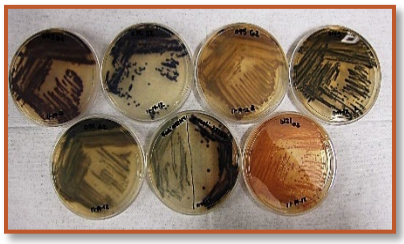
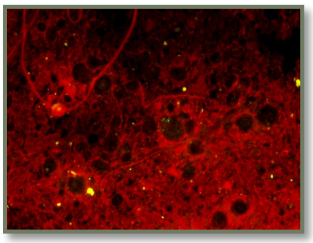
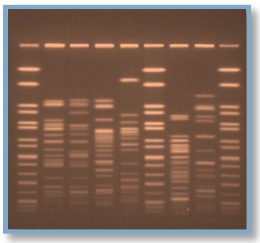
Scientific Laboratory Division - NM Department of Health
Biological Sciences Bureau

Directory of Services
2025

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

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GENERAL INFORMATION

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.

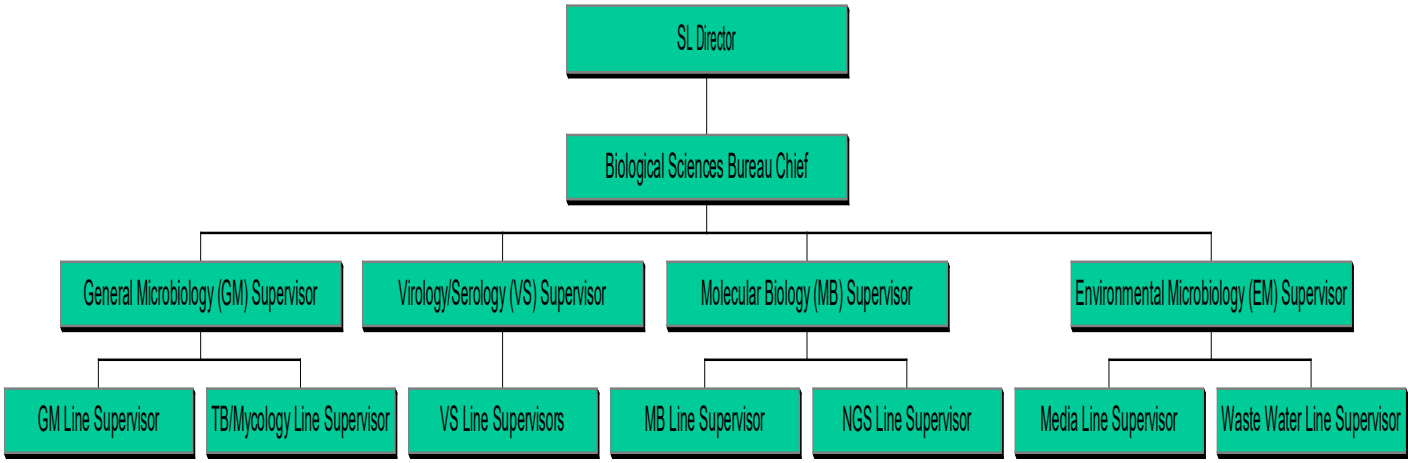
The operating hours of SLD are Monday through Friday from 8 am to 5 pm. We conduct emergency testing only upon the request of the Epidemiology and Response Division (ERD). The Directory of Services does not contain our fee schedule. You can find the Fee Schedule at the SLD website, located here; nmhealth.org/publication/view/general/1495/. 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.

BIOLOGICAL SCIENCES BUREAU

ORGANIZATIONAL CHART



CONTACT INFORMATION

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

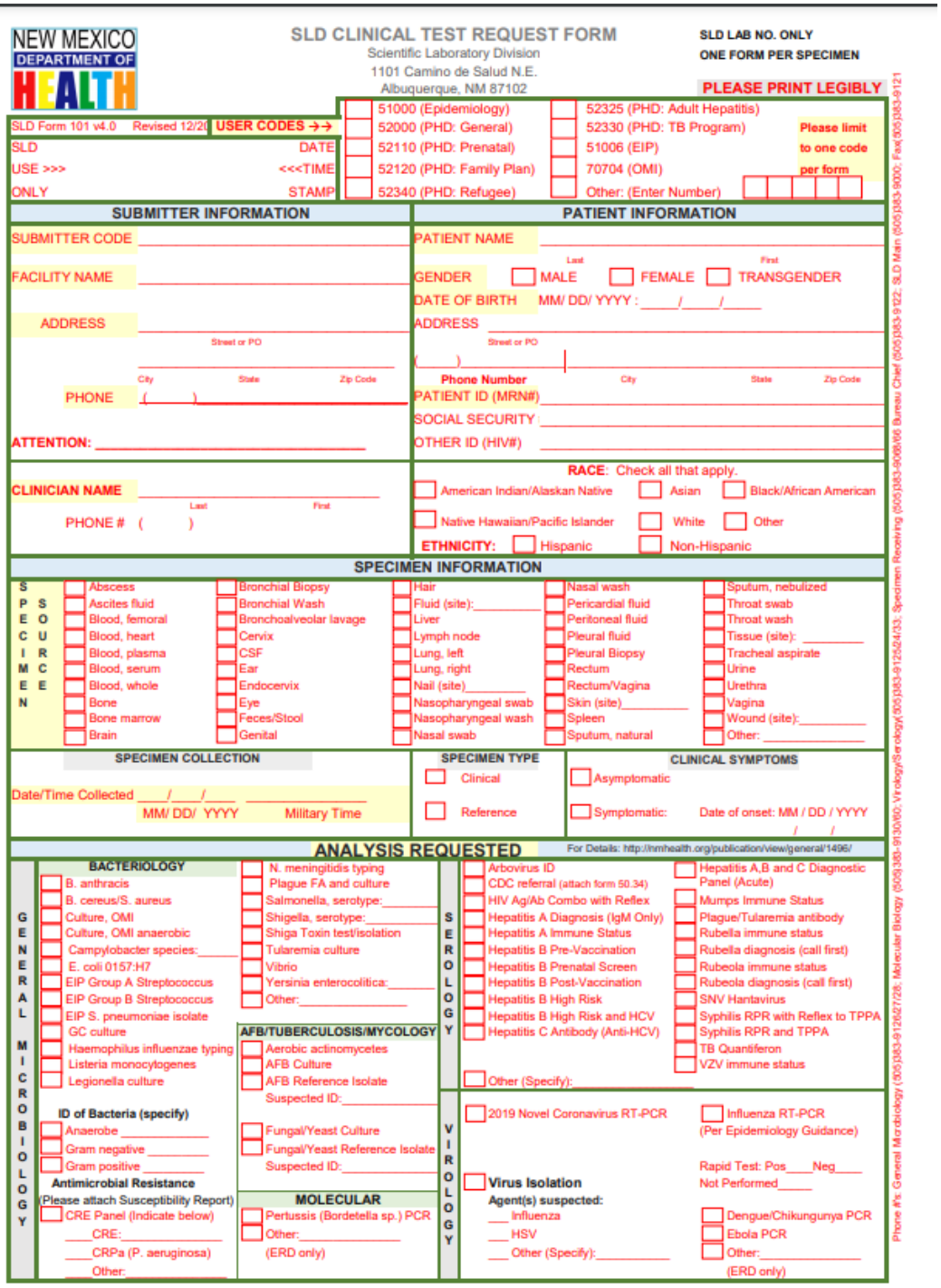
Jolene Mancha	GM Line Supervisor	505-383-9127	Contact for inquiries regarding bacteriology
Sabrina Nottke	TB/Mycology Line Supervisor	505-383-9126	Contact for inquiries regarding mycobacteriology and mycology testing
Jody Andersen	VS Supervisor	505-383-9124	Contact for inquiries regarding virology or 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
Dr. Selina Garcia	MB Line Supervisor	505-383-9160	Contact for inquiries regarding molecular testing
Dr. Anastacia Griego Fisher	MB Line Supervisor	505-383-9161	Contact for inquiries regarding Next Generation Sequencing
Hema Chellappa	EM Supervisor	505-383-9129	Contact for inquiries regarding food, water, and dairy testing

Patrick Zedalis	EM Line Supervisor	505-383-9104	Contact for inquiries regarding food, water, and dairy testing
Sunil Basnet	EM Line Supervisor	505-383-9131	Contact for inquiries regarding food, water, and dairy testing
SL Front Desk		505-383-9000; 505-383-9150	Contact for general inquiries and if uncertain whom to call
Epidemiology and Response (ER)		833-796-8773	
BSB Fax		505-383-9121	
SL Fax		505-383-9011	
Specimen Receiving Phone		505-383-9068; 505-383-9059	For inquiries regarding courier service
Kit Prep Phone		505-383-9056	For kits
Kit Prep Fax		505-383-9062	For kits

CLINICAL TESTING

CLINICAL TEST REQUEST FORM

The SLD clinical request form can be found on our website, located here nmhealth.org/publication/view/form/6380/



NEW MEXICO DEPARTMENT OF HEALTH

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 USE >>> ONLY
DATE <<<TIME 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 (Street or PO; City; State; Zip Code)
PHONE ( )
ATTENTION:

CLINICIAN NAME (Last; First)
PHONE # ( )

