  |                                       |                                   |                                  |                              |                                 |                                  |                                 |                                 |                                 |                                 |                                     |                                |                                  |                                |                                       |

Phone #/s: General Microbiology (505)383-9126/27/28; Molecular Biology (505)383-9130/60; Virology/Serology (505)383-9125/24/33; BSB Chief (505)383-9122; Switchboard (505)383-9000 Fax (505)383-9121

## SUBMISSION PROCEDURES

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N/A

## REJECTION CRITERIA

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- ◆ No specimen received
- ◆ No submission form received
- ◆ No ID on specimen
- ◆ Unsatisfactory specimen (e.g., too hemolyzed or decomposed)
- ◆ Specimen container broken in transit
- ◆ Specimen leaked in transit
- ◆ Quantity not sufficient for testing
- ◆ ID on specimen does not match ID on form

## TESTS OFFERED

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### Aerobic Actinomyces

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**Description:** Isolation and identification of Aerobic Actinomycetes from an animal specimen, through smear and culture methods. May include MALDI TOF and/or molecular sequencing.

**Specimen:** Respiratory specimens, sterile body fluids, exudates, abscess material, tissue, scabs, or crusty lesions- collect in sterile container (TB kit), or culture isolates.

**Normal Value:** No aerobic Actinomycetes isolated.

**Analysis Requested:** TB/Mycology, Aerobic Actinomycetes.

**Estimated Turnaround Time:** 4–6 weeks.

**Collection:** Send clinical specimen in TB Kit or isolate in appropriate medium.

**Handling:** N/A

**Shipping:** Room temperature or refrigerated, on an ice pack.

**Special Requirements:** N/A

**Rejection criteria:** See General Rejection Criteria. Additionally, clinical specimens received as a dry swab, or either clinical specimens or culture isolates that are obviously desiccated, received in preservative such as formalin or otherwise compromised will be rejected.

**Contact:** General Microbiology Supervisor (505-383-9128) or TB Line Supervisor (505-383-9126).

### AFB/Tuberculosis, culture

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**Description:** Direct smear, real-time PCR, and culture by solid and liquid media for Acid Fast Bacilli. If Positive, includes Identification by PCR and/or MALDI TOF.

**Specimen:** Bronchial wash/lavage, cerebral spinal fluid, lymph node aspirate, fluid from a wound or sterile body fluid, peritoneal fluid, pleural fluid, sputum, tissue, urine, trunk washes (elephant), or isolate.

**Normal Value:** No Acid Fast Bacilli isolated.

**Analysis Requested:** TB/Mycology, AFB Culture.

**Estimated Turnaround Time:** 6-8 weeks.

**Collection:** Send clinical specimen in TB Kit or isolate in appropriate medium.

**Handling:** refrigerate upon collection and ship ASAP

**Shipping:** ship cold, on an ice pack.

**Special Requirements:** N/A

**Rejection criteria:** See General Rejection Criteria. Swabs are not appropriate for AFB culture, and will be rejected. Broken or leaking tubes, specimen in preservative (formalin), inadequate specimen volume (less than 0.5 ml specimen in container) specimens received on a swab, in a swab transport device, or in gauze, paper towel, etc., urine specimens collected less than 1 day apart, or specimens > 7 days old upon receipt. Specimens received at improper temperature or with evidence of improper handling or packaging will be rejected

**Contact:** General Microbiology Supervisor (505-383-9128) or TB Line Supervisor (505-383-9126).

### **AFB/Mycobacterium – Real-Time PCR**

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**Description:** Amplification of *Mycobacterium* DNA by real-time PCR, includes differentiation of MTBC and NTM.

**Specimen:** Bronchial wash/lavage, cerebral spinal fluid, lymph node aspirate, fluid from a wound or sterile body fluid, peritoneal fluid, pleural fluid, sputum, tissue, urine, trunk washes (elephant) or cultures submitted to the General Microbiology section for AFB/Tuberculosis testing.

**Normal Value:** No *Mycobacterium* spp. DNA detected.

**Analysis Requested:** See AFB/Tuberculosis above.

**Estimated Turnaround Time:** 1 working day from receipt of sample from General Microbiology section.

**Collection:** See AFB/Tuberculosis above.

**Handling:** See AFB/Tuberculosis above.

**Shipping:** See AFB/Tuberculosis above.

**Special Requirements:** See AFB/Tuberculosis above.

**Rejection criteria:** See AFB/Tuberculosis above.

**Contact:** Molecular Biology Supervisor (505-383-9130), MB Line Supervisor (505-383-9160).

### **Arbovirus**

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**Description:** *Approval must be obtained prior to shipment;* instructions will be provided based on the arbovirus of interest.

**Specimen:** Mosquito pools and other animal specimens as instructed. Acceptable specimens will vary based on the arbovirus suspected.

**Normal Value:** No Viral RNA detected by real-time RT-PCR.

**Analysis Requested:** Under Virology/Serology section, check box for Arbovirus.

Testing performed may include identification of:

- Chikungunya
- Saint Louis Encephalitis
- Western Equine Encephalitis
- West Nile

**Estimated Turnaround Time:** 7 working days from receipt of sample.

**Collection:** Collect mosquito specimens using available methods. Necropsy required for vertebrates.

**Handling:** Refrigerate specimens after collection. If samples will not arrive within 48 hours, freeze specimen at -70°C or below and ship frozen.

**Shipping:** Ship refrigerated samples as soon as possible after collection so that testing may begin within 48 hours after collection.

**Special Requirements:** Frozen samples must be shipped on dry ice.

**Rejection criteria:** Frozen samples do not arrive frozen at SLD. Samples without identification. Please contact Virology/Serology Supervisor (505-383-9124) or VS Line Supervisor (505-383-9125) for these tests prior to shipment.

### **Bacillus anthracis (anthrax), culture**

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**Description:** Culture for *B. anthracis* from clinical animal specimen or rule out *B. anthracis* from submitted isolate. Please call ERD and General Microbiology prior to sending.

**Specimen:** Blood, sputum, wound Animal specimen inoculated to plates by VDS, or isolated Bacillus.

**Normal Value:** No *Bacillus anthracis* isolated by culture.

**Analysis Requested:** General Bacteriology, Other: \_\_\_\_\_; please write "Anthrax" or "B. anthracis".

**Estimated Turnaround Time:** 3-7 days.

**Collection:** N/A

**Handling:** N/A

**Shipping:** N/A

**Special Requirements:** N/A

**Rejection criteria:** See General Rejection Criteria.

**Contact:** General Microbiology Supervisor (505-383-9128) or GM Line Supervisor (505-383-9127).

### **Bacillus anthracis, real-time PCR confirmation**

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**Description:** DNA amplification.

**Specimen:** Culture from General Microbiology/ Environmental Microbiology Sections.

**Normal Value:** *B. anthracis* DNA detected by real-time PCR.

**Analysis Requested:** See culture above.

**Estimated Turnaround Time:** 1 day.

**Collection:** See criteria for culture submission above.

**Handling:** See criteria for culture submission above.

**Shipping:** See criteria for culture submission above.

**Special Requirements:** See criteria for culture submission above.

**Rejection criteria:** See criteria for culture submission above.

**Contact:** Molecular Biology Supervisor (505-383-9130), MB Line Supervisor (505-383-9160).

### **Brucella, culture**

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**Description:** Culture for *Brucella* sp. from clinical animal specimen, Animal specimen inoculated to plates by VDS, or confirmation of *Brucella* sp. from submitted isolate.

Please call ERD and General Microbiology prior to sending a suspicious isolate.

**Specimen:** Blood, wound culture, abortion material Animal specimen inoculated to plates by VDS or culture isolate.

**Normal Value:** No *Brucella* species isolated by culture.

**Analysis Requested:** General Bacteriology, Other: please write in "Brucella".

**Estimated Turnaround Time:** 1- 5 weeks. May require send out, Turnaround time N/A.

**Collection:** N/A

**Handling:** N/A

**Shipping:** N/A

**Special Requirements:** N/A

**Rejection criteria:** See General Rejection Criteria.

**Contact:** General Microbiology Supervisor (505-383-9128) or GM Line Supervisor (505-383-9127).

### **Campylobacter, culture**

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**Description:** Isolation of *Campylobacter* from feces, abortion material or other animal source, or confirmation and identification from an isolate by culture, MALDI-TOF.

**Specimen:** Animal specimen inoculated to selective plates by VDS, and incubated in appropriate conditions. Isolated suspect *Campylobacter sp* submitted on culture plates.

**Analysis Requested:** General Bacteriology, other: please write “Campylobacter”.

**Normal Value:** No Campylobacter species isolated by culture.

**Estimated Turnaround Time:** 1-3weeks.

**Collection:** N/A

**Handling:** N/A

**Shipping:** N/A

**Special Requirements:** N/A

**Rejection criteria:** See General Rejection Criteria. Inoculated media not incubated in appropriate conditions will be rejected.

**Contact:** General Microbiology Supervisor (505-383-9128) or GM Line Supervisor (505-383-9127).

### **Chikungunya virus Real-Time RT-PCR**

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See Arbovirus

### **Coccidioides**

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**Description:** Identification of fungal isolate by morphology and molecular sequencing.

**Specimen:** Send isolate on tube media such as Sabourad Dextrose Agar, IMA or Mycosel; tissue sample in sterile container.

**Normal value:** No *Coccidioides immitis/posadasii* isolated.

**Analysis Requested:** TB/Mycology,fungal culture. Please write; “Coccidioides”.

**Estimated Turnaround Time:** 1 week.

**Collection:** Send isolate on culture media such as Sabourad Dextrose Agar.

**Handling:** N/A

**Shipping:** Send at room temperature.

**Special Requirements:** Please call General Microbiology prior to sending.

**Rejection criteria:** See General Rejection Criteria.

**Contact:** General Microbiology Supervisor (505-383-9128) or TB Line Supervisor (505-383-9126).

### **Coxiella burnetti, real-time PCR**

---

**Description:** Amplification of *C. burnetti* DNA. Results reported only to ERD.

**Specimen:** Raw sample from Veterinary Diagnostic Services

**Normal Value:** No *C. burnetti* DNA detected.

**Analysis Requested:** Other – *Coxiella burnetti*, real-time PCR

**Estimated Turnaround Time:** 2 working days.

**Collection:** N/A

**Handling:** N/A

**Shipping:** N/A

**Special Requirements:** N/A

**Rejection criteria:** N/A

**Contact:** Molecular Biology Supervisor (505-383-9130) or MB Line Supervisor (505-383-9160).

### Plague, culture

---

**Description:** Isolation and identification of *Yersinia pestis* by culture methods. Animal testing provided as routine surveillance.

**Specimen:** Blood in blood culture bottles; lymph node aspirates, wound in appropriate bacterial transport; tissue, liver/spleen in sterile sealable container. Bacterial isolate.

**Normal Value:** No *Yersinia pestis* isolated by culture.

**Analysis Requested:** Plague/Tularemia Culture.

**Estimated Turnaround Time:** FA: 2 days; Culture: 7 to 10 working days.

**Collection:** N/A

**Handling:** Isolate on appropriate plate or tube media. Clinical swabs for bacterial testing refrigerate and submit on an ice pack. Blood culture bottles are stored at room temperature or incubated prior to delivery to SLD. Tissue is refrigerated.

**Shipping:** Ship blood culture bottles or isolates at room temperature. Tissue and swabs should be shipped cold, on an ice pack.

**Special Requirements:** N/A

**Rejection criteria:** see general rejection criteria.

**Contact:** GM supervisor, (505)383-9128, or GM line supervisor (505-383-9127)

### Plague, serology

---

**Description:** Hemagglutination and hemagglutination inhibition test for detection of antibody to *Yersinia pestis*.

**Specimen:** 1 ml serum.

**Normal Value:** <1:32 dilution.

**Analysis requested:** Plague/Tularemia Ab.

**Estimated Turnaround Time:** 5 working days.

**Collection:** Collect specimen by drawing blood in a double gel serum separator tube that does not contain preservatives.

**Handling:** After allowing clot to form, centrifuge specimen and transfer serum to a sterile tube. Refrigerate at 2-8°C. Refrigerated specimens must be tested within 5 days of collection.

**Shipping:** Ship on cold pack.

**Special requirements:** N/A

**Rejection criteria:** Unsatisfactory specimens (e.g., hemolysis).

**Contact:** Virology/Serology Supervisor (505-383-9124) or VS Line Supervisor (505-383-9125).

### Rabies DFA

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**Description:** Direct fluorescent antibody test for rabies antigen in brain tissue. Emergency testing available through ERD (call 505-827-0006).

**Specimen:** Decapitated head of small animal, brain only of large animal, whole bats accepted. Rodents, lagomorphs, insectivores not tested. Entire animal corpse will not be accepted for analysis.

**Normal Value:** Negative.

**Analysis Requested:** Rabies; then complete rabies box.

**Estimated Turnaround Time:** 1 working day.

**Collection:** Decapitate animal close to base of skull; drain blood. If unable to remove the brain from large animals, contact Virology/Serology Supervisor (505-383-9124) or Line Supervisor (505-383-9125)

**Handling:** Place specimen in at least two layers of plastic bags to prevent leakage. Refrigerate specimen at 2-8°C. Submit specimen as soon as possible after collection.

