

**Moose Oils Ltd.**



# **Balanced Cross Sections In Overthrust Domains.**

By  
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A Four Day  
Course By Moose Oils Ltd.

In Conjunction With:  
Midland Valley Software and Consulting

**Moose Oils Ltd.**



## **Balanced Cross Sections In Overthrust Domains.**

Introduction: This is a four day course that will provide new and intermediate users with the back ground to using balanced cross section tools to generate exploration plays in the Foothills of the Western Canadian Sedimentary Basins.

It also provides training for using the latest Version Midland Valley's balanced cross section package 2D Move 3.1.

### Day One, 9:00AM to 4:30 PM

1. Introduction.
2. Balanced Cross Sections.
3. Admissible and viable cross sections.
4. Fault first model versus fold first.
5. Deformation models.
6. Fault bend fold.
7. Detachment fold.
8. 2D Move

#### 1- Overview of 2Dmove.

- 1.1 Mouse Controls
- 1.2 The Object Toolbar
- 1.3 The Edit Toolbar
- 1.4 Selecting Objects

### Lunch 12:00 PM to 1:30 PM

- 2 - Importing and working with Dip & Well Data
- 2.1 The File import dialogue box.
- 2.2 Dip and Well import (generic).



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- 2.3 Dip and Well import from GeoSec.
- 2.4 Dip data display and Well properties.
- 2.5 Types of projection.
- 2.6 Projecting Dip Data.

### 9. Deformation models.

### Day Two, 9:00 AM to 4:30 PM

### 10. 2D Move

- 3 - Importing and working with Segy and Bitmap Data
  - 3.1 The Segy File Import.
  - 3.2 The Bitmap File Import toolbox.
  - 3.3 How to manipulate Segy and bitmap images.
  - 3.4 How to insert a Segy files.

### Lunch 12:00 PM to 1:30 PM

### 11. Practical applications of balanced cross sections.

- ◆ Moose Mountain
- ◆ Pocketknife

### 12. 2D Move

- 4 - Section Construction & Editing Tools
  - 4.1 The Selection toolbox.
  - 4.2 The Properties toolbox.



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- 4.3 The Split toolbox.
- 4.4 The Construct Beds toolbox.
- 4.5 The Construct Fault toolbox.
- 4.5 Working with Bisectors.

### Day Three, 9:00 AM to 4:30 PM

13. Foothills exploration models and their sensitivity to balancing concepts for determining exploration risk.

- First generation models
- Second generation models
- Third generation models
- Reefs
- Triangle zones

13. 2D Move:

5 - Unfolding Restorations in 2DMove

5.1 Restore.

5.2 Unfolding and inserting a Pin.

5.2.1 Line Length Unfolding.

5.2.2 Flexural Slip Unfolding.

14. New concepts in foothills exploration.

Lunch 12:00 PM to 1:30 PM

15. 2D Move

6 – Move on Fault Restorations in 2DMove

6.1 Inclined Shear

6.2 Fault Parallel Flow



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- 7 - Additional Functionality in 2Dmove.
- 7.1 Depth Conversion.

### Day Four, 9:00 AM to 4:30 PM

16. Field Trip to Moose Mountain Oil and Gas Field and the Front Ranges of the Rocky Mountains. This will involve a helicopter overview and a 6 hour hike over the Mississippian aged Turner Valley Formation to view the variation in Deformation Models.

