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UNITED STATES DISTRICT COURT  
EASTERN DISTRICT OF LOUISIANA

IN RE: OIL SPILL BY THE  
OIL RIG *DEEPWATER HORIZON*  
IN THE GULF OF MEXICO ON  
APRIL 20, 2010

THIS DOCUMENT RELATES TO:  
#10-4536

UNITED STATES OF AMERICA

v.

BP EXPLORATION &  
PRODUCTION INC.,  
ANADARKO EXPLORATION &  
PRODUCTION LP, ANADARKO  
PETROLEUM CORPORATION,  
MOEX OFFSHORE 2007 LLC,  
TRITON ASSET LEASING GMBH,  
TRANSOCEAN HOLDINGS LLC,  
TRANSOCEAN OFFSHORE  
DEEPWATER DRILLING INC.,  
TRANSOCEAN DEEPWATER INC.,  
AND QBE UNDERWRITING LTD.,  
LLOYD'S SYNDICATE 1036

\*\*\*\*\*

Civil Action No. 10-MD-2179

Section J

New Orleans, Louisiana

January 20, 2015

\*

DAY 1, AFTERNOON SESSION  
TRANSCRIPT OF TRIAL PROCEEDINGS  
HEARD BEFORE THE HONORABLE CARL J. BARBIER  
UNITED STATES DISTRICT JUDGE

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8 Proceedings recorded by mechanical stenography using  
9 computer-aided transcription software.

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1                                   **AFTERNOON SESSION**  
2                                   **(January 20, 2015)**

3                                   \* \* \* \* \*

4                                   (OPEN COURT)

5  
6                                   **THE COURT:** All right. Please be seated, everyone.

7                                   Okay. The government can call its next witness.

8                                   **MS. FIDLER:** Good afternoon, Your Honor. I'm  
9 Danielle Fidler on behalf of the United States. I'll be doing  
10 the direct examination of Diane Austin.

11                                   **THE COURT:** Okay.

12                                   **MS. FIDLER:** The United States calls Dr. Diane  
13 Austin.

14                                   **MS. KARIS:** Your Honor, Hariklia Karis for BP. There  
15 is a *Daubert* motion that we have filed with respect to  
16 Dr. Austin's testimony.

17                                   (WHEREUPON, **DR. DIANE AUSTIN**, having been duly sworn,  
18 testified as follows:)

19                                   **THE DEPUTY CLERK:** Please state your full name and  
20 correct spelling for the record.

21                                   **THE WITNESS:** My name is Dr. Diane Austin, D-I-A-N-E,  
22 A-U-S-T-I-N.

23                                   **THE COURT:** All right. Yes, there is a *Daubert*  
24 motion, as I think there is with every expert somehow in this  
25 case.

## DR. DIANE AUSTIN - DIRECT

01:20 1 I have read the expert report of Dr. Austin and  
01:20 2 I've read the briefing on the *Daubert* motion. I'm going to  
01:20 3 overrule BP's *Daubert* motion. I think this witness is clearly  
01:20 4 qualified, by reason of education, experience, and so forth, to  
01:20 5 express the opinions that she renders in her report. And I  
01:20 6 also think that she appears to use a reliable methodology.

01:20 7 BP can certainly cross-examine her on the points  
01:20 8 raised in their motion.

01:20 9 **MS. KARIS:** Thank you, Your Honor. I do have one  
01:20 10 additional question. At her deposition, Dr. Austin withdrew  
01:21 11 her opinion with respect to seafood safety and ongoing  
01:21 12 concerns.

01:21 13 Specifically at page 138 -- I'm sorry, lines 4  
01:21 14 to 10. When asked the question:

01:21 15 "QUESTION: So do you intend to offer to this Court  
01:21 16 an opinion about concerns related to seafood safety" --

01:21 17 **THE COURT:** All right. Ms. Karis, we can short  
01:21 18 circuit this. If she's asked that question and she goes there,  
01:21 19 you can raise that objection. We'll deal with it. Okay?

01:21 20 **MS. KARIS:** Thank you, Your Honor.