**Shipping:** See "Packaging and Shipping of Specimens for Rabies Testing".

**Special Requirements:** Specimens must be refrigerated enroute to laboratory. Do not freeze, as this may delay testing.

**Rejection criteria:** N/A

**Contact:** Virology/Serology Supervisor (505-383-9124) or VS Line Supervisor (505-383-9125).

## Salmonella

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**Description:** Isolation and identification of *Salmonella* spp. from clinical specimens. Includes serotype of positive cultures. Confirmation and serotype performed on all *Salmonella* isolates for epidemiologic purposes. Test request includes *Salmonella* culture, and serotype if applicable.

**Specimen:** Animal tissue or enteric specimen inoculated by VDS or delivered in appropriate transport media and submitted to General Microbiology Section. Suspect *Salmonella* spp isolate on plate or tube agar.

**Normal Value:** *Salmonella* culture: No *Salmonella* isolated by culture.

**Analysis request:** Salmonella, serotype.

**Estimated Turnaround Time:** 1–4 weeks

**Collection:** Stool placed into enteric transport media, such as Cary Blair within 2 hours of passing.

**Handling:** N/A

**Shipping:** Send stool specimen in enteric transport kit within 48 hours of collection, cold, on an ice pack. Send isolates on appropriate tube transport medium at room temperature or cold, on an ice pack.

**Special Requirements:** N/A

**Rejection criteria:** See General Rejection Criteria. Non-viable, uninoculated isolate, or obviously compromised specimen will be rejected.

**Contact:** General Microbiology Supervisor (505-383-9128) or GM Line Supervisor (505-383-9127).

## Tularemia, culture

---

**Description:** Isolation and identification of *Francisella tularensis* by culture methods. Animal testing provided as routine surveillance.

**Specimen** Blood in blood culture bottles; lymph node aspirates, wound in appropriate bacterial transport; tissue, liver/spleen in sterile sealable container. Bacterial isolate.

**Normal Value:** No *Francisella tularensis* isolated by culture.

**Analysis Requested:** Plague/Tularemia culture.

**Estimated Turnaround Time:** 7-10 working days.

**Collection:** Collect blood into blood culture bottles. Wound Tissue, such as liver/spleen in sterile, sealable container.

**Handling:** Animal specimen inoculated to plates by VDS and incubated in appropriate conditions or collected in appropriate bacterial transport device and delivered to SLD. Blood culture bottles are stored at room temperature or incubated prior to delivery to SLD. Tissue is refrigerated prior to inoculation to culture plates.

**Shipping:** Ship blood culture bottles at room temperature. Tissue should be shipped cold, on an ice pack.

**Special Requirements:** N/A

**Rejection criteria:** See general rejection criteria.

**Contact:** General Microbiology Supervisor (505-383-9128) or GM Line Supervisor (505-383-9127).

### Tularemia, serology

---

**Description:** Direct agglutination procedure for the detection of antibody to tularemia in serum.

**Specimen:** 1 ml serum.

**Normal Value:** <1:128 dilution

**Analysis Requested:** Plague/Tularemia Ab.

**Estimated Turnaround Time:** 5 working days.

**Collection:** Collect specimen by drawing blood in a double gel serum separator tube that does not contain preservatives.

**Handling:** After allowing clot to form, centrifuge specimen and transfer serum to a sterile tube. Refrigerate at 2-8°C. Refrigerated specimens must be tested within 5 days of collection.

**Shipping:** Ship on cold pack.

**Special requirements:** N/A

**Rejection criteria:** Unsatisfactory specimens (e.g., hemolysis).

**Contact:** Virology/Serology Supervisor (505-383-9124) or VS Line Supervisor (505-383-9125).

### Vibrio culture

---

**Description:** Isolation and identification of *Vibrio* species from a clinical animal specimen or identification of *Vibrio* species isolate.

**Specimen:** Specimen inoculated to plates by VDS, and sent to General Microbiology or suspect isolate submitted on plate or tube media.

**Normal Value:** No *Vibrio* species isolated by culture.

**Analysis Requested:** General Bacteriology, Other: please write "vibrio" in space provided.

**Estimated Turnaround Time:** 2 weeks for identification; may require send out, turnaround time N/A.

**Collection:** N/A

**Handling:** Animal specimen inoculated to plates by VDS and incubated appropriately.

**Shipping:** N/A

**Special Requirements:** N/A

**Rejection criteria:** See General Rejection Criteria.

**Contact:** General Microbiology Supervisor (505-383-9128) or GM Line Supervisor (505-383-9127).

### West Nile virus Real-Time RT-PCR

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See Arbovirus

### Yersinia enterocolitica

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**Description:** Isolation and identification of *Yersinia spp.* from clinical specimen, or confirmation of isolated organism by culture methods.

**Specimen:** Animal specimens inoculated by VDS and sent to General Microbiology Section or suspect isolate submitted on plate or tube media.

**Normal Value:** No *Yersinia enterocolitica* isolated by culture.

**Analysis Requested:** General Bacteriology, Other: please write "Yersinia enterocolitica"

**Estimated Turnaround Time:** 1-2 weeks.

**Collection:** N/A

**Handling:** Animal specimen inoculated to plates by VDS and incubated appropriately.

**Shipping:** N/A

**Special Requirements:** N/A

**Rejection criteria:** See General Rejection Criteria

**Contact:** General Microbiology Supervisor (505-383-9128) or GM Line Supervisor (505-383-9127).

### ***Yersinia pestis* (plague), culture**

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See "Plague culture"

# FOOD TESTING

## FOOD ANALYSIS TEST REQUEST FORM

The SLD food analysis test request form can be found on our website, located here  
<http://nmhealth.org/publication/view/form/1499/>

| NEW MEXICO<br>DEPARTMENT OF<br>HEALTH                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                              | FOOD ANALYSIS REQUEST FORM                                                                                                                                                                                                                                                                                                                                                                       |  | LAB NO.                            |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------|
| DATE & TIME<br>OF RECEIPT<br>AT SLD                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                              | Scientific Laboratory Division<br>1101 Camino de Salud NE<br>Albuquerque, N. M. 87102<br>Phone # (505) 383-9129                                                                                                                                                                                                                                                                                  |  | Place Lab No. sticker in this area |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                              | USER CODE:<br><input type="checkbox"/> 51000 (Epidemiology) <input type="checkbox"/> 55110 (NMED) <input type="checkbox"/> 70101 (VDS)<br><input type="checkbox"/> 70102 (NMDA) <input type="checkbox"/> 91300 (FDA) <input type="checkbox"/> Other: <input type="text"/>                                                                                                                        |  |                                    |
| SUBMITTER CODE: <input type="text"/>                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                              | Submitter Agency Name: <input type="text"/>                                                                                                                                                                                                                                                                                                                                                      |  |                                    |
| COLLECTED BY: <input type="text"/>                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                              | DATE SAMPLE COLLECTED: <input type="text"/>                                                                                                                                                                                                                                                                                                                                                      |  |                                    |
| Phone Number: <input type="text"/>                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                              | TIME SAMPLE COLLECTED: <input type="text"/>                                                                                                                                                                                                                                                                                                                                                      |  |                                    |
| SAMPLE INFORMATION ~ to be filled out by the Sample Collector                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                  |  |                                    |
| SAMPLE TYPE: <input type="checkbox"/> FOOD <input type="checkbox"/> SWAB <input type="checkbox"/> OTHER: <input type="text"/>                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                  |  |                                    |
| FIELD SAMPLE ID: <input type="text"/>                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                  |  |                                    |
| FOOD ESTABLISHMENT / SOURCE                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                  |  |                                    |
| Name: <input type="text"/>                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                  |  |                                    |
| Full Address: <input type="text"/>                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                  |  |                                    |
| Food Establishment #: <input type="text"/> Phone #: <input type="text"/>                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                  |  |                                    |
| Reason for Collection<br><input type="checkbox"/> Suspected Foodborne Illness<br><input type="checkbox"/> Routine Surveillance<br><input type="checkbox"/> Consumer Complaint<br><input type="checkbox"/> RMS NARMS<br><input type="checkbox"/> Other                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                              | Product Information<br>Manufacturer/Brand: <input type="text"/><br>Code / Lot: <input type="text"/>                                                                                                                                                                                                                                                                                              |  |                                    |
| Temperature Control at Time of Packing<br><input type="text"/> °C / °F (Circle one)                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                              | SLD Use Only<br>Temp Control at SLD: <input type="checkbox"/> Sample Not Intact <input type="checkbox"/> Sample Intact<br>Initials: <input type="text"/><br>Mode of Arrival:<br><input type="checkbox"/> DMC<br><input type="checkbox"/> In Person<br><input type="checkbox"/> Other                                                                                                             |  |                                    |
| Comments: <input type="text"/>                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                              | Comments: <input type="text"/>                                                                                                                                                                                                                                                                                                                                                                   |  |                                    |
| Analysis Requested ( Check the following that applies: )                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                  |  |                                    |
| <input type="checkbox"/> Listeria<br><input type="checkbox"/> Salmonella<br><input type="checkbox"/> E. coli O157:H7<br><input type="checkbox"/> E. coli O157:H7 Robust Test (325-grams)<br><input type="checkbox"/> Campylobacter<br><input type="checkbox"/> Meat Carcass Swab Coliform/E.coli count<br><input type="checkbox"/> Standard Plate Count (food)<br><input type="checkbox"/> Aerobic Plate Count (swab)<br><input type="checkbox"/> Beta Hemolytic Strep | <input type="checkbox"/> S. aureus<br><input type="checkbox"/> B. cereus<br><input type="checkbox"/> Shigella<br><input type="checkbox"/> Y. enterocolitica<br><input type="checkbox"/> C. perfringens<br><input type="checkbox"/> C. difficile<br><input type="checkbox"/> Yeast / Mold<br><input type="checkbox"/> Gram Negative Culture<br><input type="checkbox"/> Gram Positive Culture | <input type="checkbox"/> C. sakazakii<br><input type="checkbox"/> Gram Stain<br><input type="checkbox"/> pH<br><input type="checkbox"/> Foreign Matter ID<br><input type="checkbox"/> Container Analysis<br><input type="checkbox"/> Coliform Count<br><input type="checkbox"/> E. coli Count<br><input type="checkbox"/> Vibrio species<br><input type="checkbox"/> Other: <input type="text"/> |  |                                    |
| SLD Form 102 v1.0 For the proper food sample collection and shipping instructions please visit our website <a href="http://www.sld.state.nm.us/em.asp">http://www.sld.state.nm.us/em.asp</a>                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                  |  |                                    |

## SUBMISSION PROCEDURES

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The Environmental Microbiology Laboratory (EM) Section at SLD conducts the microbiological testing of food and environmental samples. The lab conducts routine food safety testing from private submitters, who are typically food producers, on a Fee for Service basis (see Fee Schedule). The lab also tests food and environmental samples for etiological agents of public health concern during food borne outbreak situations. During foodborne outbreak situations, samples of concern should not be submitted to the lab without the approval of ERD. It is important to call ERD at (505)827-0006 to discuss the situation at hand in order to determine if testing is truly warranted. The Environmental Microbiology Section of NM SLD requests that all privately submitted swab and food samples arrive at the laboratory **Monday through Wednesday 8 AM – 4:00 PM only**. Samples arriving after 4:00 PM will be tested on the next available workday. There is a possibility that samples arriving later than Wednesday will not be tested until the following week if the sample condition is still adequate. Note that in general, it is strongly recommended that refrigerated samples should not be analyzed more than 36 hours after collection (*FDA -Bacteriological Analytical Manual Online, April 2003 Chapter 1 Food Sampling and Preparation of Sample Homogenate*). Any samples that need to be delivered to the laboratory on Thursdays, Fridays, or before a holiday need to have prior approval from the EM laboratory staff.

Before submitting any food samples for analysis please contact the EM Lab via telephone at 383-9129 or 383-9104 for guidance and consultation regarding the situation at hand.

The condition of food and environmental swab samples received for examination at the lab is of primary importance. All samples should be collected aseptically and with sterile implements. The use of sterile gloves and sterile sample containers is highly recommended. All samples should be held at refrigerated temperatures (< 10 °C) while in transit to the laboratory. If the samples are not properly collected, are mishandled during transport to the lab, or are not representative of the sampled lot, then there is an increased likelihood that laboratory results will be meaningless. Of utmost concern are proper collection, identification, and the shipment of a sufficient amount of sample to the laboratory.