PATIENT INFORMATION

PATIENT NAME (Last; First)
GENDER MALE FEMALE TRANSGENDER
DATE OF BIRTH MM/ DD/ YYYY : / /
ADDRESS (Street or PO)
( ) Phone Number; City; State; Zip Code
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 / SOURCE

Abscess; Ascites fluid; Blood, femoral; Blood, heart; Blood, plasma; Blood, serum; Blood, whole; Bone; Bone marrow; Brain
Bronchial Biopsy; Bronchial Wash; Bronchoalveolar lavage; Cervix; CSF; Ear; Endocervix; Eye; Feces/Stool; Genital
Hair; Fluid (site):; Liver; Lymph node; Lung, left; Lung, right; Nail (site); Nasopharyngeal swab; Nasopharyngeal wash; Nasal swab
Nasal wash; Pericardial fluid; Peritoneal fluid; Pleural fluid; Pleural Biopsy; Rectum; Rectum/Vagina; Skin (site); Spleen; Sputum, natural
Sputum, nebulized; Throat swab; Throat wash; Tissue (site): ; Tracheal aspirate; Urine; Urethra; Vagina; Wound (site):; Other:

SPECIMEN COLLECTION
Date/Time Collected ___/___/___ ___
MM/ DD/ YYYY Military Time

SPECIMEN TYPE
Clinical
Reference

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

ANALYSIS REQUESTED
For Details: http://nmhealth.org/publication/view/general/1496/

GENERAL MICROBIOLOGY

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:

ID of Bacteria (specify)
Anaerobe
Gram negative
Gram positive

Antimicrobial Resistance
(Please attach Susceptibility Report)
CRE Panel (Indicate below)
CRE:
CRPa (P. aeruginosa)
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)

SEROLOGY
Arbovirus ID
CDC referral (attach form 50.34)
HIV Ag/Ab Combo with Reflex
Hepatitis A Diagnosis (IgM Only)
Hepatitis A Immune Status
Hepatitis B Pre-Vaccination
Hepatitis B Prenatal Screen
Hepatitis B Post-Vaccination
Hepatitis B High Risk
Hepatitis B High Risk and HCV
Hepatitis C Antibody (Anti-HCV)
Other (Specify):
Hepatitis A,B and C Diagnostic Panel (Acute)
Mumps Immune Status
Plague/Tularemia antibody
Rubella immune status
Rubella diagnosis (call first)
Rubeola immune status
Rubeola diagnosis (call first)
SNV Hantavirus
Syphilis RPR with Reflex to TPPA
Syphilis RPR and TPPA
TB Quantiferon
VZV immune status

VIROLOGY
2019 Novel Coronavirus RT-PCR
Influenza RT-PCR (Per Epidemiology Guidance)
Rapid Test: Pos Neg
Not Performed
Virus Isolation
Agent(s) suspected:
Influenza
HSV
Other (Specify):
Dengue/Chikungunya PCR
Ebola PCR
Other:
(ERD only)

Phone #'s: General Microbiology (505)383-9126/27/28; Molecular Biology (505)388-9130/60; Virology/Serology(505)383-9125/24/33; Specimen Receiving (505)383-9006/66 Bureau Chief (505)383-9122; SLD Main (505)383-9000; Fax(505)383-9121

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 833-796-8773 if a select agent is suspected and notify lab section.

GENERAL REJECTION CRITERIA

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

Adenovirus

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_2. 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

See "ID of Bacteria, Gram negative or Gram positive"

Aerobic Actinomycetes

Description: Isolation and identification of Aerobic Actinomycetes through smear and culture methods: morphology, growth characteristics, MALDI-TOF 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 ion 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 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

See "ID of Bacteria, Anaerobe"

AFB/Tuberculosis, ID isolate

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

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

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

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

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

Description: EUA Trioplex Real-Time RT-PCR detects Zika virus in amniotic fluid; chikungunya, dengue and Zika viruses in serum, CSF, and urine; Trioplex 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 Trioplex 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 (1-833-796-8773) 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

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: If specimens are not tested within 8 hours, they should be stored at 2° to 8°C for up to 48 hours. Beyond 48 hours, specimens should be stored at -20°C or below. 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 to be received at SLD within 48 hours. If the specimen is frozen, it must be shipped with dry ice to ensure that the specimen does not thaw during shipment.

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 (833-796-8773) 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

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

Description: DNA amplification. PCR on culture will be confirmatory. PCR on clinical samples are presumptive.
Specimen: Culture isolate usually received from General Microbiology or Environmental Micro. See above.
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 Supervisors (505-383-9160/9161).

Bacillus cereus, culture

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

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

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

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

Brucella abortus, serology

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 -20ºC (-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

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.
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

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

Description: Isolation of Campylobacter from feces and confirmation testing of Campylobacter isolates by culture and speciation by MALDI-TOF. May include sendout to CDC or sequencing upon state epidemiology request. See "Next Generatio Sequencing", NGS.
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

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. May include sendout to CDC or ARLN Regional.
Special Requirements: Notify ERD, and General Microbiology prior to sending.

See "Yeast/Mold Culture"

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

Description: Enterobacterales resistant to any carbapenem (minimum inhibitory concentrations of ≥4 μg/ml or zone diameter ≤19mm for meropenem, imipenem, or doripenem or ≥2 μg /ml; ≤18mm 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

Description: Pseudomonas aeruginosa resistant to any carbapenem (minimum inhibitory concentrations of ≥8 μg/ml or zone diameter breakpoint ≤15mm for meropenem, imipenem, or doripenem) and mic ≥ 16 μg/ml or zone diameter ≤ 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

Description: Acinteobacter baumannii resistant to any carbapenem (minimum inhibitory concentrations of ≥8 μg/ml for imipenem, meropenem, or doripenem or zone diameter breakpoint ≤14mm for meropenem and doripenem or ≤18mm 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

See above: Arbovirus, Real-Time RT-PCR

Cholera

See “Vibrio cholerae”

Clostridium botulinum

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

Description: No testing is performed at the Scientific Laboratory. Currently isolate submission to SLD is not required
Contact: GM Supervisor (505-383-9128), or GM Line Supervisor (505-383-9127).

Clostridium perfringens toxin

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

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

See below: Influenza AND 2019 Novel Coronavirus, real-time RT-PCR

2019 Novel Coronavirus, IgG Serology

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

See "Diphtheria Culture"

Cryptococcus

See "Yeast/Mold Culture"

Cytomegalovirus culture

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 Real-Time RT-PCR

See above: Arbovirus, Real-Time RT-PCR

Diphtheria culture

Description: Isolation and identification of *Corynebacterium diphtheriae* from culture, clinical specimens or isolated organism. 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

Description: Amplification of Ebola virus RNA. Requires pre-approval from ERD (call 833-796-8773). 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

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

Description: Isolation and identification of *E. coli* 0157 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

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

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_2. 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

See "Tularemia, culture"

Francisella tularensis, serology

See "Tularemia, serology"

Fungal/Yeast Culture

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

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

Description: See ID of bacteria, gram negative if suspect isolate identification needed. GC Culture No longer performed at the Scientific Laboratory due to discontinued funding.

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

H. influenzae typing

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 by MALDI TOF
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)

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 833-796-8773).
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

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

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

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

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)

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

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

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)

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

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_2. 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

See "Yeast/Mold Culture"

HIV Antigen/Antibody Combo

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

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

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

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_2. 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

Description: Amplification of Influenza and SARS CoV RNA. Samples positive for Influenza are reflexed to subtyping and genotyping real-time RT-PCR.
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_2. 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).

Influenza virus type A & B, culture

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.

Legionella, culture

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

Description: Confirmation of *Listeria monocytogenes* isolate. See Next Generation Sequencing (NGS).
Specimen: Send isolate on appropriate plate or tube medium.
Normal Value: N/A
Analysis Requested: L. monocytogenes
Estimated Turnaround Time: 1-2 weeks for culture confirmation., NGS, 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

See "Rubeola (Measles)"

Mpox virus real-time RT-PCR

See "See Orthopox non-Variola"

Mumps virus, culture

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_2. 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

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)

See "AFB/ Tuberculosis"

Neisseria meningitidis serotyping

Description: Agglutination test with type-specific antisera for serogroups of *Neisseria meningitidis* from sterile sites. Includes participation in the EIP project. Due to limited resources, isolates may be referred to a Vaccine Preventable Disease Reference Center for further testing. (Please order "*N. menigitidis* typing" only on clinical request form). isolates are confirmed by MALDI TOF.
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 (NGS) – Enterics Whole Genome Sequencing

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 (833-796-8773) 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

See "Aerobic actinomycetes"

Norovirus RT-PCR

Description: RT-PCR test for Norovirus Groups I and II. Requires pre-approval from ERD (call 833-796-8773). 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 833-796-8773).
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

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

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).

