



## **IDENTIFICATION**

<b>Department</b>	<b>Position Title</b>	
Northwest Territories Health and Social Services Authority	Laboratory Technologist	
<b>Position Number(s)</b>	<b>Community</b>	<b>Division/Region(s)</b>
47-5787	Inuvik	Diagnostic and Support Services - Laboratory/Beaufort-Delta

## **PURPOSE OF THE POSITION**

To collect and analyze a variety of biological and environmental samples within the Laboratory in accordance with recognized international laboratory practices as well as the philosophy and objectives of the Northwest Territories Health and Social Services Authority (NTHSSA) to ensure that medical and non-medical professionals have the test results necessary to diagnose, treat and manage disease in a timely and meaningful manner.

## **SCOPE**

The Beaufort-Delta Region administers all regional health and social services delivered through the Inuvik Regional Hospital (IRH), an accredited facility, seven Community Health Centers; and twenty-two other sites, including social services and dental therapy offices, public health clinics, elder's facilities and various group homes. The Beaufort-Delta Region provides and supports the delivery of health care services to adults and children on an inpatient, outpatient and outreach basis in order to enhance healthy communities' well-being through excellence, accountability and respect for regional diversity.

Located within the IRH and reporting directly to the Laboratory Supervisor the incumbent works as one of four Laboratory Technologists including the Supervisor who deliver chemistry, water testing, coagulation, hematology, basic microbiology including stat gram stains, immunohematology, phlebotomy and specimen receiving/processing services within the Laboratory.

Unlike most major laboratories in southern Canada, the IRH Laboratory lacks a local Pathologist. Pathology services are delivered through a consulting Pathologist in Edmonton, Alberta. In the absence of a resident Pathologist the incumbent will refer problems or concerns to the Laboratory Supervisor who acts as a reference on Laboratory related practice for the Beaufort Delta and Sahtu Regions, or contact the appropriate resource directly when the Supervisor is unavailable.

The Laboratory Technologist analyzes samples and conducts individual patient tests using both complex laboratory instrumentation and manual techniques. While performing analysis the incumbent must recognize normal and atypical findings and initiate the appropriate action. Accurate testing allows a referring physician to accurately diagnose medical conditions and arrange for proper care and treatment which ultimately impacts on a patients morbidity. This accurate and timely testing also assists public health to address regional or territorial health issues in an effective manner.

In addition to providing core laboratory services to the Beaufort-Delta Region, the Laboratory provides services to: 7 Community Health Centres; the Department of H&SS-Health Protection Unit; Beaufort-Delta Region-Environmental Health Unit and a variety of businesses located in the north including but not limited to mining, private contracting and Public Works. The lab processes approximately 20,000 samples per year.

The incumbent will be required to share standby with Laboratory and will work an irregular rotation including one weekend shift per four weeks.

## **RESPONSIBILITIES**

### **1. Examines and analyzes a variety of biological samples using recognized international laboratory practices to ensure that medical and non-medical professionals have laboratory results required to diagnose, treat and manage disease.**

- Organizes, prioritizes and verifies the accuracy of patient/sample information prior to processing,
- Prepare and analyze samples using complex laboratory instrumentation and manual techniques,
- Review, verify and release patient results through the Laboratory Information Systems (LIS) and notify the referring physician when abnormal patient results are found requiring immediate action,
- Ensure all lab results are accurately entered into the LIS to track patient information,
- Track stock items (laboratory products and supplies) used and notify the Supervisor when additional items are required and/or arrange for the ordering of the supplies when the Supervisor is unavailable, and
- Determine when samples require special handling and ensure that the Beaufort-Delta Region adheres to established National and International standards for the transportation of dangerous goods.

- 2. Performs, records, interprets and monitors Quality Control (QC) on all instruments and procedures to ensure the precision and accuracy of results reported.**
  - Conduct QC tests on all machines prior to analyzing samples,
  - Calibrate or assist in the calibration of laboratory equipment on a scheduled or as needed basis,
  - Continually review test results to ensure that the findings are realistic and not compromised in any way,
  - Decide whether to release, delay or repeat testing prior to the reporting of patient results (reported results must be accurate),
  - Investigate abnormal results/trends and initiate corrective action,
  - Ensures QC data is submitted to external agencies in a timely manner for review and evaluation, and
  - Produce monthly reports for statistical purposes and review by the Laboratory Supervisor.
  
- 3. Collects and analyzes laboratory samples and performs diagnostic tests on patients as part of the health care team.**
  - Run blood gas, capillary/venous gas tests, hematology, coagulation, chemistry, urinalysis, and transfusion medicine test, water samples and
  - Collects blood using a closed collection system (i.e. Vacutainer), needle with syringe, and/or micro-collection techniques following universal precautions, and
  - Performs tests including but not limited to Urea breath tests for H. pylori, bleeding times, glucose tolerance testing (following established standards of practice), CFS counts and gram stains, fertility testing, bone marrow slide preparation.
  
- 4. Collect and prepare specimens for dispatch.**
  - Collect specimens according to referral laboratory requirements,
  - Prepare specimens for shipping (centrifuge and separate serums), and
  - Prepare shipping box according to IATA guidelines (follows special precautions for the transportation of dangerous goods where applicable).
  
