

**Job Class Profile: Senior Control Surveyor****Pay Level: CG-38 Point Band: 848-881**

Factor	Knowledge	Interpersonal Skills	Physical Effort	Concentration	Complexity	Accountability & Decision Making	Impact	Development and Leadership	Environmental Working Conditions	Total Points
Rating	6	4	3	4	5	5	5	3	4	
Points	280	67	19	19	150	108	103	64	43	853

**JOB SUMMARY**

The Senior Control Surveyor is responsible for performing control survey work in the maintenance, co-ordination, and supervision of the geodetic network of survey markers for the Province. Work includes the management of a computerized system for the surveying and mapping section.

**Key and Periodic Activities**

- Manages the Provincial Geodetic Reference Network of permanent survey markers for the province and determines priorities regarding the maintenance and expansion of the network.
- Plans logistics, supervises field work using Leica and other Global Positioning System (GPS) survey equipment for the inspection and monitoring of all contracted work.
- Performs rigorous least squared adjustments on a combination of GPS and conventional survey observations; certifies results and integrates those results into the Geodetic Reference System.
- Maintains, enhances and updates existing Survey and Mapping Division custom applications and databases; solves technical problems that may arise.
- Liaises with Federal and Provincial government departments, industry and the public with respect to the use and application of the Geodetic Reference System.
- Represents the Lands Branch on committees and working groups.
- Prepares technical specifications, standards, proposals and reports.
- Performs field work associated with geodetic and mapping projects.
- Utilizes specialized computer software designed for precise surveys and mapping related activities to ensure all field survey observations are acceptable; reviews and updates data accordingly.
- Processes, and adjusts if necessary, previous survey data with new survey data to ensure that all data is homogeneous and adjusted to the new coordinate system.
- Works with other agencies and government departments for planning and survey projects.
- Deals with the public on mapping/surveying issues.
- Prepares budgets for associated geodetic survey projects.
- Attends various courses, seminars and meetings as required.

## SKILL

Knowledge
<p><b>General and Specific Knowledge:</b></p> <ul style="list-style-type: none"> <li>— Geomatics and surveying techniques.</li> <li>— Keep abreast of latest trends and developments.</li> </ul> <p><b>Formal Education and/or Certification(s):</b></p> <ul style="list-style-type: none"> <li>— Minimum: 3 year post secondary Diploma in Geomatics/Surveying Engineering Technology or equivalent</li> </ul> <p><b>Years of Experience:</b></p> <ul style="list-style-type: none"> <li>— Minimum: 10 plus years</li> </ul> <p><b>Competencies:</b></p> <ul style="list-style-type: none"> <li>— Provide advice to others on how to address problem or issue.</li> <li>— Writes letters, memos and other documentation.</li> <li>— Proof-reads, edits and formats a variety of documents.</li> <li>— Strong research and analytical skills.</li> <li>— Uses various computer software programs such as spreadsheets, word processing, databases, and specialized surveying programs.</li> </ul>
Interpersonal Skills
<ul style="list-style-type: none"> <li>— A range of interpersonal skills are used such as listening, asking questions, gaining the cooperation of others to complete work tasks, providing routine and complex technical information and direction to team members to ensure understanding of technical work and processes so that surveys and mapping results meet appropriate specifications. In addition, liaises with representatives from Federal government departments, other Provincial government departments and industry, promotes services, trains staff, facilitates meetings, makes formal presentations and deals with upset or angry people (i.e. dealing with the public on boundary issues). Interactions include cooperating with other departments and agencies regarding surveying and mapping projects, responding to enquiries from the public or businesses, and explaining the products or services offered by the Division.</li> <li>— Communication occurs with employees in the immediate work area, department and other provincial and federal government departments including supervisors, managers and technical staff. Some interaction occurs with the general public.</li> <li>— Most significant contacts are the Director and engineers.</li> </ul>

## EFFORT

Physical Effort
<ul style="list-style-type: none"> <li>— Occasionally, the demands of the job result in considerable fatigue, requiring periods of rest.</li> <li>— Regularly required to physically handle and lift objects up to 25 lbs. and occasionally up to 50 lbs. to carry survey equipment during field work.</li> <li>— Work provides the opportunity to regularly sit, stand and walk within the office environment. During field work may be required to use chainsaws, carry rock drills, walk over rough terrain and/or use all-terrain vehicles.</li> </ul>

- Constantly required to perform fine finger/precision work while compiling and manipulating geodetic data and producing reports.