Orthopox non-Variola (e.g. Mpox) real-time RT-PCR

Description: Amplification of DNA virus genomic material.
Specimen: Dry swabs of lesions or crust. Only sterile, synthetic swabs (including but not limited to polyester, nylon, or Dacron) with plastic, wood, or thin aluminum (wire) shafts should be used to collect suspected or confirmed mpox specimens for diagnostic testing. Do not use cotton swabs.
Normal Value: No viral RNA detected.
Analysis Requested: Write in under Other: Mpox PCR (Bottom right corner)

Estimated Turnaround Time: 24-72 hrs.
Collection: Collect two swabs from each lesion, preferably from different locations on the body or from lesions that differ in appearance (e.g., a pair of swabs for each lesion with a total of 2-3 lesions). Skin lesion material, including swabs of lesion surface, exudate, or lesion crusts are the recommended specimen types. Vigorously swab each lesion, avoiding contamination of gloved hands, to ensure adequate viral DNA is collected.
Handling: If the specimen can be delivered to the laboratory within 7 days, refrigerate at 2-8°C (35 – 46°F); if not then freeze at or below -20°C (-4°F) and will need to be received frozen within 60 days.
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_2. Deliver to the laboratory via the established overnight courier system, or as quickly as possible.
Special requirements: Epidemiology and Response (833-796-8773) must be contacted, and testing approved, BEFORE sending any specimen to SLD.
Rejection criteria: Samples older than 7 days that are not frozen will be rejected.
Contact: Molecular Biology Supervisor (505-383-9130), Virology/Serology Supervisor (505-383-9124), MB Line Supervisor (505-383-9160) or VS Line Supervisor (505-383-9125).

Paracoccidioides

See "Yeast/Mold culture"

Parainfluenza virus Types 1, 2, 3, culture

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_2. 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)

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

Plague, culture

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

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

Poliovirus, culture

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

Reference culture

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

Respiratory Syncytial Virus, culture

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

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

RPR (Rapid Plasma Reagin)

See "Syphilis screen, RPR."

Rubella virus (German measles), immune status

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

Description: Enzyme immunoassay procedure for the detection of IgM and IgG antibodies to rubeola virus. Must contact Epidemiology and Response Division first for approval (833-796-8773); 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 833-796-8773). 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_2. 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).

Rubeola virus (measles), real-time RT-PCR

Description: Amplification method for the detection of measles virus RNA.
Specimen: Nasopharyngeal (NP) or Oropharyngeal (e.g. throat) swab in viral transport medium, or dry ; urine in sterile container.
Normal Value: No viral RNA detected.
Analysis Requested: Write in under Other: Measles RT-PCR (Bottom right corner)
Estimated Turnaround Time: 24-48 hrs.

Collection: Nasopharyngeal swabs and throat swabs should be collected with commercial swab products designed for the collection of throat/nasopharyngeal specimens or flocked polyester fiber swabs. Cotton swabs are not acceptable. Swabs should be placed in 2 mL of standard viral transport medium (VTM) and should not be allowed to dry out. Ream the swab around the rim of the tube to retain cells and fluid in the tube. The swab should be broken off and left in the tube.
50 mL of urine should be collected in a sterile, leakproof container.
Handling: If the specimen can be delivered to the laboratory within 72 hours, refrigerate at 2-8°C (35 – 46°F); if not specimens should be frozen at -20°C or lower and shipped on dry ice within 30 days.
Urine should be delivered refrigerated within 7 days.
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_2. 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. Requires pre-approval from Epidemiology and Response (call 833-796-8773).
Rejection criteria: Samples older than 72 hours that are not frozen will be rejected.
Contact: Molecular Biology Supervisor (505-383-9130), Virology/Serology Supervisor (505-383-9124), MB Line Supervisor (505-383-9160) or VS Line Supervisor (505-383-9125).

Salmonella, culture

See "*Salmonella*, serotype"

Salmonella, serotype

Description: Isolation and identification of *Salmonella* spp. from clinical specimens. Includes serotype by whole genome sequence of positive cultures. Confirmation and serotype performed on all Salmonella isolates for epidemiologic purposes. See "Next Generation Sequencing". Test request includes Salmonella culture, and serogroup 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

See "Shigella, serotype"

Shigella, serotype

Description: Isolation and identification of *Shigella* spp. from clinical specimens Includes serotype of positive cultures by whole genome sequence. Confirmation and serotype performed on Shigella isolates for epidemiologic purposes. Test request includes *Shigella* culture.. See "Next Generation Sequencing".
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

Description: Detection of Shiga Toxins I and/or II in stool specimens, broth cultures or isolated colonies by EIA method. Test request includes identification and complete or partial serotype of the Shiga Toxin producing *E. coli* and genetic toxin marker detection by NGS for epidemiologic purpose, if applicable. See "Next Generation Sequencing".
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

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 (833-796-8773).
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 specimens must be tested within 5 days of collection. Longer delays past the 5 days require that specimen be frozen at or below -20°C and shipped frozen on dry ice.
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 833-796-8773).
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

See "Yeast/Mold culture"

Staphylococcus aureus, culture (foodborne only)

Description: Isolation and identification of *Staphylococcus aureus* from fecal specimens or vomitus as requested through Epidemiology. Toxin and/or other testing may be performed by the Centers for Disease Control and Prevention upon state epidemiologist request. 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

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

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

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

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

TB QuantiFERON

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

See "AFB/Tuberculosis culture"

Tularemia, culture

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

Description: Direct agglutination procedure for the detection of antibody to tularemia in serum. Testing must be approved by ERD (call 833-796-8773). 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 -20ºC (-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 833-796-8773). 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

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

Varicella zoster (VZV), culture

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_2. 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

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).

Varicella zoster (VZV), real-time PCR

Description: Amplification of Varicella zoster Virus DNA.
Specimen: Dry swab of vesicle 'roof' or crust of lesion, vesicular fluid or swab of lesion in viral transport medium. Dry swabs will not be cultured.
Normal Value: No viral DNA detected.
Analysis Requested: Write in under Other: VZV PCR (Bottom right corner)
Estimated Turnaround Time: 48 – 72 hrs.
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_2. 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. Requires pre-approval from Epidemiology and Response (call 833-796-8773).
Contact: Molecular Biology Supervisor (505-383-9130), Virology/Serology Supervisor (505-383-9124), MB Line Supervisor (505-383-9160) or VS Line Supervisor (505-383-9125).

VDRL

See "Syphilis screen, adult"

Vibrio cholerae

Description: Culture for a suspect *Vibrio cholerae* isolate. Contact ERD and General Microbiology Section. See "Next Generation Sequencing" Pathotype included by NGS for Epidemiologic purpose.
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

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. May include Next Generation Sequencing.
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

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_2. 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

See Varicella Zoster Virus above

Yeast/Mold Culture

See “Fungal/Yeast Culture”

Yeast/Mold Reference Identification

See “Fungal/Yeast Reference Isolate”

Yeast/Mold Sequencing

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

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 entercolitica* isolated by culture.
Analysis Requested: *Yersinia entercolitica*: _____
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

See “Plague culture”

Yersinia pestis (plague), serology

Description: Hemagglutination and hemagglutination inhibition test for detection of antibody to *Yersinia pestis*. Testing must be approved by ERD (call 833-796-8773). 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 -20ºC (-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 833-796-8773). 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).

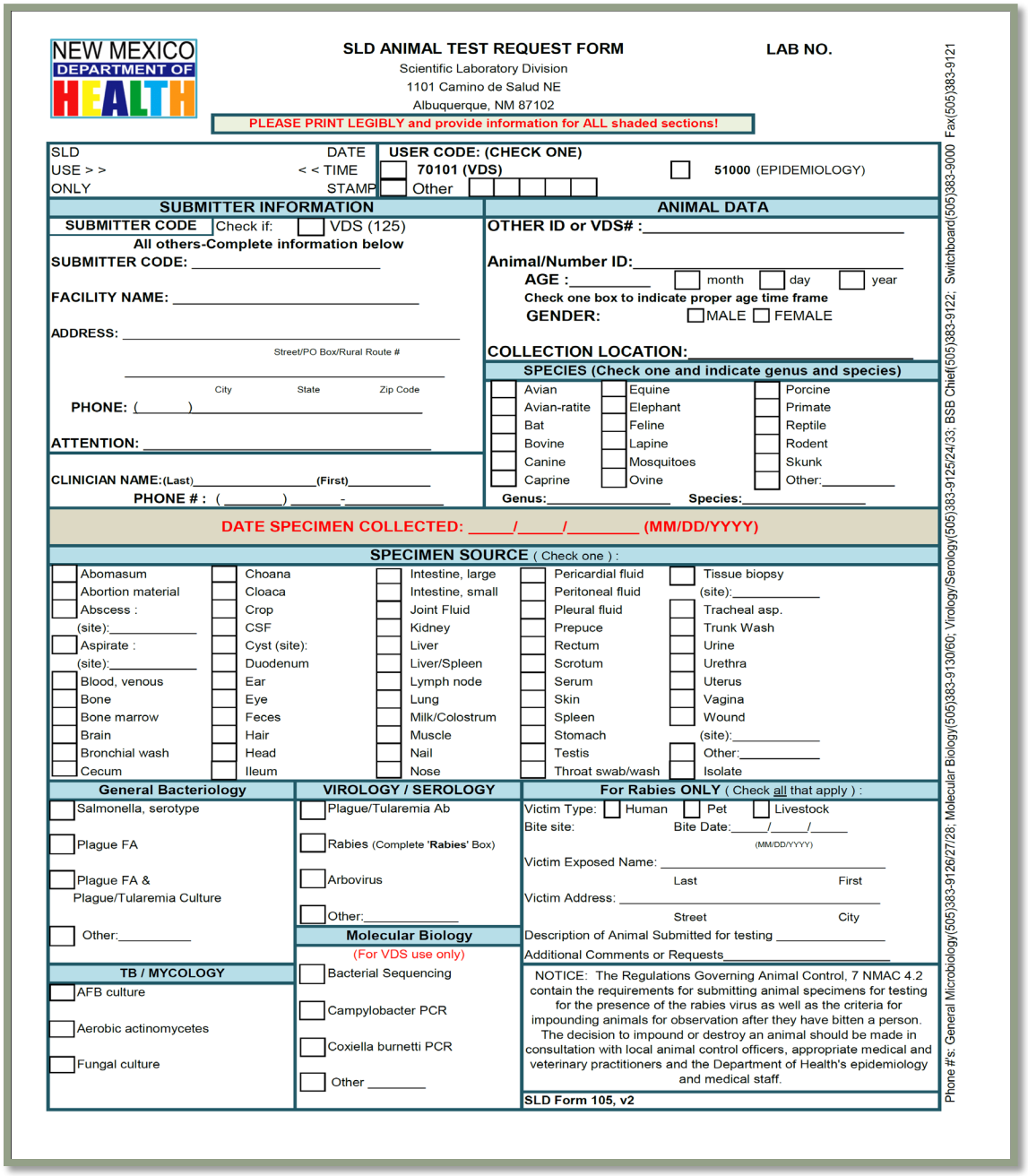
Zika Virus Serology or RT-PCR

See “Arbovirus, Zika IgM Serology” 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 DEPARTMENT OF HEALTH