### Food Sample Collection

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1. If sampling from a large amount of food product, a representative sample should be taken. When dealing with large food vessels take a well-mixed sub sample portion from the geometric center as well as from other locations in the food container. Use a sterile utensil to aseptically transfer the samples to sterile leak-proof containers. Remember that a representative sample is essential in order to detect the presence of pathogens or toxins that may be sparsely distributed within the food.
2. Do not mix different types of food products or different lots of food products. For example, if two vessels (A & B) with ground beef are to be collected, transfer the beef from vessel A to one whirl-pak bag and the beef from vessel B to a second whirl-pak bag. It is important to keep different lots of food product separate and avoid cross contamination of any kind.
3. Individual food product samples should be collected one at a time. Aseptically collect approximately 200 to 500 grams (sample portion about the size of a clinched fist, or filling an 18 Oz whirl-pak bag up to about 50% capacity). Properly seal the sample container to ensure that leakage will not occur during transport. For sealing whirl-pak bags, carefully fold over the twist tie opening of the bag at least three times. It is very important that each fold be wrinkle free. Then fold over each end of the twist tie toward the center of the bag and fasten (twist) the twist ties together. Give the bag a gentle squeeze between the palms of your hands to test the seal. If you notice air leakages re-seal the bag.
4. Identify each sample container with a properly marked strip of masking tape. If marking the sample container directly with a black permanent marker, take care not to puncture through lining the sample container (especially if that container is a whirl-pak bag). Label each sample container with the sample type, date and time

of collection. It is important that the sample identification on the sample container match what the FIELD SAMPLE ID is on the Food Analysis Request Form.

5. For finished retail food products, like beef jerky, submitting the product in its finalized package form is acceptable. Just ensure that there is enough sample for testing. Depending on the test type we would need anywhere from 200-grams (7 ounces) to 500-grams (18 ounces).
6. When collecting samples remember to also include an additional sample to serve as a Temperature Control or TC. If there are no additional samples available or if you are sending environmental surface swabs then a bottle (such as a Bacti-Water testing bottle) containing water can be substituted as the TC. The TC should always be in close proximity to the sample so that the sample temperature is accurately reflected. Remember to clearly indicate what you are using as the temperature control by marking "TC" on the temperature control with a black permanent. Be sure to record the temperature of the TC at the time of collection on the Test Request Form.

7. Complete a SLD Food Analysis Request Form or FARF for each sample that is to be submitted. For private submitters sending in routine compliance samples it is important that you write in your proper Submitter Code and Submitter Name (call the lab if you do not know your submitter code). Also mark an "X" on the "Other" box and write in 64000. Other required information on the Food Test Request Form includes: the name and phone # of the sample collector, the date and time that the sample was collected, the sample type, field sample identity (ID), address and phone # of the food establishment involved, the Food Establishment # (which is the same as the submitter #), the reason for collection (usually routine surveillance), the temperature of the temperature control sample at the time of packing, and the test(s) being requested. To your right is an example of what a properly filled out FARF would look like from a routine private submitter.

8. Food samples should be held under refrigeration immediately after collection and should be maintained as such during transport to the laboratory. Do not freeze food samples as it causes a significant loss of viability of certain microorganisms. If the food sample was frozen when initially collected, then maintain it in the frozen state (dry ice recommended) when shipping it to the laboratory.

Note that for finished beef jerky, dry, and canned foods that are not perishable and are normally kept at ambient temperatures need not be refrigerated.

9. When shipping the samples to the laboratory that need to be transported in the frozen or refrigerated state use insulated containers of rigid construction (like Styrofoam ice chests). This will help ensure that the samples will arrive at the laboratory unchanged from the original temperature state at the initial time of collection. For samples that require to be shipped in the refrigerated state, use pre-frozen icepacks to keep the samples cold. If commercially made ice packs are not available then you can make your own ice packs by filling plastic beverage containers to about  $\frac{3}{4}$ 's full with water and then freezing. The use of loose ice should be avoided. If there is no other choice but to use loose ice then samples must be double bagged using Zip-lock bags.
10. When shipping meat carcass and environmental surface swabs ensure that the swabs are transported in the refrigerated state (0.1 to 10°C). The use of pre-frozen icepacks and insulated containers of rigid construction for transport is highly recommended. It is important to protect the swab sample from contact freezing during transport. Ensure that there is adequate insulation between the swab bag surface and the frozen ice packs. Use cardboard pieces so that contact freezing will not occur.

**NEW MEXICO DEPARTMENT OF HEALTH**  
**FOOD ANALYSIS REQUEST FORM**  
 Scientific Laboratory Division  
 700 Camino de Salud NE - P.O. Box 4700  
 Albuquerque, N. M. 87196-4700  
 Phone # (505) 841-2536/2537

LAB NO. \_\_\_\_\_

DATE & TIME OF RECEIPT AT SLD: \_\_\_\_\_

USER CODE: ☐ 51000 (Epidemiology) ☐ 55110 (NMED) ☐ 70101 (VDS) ☐ 70102 (NMDA) ☐ 91300 (FDA) ☒ Other: 64000

SUBMITTER CODE: 171 Submitter Agency Name: Doe's Meat Store

COLLECTED BY: Doe, John DATE SAMPLE COLLECTED: 08/10/09

Phone Number: 802-0000 TIME SAMPLE COLLECTED: 14:00

**SAMPLE INFORMATION** - to be filled out by the Sample Collector

SAMPLE TYPE: ☐ FOOD ☒ SWAB ☐ OTHER: \_\_\_\_\_

FIELD SAMPLE ID: packing Table #1

**FOOD ESTABLISHMENT / SOURCE**

Name: Doe's Meat Store  
 Full Address: 1262 John Doe Ave  
 Albuquerque, NM 80020  
 Food Establishment #: 171 Phone #: 802-0000

**Reason for Collection**  
☐ Suspected Foodborne Illness  
☒ Routine Surveillance  
☐ Consumer Complaint  
☐ RMS NARMS  
☐ Other

**Product Information**  
 Manufacturer/Brand: \_\_\_\_\_  
 Code / Lot: \_\_\_\_\_

**Temperature Control at Time of Packing**  
 39 °C (°F) (Circle one)

**SLD Use Only**  
 Temp Control at SLD: \_\_\_\_\_ °C Initials: \_\_\_\_\_  
☐ Sample Not Intact  
☐ Sample Intact  
 Mode of Arrival: ☐ DMC ☐ In Person ☐ Other

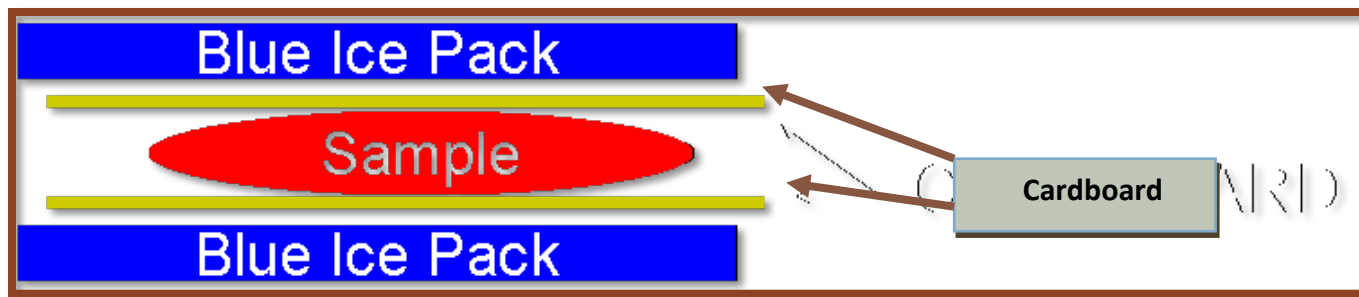
Comments: \_\_\_\_\_

**Analysis Requested** (Check the following that applies:)

|                                                                   |                                                |                                             |
|-------------------------------------------------------------------|------------------------------------------------|---------------------------------------------|
| <input checked="" type="checkbox"/> Listeria                      | <input type="checkbox"/> S. aureus             | <input type="checkbox"/> C. sakazakii       |
| <input type="checkbox"/> Salmonella                               | <input type="checkbox"/> B. cereus             | <input type="checkbox"/> Gram Stain         |
| <input type="checkbox"/> E. coli O157:H7                          | <input type="checkbox"/> Shigella              | <input type="checkbox"/> pH                 |
| <input type="checkbox"/> E. coli O157:H7 Robust Test (325-grams)  | <input type="checkbox"/> Y. enterocolitica     | <input type="checkbox"/> Foreign Matter ID  |
| <input type="checkbox"/> Campylobacter                            | <input type="checkbox"/> C. perfringens        | <input type="checkbox"/> Container Analysis |
| <input type="checkbox"/> Meat Carcass Swab Coliform/E. coli count | <input type="checkbox"/> C. difficile          | <input type="checkbox"/> Coliform Count     |
| <input type="checkbox"/> Standard Plate Count (food)              | <input type="checkbox"/> Yeast / Mold          | <input type="checkbox"/> E. coli Count      |
| <input type="checkbox"/> Aerobic Plate Count (swab)               | <input type="checkbox"/> Gram Negative Culture | <input type="checkbox"/> Vibrio species     |
| <input type="checkbox"/> Beta Hemolytic Strep                     | <input type="checkbox"/> Gram Positive Culture | <input type="checkbox"/> Other: _____       |

SLD DCS Form 102 Aug/09

For the proper food sample collection and shipping instructions please visit our website <http://www.sld.state.nm.us/dm.asp>



Avoid Direct Primary Sample Container Contact with Ice Packs

Do not forget the Temperature Control. Do not forget the Food Analysis Test Request Form

Keep the Temperature Control in close proximity to the sample

11. Transport samples via the most rapid and convenient means available (e.g., in first person, courier, bus, or express mail).

### Sample Submission Reminders:

- ✚ Recommended Sample Submission days: Monday through Wednesday 8 AM to 4:30 PM.
- ✚ Aseptic technique should be followed during the collection of the sample. Ensuring that the sample is intact (properly sealed) during transport to the lab is also critical.
- ✚ A Temperature Control should always accompany every sample. (A bottle filled with water can be used this purpose.)
- ✚ **Completely fill out the Food Analysis Request Form.** Remember that the **Date** and **Time of Collection** should always be included in the test request form. Also remember to include an emergency contact phone number as well so that we can notify the submitter directly during the instance of a positive result, sample rejection, or if we need more information.
- ✚ Use ice packs during transport of samples. The use of loose (wet) ice is not recommended.
- ✚ During the winter months: In order to prevent contact freezing of surface swabs during transport to the lab, place cardboard pieces between sample swab bags and the ice packs. (This serves as insulation for the swabs.)

### REJECTION CRITERIA

Rejection criteria include:

- ✧ Samples that are non-tact (sample containers leaking, broken, etc.)
- ✧ Samples that are unlabeled and that cannot be definitively linked to their corresponding food analysis request form (FARF)
- ✧ Samples that are received at the lab in a partially frozen / frozen state (that otherwise should not be frozen)
- ✧ Samples that are received at the lab in the non-frozen state, but should be
- ✧ Samples received at the lab that are  $> 10^{\circ}\text{C}$  and more than 2-hours have elapsed since collection (does not include intact, shelf-stable matrixes such as beef jerky)
- ✧ Samples with incomplete or no request form (FARF)

- ◆ Samples received at the lab > 36-hours from collection

## TESTS OFFERED

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### Bacillus cereus, culture

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**Description:** Isolation, identification, and quantitation of *Bacillus cereus* through culture methods.  
**Sample:** Food or environmental swab.  
**Normal Value:** *Bacillus cereus* Not Isolated.  
**Estimated Turnaround Time:** 4 to 10 working days.  
**Collection:** See above.  
**Handling:** See above.  
**Shipping:** Refrigerated (on ice packs).  
**Special Requirements:** See above.  
**Rejection criteria:** See above.  
**Contact:** Environmental Microbiology Supervisor (505-383-9129) or EM Line Supervisor (505-383-9104).

### Clostridium botulinum

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**Description:** Isolation and identification of *Clostridium botulinum* and/or botulinum toxin. This test is performed at CDC.  
**Sample:** Contact Environmental Microbiology Lab for instructions.  
**Normal Value:** Results through CDC.  
**Estimated Turnaround Time:** 2 to 4 weeks.  
**Collection:** See above.  
**Handling:** See above.  
**Shipping:** N/A  
**Special Requirements:** N/A  
**Rejection criteria:** See above.  
**Contact:** Environmental Microbiology Supervisor (505-383-9129) or EM Line Supervisor (505-383-9104).

### Clostridium perfringens

---

**Description:** Isolation, identification, and quantitation of *Clostridium perfringens* through culture methods.  
**Sample:** Food and environment surface swabs  
**Normal Value:** *Clostridium perfringens* not isolated.  
**Estimated Turnaround Time:** 4 to 6 working days.  
**Collection:** See above.  
**Handling:** See above.  
**Shipping:** See above.  
**Special Requirements:** Call EM lab if sample cannot be shipped immediately to lab.  
**Rejection criteria:** See above.  
**Contact:** Environmental Microbiology Supervisor (505-383-9129) or EM Line Supervisor (505-383-9104).

### E. coli O157:H7

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**Description:** Isolation and identification of *E. coli* O157:H7 through culture and serological methods.