01:21 21 **THE COURT:** All right. Sure. Go ahead. Go ahead.  
01:21 22 Yeah.

**DIRECT EXAMINATION**

01:21 24 **BY MS. FIDLER:**

01:21 25 **Q.** You've been retain -- Dr. Austin, you've been retained on

## DR. DIANE AUSTIN - DIRECT

01:21 1 behalf of the United States to serve as an expert witness in  
01:21 2 this case; correct?

01:21 3 A. Correct.

01:21 4 Q. And what were the tasks you were retained to perform?

01:21 5 A. I was asked to evaluate the sociocultural effects of the  
01:21 6 *Deepwater Horizon* disaster on Gulf Coast communities.

01:21 7 Q. Were you asked to perform any other tasks?

01:21 8 A. Yes. I was also asked to review and respond to several  
01:22 9 reports by BP's experts.

01:22 10 Q. Dr. Austin, have you prepared a slide summarizing your  
01:22 11 education and expertise in this case?

01:22 12 A. Yes, I have.

01:22 13 MS. FIDLER: Mr. Jackson, please call D-33300.

01:22 14 BY MS. FIDLER:

01:22 15 Q. Is this that slide?

01:22 16 A. Yes, it is.

01:22 17 Q. Please describe your educational background for the Court.

01:22 18 A. I have a Bachelor of Science in environmental science and  
01:22 19 biology from Texas Christian University, a Master's in  
01:22 20 environmental engineering from the California Institute of  
01:22 21 Technology, and a Ph.D. in natural resources and environment  
01:22 22 from the University of Michigan. That is an interdisciplinary  
01:22 23 Ph.D. that incorporates sociocultural anthropology,  
01:22 24 environmental policy, environmental psychology, and  
01:22 25 environmental sociology.



## DR. DIANE AUSTIN - DIRECT

01:22 1 Q. What do you consider to be your area of expertise as it  
01:22 2 relates to the work you performed in this case?

01:22 3 A. I'm an applied anthropologist, and I specialize in the  
01:22 4 study of the sociocultural effects of environmental change.

01:22 5 Q. Turning to your professional experience, where are you  
01:23 6 currently employed, Dr. Austin?

01:23 7 A. I'm the director of the School of Anthropology at the  
01:23 8 University of Arizona.

01:23 9 Q. And how long have you been there?

01:23 10 A. I've been at the University of Arizona for 20 years.

01:23 11 Q. What subjects do you teach?

01:23 12 A. I teach applied anthropology. I teach research methods,  
01:23 13 data management and analysis. Both cover both qualitative and  
01:23 14 quantitative research, and I teach both undergraduate and  
01:23 15 graduate students.

01:23 16 Q. Do you do work for anyone else related to your expertise  
01:23 17 in this case?

01:23 18 A. Yes. I have been the principal investigator or  
01:23 19 co-investigator for more than 12 multiyear, multidisciplinary  
01:23 20 studies for both the public and the private sector.

01:23 21 Q. Any sectors in particular -- I mean, any public entities  
01:23 22 in particular?

01:23 23 A. Including the Minerals Management Service, which is now  
01:23 24 the Bureau of Ocean Energy Management.

01:23 25 Q. Do you have peer-reviewed publications relating to your

## DR. DIANE AUSTIN - DIRECT

01:23 1 work in your areas of expertise?

01:23 2 A. Yes, I do. I have over 50 peer-reviewed publications,  
01:23 3 including articles and research reports.

01:24 4 Q. Dr. Austin, have you received any awards in your 20-year  
01:24 5 career in the field of applied anthropology?

01:24 6 A. Yes. I was designated the 2008 University of Arizona  
01:24 7 Distinguished Outreach Professor for my work in public policy  
01:24 8 and community-relevant work.

01:24 9 In terms of my research, one of the studies that we  
01:24 10 did for the MMS was awarded a Department of Interior award for  
01:24 11 its contributions to the mission of that agency.