SLD ANIMAL TEST REQUEST FORM — **LAB NO.**

Scientific Laboratory Division
1101 Camino de Salud NE
Albuquerque, NM 87102

PLEASE PRINT LEGIBLY and provide information for ALL shaded sections!

SLD USE > > ONLY | < < DATE TIME STAMP | USER CODE: (CHECK ONE) ☐ 70101 (VDS) ☐ 51000 (EPIDEMIOLOGY) ☐ Other

SUBMITTER INFORMATION

SUBMITTER CODE Check if: ☐ VDS (125)
All others-Complete information below
SUBMITTER CODE: _____
FACILITY NAME: _____
ADDRESS: _____
Street/PO Box/Rural Route #
_____
City State Zip Code
PHONE: (_____)_____
ATTENTION: _____
CLINICIAN NAME:(Last)_____(First)_____
PHONE # : (_____)_____-_____

ANIMAL DATA

OTHER ID or VDS# : _____
Animal/Number ID: _____
AGE :_____ ☐ month ☐ day ☐ year
Check one box to indicate proper age time frame
GENDER: ☐MALE ☐FEMALE
COLLECTION LOCATION: _____

SPECIES (Check one and indicate genus and species)

☐ Avian	☐ Equine	☐ Porcine
☐ Avian-ratite	☐ Elephant	☐ Primate
☐ Bat	☐ Feline	☐ Reptile
☐ Bovine	☐ Lapine	☐ Rodent
☐ Canine	☐ Mosquitoes	☐ Skunk
☐ Caprine	☐ Ovine	☐ Other:_____

Genus:_____ Species:_____

DATE SPECIMEN COLLECTED: _____/_____/_____ (MM/DD/YYYY)

SPECIMEN SOURCE (Check one) :

☐ Abomasum	☐ Choana	☐ Intestine, large	☐ Pericardial fluid	☐ Tissue biopsy
☐ Abortion material	☐ Cloaca	☐ Intestine, small	☐ Peritoneal fluid	(site):_____
☐ Abscess :	☐ Crop	☐ Joint Fluid	☐ Pleural fluid	☐ Tracheal asp.
(site):_____	☐ CSF	☐ Kidney	☐ Prepuce	☐ Trunk Wash
☐ Aspirate :	☐ Cyst (site):	☐ Liver	☐ Rectum	☐ Urine
(site):_____	☐ Duodenum	☐ Liver/Spleen	☐ Scrotum	☐ Urethra
☐ Blood, venous	☐ Ear	☐ Lymph node	☐ Serum	☐ Uterus
☐ Bone	☐ Eye	☐ Lung	☐ Skin	☐ Vagina
☐ Bone marrow	☐ Feces	☐ Milk/Colostrum	☐ Spleen	☐ Wound
☐ Brain	☐ Hair	☐ Muscle	☐ Stomach	(site):_____
☐ Bronchial wash	☐ Head	☐ Nail	☐ Testis	☐ Other:_____
☐ Cecum	☐ Ileum	☐ Nose	☐ Throat swab/wash	☐ Isolate

General Bacteriology

☐ Salmonella, serotype
☐ Plague FA
☐ Plague FA & Plague/Tularemia Culture
☐ Other:_____

TB / MYCOLOGY

☐ AFB culture
☐ Aerobic actinomycetes
☐ Fungal culture

VIROLOGY / SEROLOGY

☐ Plague/Tularemia Ab
☐ Rabies (Complete 'Rabies' Box)
☐ Arbovirus
☐ Other:_____

Molecular Biology

(For VDS use only)
☐ Bacterial Sequencing
☐ Campylobacter PCR
☐ Coxiella burnetti PCR
☐ Other _____

For Rabies ONLY (Check all that apply) :

Victim Type: ☐ Human ☐ Pet ☐ Livestock
Bite site: Bite Date:_____/_____/_____ (MM/DD/YYYY)
Victim Exposed Name: _____ Last First
Victim Address: _____ Street City
Description of Animal Submitted for testing _____
Additional Comments or Requests_____

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.

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

N/A

REJECTION CRITERIA

- 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

Aerobic Actinomyces

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

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

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

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 that 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

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, Oher: _____; 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

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

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

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

See Arbovirus

Coccidioides

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: 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: ELISA Protein A-peroxidase method for detection of antibody to *Yersinia pestis*.
Specimen: 1 ml serum.
Normal Value: <1:16 titer, Nonreactive
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. Specimens should then be refrigerated at 2-8°C and they must be tested within 5 days of collection. If the samples will not be tested within 5 days of collection, freeze at -20°C or below
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 during shipment.
Special requirements: Only one freeze-thaw cycle is allowed.
Rejection criteria: Unsatisfactory specimens (e.g., hemolysis).
Contact: Virology/Serology Supervisor (505-383-9124) or VS Line Supervisor (505-383-9125).

Rabies DFA

Description: Direct fluorescent antibody test for rabies antigen in brain tissue. Emergency testing available through ERD (call 833-796-8773).

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

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

See Arbovirus

Yersinia enterocolitica

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 entercolitica* isolated by culture.
Analysis Requested: General Bacteriology, Other: please write “Yersinia entercolitica"
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).

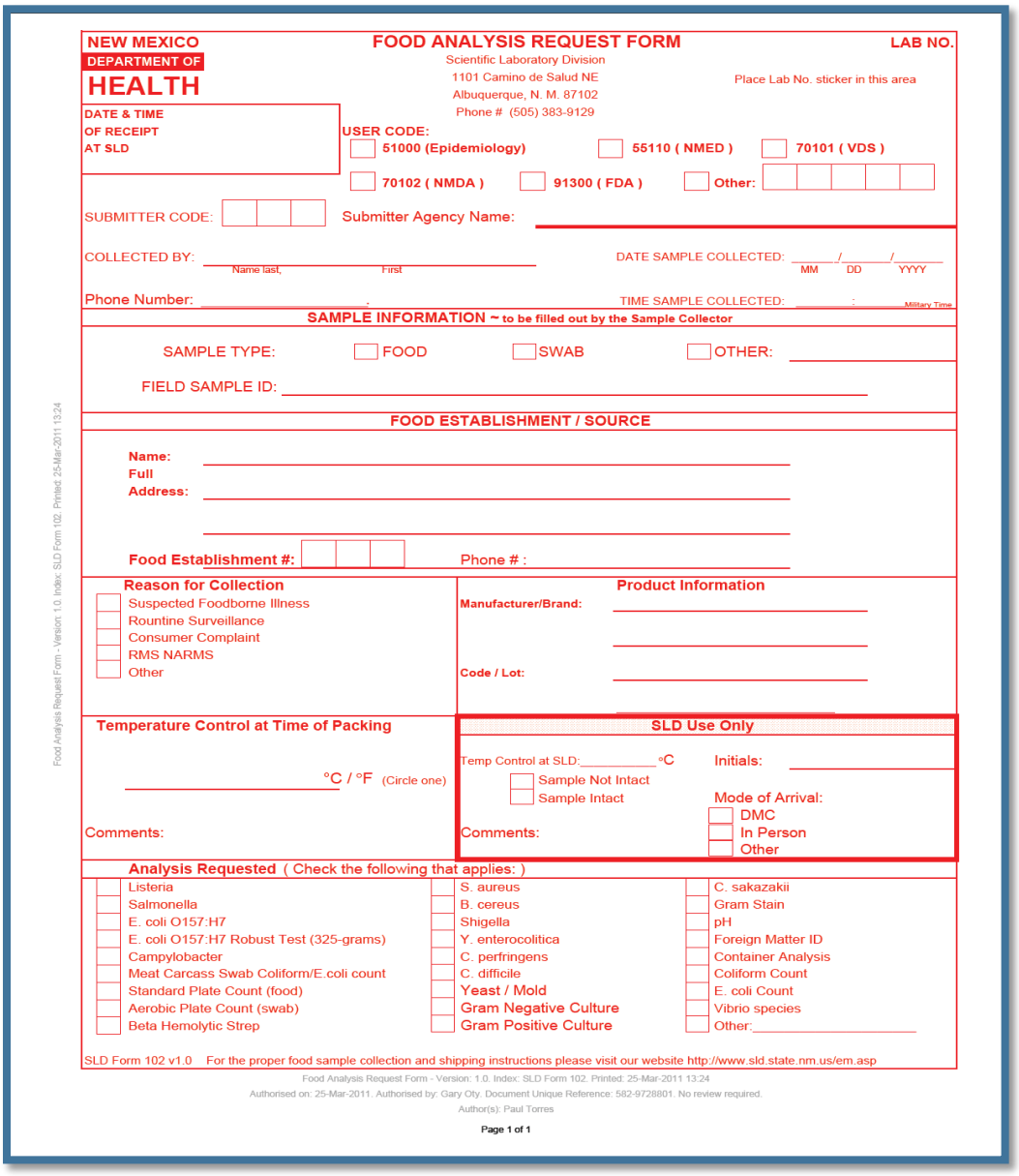
Yersinia pestis (plague), culture

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 DEPARTMENT OF HEALTH

FOOD ANALYSIS REQUEST FORM

Scientific Laboratory Division
1101 Camino de Salud NE
Albuquerque, N. M. 87102
Phone # (505) 383-9129

LAB NO.

