## YUKON GEOLOGICAL RESEARCH

# Overview of Yukon Geological Survey: 2008-09

***Carolyn Relf***[1]
*Yukon Geological Survey*

Relf, C., 2009. Overview of Yukon Geological Survey: 2008-09. *In:* Yukon Exploration and Geology 2008, L.H. Weston, L.R. Blackburn and L.L. Lewis (eds.), Yukon Geological Survey, p. 61-64.

## INTRODUCTION

As new director of the Yukon Geological Survey (YGS, Fig. 1) I would like to take this opportunity to give you my impressions of the survey and share some thoughts on where we are going as an organization. If I had to summarize how it feels to be part of YGS in one word, I would choose this one: "lucky". Brevity is not my strongest point, however, so I am going to use more than one word to elaborate a bit on the survey and its strengths.

YGS, like all geological surveys in Canada, has undergone significant changes over the past decade. Following federal devolution, the survey merged and grew under Grant Abbott's direction into a

***Figure 1.*** *Yukon Geological Survey staff standing in front of the native copper slab from the White River area at MacBride Museum.* *(front row, left to right)* *Aubrey Sicotte, Rosie Cobbett, Carolyn Relf, Lara Lewis and Leyla Weston.* *(second row, left to right)* *Grant Abbott, Kristen Kennedy, Rachelle Dufour, Carrie Labonte, Karen MacFarlane, Olwyn Bruce, Tammy Allen and Mike Burke.* *(third row, left to right)* *Tiffani Fraser, Rod Hill, Steve Israel, Panya Lipovsky, Bailey Staffen, Maurice Colpron, Don Murphy, Lee Pigage, Jeff Bond, Robert Deklerk, Bill Lebarge and Karen Pelletier.* *(back row, left to right)* *Steve Traynor, Charlie Roots and Grant Lowey.*

[1]*carolyn.relf@gov.yk.ca*

single organization with a clear mandate and a vision for excellence. During his last year as director, Grant made some organizational changes that clearly defined the functional areas of the survey and streamlined operations. Following the re-organization, he sought and received approval to hire the new director (me) four months before his retirement date. This transition period was an excellent idea as it allowed me to spend time with Grant asking all manner of questions[1] about the survey's scientific program, its administrative and financial workings, and our clients. I am very grateful to Grant for buffering me during my first few months and hope I can fill his shoes adequately. Fortunately for the whole survey, he has returned on a part-time basis as a Project Geologist; his unwritten duties will include being an ongoing source of advice and corporate memory.

There were other staff changes at YGS this past year. In the spring, our Economic Geologist, Ken Galambos, took an extended leave of absence to work as a consultant in the mineral exploration industry. In the fall, the Head of our Technical Services Section, Diane Emond, was accepted into Yukon College's practical nursing program. Their absence is being felt, and I would like to take this opportunity to thank them for their contributions to the survey and wish them success in their respective career paths. In August, Karen MacFarlane from the Northwest Territories Geoscience Office joined YGS on an 18-month assignment. Karen is working with our Data Management and Minerals staff on a project that will upgrade and streamline our corporate databases (MINFILE, Mineral Exploration Activity, Placer and Publications).

## A SNAPSHOT OF YGS

The Yukon Geological Survey is part of the Department of Energy, Mines and Resources (EMR), which is responsible for managing and supporting the sustainable development of Yukon's energy and natural resources. The mandate of YGS is to provide the geoscience information that will support both the resource management policies of government and investment decisions by industry. The information we provide also supports land use planning initiatives and the development and maintenance of Yukon's physical infrastructure. Funding for our activities comes from Yukon government and from Indian and Northern Affairs Canada (through their Strategic Investments in Northern Economic Development initiative).

The survey comprises four work units (Fig. 2), each responsible for different aspects of our mandate. The current activities of staff in each unit are described separately in this volume (see Relf, this volume); I have limited myself in this paper to giving a brief overview of each unit's responsibilities and a description of how they are integrated.