- 5. Due to the absence of a local Pathologist, Laboratory Technologists will assist in the interpretation of results to medical and non-medical personnel, impacting on patient care and addressing Public Health Issues.**
  
- 6. Assists in the continued maintenance of complex laboratory equipment in order to minimize downtime and maintain productivity. This will aid in extending the life expectancy of the instruments thus avoiding costly repair and/or replacement.**
  - Perform daily/weekly/monthly and as needed maintenance, and
  - Due to the remoteness of the community, the incumbent troubleshoots and is required to perform complex repairs on instrumentation, either unassisted or in telephone consultation with instrument repair specialists as required, and
  - The incumbent notifies the supervisor of repairs that are outside the scope of the incumbents training or requires further intervention.

**7. Act as a resource for Laboratory Medicine to ensure established procedures and policies are followed as well as to enhance the awareness of the profession.**

- Provide orientations to new laboratory staff on laboratory equipment, policies and procedures and the Beaufort-Delta Region environment,
- Provide orientation to medical and non-medical personnel in the proper collection and transport of biological samples (i.e. including but not limited to venipuncture techniques, slide preparation, etc.),
- Provide Point of Care (POC) instrumentation/testing and training/certification to hospital/health centre nurses, and
- Represent the Laboratory on a variety of hospital committees (i.e. occupational health and safety, Infection Control Committee and Blood Transfusion Subcommittee) when required.

**WORKING CONDITIONS**

*(Working Conditions identify the **unusual and unavoidable**, externally imposed conditions under which the work must be performed and which create hardship for the incumbent.)*

**Physical Demands**

The majority of the incumbent's time (4 - 7 hours/day) will be spent providing direct hands on analysis and collection of biological samples. This will involve standing in awkward positions, bending over patients and work benches, lifting and moving equipment (ranging in weight from 2 - 10kg) and walking to nursing units to collect samples which may cause significant levels of physical stress on the Incumbent. In addition, the requirement to fix machines adds to the physical demands of the position.

**Environmental Conditions**

The incumbent works with and is continuously exposed (4 - 7 hours per day) to biological samples, human waste, unpleasant odors, sharps, chemicals and toxic or corrosive agents used during the performance of duties which can lead to headaches, nausea or ill health.

**Sensory Demands**

The incumbent will experience continuous periods of intense visual concentration in order to check the integrity of the samples (i.e. color, density, presence of contamination, volume) to determine if they are suitable for analysis that may cause moderate levels of stress on the sense of sight. Many of these analyses will be conducted through microscopes (4 -5 times a day).

**Mental Demands**

Within the Laboratory there is pressure to thoroughly and accurately analyze patient samples within a set length of time. This is hampered by: large number of samples, instrument limitations, testing outside of the laboratory's scope, contaminated or unusable samples, etc.

In addition, within the health care setting there is a significant lack of control over the work pace, with frequent interruptions and unrealistic demands (i.e. complete tests in unreasonable time frame) that may lead to mental fatigue or stress (i.e. processing of samples where results are required for immediate treatment decisions. This usually involves a life-threatening situation.)

The incumbent will be required to share standby with staff. While on standby the number of callbacks is high (3 - 4 of the standby days) resulting in a significant impact on the incumbent's personal and private life as well as normal sleeping patterns.

### **KNOWLEDGE, SKILLS AND ABILITIES**

- Knowledge of Laboratory Technologies, functions, principles, and standards of practice including venipuncture, medical terminology and the ability to operate and understand complex laboratory instrumentation is required In order to analyze and interpret results to aid medical and non-medical professionals in the diagnosis, treatment and management of disease.
- An ability to operate computerized and mechanical laboratory equipment in order to complete analysis of biological samples.
- An ability to prepare samples and put them onto media to encourage growth and an ability to identify growth when present.
- Knowledge of and an ability to input and retrieve information from Laboratory Information Systems (LIS).
- An ability to operate desktop computers in order to produce written documents (word-processing), send and receive electronic mail and conduct research over the internet.
- The incumbent must be able to communicate effectively. This includes being able to get ones point across to both medical and non-medical Individuals.
- The incumbent must be aware of the importance of confidentiality and be able to keep personal and medical information private and confidential at all times.
- An ability to manipulate small samples and repair delicate instruments in confined spaces (i.e. well-developed motor skills).

### **Typically, the above qualifications would be attained by:**

This level of knowledge is typically acquired through the successful completion of a recognized Medical Laboratory Technology Program at a diploma/degree level. Certification and registration with the Canadian Society of Medical Laboratory Sciences as a General Medical Laboratory Technologist is a requirement.

## **ADDITIONAL REQUIREMENTS**

### **Beaufort-Delta Regional Requirements**

Within the IRH all health care providers must be able to acquire within a reasonable time frame and remain current with the following training and certifications:

- WHMIS,
- Internet and E-mail application,
- Fire training, and
- Be fitted for a N95 Particulate Respirator Mask.

An ability to complete a satisfactory criminal records check is mandatory.

### **Position Security (check one)**

- No criminal records check required
- Position of Trust – criminal records check required
- Highly sensitive position – requires verification of identity and a criminal records check

### **French language (check one)**

- French required
- French preferred
- French not required