Place Lab No. sticker in this area

DATE & TIME OF RECEIPT AT SLD

USER CODE:
☐ 51000 (Epidemiology) ☐ 55110 (NMED) ☐ 70101 (VDS)
☐ 70102 (NMDA) ☐ 91300 (FDA) ☐ Other:

SUBMITTER CODE: Submitter Agency Name:

COLLECTED BY: (Name last, First) DATE SAMPLE COLLECTED: ___/___/___ (MM DD YYYY)

Phone Number: TIME SAMPLE COLLECTED: ___:___ (Military Time)

SAMPLE INFORMATION ~ to be filled out by the Sample Collector

SAMPLE TYPE: ☐ FOOD ☐ SWAB ☐ OTHER:

FIELD SAMPLE ID:

FOOD ESTABLISHMENT / SOURCE

Name:
Full Address:

Food Establishment #: Phone # :

Reason for Collection
☐ Suspected Foodborne Illness
☐ Rountine Surveillance
☐ Consumer Complaint
☐ RMS NARMS
☐ Other

Product Information
Manufacturer/Brand:
Code / Lot:

Temperature Control at Time of Packing
°C / °F (Circle one)
Comments:

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:)

☐ Listeria	☐ S. aureus	☐ C. sakazakii
☐ Salmonella	☐ B. cereus	☐ Gram Stain
☐ E. coli O157:H7	☐ Shigella	☐ pH
☐ E. coli O157:H7 Robust Test (325-grams)	☐ Y. enterocolitica	☐ Foreign Matter ID
☐ Campylobacter	☐ C. perfringens	☐ Container Analysis
☐ Meat Carcass Swab Coliform/E.coli count	☐ C. difficile	☐ Coliform Count
☐ Standard Plate Count (food)	☐ Yeast / Mold	☐ E. coli Count
☐ Aerobic Plate Count (swab)	☐ Gram Negative Culture	☐ Vibrio species
☐ Beta Hemolytic Strep	☐ Gram Positive Culture	☐ Other:_____

SLD Form 102 v1.0 For the proper food sample collection and shipping instructions please visit our website http://www.sld.state.nm.us/em.asp

Food Analysis Request Form - Version: 1.0. Index: SLD Form 102. Printed: 25-Mar-2011 13:24
Authorised on: 25-Mar-2011. Authorised by: Gary Oty. Document Unique Reference: 582-9728801. No review required.
Author(s): Paul Torres

Page 1 of 1

SUBMISSION PROCEDURES

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.

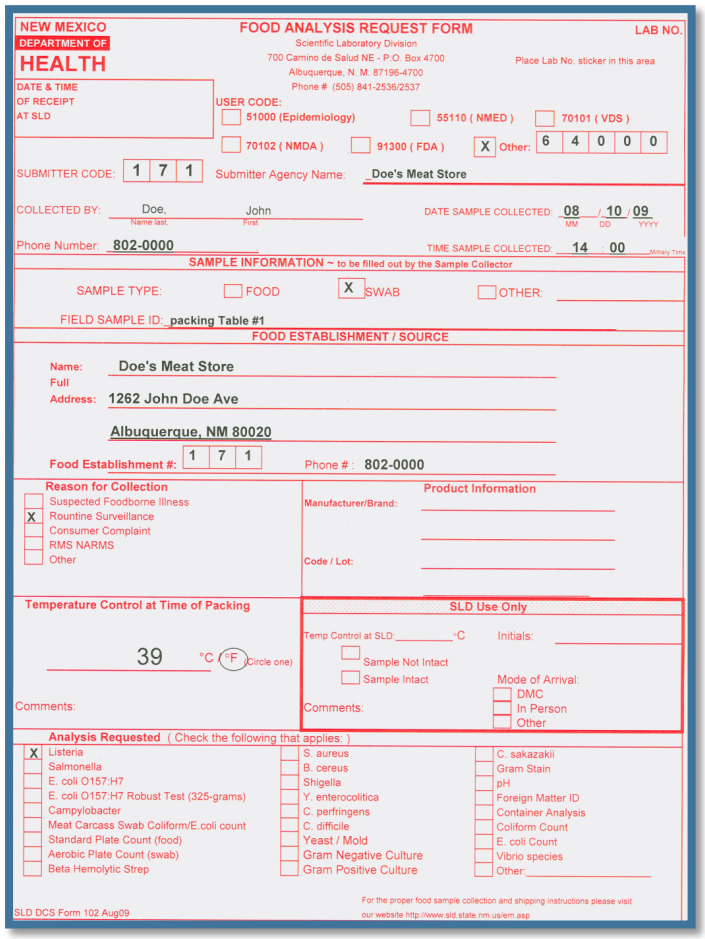
The condition of food and environmental swab samples received for examination at the lab is of primary importance. All samples should be collected aseptically and with sterile implements. The use of sterile gloves and sterile sample containers is highly recommended. All samples should be held at refrigerated 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

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

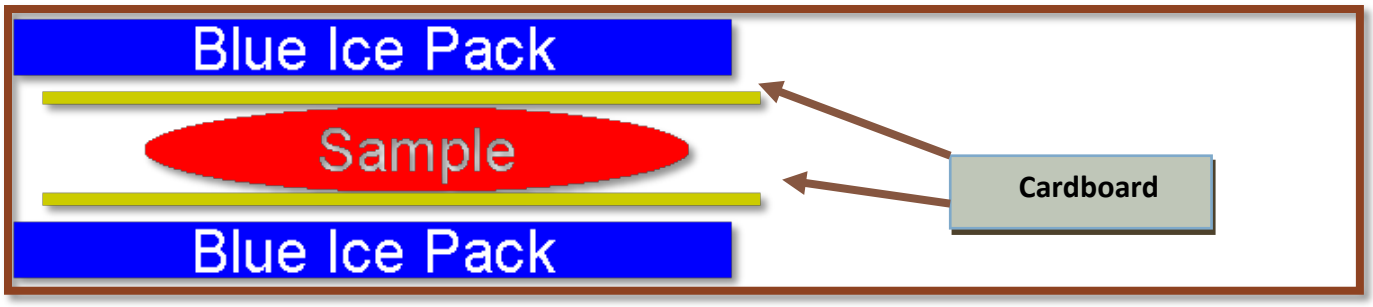
of collection. It is important that the sample identification on the sample container match what the FIELD SAMPLE ID is on the Food Analysis Request Form.

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.



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.
Place Lab No. sticker in this area
DATE & TIME OF RECEIPT AT SLD
USER CODE:
51000 (Epidemiology) 55110 (NMED) 70101 (VDS)
70102 (NMDA) 91300 (FDA) X Other: 64000
SUBMITTER CODE: 171 Submitter Agency Name: Doe's Meat Store
COLLECTED BY: Doe, John (Name last, First)
DATE SAMPLE COLLECTED: 08 / 10 / 09 (MM / DD / YYYY)
Phone Number: 802-0000
TIME SAMPLE COLLECTED: 14 : 00 (Military Time)
SAMPLE INFORMATION ~ to be filled out by the Sample Collector
SAMPLE TYPE: FOOD X 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
X Routine Surveillance
Consumer Complaint
RMS NARMS
Other
Product Information
Manufacturer/Brand:
Code / Lot:
Temperature Control at Time of Packing
39 °C / °F (Circle one)
Comments:
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:)
X Listeria
Salmonella
E. coli O157:H7
E. coli O157:H7 Robust Test (325-grams)
Campylobacter
Meat Carcass Swab Coliform/E.coli count
Standard Plate Count (food)
Aerobic Plate Count (swab)
Beta Hemolytic Strep
S. aureus
B. cereus
Shigella
Y. enterocolitica
C. perfringens
C. difficile
Yeast / Mold
Gram Negative Culture
Gram Positive Culture
C. sakazakii
Gram Stain
pH
Foreign Matter ID
Container Analysis
Coliform Count
E. coli Count
Vibrio species
Other:
SLD DCS Form 102 Aug09
For the proper food sample collection and shipping instructions please visit our website http://www.sld.state.nm.us/em.asp

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 ¾'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 card board pieces so that contact freezing will not occur.



