

# TIPS

## This Month:

### Waterflood VRR

Keeping up with VRR Compliance

### MetroPetro

Search for obscurities in an eco-activist's room

### Industry News

Some facts on the world's second largest deposit of oil

### Staff Spotlight

Proven Reserves' Human Resources Manager takes the spotlight

## Waterflood Voidage Replacement Ratio in Alberta

### VRR Compliance and Why You Should Care

Steve Shon

The ERCB has recently become much stricter on monthly and cumulative voidage replacement ratio (VRR) compliance. Classifying inadequate VRR as a high risk, the ERCB is asking operators to maintain full cumulative and monthly VRR in order to fully maintain reservoir pressure. Additionally, the Board may also require minimum operation pressure compliance.

At Proven Reserves, we have developed some strategies to prevent these compliance issues when a client needs to propose a scheme without full VRR. We also aid clients in monitoring their floods for compliance issues and help recovering from existing compliance problems.

The ERCB's compliance department has recently hired more employees and has implemented new software to allow easier tracking of VRR compliance. On the other hand, they are no longer policing holding inter-well distances.

When the compliance department finds enhanced recovery scheme owners violating the VRR conditions, they send a notice of noncompliance and take enforcement actions requiring timelines for



**Failure to comply with VRR conditions could cost you more than you think.**

compliance.

We find the ERCB requires a licensee to immediately correct or address the issue and provide the ERCB with a written action plan to correct the violation. The Board requires identification of the root causes of the violation and steps that will be taken to prevent future occurrences. This report usually must be submitted within 60 days of the notice of noncompliance.

The ERCB is then requiring the scheme owner notify them that the noncompliance has been addressed within the specified time.

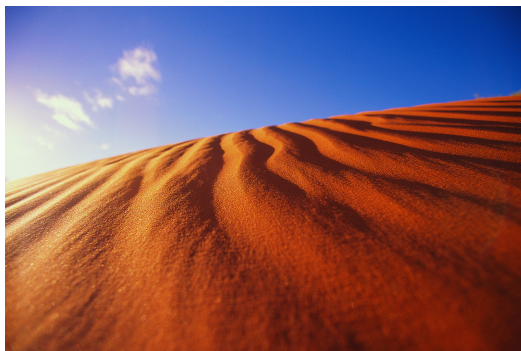
The penalty generally includes one or more of the following:

- Noncompliance fines
- Increased audits
- Partial/full suspension
- Suspension/cancellation of approval



## Alberta's Oil Sands

The Athabasca Oil Sands are the largest of Alberta's three major oil sands deposits, and are located along the Athabasca River (from which the sands get their name), and near Fort McMurray in Northern Alberta.



Along with the Peace River and Cold Lake deposits, Alberta's Oil Sands cover approximately 141,000 km<sup>2</sup>, and contain about 1.7 trillion barrels of bitumen, making it the second largest deposit of crude oil in the world.

In 2007 the EUB (now the ERCB) estimated that roughly 170 billion barrels (about 10%) of the original bitumen in place could be

economically recoverable by 2016, projecting with 2006's oil prices and trends.

According to the ERCB, Alberta's oil sands represent about 99.9% of Alberta's natural petroleum resources, and account for about 75% of the province's petroleum production.

## Company News

### Spotlight on Proven's Human Resources Manager

Connie Low is Proven Reserves' Human Resources Manager having joined Proven's team over 5 years ago.

Connie was born and raised in a small town in Southern Alberta where her father worked as a rancher and political activist.



Connie graduated from Brigham Young University with a Bachelor of Science in Education, and minored in Music. She worked as an Elementary School teacher until the birth of her third child, at which time she

retired to teach piano privately.

Connie remains active in the community and involves herself with her children's schools and various church activities.

In her spare time Connie enjoys traveling to new places and anything to do

with music. She participates in various musical projects including musical theater, a singing trio, and various solo efforts.

Thanks Connie!



### MetroPetro

how many petroleum products can you find in this picture?

click for larger image

### Upcoming Events

#### APEGGA Branch Luncheon

The New Park Bridge  
Sept. 11, 2008  
Calgary, Alberta  
[www.apegga.org](http://www.apegga.org)

#### APEGGA Branch Event

Annual Golf Tournament  
Sept. 11, 2008  
Calgary, Alberta  
[www.apegga.org](http://www.apegga.org)

#### 2008 International Thermal Operations and Heavy Oil

Symposium  
October 20-23, 2008  
Calgary, Alberta  
[www.petsoc.org/ITOHOS](http://www.petsoc.org/ITOHOS)