01:24 12 Q. Does your work with the University of Arizona and your  
01:24 13 contract work for other public and private entities relate to  
01:24 14 your work in this case?

01:24 15 A. Yes, it does.

01:24 16 Q. How so?

01:24 17 A. In particular, I have worked for 18 years studying the  
01:24 18 effects of the offshore oil and gas industry in the Gulf of  
01:24 19 Mexico and the relevant sectors related to that industry.

01:24 20 MS. FIDLER: Thank you. You can take down that  
01:24 21 slide.

01:24 22 BY MS. FIDLER:

01:24 23 Q. Dr. Austin, what is applied anthropology?

01:24 24 A. Well, first, the anthropology is the scientific study of  
01:25 25 humans and human societies, both past and present. Applied

## DR. DIANE AUSTIN - DIRECT

01:25 1 anthropology is the practical application of the theories,  
01:25 2 methods, and perspectives of anthropology to both every day and  
01:25 3 novel problems.

01:25 4 Q. What are the research approaches used by applied  
01:25 5 anthropologists?

01:25 6 A. Applied anthropologists use whatever research approaches  
01:25 7 are necessary to address the problem at hand. We work as part  
01:25 8 of interdisciplinary teams. One of the research approaches  
01:25 9 that we use commonly is ethnography.

01:25 10 Q. And, Dr. Austin, have you prepared a slide to assist you  
01:25 11 in describing ethnography?

01:25 12 A. Yes, I have.

01:25 13 MS. FIDLER: Mr. Jackson, please call D-33301.

01:25 14 BY MS. FIDLER:

01:25 15 Q. Dr. Austin, what is ethnography?

01:25 16 A. Well, ethnography is a scientific research approach that  
01:25 17 embeds researchers in the communities under study so that they  
01:25 18 might see, hear, experience, and talk to people about the  
01:25 19 phenomenon that they are experiencing.

01:25 20 Q. And does ethnography have standard methods?

01:25 21 A. Yes, it does. Several of those include observations, such  
01:25 22 as attending meetings, observing and recording what is going  
01:26 23 on; participant observation, in which the -- case the  
01:26 24 researcher is actually participating in activities such as  
01:26 25 festivals; as well as semistructured interviews, which is --

## DR. DIANE AUSTIN - DIRECT

01:26 1 which are interviews that are guided by a general topic and --  
01:26 2 but are open-ended to allow the interviewee to educate the  
01:26 3 interviewer.

01:26 4 Q. How is -- how is ethnography used?

01:26 5 A. Well, ethnography is used to identify patterns. It's used  
01:26 6 to describe social relationships and networks, and it is used  
01:26 7 to reveal understandings and the meanings that people give to  
01:26 8 the places and events in their lives.

01:26 9 Q. And I can see the court reporter typing furiously, so if  
01:26 10 we can both slow down a little bit, I think that might be  
01:26 11 helpful.

01:26 12 What is the goal of ethnographic research?

01:26 13 A. Well, fundamentally, the purpose is to place the  
01:26 14 phenomenon under study in its -- in the historical, economic,  
01:26 15 social, and political context.

01:27 16 Q. Is ethnography used in the private sector?

01:27 17 A. Yes, it is.

01:27 18 Q. Could you provide a couple of examples?

01:27 19 A. Certainly. Corporations hire ethnographers to embed them  
01:27 20 in -- with their workers to understand workflow, to understand  
01:27 21 safety practices if they're trying to address problems in their  
01:27 22 workforce.

01:27 23 Corporations also hire ethnographers to -- for market  
01:27 24 research or product development. For instance, the development  
01:27 25 of smartphones. Anthropologists and ethnographers contributed

## DR. DIANE AUSTIN - DIRECT

01:27 1 to that by working alongside people to understand how they  
01:27 2 process knowledge and information and retrieve information.

01:27 3 Q. And can you -- is ethnographic research also used in the  
01:27 4 public sector?