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°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

Bacillus cereus, culture

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

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 perfingens

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

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)

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

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

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

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

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).

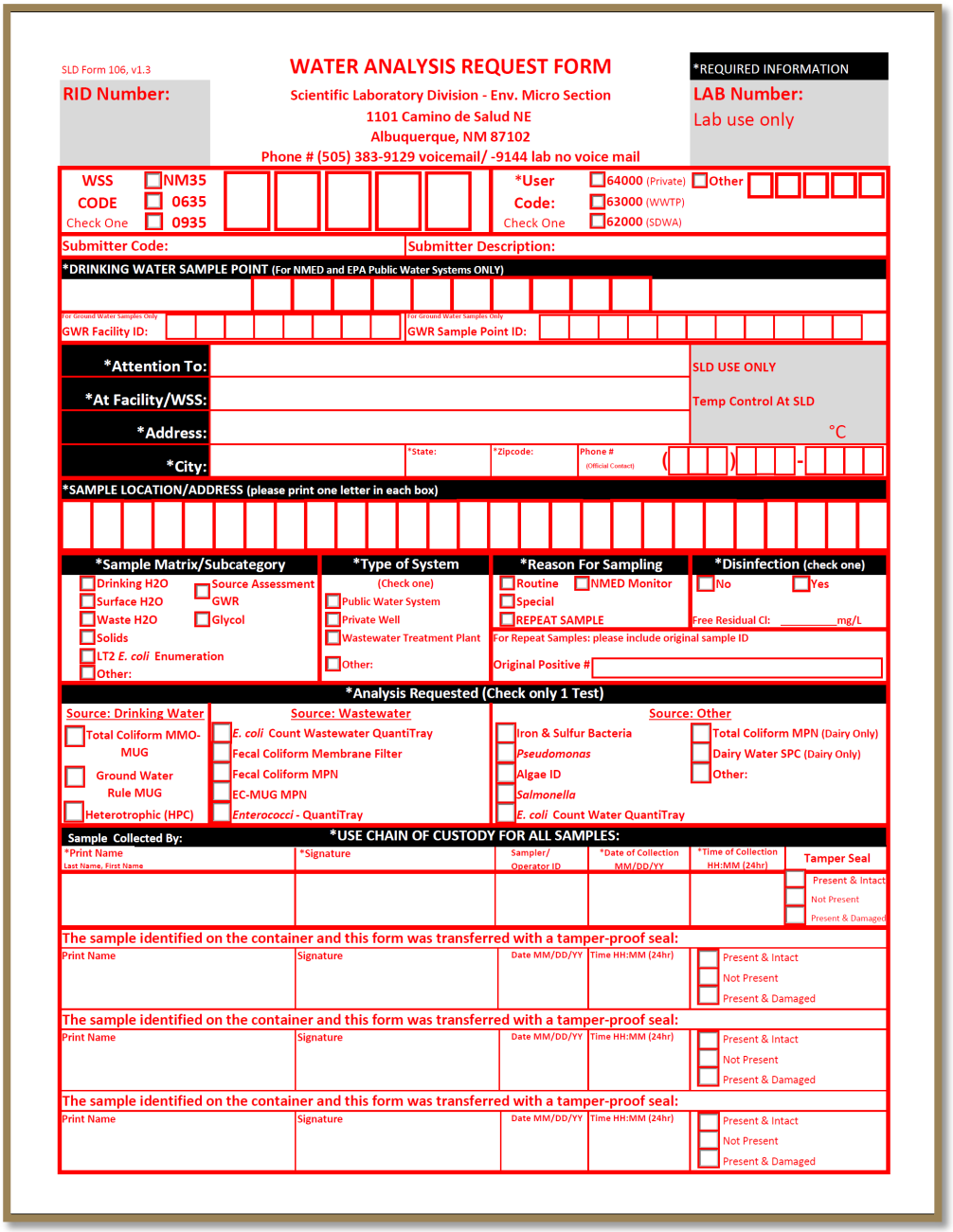
Campylobacter

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

Scientific Laboratory Division - Env. Micro Section
1101 Camino de Salud NE
Albuquerque, NM 87102
Phone # (505) 383-9129 voicemail/ -9144 lab no voice mail

*REQUIRED INFORMATION

RID Number:

LAB Number:
Lab use only

WSS CODE Check One: NM35 / 0635 / 0935

*User Code: 64000 (Private) / 63000 (WWTP) / 62000 (SDWA) / Other

Submitter Code: | Submitter Description:

*DRINKING WATER SAMPLE POINT (For NMED and EPA Public Water Systems ONLY)

For Ground Water Samples Only — GWR Facility ID: | GWR Sample Point ID:

*Attention To:
*At Facility/WSS:
*Address:
*City: | *State: | *Zipcode: | Phone # (Official Contact)

SLD USE ONLY
Temp Control At SLD °C

*SAMPLE LOCATION/ADDRESS (please print one letter in each box)

*Sample Matrix/Subcategory
- Drinking H2O
- Surface H2O
- Waste H2O
- Solids
- LT2 *E. coli* Enumeration
- Other:
- Source Assessment GWR
- Glycol

*Type of System (Check one)
- Public Water System
- Private Well
- Wastewater Treatment Plant
- Other:

*Reason For Sampling
- Routine
- NMED Monitor
- Special
- REPEAT SAMPLE

For Repeat Samples: please include original sample ID
Original Positive #

*Disinfection (check one)
- No
- Yes

Free Residual Cl: _____mg/L

*Analysis Requested (Check only 1 Test)

Source: Drinking Water
- Total Coliform MMO-MUG
- Ground Water Rule MUG
- Heterotrophic (HPC)

Source: Wastewater
- *E. coli* Count Wastewater QuantiTray
- Fecal Coliform Membrane Filter
- Fecal Coliform MPN
- EC-MUG MPN
- *Enterococci* - QuantiTray

Source: Other
- Iron & Sulfur Bacteria
- *Pseudomonas*
- Algae ID
- *Salmonella*
- *E. coli* Count Water QuantiTray
- Total Coliform MPN (Dairy Only)
- Dairy Water SPC (Dairy Only)
- Other:

Sample Collected By: | *USE CHAIN OF CUSTODY FOR ALL SAMPLES:

*Print Name (Last Name, First Name)	*Signature	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

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 **P**ublic **W**ater **S**upply **s**ystems (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

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.

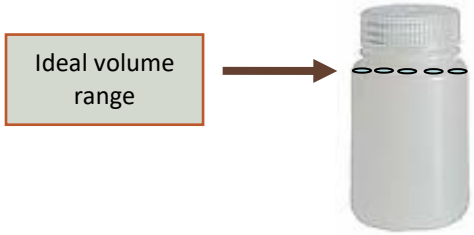
Equipment Listing

SLD Bacti-Water sample container, a matching set of **R**equest **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

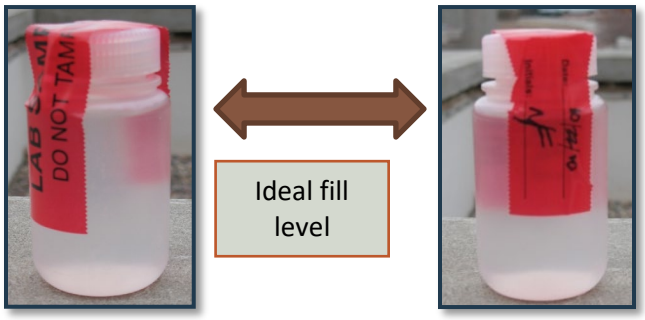
1. Each sample requires a SLD Bacti-Water sample container, a matching set of **R**equest **ID** (RID) number labels, and a WARF.
2. Selection of a sample tap is important. Choose a clean non-leaking tap without aerators, strainers or attachments. Such devices harbor millions of bacteria that could be 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 +), ***D**isinfection, and the ***A**nalysis 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…

***S**ample Collected By (Print), ***S**ample Collected By (signature), **S**ample / Operator ID #, **D**ate of Collection, ***T**ime of Collection (military time), ***T**amper 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

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

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:

*__W__SS code (if applicable),*__W__SS Name (if applicable), *__U__ser code (can vary depending on the submitter ~ is 63000 for WWTP samples and 64000 for Privately submitted samples), *__S__ubmitter Code (for PWSs is synonymous with the WSS Code), *__D__rinking Water Sample Point Not Applicable (N/A) do not need to be filled out, *__G__WR Facility ID (N/A, do not need to be filled out), *__G__WR Sample Point ID (N/A, do not need to be filled out), *__M__ailing address field (is directly linked to the WSS #~is the address of the Admin., Contact for that particular system), *__C__ontact Phone #, *__S__ample Location, *__S__ample Matrix Type, *__T__ype of System, *__R__eason 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 +), *__D__isinfection, and the *__A__nalysis Requested (depends on the situation at hand),

Going into the CoC Aspect of the WARF below…

*__S__ample Collected By (Print), *__S__ample Collected By (signature), *__S__ample / Operator ID #, *__D__ate of Collection, *__T__ime of Collection (military time), *__T__amper 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 Dariy 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:

MMO-MUG – Same as Standard Methods 9223B

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)