**Sample:** Food and environment surface swabs.

**Normal Value:** *E. coli* O157:H7 Not Isolated.

**Estimated Turnaround Time:** 4 to 6 working days.

**Collection:** See above.

**Handling:** See above.

**Shipping:** See above.

**Special Requirements:** N/A

**Rejection criteria:** See above.

**Contact:** Environmental Microbiology Supervisor (505-383-9129) or EM Line Supervisor (505-383-9104).

### **Food poisoning (*B. cereus*, *C. botulinum*, *C. perfringens*, *E. coli* O157:H7, *Listeria*, *Salmonella*, *Shigella*, *Staphylococcus aureus*)**

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**Description:** Isolation and identification of foodborne pathogens.

**Sample:** See individual listings within this section.

**Normal Value:** Negative.

**Estimated Turnaround Time:** See individual listings.

**Collection:** See above.

**Handling:** See above.

**Shipping:** See above.

**Special Requirements:** Call lab.

**Rejection criteria:** See above.

**Contact:** Environmental Microbiology Supervisor (505-383-9129) or EM Line Supervisor (505-383-9104).

### **Salmonella**

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**Description:** Isolation and identification of *Salmonella* through culture methods.

**Sample:** Food and environment surface swabs.

**Normal Value:** No *Salmonella* isolated.

**Estimated Turnaround Time:** Confirmed 4 to 6 working days. Serotyped 1 to 2 weeks.

**Collection:** See above.

**Handling:** See above.

**Shipping:** See above.

**Special Requirements:** N/A

**Rejection criteria:** See above.

**Contact:** Environmental Microbiology Supervisor (505-383-9129) or EM Line Supervisor (505-383-9104).

### **Shigella**

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**Description:** Isolation and identification of *Shigella* through culture methods.

**Sample:** Food and environment surface swabs.

**Normal Value:** No *Shigella* isolated.

**Estimated Turnaround Time:** Confirmed 5 working days.

**Collection:** See above.

**Handling:** See above.

**Shipping:** See above.

**Special Requirements:** N/A

**Rejection criteria:** See above.

**Contact:** Environmental Microbiology Supervisor (505-383-9129) or EM Line Supervisor (505-383-9104).

### **Staphylococcus aureus**

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**Description:** Isolation, identification, and quantitation of *Staphylococcus aureus* through culture methods.

**Sample:** Food and environment surface swabs.

**Normal Value:** No *Staphylococcus aureus* isolated.

**Estimated Turnaround Time:** 4 to 6 working days.

**Collection:** See above.

**Handling:** See above.

**Shipping:** See above.

**Special Requirements:** N/A

**Rejection criteria:** See above.

**Contact:** Environmental Microbiology Supervisor (505-383-9129) or EM Line Supervisor (505-383-9104).

### **Listeria**

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**Description:** Isolation and identification of *Listeria* species.

**Sample:** Food and environment surface swabs.

**Normal Value:** No *Listeria* isolated.

**Estimated Turnaround Time:** 4 to 10 working days.

**Collection:** See above.

**Handling:** See above.

**Shipping:** See above.

**Special Requirements:** N/A

**Rejection criteria:** See above.

**Contact:** Environmental Microbiology Supervisor (505-383-9129) or EM Line Supervisor (505-383-9104).

### **Campylobacter**

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**Description:** Isolation and identification of *Campylobacter* through culture methods.

**Sample:** Food and environment surface swabs.

**Normal Value:** No *Campylobacter* isolated.

**Estimated Turnaround Time:** 4 to 6 days.

**Collection:** See above.

**Handling:** See above.

**Shipping:** See above.

**Special Requirements:** N/A

**Rejection criteria:** See above.

**Contact:** Environmental Microbiology Supervisor (505-383-9129) or EM Line Supervisor (505-383-9104).



# WATER TESTING

## WATER ANALYSIS TEST REQUEST FORM

The SLD water analysis test request form can be found on our website, located here  
<http://nmhealth.org/publication/view/form/1498/>

| SLD Form 106, v1.3                                                                                                                                                                                                                            |  | WATER ANALYSIS REQUEST FORM                                                                                                                                                                                                                                                                      |  | *REQUIRED INFORMATION                                                                                                                                                                                                                   |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| RID Number:                                                                                                                                                                                                                                   |  | Scientific Laboratory Division - Env. Micro Section<br>1101 Camino de Salud NE<br>Albuquerque, NM 87102<br>Phone # (505) 383-9129 voicemail/ -9144 lab no voice mail                                                                                                                             |  | LAB Number:<br>Lab use only                                                                                                                                                                                                             |  |
| WSS CODE<br>Check One                                                                                                                                                                                                                         |  | *User Code<br>Check One                                                                                                                                                                                                                                                                          |  |                                                                                                                                                                                                                                         |  |
| <input type="checkbox"/> NM35<br><input type="checkbox"/> 0635<br><input type="checkbox"/> 0935                                                                                                                                               |  | <input type="checkbox"/> 64000 (Private)<br><input type="checkbox"/> 63000 (WWTP)<br><input type="checkbox"/> 62000 (SDWA)                                                                                                                                                                       |  | <input type="checkbox"/> Other                                                                                                                                                                                                          |  |
| Submitter Code:                                                                                                                                                                                                                               |  | Submitter Description:                                                                                                                                                                                                                                                                           |  |                                                                                                                                                                                                                                         |  |
| *DRINKING WATER SAMPLE POINT (For NMED and EPA Public Water Systems ONLY)                                                                                                                                                                     |  |                                                                                                                                                                                                                                                                                                  |  |                                                                                                                                                                                                                                         |  |
| GWR Facility ID: GWR Sample Point ID:                                                                                                                                                                                                         |  |                                                                                                                                                                                                                                                                                                  |  |                                                                                                                                                                                                                                         |  |
| *Attention To:                                                                                                                                                                                                                                |  |                                                                                                                                                                                                                                                                                                  |  | SLD USE ONLY                                                                                                                                                                                                                            |  |
| *At Facility/WSS:                                                                                                                                                                                                                             |  |                                                                                                                                                                                                                                                                                                  |  | Temp Control At SLD                                                                                                                                                                                                                     |  |
| *Address:                                                                                                                                                                                                                                     |  |                                                                                                                                                                                                                                                                                                  |  | °C                                                                                                                                                                                                                                      |  |
| *City:                                                                                                                                                                                                                                        |  |                                                                                                                                                                                                                                                                                                  |  | *State:                                                                                                                                                                                                                                 |  |
| *Zipcode:                                                                                                                                                                                                                                     |  |                                                                                                                                                                                                                                                                                                  |  | Phone # (Official Contact)                                                                                                                                                                                                              |  |
| *SAMPLE LOCATION/ADDRESS (please print one letter in each box)                                                                                                                                                                                |  |                                                                                                                                                                                                                                                                                                  |  |                                                                                                                                                                                                                                         |  |
|                                                                                                                                                                                                                                               |  |                                                                                                                                                                                                                                                                                                  |  |                                                                                                                                                                                                                                         |  |
| *Sample Matrix/Subcategory                                                                                                                                                                                                                    |  | *Type of System                                                                                                                                                                                                                                                                                  |  | *Reason For Sampling                                                                                                                                                                                                                    |  |
| <input type="checkbox"/> Drinking H2O<br><input type="checkbox"/> Surface H2O<br><input type="checkbox"/> Waste H2O<br><input type="checkbox"/> Solids<br><input type="checkbox"/> LT2 E. coli Enumeration<br><input type="checkbox"/> Other: |  | <input type="checkbox"/> Source Assessment<br><input type="checkbox"/> GWR<br><input type="checkbox"/> Glycol<br><input type="checkbox"/> Public Water System<br><input type="checkbox"/> Private Well<br><input type="checkbox"/> Wastewater Treatment Plant<br><input type="checkbox"/> Other: |  | <input type="checkbox"/> Routine<br><input type="checkbox"/> NMED Monitor<br><input type="checkbox"/> Special<br><input type="checkbox"/> REPEAT SAMPLE<br>For Repeat Samples: please include original sample ID<br>Original Positive # |  |
| *Disinfection (check one)                                                                                                                                                                                                                     |  |                                                                                                                                                                                                                                                                                                  |  |                                                                                                                                                                                                                                         |  |
| <input type="checkbox"/> No <input type="checkbox"/> Yes<br>Free Residual Cl: mg/L                                                                                                                                                            |  |                                                                                                                                                                                                                                                                                                  |  |                                                                                                                                                                                                                                         |  |
| *Analysis Requested (Check only 1 Test)                                                                                                                                                                                                       |  |                                                                                                                                                                                                                                                                                                  |  |                                                                                                                                                                                                                                         |  |
| Source: Drinking Water                                                                                                                                                                                                                        |  | Source: Wastewater                                                                                                                                                                                                                                                                               |  | Source: Other                                                                                                                                                                                                                           |  |
| <input type="checkbox"/> Total Coliform MMO-MUG<br><input type="checkbox"/> Ground Water Rule MUG<br><input type="checkbox"/> Heterotrophic (HPC)                                                                                             |  | <input type="checkbox"/> E. coli Count Wastewater QuantiTray<br><input type="checkbox"/> Fecal Coliform Membrane Filter<br><input type="checkbox"/> Fecal Coliform MPN<br><input type="checkbox"/> EC-MUG MPN<br><input type="checkbox"/> Enterococci - QuantiTray                               |  | <input type="checkbox"/> Iron & Sulfur Bacteria<br><input type="checkbox"/> Pseudomonas<br><input type="checkbox"/> Algae ID<br><input type="checkbox"/> Salmonella<br><input type="checkbox"/> E. coli Count Water QuantiTray          |  |
| *USE CHAIN OF CUSTODY FOR ALL SAMPLES:                                                                                                                                                                                                        |  |                                                                                                                                                                                                                                                                                                  |  |                                                                                                                                                                                                                                         |  |
| Sample Collected By:                                                                                                                                                                                                                          |  | *Print Name                                                                                                                                                                                                                                                                                      |  | *Signature                                                                                                                                                                                                                              |  |
| Last Name, First Name                                                                                                                                                                                                                         |  |                                                                                                                                                                                                                                                                                                  |  |                                                                                                                                                                                                                                         |  |
| Sampler/Operator ID                                                                                                                                                                                                                           |  | *Date of Collection MM/DD/YY                                                                                                                                                                                                                                                                     |  | *Time of Collection HH:MM (24hr)                                                                                                                                                                                                        |  |
|                                                                                                                                                                                                                                               |  |                                                                                                                                                                                                                                                                                                  |  |                                                                                                                                                                                                                                         |  |
| Tamper Seal                                                                                                                                                                                                                                   |  | Present & Intact                                                                                                                                                                                                                                                                                 |  | Not Present                                                                                                                                                                                                                             |  |
|                                                                                                                                                                                                                                               |  | Present & Damaged                                                                                                                                                                                                                                                                                |  |                                                                                                                                                                                                                                         |  |
| The sample identified on the container and this form was transferred with a tamper-proof seal:                                                                                                                                                |  |                                                                                                                                                                                                                                                                                                  |  |                                                                                                                                                                                                                                         |  |
| Print Name                                                                                                                                                                                                                                    |  | Signature                                                                                                                                                                                                                                                                                        |  | Date MM/DD/YY Time HH:MM (24hr)                                                                                                                                                                                                         |  |
|                                                                                                                                                                                                                                               |  |                                                                                                                                                                                                                                                                                                  |  |                                                                                                                                                                                                                                         |  |
| Present & Intact                                                                                                                                                                                                                              |  | Not Present                                                                                                                                                                                                                                                                                      |  | Present & Damaged                                                                                                                                                                                                                       |  |
| The sample identified on the container and this form was transferred with a tamper-proof seal:                                                                                                                                                |  |                                                                                                                                                                                                                                                                                                  |  |                                                                                                                                                                                                                                         |  |
| Print Name                                                                                                                                                                                                                                    |  | Signature                                                                                                                                                                                                                                                                                        |  | Date MM/DD/YY Time HH:MM (24hr)                                                                                                                                                                                                         |  |
|                                                                                                                                                                                                                                               |  |                                                                                                                                                                                                                                                                                                  |  |                                                                                                                                                                                                                                         |  |
| Present & Intact                                                                                                                                                                                                                              |  | Not Present                                                                                                                                                                                                                                                                                      |  | Present & Damaged                                                                                                                                                                                                                       |  |
| The sample identified on the container and this form was transferred with a tamper-proof seal:                                                                                                                                                |  |                                                                                                                                                                                                                                                                                                  |  |                                                                                                                                                                                                                                         |  |
| Print Name                                                                                                                                                                                                                                    |  | Signature                                                                                                                                                                                                                                                                                        |  | Date MM/DD/YY Time HH:MM (24hr)                                                                                                                                                                                                         |  |
|                                                                                                                                                                                                                                               |  |                                                                                                                                                                                                                                                                                                  |  |                                                                                                                                                                                                                                         |  |
| Present & Intact                                                                                                                                                                                                                              |  | Not Present                                                                                                                                                                                                                                                                                      |  | Present & Damaged                                                                                                                                                                                                                       |  |

## SUBMISSION PROCEDURES

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The Environmental Microbiology Lab performs EPA approved tests on water samples in support of the EPA Safe Drinking Water Act and other environmental programs. The lab also performs FDA approved tests on water samples in support of the FDA Pasteurized Milk Ordinance. The majority of water samples that the Environmental Microbiology lab tests are drinking water samples from regulated **Public Water Supply** systems (PWSs). In addition, the laboratory tests surface or source waters, wastewater and runoff waters for indicator organisms and occasionally pathogens. Please call the laboratory before submitting or shipping water samples for analysis. However, it is not necessary to call the laboratory before submitting routine drinking water samples.

