STATE OF OREGON  
DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES  
800 NE Oregon Street #28, Portland OR 97232

WELL SUMMARY REPORT  
(In compliance with rules and regulations pursuant to ORS 520)

NW Natural  
(Company or Operator)  
Northwest Natural Gas  
(Lease)  
IW 24C-23-65  
(Well No.)

Sec. 23  
T. 6N  
R. 5W  
Surveyed Coordinates (if directional, BHL & SHL): SHL: 967.7' North & 1268.4' East from the SW corner of section 23, T6N, R5W, BHL: 561.8' S & 136° E from surface location

Wildcat:  
(or) Field Name: Calvin Creek Storage Field  
County: Columbia

Date:  
12/18/00  
Position: Construction Manager

Total depth: MD 2591'  
Redrill depth:  
Commened drilling: 4/20/00  
Completed drilling: 5/13/00  
P&A:

Logs run: Array Induction, BHC Sonic, GR, SP, FMS, USL, CCL

### CASING RECORD

<table>
<thead>
<tr>
<th>Size of hole</th>
<th>Size of casing</th>
<th>Wt. in lbs. per ft.</th>
<th>Grade Type</th>
<th>Depth</th>
<th>Amount of cement</th>
</tr>
</thead>
<tbody>
<tr>
<td>17 1/2&quot;</td>
<td>13 3/8&quot;</td>
<td>54.5#/ft</td>
<td>H-40</td>
<td>445'</td>
<td>237 sx</td>
</tr>
<tr>
<td>12 1/4&quot;</td>
<td>8 5/8&quot;</td>
<td>22#/ft</td>
<td>K-55</td>
<td>1725'</td>
<td>670 sx</td>
</tr>
</tbody>
</table>

### PLUGS

<table>
<thead>
<tr>
<th>Geologic Marker</th>
<th>Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Keasey</td>
<td>585' MD</td>
</tr>
<tr>
<td>Cowlitz</td>
<td>1404' MD</td>
</tr>
<tr>
<td>Clark &amp; Wilson</td>
<td>1725' MD</td>
</tr>
</tbody>
</table>

### PERFORATIONS

<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>1851'</td>
<td>1706'</td>
<td></td>
<td>Jet</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>F.T.P.</th>
<th>F.C.P.</th>
<th>S.I.T.P.</th>
<th>S.I.C.P.</th>
</tr>
</thead>
</table>

wellsumm.doc 12/27/00

ACUO