Environmental Consulting

Real World Problem Solving

John Williams
Staff Geologist, Kleinfelder West, Inc.

UC Berkeley, Earth and Planetary Science
Alumni Student Careers Forum
Environmental Consulting

- My Background
- Kleinfelder Pitch
- Environmental Consulting Defined

- Case Study
- Preparation
- Working Environment
Education – UC Berkeley

- BA Geology, 2002
- MA Earth and Planetary Science, 2004 (focus on hydrology)
Work Experience

- 1 year in Geotech/Materials Testing
- 3 years in Environmental Consulting
Kleinfelder is a leading professional services firm in natural and built environments for municipalities, government agencies, multinational companies and industrial concerns across the nation.
http://www.kleinfelder.com
What We Do

- Geotechnical
- Materials Testing and Engineering
- Environmental
Environmental Consulting

What is it?
Environmental Consulting

- Risk Minimization
- Impact Mitigation
- Remedial Action
Three Subdivisions

- Industrial Hygiene
- Environmental Permitting and Planning
- Environmental Services
Two Pathways Leading to Regulatory Involvement

- Due Diligence
- Regulatory Compliance
Due Diligence

- Phase I Environmental Site Assessment
Due Diligence

- Phase I Environmental Site Assessment
- Phase II Environmental Site Assessment
Due Diligence

- Phase I Environmental Site Assessment
- Phase II Environmental Site Assessment
- Regulator Involvement:
  - Define Extent of the problem
  - Implement Remedial Action
  - Demonstrate that the problem has been corrected
Regulatory Compliance

- Permit Requirements
- Tank Removal
- Known Release
CASE STUDY:
Former Mobil Bulk Terminal
04-394
San Francisco, California
In-Situ Chemical Oxidation

- Inject peroxide-forming material into subsurface to oxidize hydrocarbons in soil and groundwater
- Used RegenOx® - a mild oxidizer complex
In-Situ Chemical Oxidation

- Order of magnitude reduction in Diesel concentrations in groundwater in the most impacted well
- Wells with lower initial Diesel concentrations did not show significant reductions
- Injected ~25,000 lbs RegenOx over 72 locations
- Total injection volume was ~35,000 gallons
- Total cost ~$250,000
A Sheen on the Bay

Video Clip
Courses I Found Useful

- Hydrogeology – EPS 105 and CEE 173
- River and Stream Restoration / Hydrology for Planners – LA 227 and LA 222
- EPS 101, EPS 118
Courses I Should Have Taken

- Organic Chemistry
- Geomorphology
- Soils Engineering
The Question Everybody Asks

- Don't take a salaried position that pays less than $52K per year in the Bay Area.
- As an entry level person, you want to get paid by the hour – you'll be working a lot of them. $18/hour is about the low end of the spectrum.
- Professional Licenses (PE, PG) increase your salary prospects.
Opportunities

- Entry Level Opportunities everywhere
- Some companies offer internships
- GIS is a fast growing part of the field
- Work is nationwide and international as well – anywhere that uses petroleum
Who You Work With

- Geologists
- Engineers
- Chemists
- Chemical Engineers
- Biologists
- Drillers
- Truckers
- Equipment Operators
- Laborers
Who You Work With

- Business Owners
- Real Estate Agents
- Lawyers
- Scientists
- Engineers
- The Public
- The Neighbors
- The Media
John Williams

925-484-1700 x 617
JLWilliams@kleinfelder.com