### Collection instructions for drinking water samples

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**Sample Analysis:** Drinking Water Samples will be analyzed by the Colilert method (aka Standard Methods 9223B) for the presence or absence of total coliform bacteria and *E. coli*. Upon special request and prior consultation with the lab, quantitative tests for *E. coli* and fecal coliforms are also available for various types of water matrixes.

For water samples we only accept SLD Bacti-Water sample containers. These sample containers have a 125-mL volume capacity and can be readily obtained from our Specimen Receiving / Kit Preparation section (phone# 505-383-9066). Larger containers are available upon request for special testing situations requiring larger test volumes. Each SLD Bacti-Water sample container has been sterilized and contains 100-μL of a 10% (w/v) solution of sodium thiosulfate that will neutralize a sample containing about 15 mg/L of residual chlorine. SLD Bacti-Water sample containers should be kept out of direct sunlight and should remain closed until the time of sample collection. Do not rinse the Bacti-Water sample container prior to collection. Rinsing out the sample container will invalidate the test.

### Equipment Listing

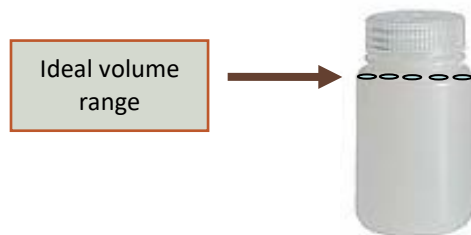
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SLD Bacti-Water sample container, a matching set of **Request ID** (RID) number labels, Water Analysis Request Form (WARF), Chain of Custody (CoC) container seal, permanent marker, insulated ice chest, synthetic ice blocks.

#### How to Collect a Drinking Water Sample

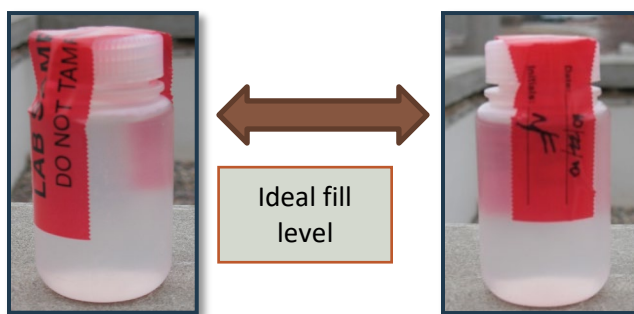
1. Each sample requires a SLD Bacti-Water sample container, a matching set of **Request ID** (RID) number labels, and a WARF.
2. Selection of a sample tap is important. Choose a clean non-leaking tap without aerators, strainers or attachments. Such devices harbor millions of bacteria that could be flushed into the sample bottle. If such devices do exist then remove them including any rubber seals/gaskets. Be sure to thoroughly clean the sample sight.
3. Pour isopropyl alcohol onto a paper towel or into a squirt bottle and disinfect the inside of the faucet. Don't use bleach. The use of bleach could potentially invalidate the test.
4. After sanitizing the faucet open the cold water fixture and allow the cold water flow for 3 to 5 minutes before collecting sample from the aerator-less sample tap. Do not open the Hot water fixture.
5. Reduce the flow of Cold water to a smooth flowing stream (about the width of a pen).

6. Carefully remove the sample bottle cap and fill the sample bottle to the faint shoulder line that is on the bottle without touching the lip of the bottle to the tap rim. Do not Rinse out the Bottle.



Please note that the sample volume must be at least 100-mL, but that there also must be about 1-inch of headspace. Overfilled sample bottles will be rejected; do not overfill.

7. Replace cap and secure tightly.
8. Date and Sign the CoC Custody Seal and properly apply the Custody Seal to the sample container.



9. Identify and associate each sample container with a properly using the RID number labels. Place one RID label in the RID number label box on the top left hand corner of the WARF. Place the second RID number label ON TOP of the CoC seal after it has been properly secured to the Bacti-Water sample bottle so that the RID label is easily visible.

*Please note that RID number labels will securely establish the association between each Bacti-Water sample bottle and its corresponding WARF from the moment that the sample is initially collected by the sample collector. Having each sample bottle container clearly identified with the correct WARF will ensure reliable data for your water system.*

10. Fill out the WARF completely. This includes the CoC aspect that is built into the WARF. Ensure that the information that you put on the form is accurate. Errors could potentially result in sample rejections. The following fields must be properly filled out on the Water Microbiology Request Form:

\*WSS code, \*WSS Name, \*User code (is 62000 for Routine state SDWIS samples, 63000 for wastewater, and 64000 for Private, Tribal, Repeat, and Special samples), \*Submitter Code (for PWSs is synonymous with the WSS Code), \*Drinking Water Sample Point (required for PWSs), \*GWR Facility ID (only for GWR situations involving PWSs), \*GWR Sample Point ID (only for GWR situations involving PWSs), \*Mailing address field (is directly linked to the WSS #~is the address of the Admin., Contact for that particular system), \*Contact Phone #, \*Sample Location, \*Sample Matrix Type, \*Type of System, \*Reason for Sampling (for Repeats it is extremely critical to further indicate if the sample is from the Original location, Downstream, or Upstream location~ all relative

from the Original sample location that was out of compliance. Otherwise, indicate that it is from another location. For Repeats remember to indicate the SLD # of that Original sample that initially tested +), \*Disinfection, and the \*Aalysis Requested (for most Routine and Repeat SDWA samples mark the box "Total Coliform MMO-MUG"; if the sample happens to falls under the Ground Water Rule then mark the box "Ground Water Rule – MUG".

*Going into the CoC Aspect of the WARF below...*

\*Sample Collected By (Print), \*Sample Collected By (signature), Sample / Operator ID #, Date of Collection, \*Time of Collection (military time), \*Tamper Seal indicator (relates to the condition of the CoC Seal ~ is it Present & Intact, Not Present, or Present and Damaged?)

11. Immediately after collection, maintain the sample under refrigerated conditions using packaged ice or suitable synthetic ice blocks until you have delivered the samples to the lab. If using loose ice then seal each sample container in a zip-lock bag to ensure that contamination from the loose ice / water does not occur.
12. Samples must be received by the lab within 24-hours of collection (for exceptions call the lab 505-383-9129 (voice mail) / 505-383-9144 (no voice mail)).

### Collection of non-drinking Water samples

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Other water samples, such as surface water, source waters, runoff waters, etc. can be aseptically collected in SLD Bacti-Water sample containers as well. If the sampling point is a defined source like a tap or spigot follow the instructions used for drinking water instructions. If the sample is collected with a sampling apparatus such as a cupped scooper be sure to use aseptic technique when transferring the sample to a SLD Bacti-Water sample container. Due to the quantitative nature of these tests, samples need to be received in the laboratory within 6- hours of collection (maximum hold-times of 8-hours) on ice/ice packs. Since the transit time is so short, it is best to transport the water samples to the laboratory immediately after collection. Before submitting these types of water samples, please call the Environmental Microbiology Laboratory at (505) 383-9129 or -9104 to arrange for testing.

### Equipment Listing

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Same as for Drinking Water Samples (see above)

#### How to Collect a Surface Grab Sample from ditches, rivers, open water

1. Using aseptic sampling technique (as with drinking water samples), remove cap from sample container using one hand. Hold container at the base with other hand.
2. Plunge container down into the water (lip of bottle first or mouth down) to avoid surface scum. Note that the sampling depth should be 6 to 12 inches below the water surface.
3. Position the mouth of the container into the current and away from your hand (away from you the collector) and away from the side of the sampling platform or boat. If the water body is static, an artificial current can be created, by moving the container horizontally in the direction it is pointed and again away from your hand that is holding the container.
4. Tip the container slightly upwards to allow air to exit and the container to fill.

5. After you have removed the sample container bottle from the water, pour out a small portion of the sample to allow a headspace of about 1-inch to allow for proper agitation of the sample prior to testing.
6. Replace lid and tighten.
7. Identify and associate the sample container properly to its corresponding WARF using RID number labels. It is important that the RID number label that is on the container matches the RID number label that is on the WARF.
8. Fill out the WARF as completely as possible. Ensure that the information is accurate. Errors could potentially in sample rejections. Call the lab if you have any questions about filling out the WARF. Depending on the nature of the sample the following fields may or may not be required to be filled out on the Water Analysis Request Form:

\*WSS code (if applicable), \*WSS Name (if applicable), \*User code (can vary depending on the submitter ~ is 63000 for WWTP samples and 64000 for Privately submitted samples), \*Submitter Code (for PWSs is synonymous with the WSS Code), \*Dinking Water Sample Point Not Applicable (N/A) do not need to be filled out, \*GWR Facility ID (N/A, do not need to be filled out), \*GWR Sample Point ID (N/A, do not need to be filled out), \*Mailing address field (is directly linked to the WSS #~is the address of the Admin., Contact for that particular system), \*Contact Phone #, \*Sample Location, \*Sample Matrix Type, \*Type of System, \*Reason for Sampling, location that was out of compliance. Otherwise, indicate that it is from another location. For Repeats remember to indicate the SLD # of that Original sample that initially tested +), \*Disinfection, and the \*Analysis Requested (depends on the situation at hand),

*Going into the CoC Aspect of the WARF below...*

\*Sample Collected By (Print), \*Sample Collected By (signature), \*Sample / Operator ID #, \*Date of Collection, \*Time of Collection (military time), \*Tamper Seal indicator (relates to the condition of the CoC Seal ~ is it Present & Intact, Not Present, or Present and Damaged?)

9. Immediately after collection, maintain the sample under refrigerated conditions using packaged ice or suitable synthetic ice blocks until you have delivered the samples to the lab. If using loose ice then seal container in a zip-lock bag to ensure that contamination from the loose ice / water does not occur.

## REJECTION CRITERIA

Rejection criteria include:

- ◆ Samples that are non-tact (sample containers leaking, broken, etc.)
- ◆ Samples that are unlabeled and that cannot be definitively linked to their corresponding Water Analysis Request Form (WARF)
- ◆ Samples that are received at the lab in a partially frozen / frozen state
- ◆ Samples received at the lab that are > 10°C and more than 2-hours have elapsed since collection
- ◆ Samples that are received at the lab that are > 4.5°C (Dairy Water MPN and Dairy SPC tests only)
- ◆ Samples that are received at the lab with incomplete or no request form (WARF)
- ◆ Samples received at the lab > 28-hours from collection and cannot tested within the 30-hour hold time maximum (drinking water Total Coliform MMO-MUG, dairy water MPN, dairy water SPC test)
- ◆ LT2 samples that are received at the lab > 46-hours from collection and that cannot be tested within the 48-hour hold time maximum

- ◆ Samples received at the lab > 6-hours from collection and that cannot be tested within the 8-hour hold time maximum (HPC, Fecal Coliform MF, Fecal Coliform MPN, *E. coli* counts (both QT and traditional MPN), and the QT Enterococcus count method)
- ◆ Samples that are received at the lab with insufficient headspace
- ◆ Samples that are received at the lab with insufficient test volume (< 100-mL)
- ◆ Samples that are received at the lab with excess residual chlorine
- ◆ Samples that are received at the lab in an invalid sample container (non-SLD Bacti-Water sample container)

Currently we are working with the submitters with Water Analysis Request Form errors that are salvageable. With each of the criteria described above, there is a certain amount of subjective judgment on the part of the analyst. Every reasonable judgment should be employed bearing in mind that some of these samples may not be easily replaced. In any doubtful situation, analysts should get the section supervisor or the state Water LEO to make the final decision. Information regarding these samples will be documented on the Water Bench Worksheets, Rejected Sample Monitor, as well as on the finalized Bacti-Water results.

## TESTS OFFERED:

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### MMO-MUG – Same as Standard Methods 9223B

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**Description:** Colilert Method of testing for total coliforms and *E. coli* in drinking water.

**Sample:** 100 mL water in sterile container provided by lab; Send refrigerated. No other container will be accepted.

**Normal Value:** Absence of total coliforms and *E. coli*.

**Estimated Turnaround Time:** 4 working days.

**Collection:** See above.

**Handling:** See above.

**Shipping:** See above.

**Special Requirements:** N/A

**Rejection criteria:** See above.

**Contact:** Environmental Microbiology Supervisor (505-383-9129) or EM Line Supervisor (505-383-9104).

### Total Coliform 10-Tube MPN (Dairy Waters Only)

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**Description:** Multiple tube fermentation MPN method used for the determination of total and fecal coliform density in glycol and chill water samples that are used by dairies and milk plants.