01:27 5 A. Certainly. It's used to help guide decision making and  
01:27 6 public policy making. So, for instance, the National  
01:27 7 Environmental Policy Act requires environmental impact  
01:27 8 statements, which also include social impact assessments.  
01:28 9 Anthropologists are frequently hired to conduct those. As  
01:28 10 well, anthropologists work to help evaluate and develop public  
01:28 11 programs, such as health programs or food security programs,  
01:28 12 for example.

01:28 13 Q. Dr. Austin, you also stated that you have a specialization  
01:28 14 in the sociocultural effects of environmental change?

01:28 15 A. That is correct.

01:28 16 Q. What do you mean by that?

01:28 17 A. Well, essentially, when environments change, people's  
01:28 18 reactions to those environments change. And the purpose of  
01:28 19 studying the sociocultural effects is to understand, both at  
01:28 20 the individual and societal community level, how people change  
01:28 21 their behaviors and their beliefs in reaction to those changes.

01:28 22 Q. Dr. Austin, you mentioned that you've worked on several  
01:28 23 research projects for the Bureau of Ocean Energy Management, or  
01:28 24 BOEM. Have you prepared a slide summarizing this work?

01:28 25 A. Yes, I have.

## DR. DIANE AUSTIN - DIRECT

01:28 1 MS. FIDLER: Please call D-33302.

01:28 2 BY MS. FIDLER:

01:28 3 Q. Could you please describe the work that you have done for  
01:29 4 BOEM that relates to the work you've done in this case?

01:29 5 A. Certainly. The slide shows the covers of five of the  
01:29 6 reports that we've produced for BOEM.

01:29 7 I began working in 1997 as part of a team --  
01:29 8 interdisciplinary team working on a historical baseline of  
01:29 9 socioeconomic impacts of the offshore oil and gas industry in  
01:29 10 the Gulf of Mexico. From that, I became involved in what we  
01:29 11 term the "family study," whose goal was to understand the  
01:29 12 effects of working offshore on individuals, their households,  
01:29 13 and their communities.

01:29 14 We then developed a study of the history and  
01:29 15 evolution of the offshore oil and gas industry to document the  
01:29 16 cumulative effects. We have led a study on the fabrication of  
01:29 17 the shipbuilding industry because it has such a large physical  
01:29 18 footprint in a region. And so we looked to study the effects  
01:29 19 of that industry.

01:30 20 We were -- or are actually still in the process of  
01:30 21 doing a study of the history of the deepwater era, which began  
01:30 22 in the 1970s, to document the movement of the offshore oil and  
01:30 23 gas industry into waters greater than 1,000 feet.

01:30 24 We have begun a study of ethnic groups and enclaves  
01:30 25 and the ways that they are affected by the oil and gas

## DR. DIANE AUSTIN - DIRECT

01:30 1 industry, the offshore industry in particular, when the  
01:30 2 *Deepwater Horizon* rig exploded in the Gulf. At that point, we  
01:30 3 turned our attention and have -- or continue to study  
01:30 4 specifically the social effects of that disaster on Gulf Coast  
01:30 5 communities.

01:30 6 Q. Were the reports you issued for BOEM peer-reviewed?

01:30 7 A. Yes. The agency, as part of contracts, requires that we  
01:30 8 submit a draft report. They put it through their review  
01:30 9 process and send us comments, and we are required to respond to  
01:30 10 those comments when we submit the final reports.

01:30 11 Q. What kinds of research approaches did you use for these  
01:30 12 studies?

01:30 13 A. On several of those studies, we were, as I mentioned, part  
01:31 14 of interdisciplinary teams. Our role in all of these studies  
01:31 15 included conducting ethnography or ethnographic research.

01:31 16 Q. Did any of these studies involve the analysis of  
01:31 17 sociocultural effects of environmental change?

01:31 18 A. Yes. Several of them did.

01:31 19 MS. FIDLER: Please call TREN-13112.

01:31 20 BY MS. FIDLER:

01:31 21 Q. It's a little blurry; but, Dr. Austin, do you recognize  
01:31 22 this document?

01:31 23 A. Yes, I do. This is my expert report submitted for this  
01:31 24 trial.

