



# Collecting Evidence in Environmental Investigations

An ENGO ~~Scientist's~~ Engineer's Perspective

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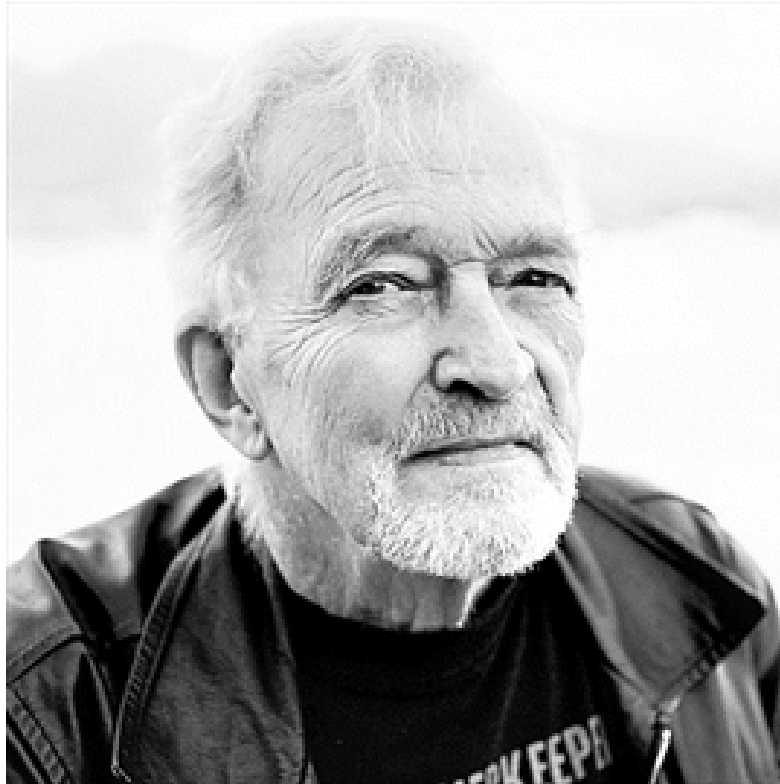
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Ottawa

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# Doug Chapman

April 8, 1936 - April 4, 2012



ecojustice

# Planning for Gathering Field Evidence

- Transportation and site access
- Timing
- Find an accredited lab
- Figure out what to bring
- Research sampling and testing protocols
- Secure and transportation of samples to the lab



# Figuring out what to bring

Based on media and substances:

- Consult with the lab
- Sample equipment and containers
- QA/QC
- Cleaning, filtering and preserving samples
- Measuring devices
- Documentation needs
- Storage, cooling and transportation
- Personal protection



# Issues with legal samples

- Chain of evidence - chain of custody (continuity)
- Documenting - notes, photos, video, GPS...
- Labeling, securing and sealing samples and cooler containers
- Temperature control



CoC photos from Schultz v. Menkes

- *R. v. Vale Newfoundland & Labrador Limited (2016) NLPC 0113A01657*
  - FA charges dismissed - chain of custody problems, changes in sample pH, compliance versus legal samples
- *R. v. Petro-Canada, 2009 ONCJ 179*
  - OWRA charges dismissed - QA/QC and chain of custody problems, cites the criminal cases on gaps in continuity going to weight
- *Ontario (Ministry of the Environment) v. Neilson et al., 2011 ONCJ 853*
  - Many charges but focusing on one on unlawfully depositing hazardous waste that succeeded - court rejected defence arguments on chain of custody, QA/QC and sampling problems

# Sampling and Testing Methods

- Regulations may reference methods or regulators may publish testing methods separately, for example:
  - Fisheries Act, PPER and MMER Regs
    - Acute lethality of effluents to rainbow trout - EPS 1/RM/13
    - Acute lethality of effluents to daphnia magna - EPS 1/RM/14
  - CEPA Regulations on Benzene and Sulphur in Gasoline
    - National Standards published by Standards Council of Canada
    - American Society for Testing and Materials (ASTM)
- Labs often have 'packages' directed at compliance requirements
- If you can't find any prescribed methods you can refer to various sources like Standard Methods for Water and Wastewater, ASTM, SCC....







# Help from Community Members



- Document observations by taking notes, calendar entries, pictures, videos, and even taking samples
- Stink scales (ex. 1 to 10)
- Stack watch



# Case Study 1 – Environment Hamilton's Stack Watch Program

- Website provides a photo key of Hamilton area industrial stacks to help citizens identify the stacks
- Describes opacity – discoloured/opaque discharge
- Provides contact info for Ontario Spills Action Center
- AcelorMittal Dofasco fined \$390,000 in 2013 after a guilty plea to 6 of 13 opacity charges under the Ontario EPA.



# Case Study 2 – Shell Canada EBR Request

- On behalf of two residents, Ecojustice requested an investigation under the Ontario EBR of spills that occurred in January and April 2013 from the Shell Sarnia refinery.
- Filed a large volume of evidence collected by a local resident including evidence of acute adverse health effects and sampling results.
- MOECC refused the EBR request on grounds that it was already investigating.

but more concerned about their 1yr old daughters red & swollen eyes, taking to emerg at hospital and going to ask on fb if other kids from Daycare were effected.

# Environmental Commissioner of Ontario 2013/14 Annual Report

“The ECO urges ministries to consider the benefits of accepting an EBR application for investigation even where a ministry investigation is underway; the EBR process would have added greater transparency and accountability to the investigation.

Furthermore, the ongoing health and environmental difficulties that this community continues to face make the ministry’s failure to address the systemic issues highlighted in the application especially distressing.”

- Days before the limitation period expired MOECC laid a charge for the January 2013 spill.
- On November 24, 2015 Shell plead guilty and was fined \$500,000, plus a \$125,000 victim fine surcharge and was ordered to pay \$200,000 directly to Aamjiwnaang First Nation.



# Other sources of information

- ATIPs/ FOIs including completed ones
- Public databases, registries and portals
- Reading rooms
- Open government websites
- SEDAR
- Reports, grey and scientific literature
- Experts
- Informants and personal connections
- Just asking

Thank you for your attention.  
For more information, please visit  
[www.ecojustice.ca](http://www.ecojustice.ca)

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