**Sample:** 100 mL water in sterile container provided by lab; Send refrigerated. No other container will be accepted.

**Normal Value:** <1.1/100 mL.

**Estimated Turnaround Time:** 4 to 6 working days.

**Collection:** See above.

**Handling:** See above.

**Shipping:** See above.

**Special Requirements:** N/A

**Rejection criteria:** See above.

**Contact:** Environmental Microbiology Supervisor (505-383-9129) or EM Line Supervisor (505-383-9104).

## Heterotrophic plate count – Same as Standard Methods 9215B

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**Description:** Heterotrophic bacteria count for water (all types).

**Sample:** 100 mL water in sterile container provided by lab; send refrigerated. No other container will be accepted.

**Normal Value:** <500 CFU/mL.

**Estimated Turnaround Time:** 4 working days.

**Collection:** See above.

**Handling:** See above.

**Shipping:** See above.

**Special Requirements:** Call lab before collecting sample. Sample must get to lab within 6-hours from the time of collection. Maximum hold-time prior to testing is 8-hours.

**Rejection criteria:** See above.

**Contact:** Environmental Microbiology Supervisor (505-383-9129) or EM Line Supervisor (505-383-9104).

## MF Fecal Coliform – Same as Standard Methods 9222D

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**Description:** Membrane filter method that is used for enumerating fecal coliform bacteria in wastewater, streams and other surface water sources.

**Sample:** 100 mL water in sterile container provided by lab; send refrigerated. No other container will be accepted.

**Normal Value:** Not applicable. Varies depending on sample source.

**Estimated Turnaround Time:** 4 working days.

**Collection:** See above.

**Handling:** See above.

**Shipping:** See above.

**Special Requirements:** Call lab before collecting sample. Sample must get to lab within 6-hours from the time of collection. Maximum hold-time prior to testing is 8-hours.

**Rejection criteria:** See above.

**Contact:** Environmental Microbiology Supervisor (505-383-9129) or EM Line Supervisor (505-383-9104).

## Fecal Coliform MPN– Same as Standard Methods 9221B+E LTBE C

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**Description:** Multiple Tube Fermentation MPN method used for determining the fecal coliform density in various types of water such as wastewater, storm water, and surface water samples. This test is based on the most probable number of bacteria present in a sample that produces gas in a series of fermentation tubes with various volumes of diluted sample. The MPN is obtained from charts based on statistical studies of known concentrations of bacteria.

**Sample:** 100 mL water in sterile container provided by lab; Send refrigerated. No other container will be accepted.

**Normal Value:** Not applicable.

**Estimated Turnaround Time:** 4 working days.

**Collection:** See above.

**Handling:** See above.

**Shipping:** See above.

**Special Requirements:** Call lab before collecting sample. Sample must get to lab within 6-hours from the time of collection. Maximum hold-time prior to testing is 8-hours.

**Rejection criteria:** See above.

**Contact:** Environmental Microbiology Supervisor (505-383-9129) or EM Line Supervisor (505-383-9104).

## EC-MUG MPN– Same as Standard Methods 9221B+F LTBECC-MUG

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**Description:** Multiple Tube Fermentation MPN method that is similar to the Fecal Coliform MPN test, except that the EC broth has MUG substrate added to it which is specific for the detection of *E. coli*. This test is applicable to various types of water such as wastewater and surface water samples.

**Sample:** 100 mL water in sterile container provided by lab; send refrigerated. No other container will be accepted.

**Normal value:** N/A

**Estimated Turnaround Time:** 4 to 6 working days.

**Collection:** See above.

**Handling:** See above.

**Shipping:** See above.

**Special Requirements:** Call lab before collecting sample. Sample must get to lab within 6-hours from the time of collection. Maximum hold-time prior to testing is 8-hours.

**Rejection criteria:** See above.

**Contact:** Environmental Microbiology Supervisor (505-383-9129) or EM Line Supervisor (505-383-9104).

## Dairy water SPC

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**Description:** Heterotrophic bacteria count for dairy water that is used during instances in which a Dairy Water MPN sample presents with an invalid result due to the overgrowth of non-coliform bacteria that may potentially inhibit coliform bacteria from growing. This method estimates the number of viable aerobic and facultative anaerobic bacteria in a dairy water sample. The out of compliance limit for this method is  $\geq 500$  CFU/mL.

**Sample:** 100 mL water in sterile container provided by lab; Send refrigerated. No other container will be accepted.

**Normal Value:** < 500 CFU/mL

**Estimated Turnaround Time:** 4 working days.

**Collection:** See above.

**Handling:** See above.

**Shipping:** See above.

**Special Requirements:** See above (hold time maximum is 30-hours).

**Rejection criteria:** See above.

**Contact:** Environmental Microbiology Supervisor (505-383-9129) or EM Line Supervisor (505-383-9104).

## Iron and sulfur bacteria

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**Description:** Microscopic determination for iron and/or sulfur bacteria. By appointment only.

**Sample:** 100 mL water in a sterile or clean container. Call the lab to obtain information for the submission of sample.

**Normal Value:** Absent.

**Estimated Turnaround Time:** 5–20 working days.

**Collection:** See above.

**Handling:** See above.

**Shipping:** See above.

**Special Requirements:** N/A

**Rejection criteria:** N/A

**Contact:** Environmental Microbiology Supervisor (505-383-9129) or EM Line Supervisor (505-383-9104).

## Pseudomonas

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**Description:** Two methods of testing for *Pseudomonas* are available. The method chosen is dependent on the nature of the sample.

- Swabs in asparagine broth to determine presence/absence.
- MPN in asparagine broth is for the enumeration of the organism.

By appointment only.

**Sample:** 100 mL water in sterile container provided by lab. No other container will be accepted.

**Normal Value:** N/A, varies depending on sample source.

**Estimated Turnaround Time:** 4 to 6 working days.

**Collection:** See above.

**Handling:** See above.

**Shipping:** See above.

**Special Requirements:** N/A

**Rejection criteria:** See above.

**Contact:** Environmental Microbiology Supervisor (505-383-9129) or EM Line Supervisor (505-383-9104).

### Algae and/or aquatic organisms

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**Description:** Microscopic determination for algae and/or aquatic organisms.

By appointment only.

**Sample:** 100 mL water in sterile container provided by lab. No other container will be accepted.

**Normal Value:** N/A

**Estimated Turnaround Time:** N/A

**Collection:** See above.

**Handling:** See above.

**Shipping:** See above.

**Special Requirements:** N/A

**Rejection criteria:** N/A

**Contact:** Environmental Microbiology Supervisor (505-383-9129) or EM Line Supervisor (505-383-9104).

### E. coli count for source water, Quanti-Tray method

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**Description:** Multi-well MPN enumeration method for both total coliforms and *E. coli* in drinking water, surface water, and wastewater. This method uses the Colilert™ reagent and can detect *E. coli* at 1 CFU per 100 mL of sample within 24 hours.

By appointment only.

**Sample:** 100 mL water in sterile container provided by the lab. No other container will be accepted.

**Normal value:** Variable depending on sample source.

**Estimated Turnaround Time:** 4 working days.

**Collection:** See above.

**Handling:** See above.

**Shipping:** See above.

**Special Requirements:** Call lab before collecting sample. Sample must get to lab within 6-hours from the time of collection. Maximum hold-time prior to testing is 8-hours (does not apply to LTR samples).

**Rejection criteria:** See above.

**Contact:** Environmental Microbiology Supervisor (505-383-9129) or EM Line Supervisor (505-383-9104).

## Enterococcus count, Quanti-Tray method

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**Description:** This test is a multi-well MPN enumeration method for enterococci such as *E. faecium* and *E. faecalis*. This method uses the Enteroalert reagent and can detect enterococci at 1 CFU per 100 mL of sample within 24 hours. By appointment only.

**Sample:** 100 ml water in sterile container provided by the lab. No other container will be accepted.

**Normal value:** Variable depending on sample source.

**Estimated Turnaround Time:** 4 working days.

**Collection:** See above.

**Handling:** See above.

**Shipping:** see above

**Special Requirements:** N/A

**Rejection criteria:** See above.

**Contact:** Environmental Microbiology Supervisor (505-383-9129) or EM Line Supervisor (505-383-9104).



The FDA regulates dairy testing at SLD. The Environmental Microbiology lab assists the New Mexico Department of Agriculture (NMDA) Dairy Division Milk inspectors with protecting the safety and quality of the state's dairy supply. The lab is an approved Interstate Milk Shippers (IMS) listed facility (IMS Lab # 35005) and is the Central Milk testing laboratory for the state. The lab provides the official testing for the state's milk and dairy products which fulfills the state's and dairy industry's obligations for participation in the National Conference of Interstate Milk Shippers. Without such testing New Mexico dairy producers would not be able to ship New Mexico milk and dairy products across state lines. The official laboratory results are used to provide consistent quality indicator results and in some cases also help initiate corrective actions that are needed to reduce the potential of foodborne outbreaks that would affect consumers of New Mexico milk and dairy products both in state and out of state.

NMDA certified milk inspectors are responsible for inspecting and collecting samples from dairies and retail milk plants throughout the state to the frequency and the standards that are set forth by Pasteurized Milk Ordinance (PMO) and its supporting documents. The lab will only accept milk and dairy product samples from certified milk inspectors. Samples are collected according to federal guidelines and these samples are immediately shipped to the lab so that they can be tested by FDA approved methods. Dairy Products may be analyzed by the following FDA approved procedures:

- ◆ Standard Plate Count
- ◆ Coliform Plate Count
- ◆ Antibiotic Residues
- ◆ Direct Microscopic Somatic Cell Count
- ◆ Electronic Somatic Cell Count
- ◆ Alkaline Phosphatase Testing (indicator test for proper pasteurization)
- ◆ Pasteurized Milk Container Testing
- ◆ Freezing Point Analysis

Results for these tests are forwarded to the Dairy Division of the NMDA to ensure regulatory compliance. The Dairy Division of NMDA is the enforcement authority responsible for ensuring compliance with the PMO and its supporting documents.

## REJECTION CRITERIA

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N/A

## TESTS OFFERED:

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N/A

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# TRANSPORT AND SHIPPING

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## BIOLOGICAL SPECIMEN TRANSPORT

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### Kits/Materials

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The following supplies are furnished upon request by faxing Specimen Receiving at 505-383-9062 (Attn.: Kit Prep on the fax sheet), emailing DOH-SLD-KitPrep@state.nm.us or by calling 505-383-9056. Otherwise, you may mail a written request to the Specimen Receiving area:

#### **Specimen Receiving**

Scientific Laboratory Division  
New Mexico Department of Health  
1101 Camino de Salud NE  
Albuquerque, NM 87102

-  Enteric pathogen transport (stool culture) - Includes: 6 x 10 plastic bag, cheesecloth, parafilm strip, vial of enteric transport media, instruction sheet and Clinical request form.
-  Viral transport pack (Viral Isolation Kit) - Includes: 6 x 10 plastic bag, tube with viral transport medium, Rayon swabs, (flexible and hard shaft) and Clinical request form.
-  Tuberculosis specimen - Includes: 6 x 10 plastic bag, Collection centrifuge tube (50 ml conical with cap), cheesecloth, parafilm strip and Clinical request form.
-  Bacti-water - Includes: 125 mL round Nalgene water bottle and Microbiological Water Report request form.
-  Biohazard specimen transport bags.
-  Pertussis kits - Includes: One Nasopharyngeal swab in a hard plastic sheath, Instruction sheet and a Clinical Request form.
-  TB Quantiferon Kit- Includes: 6 X 10 plastic bag, red, green, blue cap collection tubes, and Clinical request form.

## PACKAGING AND SHIPPING

### Category A

An infectious substance which is transported in a form that, when exposure to it occurs, is capable of causing permanent disability, life-threatening or fatal disease in otherwise healthy humans or animals.

Proper shipping names and identification numbers: Infectious substances, affecting animals, UN 2900; Infectious substances, affecting humans, UN 2814.

### Category B

An infectious substance which does not meet the criteria for inclusion in Category A.

Proper shipping name and identification number: Biological substance Category B, UN 3373.