01:31 25 Q. And does TREN-13112 contain a copy of your curriculum

## DR. DIANE AUSTIN - DIRECT

01:31 1 vitae?

01:31 2 A. Yes, it does.

01:31 3 Q. And does that curriculum vitae accurately summarize your  
01:31 4 qualifications as they relate to this case?

01:31 5 A. Yes, it does.

01:31 6 MS. FIDLER: Please call TREX-13113.

01:31 7 BY MS. FIDLER:

01:31 8 Q. Dr. Austin, do you recognize this document?

01:31 9 A. Yes. This is the rebuttal report that I prepared to BP's  
01:31 10 expert.

01:31 11 Q. Do these documents accurately state your opinions and the  
01:32 12 bases therefor that you are offering to the Court in this  
01:32 13 matter?

01:32 14 A. Yes, they do.

01:32 15 MS. FIDLER: Your Honor, at this time I tender  
01:32 16 Dr. Diane Austin as an expert in applied anthropology with a  
01:32 17 specialization in sociocultural effects of environmental  
01:32 18 change.

01:32 19 THE COURT: All right. Ms. Karis, other than your  
01:32 20 *Daubert* motion, do you have any questions for the witness on  
01:32 21 qualifications?

01:32 22 MS. KARIS: I don't, Your Honor.

01:32 23 THE COURT: Okay. Thank you.

01:32 24 Go ahead, ma'am.

25



## DR. DIANE AUSTIN - DIRECT

01:32 1 **BY MS. FIDLER:**

01:32 2 **Q.** Dr. Austin, do you adopt TREN-13112 and 13113 as your  
01:32 3 testimony today?

01:32 4 **A.** Yes, I do.

01:32 5 **MS. FIDLER:** I also move Dr. Austin's expert reports,  
01:32 6 TREN-13112 and TREN-13113, into evidence.

01:32 7 **THE COURT:** Okay. I think we'll do those all as we  
01:32 8 did last time. We'll do them tomorrow morning or whenever you  
01:32 9 all . . .

01:32 10 **MS. FIDLER:** Thank you, Judge.

01:32 11 **THE COURT:** Yeah, all the exhibits.

01:32 12 **MS. FIDLER:** Thank you, Your Honor.

01:32 13 **THE COURT:** Sure.

01:32 14 **BY MS. FIDLER:**

01:32 15 **Q.** Dr. Austin, how did you first become involved with  
01:32 16 studying the sociocultural effects of the *Deepwater Horizon*  
01:32 17 disaster?

01:32 18 **A.** Well, as I mentioned, our research team was conducting a  
01:33 19 study of the history of the deepwater era, and one of our  
01:33 20 researchers was working in one of the communities that was the  
01:33 21 hometown to one of the men who was killed on the rig. So he  
01:33 22 immediately contacted me, and we discussed how he would go  
01:33 23 about and our team would go about starting to document the  
01:33 24 effects of the disaster.

01:33 25 We then -- I personally went to the community, to the

## DR. DIANE AUSTIN - DIRECT

01:33 1 region, in May of 2010 and began working in developing a study  
01:33 2 design and putting together a research team to document the  
01:33 3 effects of this disaster.

01:33 4 Q. And what was your role in the research project for BOEM?

01:33 5 A. I was the principal investigator.

01:33 6 Q. What time period did that study cover?

01:33 7 A. This -- that study -- I was initially asked to design  
01:33 8 studies for short, medium, and long term. That's the  
01:33 9 short-term study that looked at the effects from April of 2010  
01:34 10 through March of 2012.

01:34 11 Q. How long were you in the Gulf, overall, during that time?

01:34 12 A. I cumulatively was in the Gulf for six months, between May  
01:34 13 of 2010 and January of 2012.

01:34 14 Q. When did you submit the first report for the BOEM study?

01:34 15 A. I submitted the draft report in 2013.

01:34 16 Q. Were you working for the Department of Justice at that  
01:34 17 time?

01:34 18 A. No.

01:34 19 MS. FIDLER: Please call TREN-11922.