### Concentration

- **Visual concentration** is constant when performing field work activities (i.e. operating an all terrain vehicle, flying in a helicopter, using a geographic positioning system (GPS), etc).
- **Auditory concentration** is constant while working in a field environment (i.e. awareness of your surroundings while in a helicopter, operating machinery in a safe manner, etc.).
- **Repetition requiring alertness** is evident when operating machinery/equipment in the field.
- **Higher than normal levels of attentiveness or alertness for the health and safety of others** is evident when working with staff in the field while using a variety of equipment and vehicles.
- Occasionally impacted by **interruptions** and multiple **time pressures/deadlines** with a **lack of control over work pace** (i.e. project delays due to weather or other problems cannot be predicted).
- **Eye/hand coordination** is required to operate equipment/machinery including specialized surveying equipment.
- **Exact results and precision** are required when making geodetic adjustments and other related survey work by utilizing surveying equipment designed to produce accurate results.

### Complexity

- Work typically involves tasks or activities that are similar and related in terms of skills and knowledge.
- A key activity is managing the Provincial Geodetic Reference Network of permanent survey markers for the province which includes planning of logistics and supervising staff and related field work.
- Some problems tend to be well defined with a limited number of solutions and can be addressed by following guidelines or procedures. Other times, challenges/problems/issues must be defined and practical solutions found.
- The most typical challenge or problem occurs when there is a discrepancy between the survey marker and the published coordinate value. This results in another survey to check the marker in question. Other challenges that occur revolve around the implementation of a new system as a result of changes being identified through the use of new technology. The Geodetic Reference Network encompasses National and International Latitude and Longitude coordinates. Using a Geographical Information System versus other conventional means facilitates recording survey data over longer distances. Primary information must then be adjusted based on recording of more accurate data.
- Co-workers, outside agencies, policies, procedures and guidelines exist to assist and address issues and challenges.

## RESPONSIBILITY

### Accountability and Decision-Making

- Decisions can be made when planning and coordinating surveying and mapping projects. These include mobilizing field crews, making necessary purchases and approving equipment repairs.

- Field projects, major equipment purchases, policy changes, and departmental commitments require supervisory approval.
- Work tasks involving immediate decisions during a field work project are completed using discretion and independent judgment.
- The Provincial Geodetic Reference Network is the foundation for subsequent engineering and GIS work and it is imperative that accurate information is obtained and recorded.

### **Impact**

- Impacts generally affect immediate work area, within and/or outside the Department, and the general public.
- Work activities impact information and health and safety.
- Inaccurate reporting of information may result in incorrect survey markers being published for use by the general public. Emergency services can also be impaired if incorrect information is used.
- In the event of a mistake or error the consequence is directly felt on the public and how they use the geodetic data published.
- Legislation, policies, and procedures are in place to mitigate the impact of errors.

### **Development and Leadership of Others**

- Provides day to day assigning/coordinating work of operational staff.
- Provides supervision of staff during survey field projects where there is a requirement to orientate new employees, delegate tasks, organize and coordinate other colleagues, check/review the work of others.

## **WORKING CONDITIONS**

### **Environmental Working Conditions**

- Required to wear safety equipment (i.e. safety vest, boots, hard hat) when performing field work, surveying and mapping. Required to be trained in safe work practices for field work assignments (i.e. proper use of chain saws, all terrain vehicles, etc).
- There is a moderate likelihood of minor cuts, bruises, abrasions, or minor illnesses and a moderate likelihood of occupational injury resulting in partial or total disability.
- Occasional to constant exposure to a wide range of adverse environmental working conditions while performing field work. Some examples include: unusual or distracting noise, dirt, dust, fumes, unusual odours, wet and slippery surfaces and electrical hazards, physical dangers and threats, sharp objects, and adverse weather conditions
- There is requirement to travel for work.