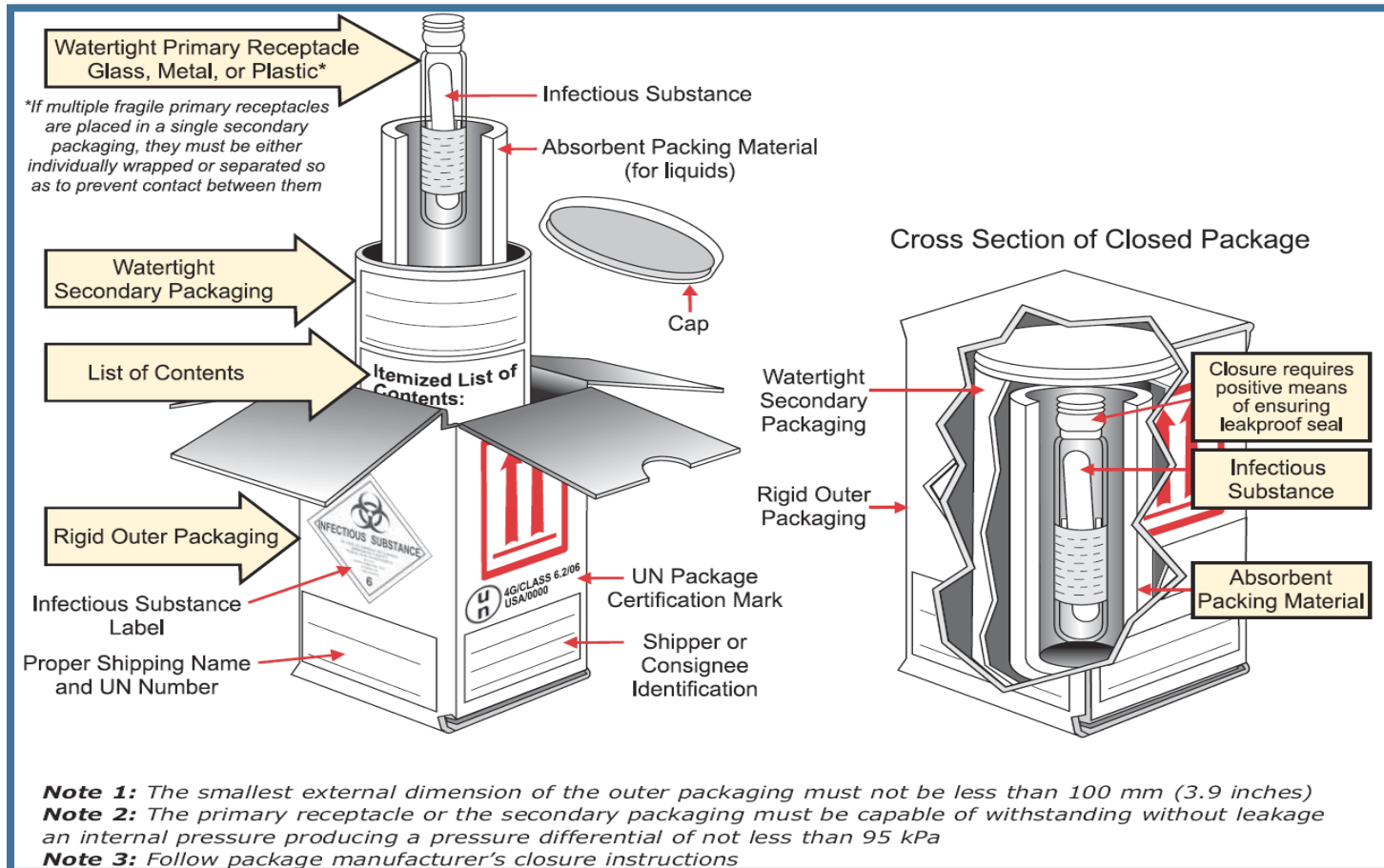
Indicative examples of infection substances included in Category A, UN 2814, in any form unless otherwise indicated.

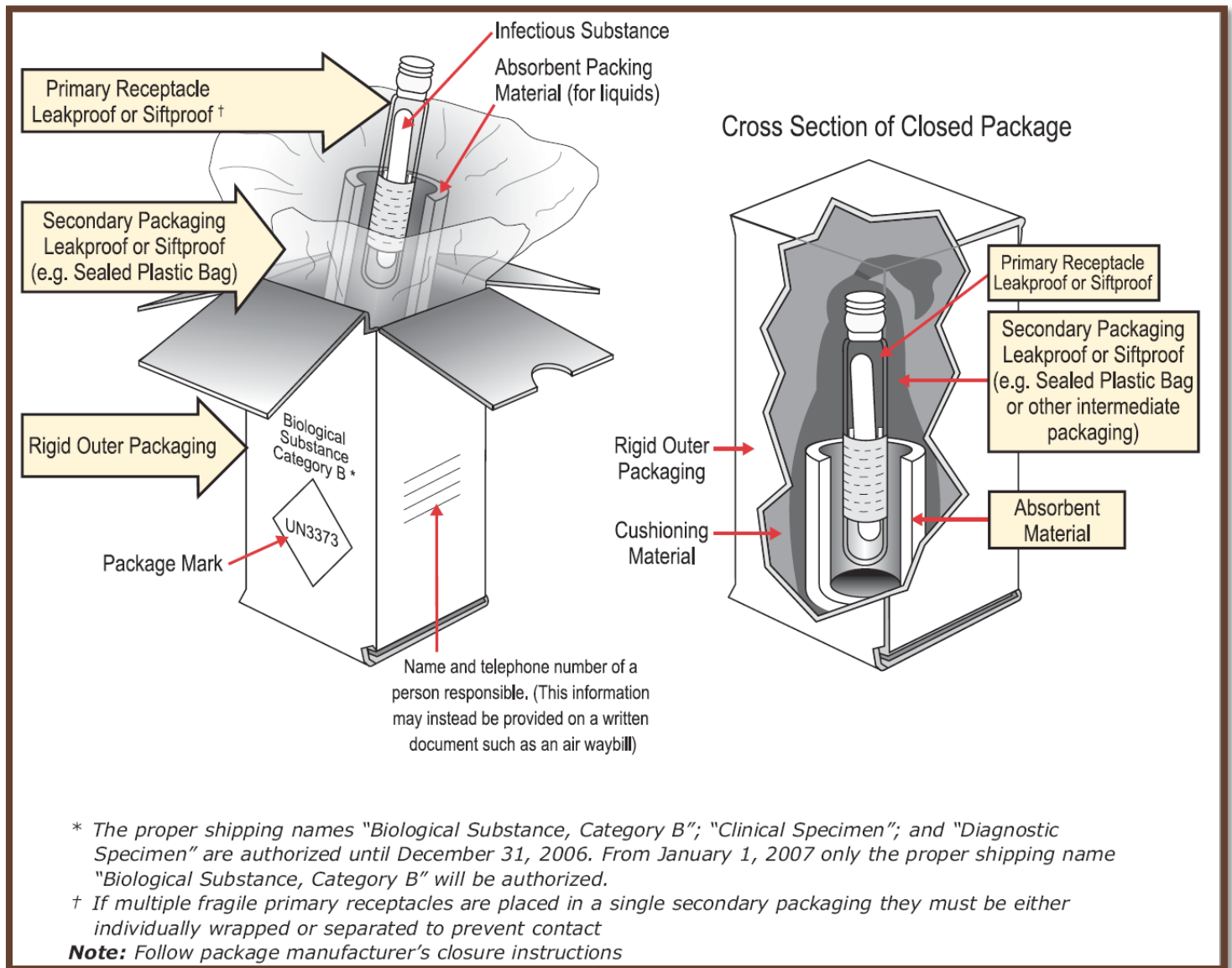
The following table is not exhaustive. Infectious substances, including new or emerging pathogens, which do not appear in the table but which meet the same criteria must be assigned to Category A. In addition, if there is doubt as to whether or not a substance meets the criteria it must be included in Category A.

| Micro-organism                                            |
|-----------------------------------------------------------|
| <i>Bacillus anthracis</i> (cultures only)                 |
| <i>Brucella abortus</i> (cultures only)                   |
| <i>Brucella melitensis</i> (cultures only)                |
| <i>Brucella suis</i> (cultures only)                      |
| <i>Burkholderia mallei</i> (cultures only)                |
| <i>Chlamydia psittaci</i> – avian strains (cultures only) |
| <i>Clostridium botulinum</i> (cultures only)              |
| <i>Coccidioides immitis</i> (cultures only)               |
| <i>Coxiella burnetti</i> (cultures only)                  |
| Crimean-Congo hemorrhagic fever                           |
| Dengue virus (cultures only)                              |
| Eastern Equine encephalitis virus (cultures only)         |
| <i>Escherichia coli</i> , verotoxigenic (cultures only)   |
| Ebola virus                                               |
| Flexal virus                                              |
| <i>Francisella tularensis</i> (cultures only)             |
| Guanarito virus                                           |
| Hantaan virus                                             |
| Hantavirus causing hemorrhagic fever with renal syndrome  |
| Hendra virus                                              |
| Hepatitis B virus (cultures only)                         |
| Herpes B virus (cultures only)                            |
| Human immunodeficiency virus (cultures only)              |
| Highly pathogenic avian influenza virus                   |
| Junin virus                                               |
| Kyasanur Forest disease virus                             |
| Lassa virus                                               |
| Machupo virus                                             |
| Marburg virus                                             |
| Monkeypox virus                                           |
| <i>Mycobacterium tuberculosis</i> (cultures only)         |

| Micro-organism                                           |
|----------------------------------------------------------|
| Nipah virus                                              |
| Omsk hemorrhagic fever virus                             |
| Poliovirus (cultures only)                               |
| Rabies virus (cultures only)                             |
| <i>Rickettsia prowazekii</i> (cultures only)             |
| <i>Rickettsia rickettsii</i> (cultures only)             |
| Rift valley fever virus (cultures only)                  |
| Russian spring-summer encephalitis virus (cultures only) |
| Sabia virus                                              |
| <i>Shigella dysenteriae</i> type 1 (cultures only)       |
| Tick-borne encephalitis virus (cultures only)            |
| Variola virus                                            |
| Venezuelan equine encephalitis virus (cultures only)     |
| West Nile virus (cultures only)                          |
| Yellow fever virus (cultures only)                       |
| <i>Yersinia pestis</i> (cultures only)                   |

## Packaging and Labeling of Category A Infectious Substances





For the most current diagnostic specimen packaging and shipping information to meet the Department of Transportation (DOT) and International Air Transport Association (IATA) guidelines please see:

[Packing and Shipping Dangerous Goods: What the Laboratory Staff Must Know | CDC](#)

Or, [http://apps.who.int/iris/bitstream/10665/149288/1/WHO\\_HSE\\_GCR\\_2015.2\\_eng.pdf](http://apps.who.int/iris/bitstream/10665/149288/1/WHO_HSE_GCR_2015.2_eng.pdf)

Or, call the Quality, Safety, Security, and Emergency Preparedness (QSSEP) office at 505-383-9005/6/7.

### Packaging and shipping of specimens for Rabies Testing

Because the size of animals varies, specimens submitted for rabies testing may require the use of larger containers and bags. Detailed instructions with illustrations, on packaging and shipping, are available on our website at <http://nmhealth.org/publication/view/help/1503/>.

1. Place specimen in double zip-lock or plastic bags. Use separate bags for each specimen. Seal each bag securely to prevent leakage.
2. Attach an identification number or name to the outside of each double-bagged specimen. The identification must match the information on the submission form. This is especially important if more than one specimen is sent in the same package.
3. Place the double zip-lock bag(s) or plastic bag(s) containing the specimen(s) inside a solid inner container, such as a Styrofoam box that is leakproof. If needed, a bucket can be provided by SLD to serve as the outer container.
4. Use sufficient absorbent packing material, such as newspaper, to cushion the specimen(s) and to absorb any leaks.
5. Place enough gel packs, or similar refrigerants, in the inner container to ensure specimens are completely covered and will remain cold for at least 72 hours. DO NOT USE DRY ICE! It will freeze the specimen and delay testing. Ice is not recommended. If ice must be used, double bag and seal it securely to prevent leakage.
6. Close the inner container and place it inside the rigid outer container (cardboard box) that will display the proper labeling described below.
7. Place the completed Animal Specimen Submission Form(s) in a plastic zip lock bag. Submission form is available at: <http://nmhealth.org/publication/view/form/1501/>. Place the plastic zip-lock bag on top of the closed inner container and close the outer container.
8. Secure the outer container with packing tape.
9. Ensure that a diamond-shaped UN-3373 label is on the exterior of the outer container near the "Biological Substance, Category B" statement in the "send to" address. The UN- 3373 label must have a minimum dimension of 100 mm x 100 mm (3.9 inches). As mentioned above, the packaging must meet DOT and/or IATA guidelines depending on the type of transportation. DMC shipments must meet both guidelines.
10. Send specimen(s) to: Scientific Laboratory Division  
ATTN: Virology/Serology  
1101 Camino de Salud NE  
Albuquerque, NM 87102
11. Call the Virology/Serology section at 505-383-9124/25 with any questions.

## COURIER NETWORK FOR DEPARTMENT OF HEALTH OFFICE SITES

Overnight delivery of biological specimens to SLD is available in most parts of New Mexico with our courier network. To use the courier network, contact Distribution Management Corporation at 1-800-825-7274. The company will arrange a pickup time for your specimens. Please have the package ready when the courier arrives to pick-up the package.

Specimens must be properly packaged to meet federal biological specimen shipping guidelines. The shipper is required to follow DOT/IATA diagnostic specimen guidelines (see section above on shipping and transport).