01:34 20 BY MS. FIDLER:

01:34 21 Q. What is this document?

01:34 22 A. This is Volume 1 of the report that we submitted on the  
01:34 23 social effects of the *Deepwater Horizon* disaster on the  
01:34 24 Gulf Coast communities.

01:34 25 MS. FIDLER: Please call up TREN-11923.

## DR. DIANE AUSTIN - DIRECT

01:34 1 **BY MS. FIDLER:**

01:34 2 **Q.** And what is this document?

01:34 3 **A.** This is Volume 2 of that same study.

01:34 4 **Q.** I'll refer to these two volumes cumulatively as the  
01:34 5 "social effects study."

01:34 6 Does the work you did on the social effects study  
01:35 7 relate to the opinions you are offering in this case?

01:35 8 **A.** Yes, it does.

01:35 9 **Q.** And how so?

01:35 10 **A.** Because we were studying the social effects of this  
01:35 11 disaster, the -- part of what I was asked to address were the  
01:35 12 sociocultural effects, and so the work that I did here relates  
01:35 13 to that.

01:35 14 **MS. FIDLER:** Please take that down.

01:35 15 **BY MS. FIDLER:**

01:35 16 **Q.** Did you rely on any other bases of information in forming  
01:35 17 your opinions?

01:35 18 **A.** Yes, I did. I relied on the 18 years that I've spent  
01:35 19 studying this region and several of the major economic sectors  
01:35 20 in the region, as well as the six months that I spent  
01:35 21 personally in the region during the disaster.

01:35 22 **Q.** As part of your 18 years of research work for BOEM, have  
01:35 23 you studied the demographics of the Gulf region?

01:35 24 **A.** Yes, I have.

01:35 25 **Q.** Did you rely on that demographic information in forming

## DR. DIANE AUSTIN - DIRECT

01:35 1 your opinions in this case?

01:35 2 A. Yes. In order to design the social effects study, I took  
01:35 3 into account the knowledge and understanding that I have of the  
01:36 4 demographics in order to identify where we would conduct the  
01:36 5 research.

01:36 6 Q. Dr. Austin, what is your opinion regarding the  
01:36 7 sociocultural effects of the *Deepwater Horizon* disaster?

01:36 8 A. The *Deepwater Horizon* disaster caused serious and  
01:36 9 widespread sociocultural harm to the coastal communities of the  
01:36 10 Gulf of Mexico, U.S. -- the Gulf of Mexico region, from  
01:36 11 Louisiana through Alabama.

01:36 12 Q. Have you prepared a slide providing an overview of your  
01:36 13 key opinions in this case?

01:36 14 A. Yes, I have.

01:36 15 MS. FIDLER: Please call D-33303.

01:36 16 BY MS. FIDLER:

01:36 17 Q. What are your key opinions?

01:36 18 A. Well, as I mentioned, that the disaster caused serious and  
01:36 19 widespread sociocultural harm. Number one, it disrupted  
01:36 20 livelihoods and patterns of daily living. It exacerbated  
01:36 21 social and economic inequality. It challenged individual and  
01:36 22 collective identity, fostered conflict and divisiveness, and  
01:36 23 disempowered local governments and NGOs.

01:37 24 In addition, BP's criticisms trivialized the harm to  
01:37 25 the Gulf Coast communities.

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01:37 1 Q. We will talk more about your opinions shortly; but before  
01:37 2 we do, I would like to discuss the methodology underlying the  
01:37 3 research upon which you base your opinions.

01:37 4 What was the question you were tasked with answering  
01:37 5 for the social effects study for BOEM?

01:37 6 A. For BOEM we were asked to describe and document the social  
01:37 7 effects of the *Deepwater Horizon* disaster in the U.S. Gulf of  
01:37 8 Mexico.

01:37 9 Q. And can you explain more specifically what kinds of  
01:37 10 effects you were investigating?

01:37 11 A. Certainly. We were looking at homes and businesses and  
01:37 12 communities. We were trying to understand changes or effects  
01:37 13 on the patterns of daily living on social networks and  
01:37 14 relationships on livelihoods and livelihood strategies.

