# Jeffrey J. Olyphant

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**EDUCATION** 

M.S., Geological Sciences- Hydrogeology

Jackson School of Geosciences, The University of Texas at Austin

December 2009

B.S., Environmental Science
Minor, Geological Sciences
Indiana University – Bloomington, IN

#### **EMPLOYMENT EXPERIENCE**

Manger Hydrology, Americas

Aug 2017 – Present

Peabody Investment Corporation-Saint Louis, MO

Provide hydrology related support to Americas operations. Review and develop technical hydrology reports. Provide environmental permitting support for SMCRA and NPDES programs. Conduct internal environmental audits and assist operations with permit compliance. Design and implement hydrogeologic monitoring plans for site characterization and impact assessments.

Hydrologist, Midwest

Mar 2012 – Jul 2017

Peabody Investment Corporation- Evansville, IN

Provide hydrology, environmental permitting, and regulatory compliance support for Midwest Operations. Prepare environmental permit applications, renewals, and modifications for water-related regulatory programs (CWA, SMCRA). Manage water monitoring and water treatment program. Design and implement hydrogeologic monitoring plans for site characterization and impact assessments. Review and develop technical hydrology reports. Manage Midwest water quality database and prepare NPDES and SMCRA compliance water monitoring reports.

Geologist Sept 2010 – Present

**ENVIRON International Corporation- Indianapolis, IN** 

Project coordination of Phase II subsurface investigations. Installation and sampling of soil borings and permanent and temporary monitoring wells using US EPA, Indiana Department of Environmental Management, and Ohio Environmental Protection Agency approved sampling methods. Management of non-hazardous waste associated with the sampling including waste transport and disposal; client contact and guidance, contractor management, regulatory compliance, soil and groundwater delineation, and submission of results to state agencies

Field Hydrologist Nov 09 – Sept 10

Indiana Geologic Survey: Center for Geospatial Data Analysis- Bloomington, IN
Employed Mann-Kendall statistical analysis to evaluate water chemistry trends.
Calibration, installation, and maintenance of state-of-the-art instruments used to
evaluate hydrologic and water quality conditions. Programming and wiring of Campbell
Scientific Data Loggers. Field data collection, groundwater and surface water
sampling, and data processing

Research Assistant

August 07 – May 09

University of Texas at Austin

Conducted research focused on impacts of land use change on unsaturated zone processes and groundwater quantity and quality. Prepared and analyzed soil specimens for environmental tracers and matric potential utilizing ion chromatography, tensiometers, and chilled-mirror psychrometers

Associate Instructor

July 08 – August 08

Indiana University Judson Mead Geologic Field Station- Cardwell, MT
Assisted in the preparation and demonstration of geologic, hydrologic,
micrometeorologic, and field biology equipment and techniques to undergraduate students.

Field Hydrologist

June 2001 - July 07

Indiana Geologic Survey: Center for Geospatial Data Analysis- Bloomington, IN Calibrated, installed, and maintained state-of-the-art instrumentation used to evaluate hydrologic and water quality conditions. Duties included monitoring site installations, field data collection, and data processing

## **SKILLS**

## Field Investigations

Aquifer testing, monitoring well installation, soil logging, water and soil sample collection, and stream gauging. Installation, collection, and processing of data from pressure transducers, multi-parameter water quality meters, conductivity sensors, gypsum blocks, soil temperature sensors, net radiometers, anemometers, temperature and relative humidity sensors, rain gauges. Programming and wiring of Campbell Scientific data loggers. Use of neutron probe for measuring soil moisture profiles.

# Data Analysis

Aquifer characteristics, statistical analysis of surface water and groundwater quality, analytical groundwater flow and seepage evaluations, surface water discharge analysis.

### Software:

Proficient with AQTESOLV, AutoCAD, EQuIS, Surfer, Campbell Scientific Loggernet, Win-Situ, Windows Office.

#### AFFILIATIONS AND HONORS

- Indiana Coal Council Regulatory Committee
- Illinois Coal Council Regulatory Committee
- Presentation with Published Abstract: Olyphant, J. & Scanlon, B., 2008, Unsaturated Zone Profiles Linking Land Surface Applications and Groundwater Nitrate Contamination: Case Study Seymour Aquifer, TX. Geological Society of America Abstracts with Programs, Vol. 40, No. 6 (poster).
- John A. and Katherine G. Jackson Fellowship in Geohydrology (Summer 2008)
- James A. Gibbs Hydrogeology and Engineering Geology Graduate Fellowship (May 2009)