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

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

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 LTBEC

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 LTBEC-MUG

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

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

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

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

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

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

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

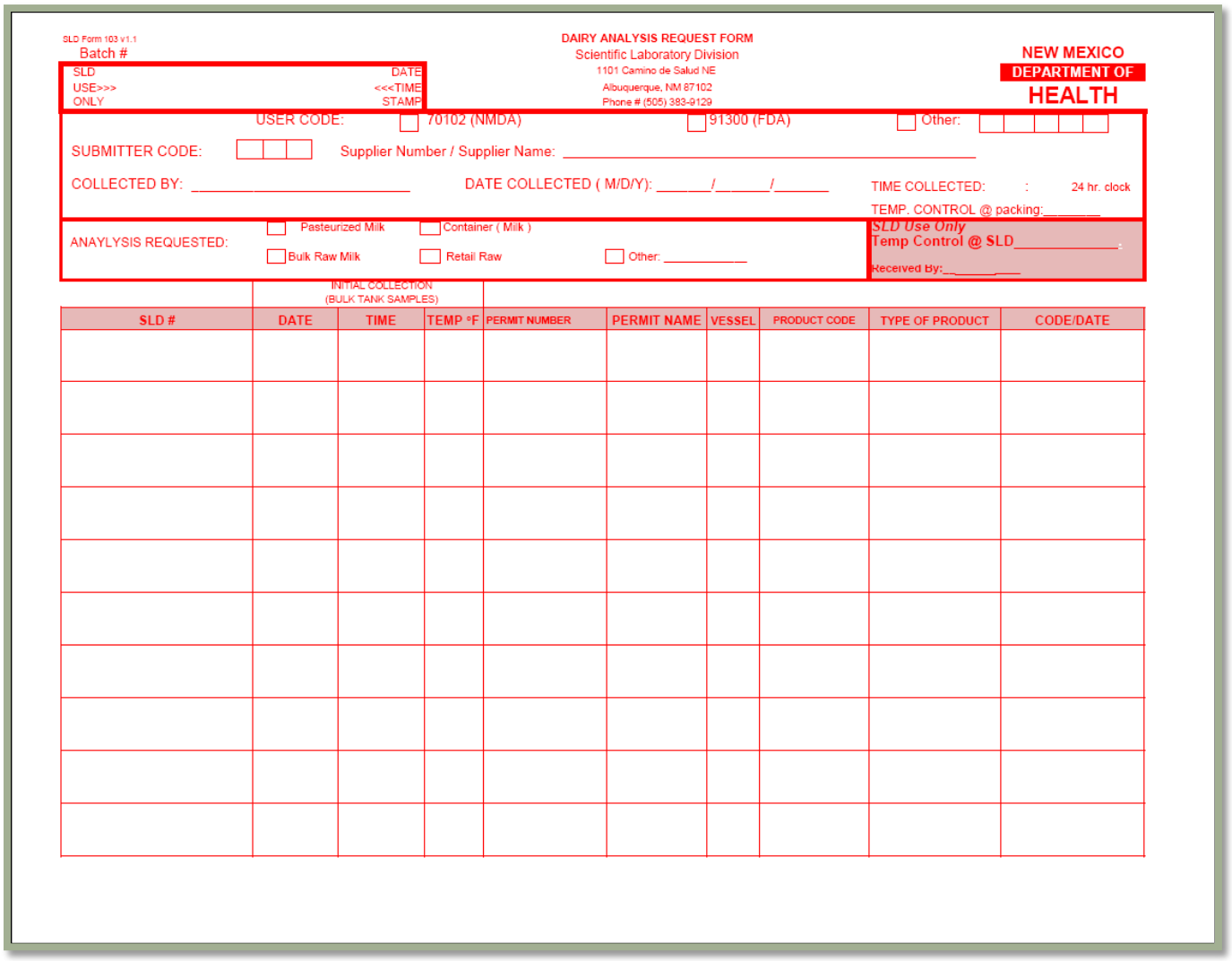
Rejection criteria: See above.

Contact: Environmental Microbiology Supervisor (505-383-9129) or EM Line Supervisor (505-383-9104).

DAIRY TESTING

DAIRY ANALYSIS TEST REQUEST FORM

The SLD dairy analysis test request form can be found on our website, located here **http://nmhealth.org/publication/view/form/1500/**



SLD Form 103 v1.1

Batch #

SLD USE>>> ONLY

DATE <<<TIME STAMP

DAIRY ANALYSIS REQUEST FORM

Scientific Laboratory Division

1101 Camino de Salud NE

Albuquerque, NM 87102

Phone # (505) 383-9129

NEW MEXICO DEPARTMENT OF HEALTH

USER CODE: ☐ 70102 (NMDA) ☐ 91300 (FDA) ☐ Other: ☐☐☐☐☐

SUBMITTER CODE: ☐☐☐ Supplier Number / Supplier Name: _____

COLLECTED BY: _____ DATE COLLECTED (M/D/Y): ____/____/____ TIME COLLECTED: : 24 hr. clock

TEMP. CONTROL @ packing:_____

ANAYLYSIS REQUESTED: ☐ Pasteurized Milk ☐ Container (Milk) ☐ Bulk Raw Milk ☐ Retail Raw ☐ Other: _____

SLD Use Only

Temp Control @ SLD_____

Received By:_____

INITIAL COLLECTION (BULK TANK SAMPLES)

SLD #	DATE	TIME	TEMP °F	PERMIT NUMBER	PERMIT NAME	VESSEL	PRODUCT CODE	TYPE OF PRODUCT	CODE/DATE

SUBMISSION PROCEDURES

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

N/A

TESTS OFFERED:

N/A

TRANSPORT AND SHIPPING

BIOLOGICAL SPECIMEN TRANSPORT

Kits/Materials

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, Lithium Heparin collection tube, 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.

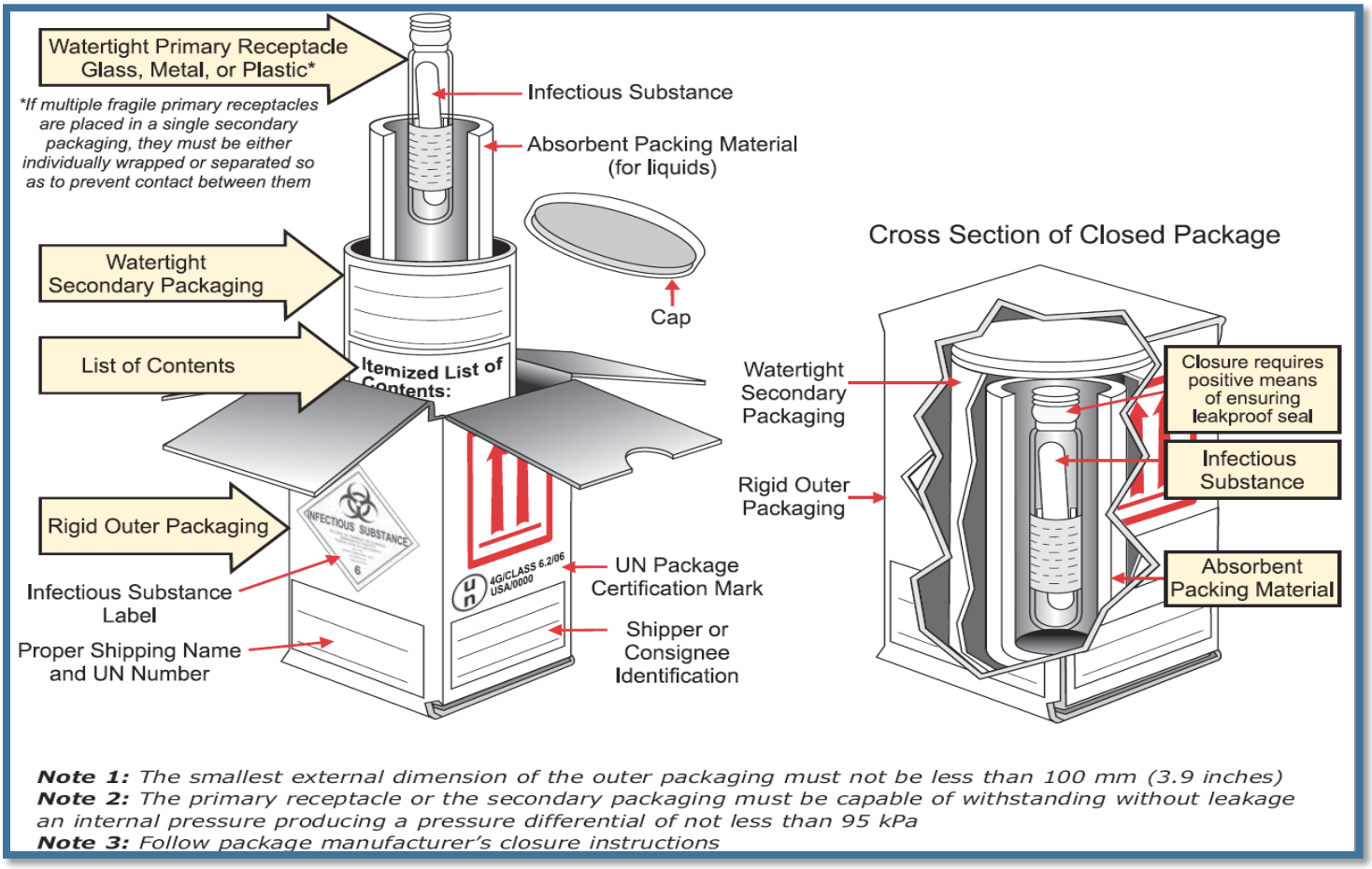
Indicative examples of infection substances included in Category A, UN 2814, in any form unless otherwise indicated.

