



regarding length scales in main riser images

Wereley, Steven T. to: Espina, Pedro I., Ira Leifer, Juan Lasheras, Alberto Aliseda, Franklin Shaffer, Ömer Savas, James J Riley, Poojitha Yapa

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"mark_sogge@usgs.gov", "Chris.Barker@noaa.gov",
Cc: "Kathryn_Moran@ostp.eop.gov", Marcia McNutt, Bill Lehr,
"pmbommer@mail.utexas.edu"

Hi all. Probably we've discussed this issue before but does anyone know the sizes of the other pipes in view of the main riser pipe images? See attached image for the view I'm working with. Also, what is the OD of the drill pipe that is sticking out of the riser?

Thanks

Steve Wereley, Professor of Mechanical Engineering
Birck Nanotechnology Center, Room 2019, 1205 West State Street
Purdue University
West Lafayette, IN 47907
phone: 765/494-5624, fax: 765/494-0539
web page: <http://engineering.purdue.edu/~wereley>

From: Espina, Pedro I. [mailto:pedro.espina@nist.gov]
Sent: Thursday, June 03, 2010 3:13 PM
To: Ira Leifer; Juan Lasheras; Alberto Aliseda; Franklin Shaffer; Ömer Savas; Wereley, Steven T.; James J Riley; Poojitha Yapa
Cc: mark_sogge@usgs.gov; Chris.Barker@noaa.gov; Kathryn_Moran@ostp.eop.gov; Marcia McNutt; Bill Lehr; pmbommer@mail.utexas.edu
Subject: UNCERTAINTY: second report
Importance: High

Dear Plume Team Members,

Many of you are working on the PIV analysis of the leak at the end of the drilling riser. In order for NIST to provide NOAA with an uncertainty analysis on this estimate, we need your help. Could you please answer these questions for your current work.

1. Do you think that the enclosed analysis (used during the first report) describes, in principle, what you are doing using the video footage of the leak at the end of the drilling riser? If not, could you tell me why?
2. Do you think that you can determine length scales in the video to about $\pm 5\%$? If not, to what level?
3. Do you think that you can determine time between video frames to about $\pm 3.8\%$? If not, to what level?
4. Do you think that you can determine the diameter of the plume (where you are making the PIV determinations) to about $\pm 5\%$? If not, to what level?
5. What value of average volume fraction of oil in the jet (i.e., oil/total flow) are you using?
6. What uncertainty are you willing to assign to that value of average volume fraction of oil in the

jet?

I know you are loosing sleep at the moment, so I thank you in advance for supporting the NIST work with your answers.

Pedro

Pedro I. Espina, Ph.D.
Program Analyst
Program Office, Office of the Director



Tel: +1 301 975 5444 2010051422471923400001.bmp

MSV SKANDI NEPTUNE

SUBSEA 7

14/05/2010 17:47:17

E:

Depth: 4957.9

Alt: 4.7

Hdg: 79.9

H14: Plume Testing Ops.

