### Permittee Information

- **Name:** Northwest Natural Gas Company
- **Mailing Address:** 220 Northwest Second Ave., Portland, OR 97209
- **Telephone:** (503) 226-4211
- **Fax:** (503) 220-2586
- **Email:** Todd.Thomas@wnatural.com
- **Prepared by:** Todd Thomas

### Well Information

- **Well No.:** OM 23c-11-65
- **DOGAM ID No.:** O & G Permit #543
- **Drilling Commenced:** August 10, 2005
- **Drilling Completed:** August 22, 2005
- **Total Depth:** 3108 ft M.D.
- **Redrill Depth:** 3100 ft
- **Logs Run:** Induction, Sonic, Gamma Ray, Neutron Density, EMI

### Project Manager

- **Signature:**
- **Title:**
- **Date:** 5/30/06

### Casing Record

<table>
<thead>
<tr>
<th>Size of Hole</th>
<th>Size of Casing</th>
<th>Weight (pound per foot)</th>
<th>Grade/Type</th>
<th>Depth</th>
<th>Type and Amount of Cement</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 ½&quot;</td>
<td>8 5/8&quot;</td>
<td>36</td>
<td>J-55</td>
<td>468 ft</td>
<td>Class III 60 bbls.</td>
</tr>
<tr>
<td>7 5/8&quot;</td>
<td>5 ½&quot;</td>
<td>15.5/17.0</td>
<td>J-55</td>
<td>3100 ft</td>
<td>Halliburton Premium 154 bbls.</td>
</tr>
</tbody>
</table>

### Plugs & Junk

- **Plugs / Junk:** None
- **Geological Marker:** Keasey
  - **Depth:** 315' TVD
- **Cowlitz:** 2147' TVD
- **Clark & Wilson:** 2618' TVD

### Perforations or Liner

<table>
<thead>
<tr>
<th>Size of Casing</th>
<th>From</th>
<th>To</th>
<th>Shots/ft.</th>
<th>Method of Perforating</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 1/2&quot;</td>
<td>3100 ft</td>
<td>Surface</td>
<td>4 spf (3.125&quot;)</td>
<td>Jet 2712' - 2752'</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Bullet 2930' - 2970'</td>
</tr>
</tbody>
</table>

### Initial Production

<table>
<thead>
<tr>
<th>Date</th>
<th>Clean Oil (bbl/day)</th>
<th>Gravity</th>
<th>Percent Water</th>
<th>FTP</th>
<th>FCP</th>
<th>SITP</th>
<th>SICP</th>
</tr>
</thead>
</table>

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**SUMMARY REPORT - OIL OR GAS WELL**

**STATE OF OREGON • DEPT OF GEOLOGY & MINERAL INDUSTRIES • 229 BRODALBIN ST SW • ALBANY OR 97321**

(in compliance with rules and regulations pursuant to ORS 520.)

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**DOGAM SUMMARY REPORT.DOC**

Rev. 08/06/03