**Gordon Creek - Natural Gas**

**Conoco – Drunkards Wash Field**
- 888 Bcf to date
- 610 wells
- 1.25 Tcf projected
- 2.0 Bcf/well
- based on 4 wells per section

**Thunderbird – Gordon Creek Field**
- > 6500’ ASL
- 5.1 Bcf to date
- 19 wells (12 on production)
- > 150 potential locations
<table>
<thead>
<tr>
<th>Reserve Category</th>
<th>GAS (MMCF)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2010</td>
</tr>
<tr>
<td>Proved Reserves</td>
<td></td>
</tr>
<tr>
<td>Proved Developed Producing</td>
<td>1,110.9</td>
</tr>
<tr>
<td>Proved Developed Non-Producing</td>
<td>3,673.6</td>
</tr>
<tr>
<td>Proved Undeveloped</td>
<td>4,526.6</td>
</tr>
<tr>
<td><strong>Total Proved Reserves (1P)</strong></td>
<td>9,311.1</td>
</tr>
<tr>
<td>Probable Reserves</td>
<td></td>
</tr>
<tr>
<td></td>
<td>21,651.1</td>
</tr>
<tr>
<td><strong>Total Proved + Probable Reserves (2P)</strong></td>
<td>30,926</td>
</tr>
</tbody>
</table>
## Oil & Gas Reserves: Discounted NPV

<table>
<thead>
<tr>
<th>Reserve Category</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PV10 (US$ '000)</td>
<td>PV10 (US$ '000)</td>
<td>PV10 (US$ '000)</td>
<td>PV10 (US$ '000)</td>
</tr>
<tr>
<td><strong>Proved Reserves</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proved Developed Producing</td>
<td>2.314</td>
<td>1.482</td>
<td>1,200</td>
<td>1,162</td>
</tr>
<tr>
<td>Proved Developed Non-Producing</td>
<td>5.961</td>
<td>3.756</td>
<td>12.310</td>
<td>14,176</td>
</tr>
<tr>
<td>Proved Undeveloped</td>
<td>5.490</td>
<td>4.342</td>
<td>6,935</td>
<td>6,309</td>
</tr>
<tr>
<td><strong>Total Proved Reserves (1P)</strong></td>
<td>$13.765</td>
<td>$9.580</td>
<td>$20,445</td>
<td>$22,354</td>
</tr>
<tr>
<td>Probable Reserves</td>
<td>35.952</td>
<td>28.343</td>
<td>49,555</td>
<td>33,077</td>
</tr>
<tr>
<td><strong>Total Proved + Probable Reserves (2P)</strong></td>
<td>$49.717</td>
<td>$37.923</td>
<td>$69,999</td>
<td>$55,431</td>
</tr>
</tbody>
</table>
Drunkard’s Wash – 2009 Best Practices Study

- 140 wells
- Proximity
- Statistical Analysis
- Mapping of Sands & Coals
Drunkard's Wash - Average Well

4 year average decline = 7.8% and moderating

- Gas Rate (mcf/day)
  - Years on Production
  - Coal Contribution (Avg. 21.6 ft)
  - Sand Contribution (Avg. Phi x h = 2.20)

Forecast Volumes - Economic Limit - 35 mcf/day 32 Years, MMcf, MSTB

- 685
- 1330
- 443

- 216.5
- 194.8
- 170.6
- 155.7
- 137.3
- 242.4
- 256.4
- 251.4
- 211.9
- 194.4

- 1
- 2
- 3
- 4
- 5
Technical Analysis

• Study of completion practices, logs and statistical data for 140 wells in close proximity to Gordon Creek
• Coals and sands are equivalent and can be mapped from Drunkard’s Wash across Gordon Creek and beyond
• 140 wells divided into 73 wells with thicker sands and 67 mostly coal wells
• Statistical solution for gas contribution of sands and coals

Conclusions

• Ferron sands and coals at Drunkard’s Wash continue through Gordon Creek
• Substantial by-passed pay at Gordon Creek as a result of differences in historical practices at Gordon Creek versus Drunkard’s Wash
• Best practice is to complete stimulate and simultaneously produce coals and sands with porosity > 7% and to produce associated water

Proven in 2012/2013

• Coal pays commensurate throughout Gordon Creek to NW project extremity
• Sand pays, porosities substantially exceed Drunkards Wash at NW Gordon Creek
• There is room for improvement on best practices with new technologies like radioactive frac sand tracing and eliminating need for bridge plugs
Initial Rates – High Water, Low Gas
Initial Wells – Require Dewatering

Early (1997) – Drunkards Wash - Very High Water Production Well

Water peaks at 2500 bwpd

Gas peaks at 1.5 MMcf/day

Gas will produce for > 30 years

Water dies after 6 years
Gordon Creek - Compared to a Ranking of the Various Natural Gas Shale Plays

* Economic Break Even Assumes 20% Before Tax Return on Capital and Excludes Sunk Costs (Acreage, overhead, etc.)
Well Parameters

• To be conservative, we have assumed a 25% reduction in reserves and IP rates
• Average reserves of 1.45 Bcf per well
• First year average rate of 370 mcf/day raw gas
• Average SITLA, Fee or BLM Royalty = 16.5%
• Est. drill, complete, equip and tie-in $750,000 US
• Land acquisition cost per location $16,000 US
• Mainline cost per well $25,000 US
• Operating cost - $1000 per well per month plus $0.45/mcf
• Transportation offset to NYMEX gas price = $0.50 US

Conclusions

• “Full cycle” break even price roughly $2.00 NYMEX
• $4.00 NYMEX flat price yields a 38.6% Internal Rate of Return
• $5.50 NYMEX yields a 66.9% IRR and a 18 month payout