

Flow Rate Prediction: DOE-NNSA

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DOE-NNSA Flow Analysis Studies Associated with the Oil Release following the Deepwater Horizon Accident

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Department of Energy review required before public release.

Name/Org: David Borns, 6912 Date: December 8, 2010

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3. FLOW RATE PREDICTION AT TIME OF WELL SHUT-IN

This section describes DOE-NNSA Flow Analysis studies in predicting subsurface flow from the CE through BP production to the water. Maximum Well used July 10, 2010. The work presented herein has been reviewed and approved by the originator.

3.1. Capping Stack Analyses of Flow through the K&L Line

After the CE was installed there was a period of time from ~0800 hrs CDT on July 14 through 0800 hrs CDT on July 17 (see Table 2), where 90% of the Maximum Well flow was directed out of the wellhead controlled by the CE. Figure 3-1 shows the predicted flow distribution and was used to estimate the flow rate through the K&L line. The predicted flow distribution is shown in Figure 3-1.

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- 55,300
- 53,000
- 52,900
- 52,800
- 52,300
- 51,800
- 50,900
- 50,800
- 49,600
- 49,500
- 49,400
- 48,900
- 48,900
- 48,500