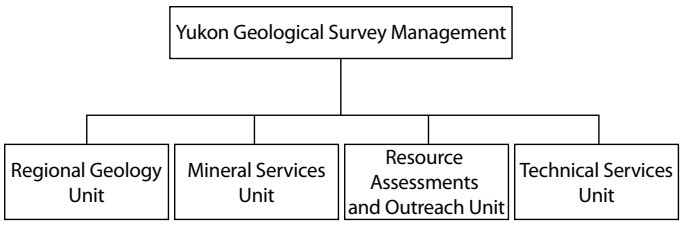


***Figure 2.*** *Simplified organizational chart, Yukon Geological Survey.*

### REGIONAL GEOLOGY UNIT

The Regional Geology Unit undertakes bedrock and surficial mapping and associated thematic investigations such as structural, metamorphic, geochemical and geochronological studies. The maps provide a framework for mineral and hydrocarbon exploration, regional tectonic and stratigraphic correlations, and allow interpretation of Yukon's protracted bedrock and surficial geologic histories. Included among the activities of this group are studies of permafrost, which contribute to climate change monitoring and the prediction and mitigation of landslides. Staff in this unit are Don Murphy (Head), Maurice Colpron, Steve Israel, Jeff Bond, Panya Lipovsky and Grant Abbott. Charlie Roots, a Geological Survey of Canada employee, is co-located with us and is a key part of the mapping group. In addition, we currently have one vacant mapping position.

[1]*Shortly after my arrival in Whitehorse it was pointed out to me that Grant has a certain expression, known as the 'look', wherein he gazes at you over the top of his glasses with his eyebrows raised. The 'look' appears to be code for "what was I thinking when I hired you?" During my question-intensive overlap period with Grant, I was recipient of the 'look' 17 times. I don't know whether that's good or bad, but luckily I think it's too late for YGS to change its mind about me.*

### MINERAL SERVICES UNIT

The Mineral Services Unit provides information and advice to governments, industry, the general public and Yukon First Nations on Yukon's mineral resources and ongoing exploration and development activities. Staff monitor results of mineral exploration programs, track placer production, administer the Yukon Mining Incentive Program (YMIP), and liaise with staff in other branches of EMR such as Mining Lands (to track exploration expenditures and trends) and Client Services and Inspections (*e.g.* to share data on placer mining activities). Mineral Services maintains Yukon's MINFILE, Placer, and Mineral Exploration Activities databases. In addition, Mineral Services contributes regularly to various media that include articles and brochures describing the current status on Yukon's mineral deposits and exploration activities. Staff include Mike Burke (Head), Bill Lebarge, Steve Traynor, Rob Deklerk and Karen MacFarlane (on assignment from Northwest Territories Geoscience Office).

### RESOURCE ASSESSMENTS AND OUTREACH UNIT

Resources Assessments and Outreach staff deliver a range of activities and programs. A core part of the unit's responsibilities includes completing geoscience studies in order to appropriately assess Yukon's potential hydrocarbon and mineral resources. Such studies support our ongoing land use planning processes by providing information about a planning area's potential economic values, and help the Yukon government and Yukon First Nations make sound resource management policies and decisions. In addition to assessments, this unit administers Yukon's Mineral and Petroleum Environmental Research Group (MPERG), allocating grants for environmental research with applicability to resource development.

Outreach activities of YGS are varied, targeting both the general public and Yukon's schools. Our outreach program is coordinated by the Resource Assessments and Outreach Unit, however, all members of our staff contribute to the survey's outreach and public education efforts.

Staff in this unit are Lee Pigage (Head), Karen Pelletier, Grant Lowey, Tammy Allen and Tiffani Fraser. Currently, our Mineral Assessment Geologist position is vacant.

### TECHNICAL SERVICES UNIT

The Technical Services Unit provides services both internally to YGS staff and to external clients. Internally, they provide expertise in database development and data management, GIS and cartography support, and technical editing of publications (including editing of this volume[2]). External services include the maintenance of our website and its various web-based applications, sales of maps and publications, and general 'front-line' services to clients. Staff include Lara Lewis (Acting Head), Olwyn Bruce, Aubrey Sicotte, Bailey Staffen, Leyla Weston and Rachelle Dufour. We hope to fill the Head of Technical Services position early in 2009.