Please review the pre-analytic transport time for your specimens and rejection criteria to ensure that specimens the laboratory receives the specimens within the appropriate time. Specimens requiring cold packs should be shipped with enough cold packs to last 72 hours (7–8 frozen ice packs). This is very important as couriers may store the specimen at non-

temperature controlled warehouses. Styrofoam shipping containers (not provided by SLD) should be contained within an outer cardboard box.

Please have your facility's name and address permanently and clearly visible on the inside of the container lid. The container and any enclosed ice packs will be returned to you via UPS. Any stickers identifying the container's contents will be removed prior to shipment back to your facility.

If you have any questions regarding the courier service, please call the Specimen Receiving Section at 505-383-9068.

# MISCELLANEOUS

## FEE STRUCTURE FOR HUMAN TESTING

SLD Biological Sciences Bureau upholds our mission to provide high quality analytical services and testing surveillance to improve the health of the people of New Mexico. To clarify our fee structure for our non-public health office submitters, please review the fee information below. (See current fee schedule on web site: <https://nmhealth.org/publication/view/general/1495/>)

### Tests offered free of charge to submitters:

| Test                                             | Comment                          |
|--------------------------------------------------|----------------------------------|
| <i>Bacillus anthracis</i>                        | (Requires Epidemiology approval) |
| <i>Brucella</i>                                  | (Requires Epidemiology approval) |
| <i>Campylobacter</i> confirmation and speciation |                                  |
| Diphtheriae                                      | (Requires Epidemiology approval) |
| <i>Ebola virus</i>                               | (Requires Epidemiology approval) |
| E. coli O157:H7 culture and ID                   |                                  |
| Tularemia culture                                | (Requires Epidemiology approval) |
| Gram negative aerobic bacterial ID               |                                  |
| <i>Haemophilus</i> serotyping                    |                                  |
| <i>Listeria monocytogenes</i>                    |                                  |
| Necrotizing fasciitis                            |                                  |
| <i>N. meningitidis</i> serotyping                |                                  |
| <i>Salmonella</i> serotyping                     |                                  |
| <i>Shigella</i> serotyping                       |                                  |
| <i>Vibrio</i> culture                            |                                  |
| <i>Yersinia enterocolitica</i> culture and ID    |                                  |
| Plague culture                                   | (Requires Epidemiology approval) |
| Rabies                                           |                                  |
| <i>Rubeola</i> (acute)                           | (Requires Epidemiology approval) |
| <i>Syphilis congenital</i>                       |                                  |
| <i>Syphilis</i> (adult, confirmatory)            |                                  |
| Tularemia/Plague serology                        | (Requires Epidemiology approval) |

## Tests that are charged a fee to submitters:

| Test                                                       | Section              |
|------------------------------------------------------------|----------------------|
| <i>Aerobic actinomycetes</i>                               | General Microbiology |
| Anaerobe ID                                                | General Microbiology |
| <i>Coccidioides</i>                                        | General Microbiology |
| Gram positive aerobic bacterial identification             | General Microbiology |
| <i>Legionella</i>                                          | General Microbiology |
| Mycology (fungal or yeast) identification                  | General Microbiology |
| AFB/Tuberculosis culture                                   | General Microbiology |
| AFB/Tuberculosis identification (other than <i>M. tb</i> ) | General Microbiology |
| Virus isolation and ID (waiver to flu sentinel sites)      | Virology/Serology    |
| Pertussis ( <i>Bordetella</i> sp.) Real-time PCR           | Molecular Biology    |

Any other tests not listed under 'free of charge'

## NOTIFIABLE CONDITIONS IN NEW MEXICO

The list of notifiable conditions may be obtained through: [NOTIFIABLE CONDITIONS IN NEW MEXICO \(nmhealth.org\)](https://www.nmhealth.org) Epidemiology and Response Division may be reached at 505-827-0006

## CRITICAL RESULTS REPORTING

SLD has a policy on reporting of critical results. Because of its function as a Public Health Laboratory, at SLD, critical results reported include results of imminently life-threatening infections as well as results obtained during an outbreak investigation. The table below elaborates these results reported along with the turnaround time for reporting. Note: critical results reporting means that we verbally report the results, and written reports will be available within the turnaround time for the tests (see individual turnaround times for tests below).

| Test name                           | What reported?                           | Turnaround time for reporting | Reported to whom?        | Reported by whom? |
|-------------------------------------|------------------------------------------|-------------------------------|--------------------------|-------------------|
| AFB/TB Culture                      | Positive smear and/or PCR on new patient | Same business day             | TB program and submitter | GM staff          |
| AFB/TB Culture or AFB/TB ID isolate | MTBC identification on new patient       | Same business day             | TB program and submitter | GM staff          |

| Test name                                                                                                              | What reported?                                                                                                                                  | Turnaround time for reporting                                    | Reported to whom?                                                   | Reported by whom? |
|------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|---------------------------------------------------------------------|-------------------|
| Arbovirus Real-Time RT-PCR                                                                                             | When any test results in detection of viral RNA in patient sample                                                                               | Same business day as when the analyst confirms a positive result | ERD                                                                 | MB staff          |
| Arbovirus, Zika MAC-ELISA                                                                                              | Positives                                                                                                                                       | Same business day as when the analyst confirms a positive result | ERD                                                                 | VS staff          |
| Bordetella pertussis Real-Time PCR                                                                                     | When Bordetella DNA is detected                                                                                                                 | Same business day as when the analyst confirms a positive result | Submitter and ERD                                                   | MB staff          |
| Brucella serology                                                                                                      | Positives                                                                                                                                       | Same business day as when the analyst confirms a positive result | ERD                                                                 | VS staff          |
| Coccidioides                                                                                                           | Positive                                                                                                                                        | Same business day                                                | Submitter                                                           | GM staff          |
| Culture, fecal (enteric), <i>Campylobacter</i> , <i>E.coli</i> O157, <i>Salmonella</i> , <i>Shigella</i> , Shiga Toxin | Positive<br><i>Campylobacter</i> , <i>E.coli</i> O157, <i>Salmonella</i> , <i>Shigella</i> , Shiga Toxin from a previously undiagnosed patient. | Same business day                                                | ERD and submitter                                                   | GM staff          |
| Culture, fecal (enteric), <i>Campylobacter</i> , <i>E.coli</i> O157, <i>Salmonella</i> , <i>Shigella</i> , Shiga Toxin | <i>Shigella dysenteriae</i> or <i>Salmonella typhi</i> identification                                                                           | Same business day                                                | ERD and submitter                                                   | GM staff          |
| Dengue/Chikungunya virus real-time RT-PCR                                                                              | When either test results in detection of viral RNA in patient sample                                                                            | Same business day as when the analyst confirms a positive result | ERD and submitter                                                   | MB staff          |
| Ebola virus real-time RT-PCR                                                                                           | When test results in detection of viral RNA in patient sample                                                                                   | Same business day as when the analyst confirms a positive result | Preliminary result reported to ERD and CDC. CDC will confirm result | MB staff          |
| <i>H. influenzae</i> typing                                                                                            | Serotype identification                                                                                                                         | Same business day                                                | ERD and submitter                                                   | GM staff          |
| Hepatitis A IgM                                                                                                        | Positives                                                                                                                                       | 24 hrs                                                           | ERD                                                                 | VS staff          |
| HIV western blot                                                                                                       | Positives                                                                                                                                       | 24 hrs                                                           | HIV Program                                                         | VS staff          |
| Human plague serology                                                                                                  | Positives                                                                                                                                       | Same business day as when the analyst confirms a positive result | ERD                                                                 | VS staff          |
| Human tularemia serology                                                                                               | Positives                                                                                                                                       | Same business day as when the analyst confirms a positive result | ERD                                                                 | VS staff          |

| Test name                                                                                                                                                                                                                                                                                                                  | What reported?                                                       | Turnaround time for reporting                                                            | Reported to whom? | Reported by whom? |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|------------------------------------------------------------------------------------------|-------------------|-------------------|
| Listeria monocytogenes                                                                                                                                                                                                                                                                                                     | <i>Listeria monocytogenes</i><br>Positive                            | Same business day                                                                        | ERD               | GM staff          |
| Legionella culture                                                                                                                                                                                                                                                                                                         | Positive or presumptive positive<br><i>Legionella</i> species        | Same business day                                                                        | ERD and submitter | GM staff          |
| Measles IgM serology                                                                                                                                                                                                                                                                                                       | Positives                                                            | 1 hr                                                                                     | ERD               | VS staff          |
| <i>N. meningitidis</i> typing                                                                                                                                                                                                                                                                                              | Serotype identification                                              | Same business day                                                                        | ERD and submitter | GM staff          |
| Norovirus RT-PCR                                                                                                                                                                                                                                                                                                           | Positives                                                            | 24 hrs                                                                                   | ERD               | VS staff          |
|                                                                                                                                                                                                                                                                                                                            |                                                                      |                                                                                          |                   |                   |
| Plague culture                                                                                                                                                                                                                                                                                                             | Positive, confirmed<br><i>Y. pestis</i>                              | Same business day<br>(reported to CDC within<br>24 hrs of ID)                            | ERD and submitter | GM staff          |
| Rabies DFA                                                                                                                                                                                                                                                                                                                 | Positives, negatives,<br>and unsatisfactory                          | 1hr for positives to ERD<br>and 24 h on unsatisfactory (ERD) or<br>negatives (submitter) | ERD or submitter  | VS staff          |
| Stat RPR                                                                                                                                                                                                                                                                                                                   | Positives                                                            | 1 hr                                                                                     | Midtown PHO       | VS staff          |
| Tularemia culture                                                                                                                                                                                                                                                                                                          | Positive, confirmed <i>F. tularensis</i>                             | Same business day<br>(reported to CDC within<br>24 hrs of ID confirmation)               | ERD and submitter | GM staff          |
| <i>Vibrio</i>                                                                                                                                                                                                                                                                                                              | Culture positive for<br><i>Vibrio</i> species                        | Same business day                                                                        | ERD               | GM staff          |
| Yeast/Mold Culture                                                                                                                                                                                                                                                                                                         | Invasive pathogenic<br>mold or yeast from a<br>normally sterile site | Same business day                                                                        | Submitter         | GM staff          |
| Yeast/Mold Culture                                                                                                                                                                                                                                                                                                         | <i>Candida auris</i>                                                 | Same business day                                                                        | ERD and Submitter | GM staff          |
| *telephone communication is attempted within the same business day. If no answer, a message is left requesting call back. If no messaging is available, a telephone call will be repeated, in some instances, the following business day. Secure email to ERD/TB Program may be used in place of telephone communications. |                                                                      |                                                                                          |                   |                   |

## PRELIMINARY REPORTS

Preliminary reporting at SLD is determined by the Laboratory Information System (LIMS) configuration. When multiple tests are ordered on one patient specimen, some of the tests might be completed before others. These completed test results are provided as a printed “preliminary” report to provide optimal patient care. Tests that are incomplete are designated as “pending”. An example is AFB culture - at SLD, individual tests for one AFB

sample may include AFB direct smear, Mycobacterium real time PCR, AFB culture and Send Out for AFB susceptibility. As each test is completed, a report is generated for the submitter and becomes available to TB control. The incomplete tests are designated as “pending”. The final report is available upon completion of all tests related to the one specimen and will indicate “Final”.

In some instances, tests provided at SLD are for Epidemiologic purpose only, and the tests do not appear on the patient report. For example, PFGE tests are performed on all Salmonella isolates. The Salmonella culture and serotype result may be final, but if the PFGE test is not complete, the report will indicate “preliminary”, with no visible “pending” tests. When the PFGE test is completed, a “final” report is generated to the submitter with the same culture and serotype information.

## **MANDATORY ISOLATE SUBMISSIONS**

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All laboratories testing New Mexico specimens are required to submit bacterial isolates or clinical specimens of the following organisms to the New Mexico Scientific Laboratory Division (SLD).

Isolated from STERILE site (in pure or mixed cultures):

- *Haemophilus influenza* (all types)
- *Neisseria meningitidis*
- *Streptococcus* Group A
- *Streptococcus* Group B
- *Streptococcus pneumoniae*

Report positive results to DOH; by phone, 505-827-0006; or fax, 505-827-0013.

Report suspect or confirmed Tuberculosis to 505-827-2473 or 505-827-2474

For the complete listing of reportable conditions please refer to the Notifiable Diseases or Conditions in the New Mexico guidelines [NOTIFIABLE CONDITIONS IN NEW MEXICO \(nmhealth.org\)](#) (7.4.3.12 New Mexico Administrative Code).

Isolated From ANY Site:

- Anthrax
- Avian or novel influenza
- Botulism (any type)
- *Campylobacter* sp.
- Carbapenem resistant *Enterobacterales* or *Pseudomonas aeruginosa*
- Diphtheria
- *E. coli* O157:H7
- *E. coli* – shiga-toxin producing
- *Listeria monocytogenes*
- Plague
- *Salmonella* – typhi & non-typhi
- Severe Acute Respiratory Syndrome (SARS)
- *Shigella* sp.
- Smallpox
- Tuberculosis
- Tularemia
- Typhoid fever
- *Vibrio* sp.