

1393090155-976-17074-190-11

From: Marcia K McNutt <mcnutt@usgs.gov>
Sent: Wed, 4 Aug 2010 16:19:06
To: GS FOIA 0105 <foia0105@usgs.gov>
Subject: Fw: pictures of the plume

Dr. Marcia McNutt
Director
US Geological Survey
12201 Sunrise Valley Drive, MS 100
Reston, VA 20192
(703) 648-7411
(703) 648-4454 (fax)
(571) 296-6730 (cell)
mcnutt@usgs.gov
www.usgs.gov

----- Forwarded by Janet N Arneson/DO/USGS/DOI on 08/04/2010 04:18 PM -----

From: Marcia K McNutt/DO/USGS/DOI

To: wereley@purdue.edu, Franklin.Shaffer@NETL.DOE.GOV,
rileyj@u.washington.edu

Cc: ira.leifer@bubbleology.com, pdy@clarkson.edu,
savas@newton.berkeley.edu, antonio.possolo@nist.gov, pedro.espina@nist.gov,

Bill.Lehr@noaa.gov, aaliseda@u.washington.edu, lasher@ucsd.edu

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Date: 06/19/2010 02:54 PM

Subject: RE: pictures of the plume

Thanks, Gang, for weighing in. I will ask BP for a 360 degree video survey using their highest resolution camera of the flow escaping from the cap "like they did during the LMRP cap removal" (assuming that that will give them the appropriate distance away and the duration of the survey?) Does that sound about right? I will also say that we want this done during a period of known and steady production to the surface, and if for any reason there is an interruption in service that changes the flow, they should begin again when the containment is again steady. OK? For example, I know that there was another lightning strike last night at 2030 that shut down the Enterprise.

Marcia

From: Wereley, Steven T. <wereley@purdue.edu> [mailto:Wereley, Steven T. <wereley@purdue.edu>]

Sent: Friday, June 18, 2010 11:31 PM

To: Franklin Shaffer <Franklin.Shaffer@NETL.DOE.GOV>; James Riley <rileyj@u.washington.edu>; Marcia K McNutt <mcnutt@usgs.gov>

Cc: "ira.leifer@bubbleology.com" <ira.leifer@bubbleology.com>;

"pdy@clarkson.edu" <pdy@clarkson.edu>; "savas@newton.berkeley.edu"

1393090155-976-17074-190-11
<savas@newton.berkeley.edu>; "antonio.possolo@nist.gov"
<antonio.possolo@nist.gov>; "pedro.espina@nist.gov"
<pedro.espina@nist.gov>; "Bill.Lehr@noaa.gov" <Bill.Lehr@noaa.gov>;
"aaliseda@u.washington.edu" <aaliseda@u.washington.edu>;
"lasheras@ucsd.edu" <lasheras@ucsd.edu>
Subject: RE: pictures of the plume

I would expand on what others said--long sequences of high-quality video are essential. A still photo just shows the volume of the plume, not its speed. It would be nice to have a 360 deg survey of the cap area like they did during the LMRP cap operation.

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>

-----Original Message-----

From: Franklin Shaffer [mailto:Franklin.Shaffer@NETL.DOE.GOV]
Sent: Friday, June 18, 2010 9:38 PM
To: James Riley; Marcia K McNutt
Cc: ira.leifer@bubbleology.com; pdy@clarkson.edu;
savas@newton.berkeley.edu; antonio.possolo@nist.gov; pedro.espina@nist.gov;
Bill.Lehr@noaa.gov; Wereley, Steven T.; aaliseda@u.washington.edu;
lasheras@ucsd.edu
Subject: Re: pictures of the plume

All,

To make these photos easier to compare, I scaled the images so the top hat is the same size in each image, and I put all images side-by-side on the

same slide. The powerpoint file with these adjustments is attached.

An important point to notice is that different sides of the ROV are shown in most of the photos. Only the June 3 photo and one of the June 14 photos show the same side of the Top Hat. Since the ROV is significantly tilted, it is likely that the flow rate will be greater on the higher side of the Top Hat, and less on the lower side.

Only the June 17, 25,000 bpd photo, shows the lower side of the Top Hat.

So the only conclusion I could draw from these photos is that the flow appears to be slightly lower in one of the June 13 (15,000 bpd) photos compared to the June 4 (6,000 bpd) photo. But the difference could also just be natural fluctuation in large eddies.

We need long segments of video of the same side of the Top Hat to draw any conclusions.

Regards,

Frank

>>> "James Riley" < rileyj@u.washington.edu> 6/18/2010 8:01 PM >>>

Marcia,

Although it might also depend on at least the unsteadiness of the flow and the positioning of the ROV (as well as on the flow rate), the legs of the skirt appear to be much more visible in the second image compared to the first. This could indicate a noticeably different flow rate from the skirt.

I think that a view encompassing as much of the flow around the top hat as possible, from the skirt to above the top hat, can be very useful in understanding the overall flow, although there might be problems with lighting in doing this. On the other hand closer views of the skirt and the vents could be useful to make speed estimates. -- Jim

Marcia K McNutt wrote:

> Hi all.

>

> I got from BP some frame grabs of different shots of the plume taken
> at three different levels of collection up from the Top Hat. In the
> first image, collection up the riser was just ramping up, and only
> 6000 barrels was being collected. In image #2 (actually 2 frame
> grabs), the Enterprise was at full production of 15,000 barrels per
> day. So the difference between the first slide and the second slide is
> about 9000 barrels per day. The third slide is when the Q-4000 was
> being brought on line but before it reached full production, so it was
> at about 7000 barrels. So to my eye, anyway, I think I am seeing a
> much skinnier plume and a lot more of the cap exposed. The last 7000
> barrels, in particular, seemed to have made a noticeable difference.

>

> Bill and I decided that we should task BP to give us videos of the
> plume before and after the Q-4000 was brought on line. Anything
> special I should ask for from the videos in this request? Close ups?
Further away?

> I want to make sure I get you what you want.

>

> Marcia

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| |
| James J. Riley, PACCAR Professor of Engineering |
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Department of Mechanical Engineering	Phone: (206) 543-5347
Box 352600	FAX: (206) 685-8047
University of Washington	email:
Seattle, WA 98195	rileyj@u.washington.edu
website: <http://faculty.washington.edu/rileyj/>	