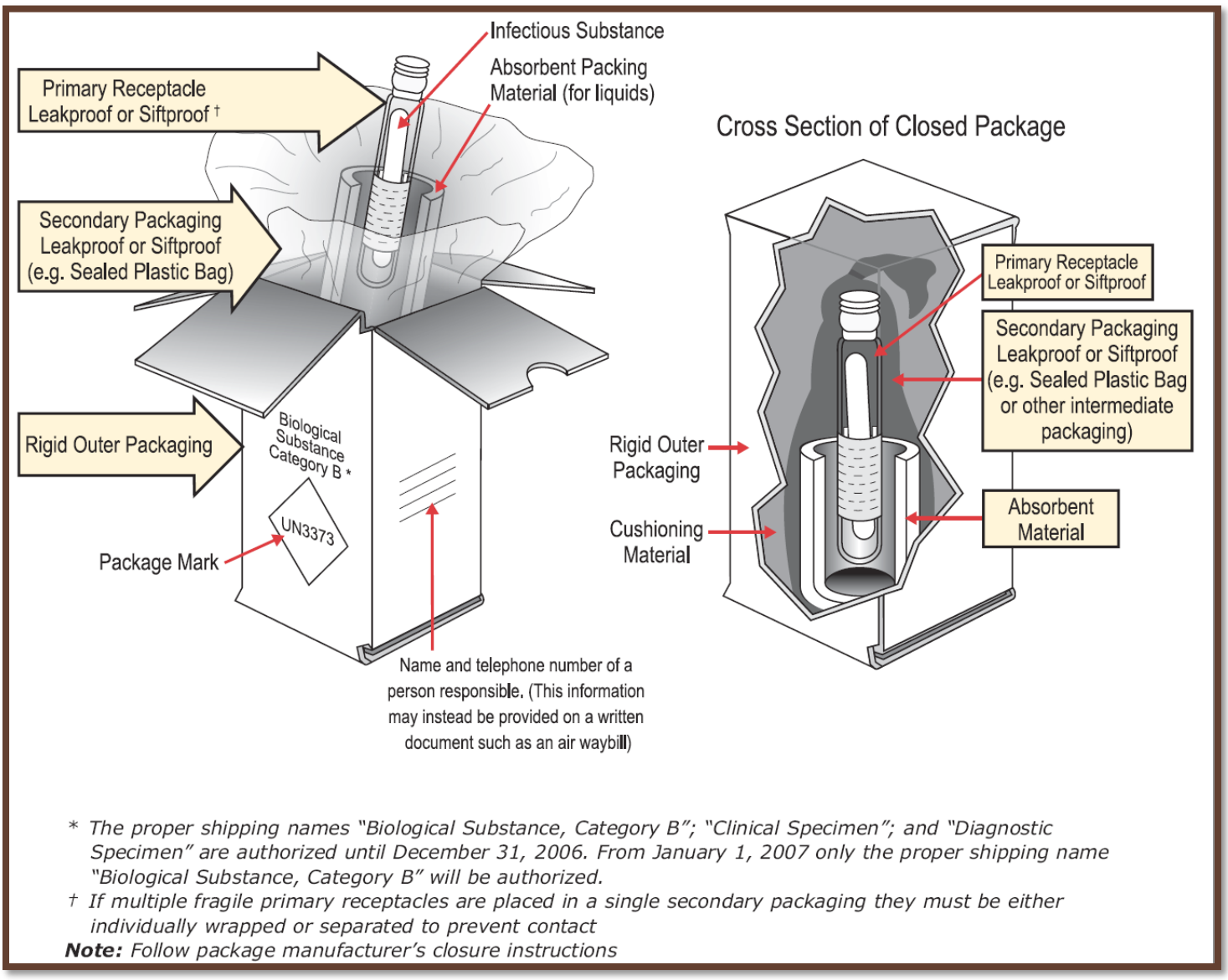
The following table is not exhaustive. Infectious substances, including new or emerging pathogens, which do not appear in the table but which meet the same criteria must be assigned to Category A. In addition, if there is doubt as to whether or not a substance meets the criteria it must be included in Category A.

Micro-organism
Bacillus anthracis (cultures only)
Brucella abortus (cultures only)
Brucella melitensis (cultures only)
Brucella suis (cultures only)
Burkholderia mallei (cultures only)
Chlamydia psittaci – avian strains (cultures only)
Clostridium botulinum (cultures only)
Coccidiodes immitis (cultures only)
Coxiella burnetti (cultures only)
Crimean-Congo hemorrhagic fever
Dengue virus (cultures only)
Eastern Equine encephalitis virus (cultures only)
Escherichia coli, verotoxigenic (cultures only)
Ebola virus
Flexal virus
Francisella tularensis (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
Mycobacterium tuberculosis (cultures only)

Micro-organism
Nipah virus
Omsk hemorrhagic fever virus
Poliovirus (cultures only)
Rabies virus (cultures only)
Rickettsia prowazekii (cultures only)
Rickettsia rickettsii (cultures only)
Rift valley fever virus (cultures only)
Russian spring-summer encephalitis virus (cultures only)
Sabia virus
Shigella dysenteriae 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)
Yersinia pestis (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:
CDC Fact Sheet
Or, **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: nmhealth.org/publication/view/general/1495/)

Tests offered free of charge to submitters:

Test	Comment
Bacillus anthracis	(Requires Epidemiology approval)
Brucella	(Requires Epidemiology approval)
Campylobacter confirmation and speciation	
Diphtheriae	(Requires Epidemiology approval)
Ebola virus	(Requires Epidemiology approval)
E. coli 0157:H7 culture and ID	
Tularemia culture	(Requires Epidemiology approval)
Gram negative aerobic bacterial ID	
Haemophilus serotyping	
Listeria monocytogenes	
Necrotizing fasciitis	
N. meningitidis serotyping	
Salmonella serotyping	
Shigella serotyping	
Vibrio culture	
Yersinia enterocolitica culture and ID	
Plague culture	(Requires Epidemiology approval)
Rabies	
Rubeola (acute)	(Requires Epidemiology approval)
Syphilis congenital	
Syphilis (adult, confirmatory)	
Tularemia/Plague serology	(Requires Epidemiology approval)

Tests that are charged a fee to submitters:

Test	Section
Aerobic actinomycetes	General Microbiology
Anaerobe ID	General Microbiology
Coccidioides	General Microbiology
Gram positive aerobic bacterial identification	General Microbiology
Legionella	General Microbiology
Mycology (fungal or yeast) identification	General Microbiology
AFB/Tuberculosis culture	General Microbiology
AFB/Tuberculosis identification (other than *M. tb*)	General Microbiology
Virus isolation and ID (waiver to flu sentinel sites)	Virology/Serology
Pertussis (*Bordetella* 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) *Epidemiology and Response Division may be reached at 833-796-8773*

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 IgM Serology	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), *Campylobacter*, *E.coli* O157, *Salmonella*, *Shigella*, Shiga Toxin	Positive *Campylobacter*, *E.coli* O157, *Salmonella*, *Shigella*, Shiga Toxin from a previously undiagnosed patient.	Same business day	ERD and submitter	GM staff
Culture, fecal (enteric), *Campylobacter*, *E.coli* O157, *Salmonella*, *Shigella*, Shiga Toxin	Shigella dysenteriae or *Salmonella typhi* identification	Same business day	ERD and submitter	GM or MB 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
H. influenzae typing	Serotype identification	Same business day	ERD and submitter	GM staff
Hepatitis A IgM	Positives	24 hrs	ERD	VS staff
HIV	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	*Listeria monocytogenes* Positive from previously undiagnosed patient	Same business day	ERD	GM staff
Legionella culture	Positive or presumptive positive *Legionella* species	Same business day	ERD and submitter	GM staff
Measles IgM serology	Positives	1 hr	ERD	VS staff
N. meningitidis typing	Serotype identification	Same business day	ERD and submitter	GM staff
Norovirus RT-PCR	Positives	24 hrs	ERD	VS staff
Plague culture	Positive, confirmed *Y. pestis*	Same business day (reported to CDC within 24 hrs of ID)	ERD and submitter	GM staff
Rabies DFA	Positives, negatives, and unsatisfactory	1hr for positives to ERD and 24 h on unsatisfactory (ERD) or negatives (submitter)	ERD or submitter	VS staff
Stat RPR	Positives	1 hr	Midtown PHO	VS staff
Tularemia culture	Positive, confirmed *F. tularensis*	Same business day (reported to CDC within 24 hrs of ID confirmation)	ERD and submitter	GM staff
Vibrio	Culture positive for *Vibrio* species from previously undiagnosed patient	Same business day	ERD	GM staff
Yeast/Mold Culture	Invasive pathogenic mold or yeast from a normally sterile site	Same business day	Submitter	GM staff
Yeast/Mold Culture	Candida auris	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, NGS tests are performed on all Salmonella isolates. The Salmonella culture and serotype result may be final, but if the NGS test is not complete, the report will indicate "preliminary", with no visible "pending" tests. When the NGS test is completed, a "final" report is generated to the submitter with the same culture and serotype information.

MANDATORY ISOLATE SUBMISSIONS

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*

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.*

Report positive results to DOH; by phone, 833-796-8773; 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).