### YUKON GEOLOGICAL SURVEY MANAGEMENT

Rod Hill (Operations Manager), Carrie Labonte (Administrative Coordinator) and I (Director) coordinate and support the work of all four units at YGS. Collectively, we manage administrative, financial and human resource responsibilities, liaise with other Yukon government branches and departments, and network with external partners (governments and universities). Implicit among the list of management-related duties is the fact that we are accessible to all clients who may have questions about the survey or any of its activities.

## FUNDING, PROGRAM DELIVERY AND OVERSIGHT

Yukon Geological Survey activities are funded from a number of sources. We have a core operating budget which funds the bulk of our program activities, with the exception of mineral and petroleum resource assessments for which dedicated funds are allocated. Grants under YMIP and MPERG are managed by YGS as well; this year we allocated $605,000 for YMIP, and $50,000 for MPERG grants. The latter program was delivered collaboratively with other Yukon government departments, Yukon First Nations, industry and non-government organizations.

While YGS is the primary organization dedicated to the delivery of public geoscience in Yukon, we are not the only organization. Between 2005 and 2009, the Department of Indian and Northern Affairs Canada (INAC) provided YGS with funds for geoscience projects

[2]*For example, Technical Services will be editing this paper. I'll be curious to see whether my footnote on Grant Abbott's 'look' survives the editors' pen. If it doesn't, this footnote won't make a lot of sense to readers.*

through their Strategic Investments in Northern Economic Development (SINED) program. YGS used the funds to fill gaps in regional geophysical coverage (mainly aeromagnetic), to update portions of Yukon's regional stream sediment geochemistry database, and to support targeted mapping. A list of SINED-funded projects is provided in a separate paper (Relf, this volume).

In February 2008, the Federal Government announced a program called Geo-mapping for Energy and Minerals (GEM), which is aimed at collecting and distributing geoscience data to support the development of mineral and energy resources in Canada's North. Originally announced as a two-year program, a subsequent announcement in August by the Prime Minister extended the program to 2013. While GEM program funds will be spent by the Geological Survey of Canada (GSC), GEM projects in Yukon will be jointly planned and co-delivered with YGS. Following six months of meetings and correspondence with GSC, we have developed a plan for Yukon GEM projects, which was presented to our Technical Liaison Committee in November for their feedback. GEM projects are described briefly in a separate contribution (Relf, this volume).

In addition to GSC collaboration, YGS has research partnerships established with the British Columbia Geological Survey, Alaska Geological Survey and a number of universities. Activities include joint research projects and co-supervision of, and support for, student thesis projects.

The way in which we set program priorities and define annual workplans is complex. Some activities, such as mineral and energy resource assessments, are defined to address specific needs of Yukon and Yukon First Nations governments. These assessments support resource management decisions, development of government policy and commitments made under the Umbrella Final Agreement. Other activities are defined following consultation with our Technical Liaison Committee, who provides an industry perspective on geoscience needs in Yukon. Our commitment to the GSC to collaborate on GEM program activities represents an opportunity to maximize return by sharing field expenses and integrating our expertise. University collaborations are also advantageous: we can provide learning opportunities for undergraduate and graduate students, and, in turn, the universities have the expertise and analytical capacity that we lack.

## WHAT'S NEXT?

Fifteen years ago, Grant Abbott initiated a long-term planning cycle for YGS. The planning meetings, held every five years, provide a planning template that helps to set priorities for annual work. This spring will mark five years since the last planning meeting. We have started preparing for our 2009 planning session by taking a critical look at our current work commitments and our staff capacity and demographics. When we meet this spring we will discuss Yukon's geoscience gaps and needs that will cover the next five to ten years. Our main goals include trying to anticipate our various clients' needs, keeping up with latest trends in information management and delivery, and predicting how our staff capacity might change over the next decade. The planning will focus beyond 2013, as that is when our current GEM-related commitments will end. The planning document will be made publicly available and we would greatly appreciate any feedback.