Manager Water Resources, Hydrogeologist



Ms. Wilkins is a professional hydrogeologist, manages the Calgary Mine Water Resources Group and is a specialist in groundwater and surface water assessments, mine water management plans and mine applications in both the US and Canada. She has been employed as a Hydrogeologist and Project Manager with Stantec for the past 15 years. Ms. Wilkins has experience in detailed groundwater and surface water site investigations, injection and supply well design and well testing programs, well abandonment, mine water management planning and permitting, and surface water modeling. Her field project management and construction oversight experience has resulted in the design of practical and efficient mine water management systems, mine closure and reclamation plans and compensation lakes.

EDUCATION

Project Management Extension Certificate Mount Royal University 2009-2011

B.Sc. Honors in Environmental Science, Geology Concentration Carleton University 2001-2004

Collegial Diploma (DEC) Natural Sciences John Abbott College 1999-2001

CERTIFICATIONS & TRAINING

APEGA - Fundamentals of Project Management
APEGA - Construction Administration and Legal
Issues for Engineering Construction Projects
APEGA - Introduction to Financial Skills
Aquifer Testing for Improved Hydrogeologic Site
Characterization Featuring AQTESOLVTM
SEDCADTM For Mine Permitting and Reclamation
River and Floodplain Modeling Using HEC-RAS
Microsoft Access Levels 1 & 2
CBM Production and Project Development Course
CBM Drilling and Completions Course
H2S Alive Safety Training
Standard First Aid and CPR (Level C and AED)
Petroleum Safety Training (PSTS), including WHMIS
and Construction Safety (CSTS)

AutoCAD SEDCAD 4 Civil Software

Hydrologic Engineering Centers Hydrologic Modeling System (HEC-HMS)

Hydrologic Engineering Centers River Analysis System Software (HEC- RAS)

ASSOCIATIONS

The Association of Professional Engineers and Geoscientists of Alberta (APEGA)

WORK EXPERIENCE

Stantec, Calgary, AB

2004 - Present

Manager Water Resources, Hydrogeologist

- Water Well Design, Drill Supervision, Piezometer Installation, and Aquifer Testing, Various Projects. Alberta, B.C., Saskatchewan, Colorado, Illinois.
 - Ms. Wilkins has designed and managed the field components of groundwater monitoring, supply and disposal programs; undertaking tasks such as well completion design, oversight of drilling, testing and installation, well log interpretation and aquifer analysis using AQTESOLV. Shallow and deep aquifers were evaluated by use of injection fall off and fracture breakdown tests, drill stem tests (DST), packer tests, slug tests, and pumping tests. Ms. Wilkins has facilitated water use and injection permitting and represented clients at regulatory technical meeting and public consultation.

^{*} denotes projects completed with other firms

- CO2 Sequestration Regulatory and Potential Injection Sites Review, AB
 - Researched CO2 sequestration technology, regulations and sites within Alberta with favourable conditions for safe and economic disposal or enhanced oil recovery. Sat on Regulatory Committee for the ASAP 33 company consortium and responsible for technical reports, presentations, and the preparation of draft regulatory applications.
- Oil Sands and Coal Surface Water Management System Design, Fort McMurray, AB, BC and Washington USA
 - Ms. Wilkins has designed various mine water management systems for the diversion, treatment and containment of surface water, produced water, and overburden and in-pit produced water at oil sands and surface coal mine sites in the US and Canada. Using AutoCAD, SEDCAD, HEC-HMS and HEC-RAS software and site surveys and measurements, she has designed short-term, long-term and reclamation-type water management systems, major diversion channels, sedimentation ponds and compensation lakes. Water management systems have been designed for incorporation into mine plans and for regulatory applications and detailed mine closure and reclamation plans.
- Compensation Lakes Project Management and Construction Oversight, Fort McMurray, AB
 - As project manager for two Compensation Lake projects, Ms. Wilkins oversaw detailed Lake engineering and construction and reclamation execution, as well as managed numerous supporting material suitability and hydrogeologic characterization programs.

Ms. Wilkins was the field project manager for the Shell Jackpine Compensation Lake 16month construction project, which included oversight site drainage, of material management, lake and borrow source excavation and lake structures and dump construction. From design to reclamation, she oversaw a team of 150 internal and subcontractor staff, was the client's representative to the construction company, and managed over \$90M in related budgets over the course of 4 years. Ms. Wilkins was the engineering project manager for the second lake, which included similar site and engineering activities, and took place over 3 years.

- Permeability Testing and Hydrogeologic Study, Hunter Valley, New South Wales Australia
 - Ms. Wilkins oversaw coal permeability testing and selected appropriate coal intervals and types of tests to be conducted. Tasks included evaluation of third-party contractors operational and safety procedures and equipment reviews. Hydrogeologic, operational, and water balance data were also collected to assist in a pre-mining degassing feasibility study.
- IFOT Trailer CBM Testing, Illinois and British Columbia
 - Responsible for operating and training staff on the use of an Injection Fall-off Test (IFOT) trailer for coal permeability testing for coalbed methane evaluation. Ms. Wilkins played a role in the design of the trailer upgrades, project management, and the development of safe working procedures.
- Oil Shale Operation Groundwater Studies and Monitoring, Piceance Basin, Colorado
 - Ms. Wilkins conducted slug tests and bromide tracer tests in order to foresee potential leakage migratory paths of an oil shale pilot program. She also assisted in seeps/spring surveys at the site.