01:37 15 Q. Is this a common kind of question for applied  
01:37 16 anthropologists?

01:37 17 A. Yes.

01:37 18 Q. What research approach was used in the social effects  
01:37 19 study?

01:37 20 A. We used ethnographic research, which is a qualitative  
01:37 21 research approach.

01:38 22 Q. And have you prepared a series of slides to assist you in  
01:38 23 further explaining the methodology underlying your opinion?

01:38 24 A. Yes, I have.

01:38 25 MS. FIDLER: Please call D-33304.

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01:38 1 BY MS. FIDLER:

01:38 2 Q. Why did you decide to use the ethnographic approach?

01:38 3 A. One way of thinking about research is that we start on the  
01:38 4 left when we know very little about a phenomenon and move  
01:38 5 toward the right. So, for instance, we begin by exploring,  
01:38 6 describing, explaining, and then predicting outcomes.

01:38 7 And qualitative research is used, as you can see by  
01:38 8 the slide on the left side, when we know very little about a  
01:38 9 phenomenon, and we begin by exploring and describing what is  
10 going on.

01:38 11 Quantitative research is used when we know more about  
01:38 12 a phenomenon and we're trying to describe or -- especially to  
01:38 13 measure the degree of effect. So, for instance, it would  
01:38 14 involve hypothesis testing.

01:39 15 In this case the *Deepwater Horizon* disaster was  
01:39 16 unprecedented, the size of the disaster, the depth at which the  
01:39 17 oil was coming into Gulf. And so very little was known at that  
01:39 18 point in time. And we identified qualitative research and  
01:39 19 specifically ethnography because of its strength and  
01:39 20 reliability as a research approach.

01:39 21 Q. Why did you not use quantitative research for this study?

01:39 22 A. Well, there are various forms of quantitative research.  
01:39 23 There's economic, demographic, large scale surveys. But,  
01:39 24 again, at the time that this study began, there was not enough  
01:39 25 information, and the information was not going to become

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01:39 1 available for some time. And so, again -- and it wasn't even  
01:39 2 enough information upon which to base the design of, say, a  
01:39 3 large quantitative survey at that point.

01:39 4 **MS. FIDLER:** Let's go to the next slide. It's called  
01:39 5 D-33305.

01:39 6 **BY MS. FIDLER:**

01:39 7 **Q.** Where did you conduct your research?

01:39 8 **A.** This is a map from our study report.

01:39 9 **THE WITNESS:** And, first, Your Honor, I apologize.  
01:40 10 There's a typo that was in the report. Bayou La Batre is in  
01:40 11 Alabama, not in Louisiana.

01:40 12 These are the five study regions that we  
01:40 13 identified.

01:40 14 And the purpose of doing so was to -- we --  
01:40 15 rather than spread our research team very thinly across the  
01:40 16 region, we used the case study approach, which concentrates  
01:40 17 researchers in areas so that they can investigate more deeply  
01:40 18 the phenomenon under study and particularly the interactions  
01:40 19 among those phenomenon -- or among the various sectors.

01:40 20 So we started from Bayou La Batre, Alabama. If  
01:40 21 we start from east to west, it included East Biloxi,  
01:40 22 Mississippi; central Plaquemines Parish, Louisiana; Larose,  
01:40 23 Louisiana; and Dulac, Louisiana.

01:40 24 **BY MS. FIDLER:**

01:40 25 **Q.** Why were these communities in particular chosen?

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01:40 1 A. When we -- in the study design, we identified what we  
01:40 2 expected to be key factors and variables that needed to be  
01:40 3 considered. And so among those were the economies, the  
01:41 4 livelihoods in the regions, the ethnicity of the region.

01:41 5 And so we -- for instance, if we -- this is detailed  
01:41 6 at great length in our social effects study report, and also I  
01:41 7 have details in my expert reports.

01:41 8 But to give two examples, so central Plaquemines  
01:41 9 Parish, for example, has offshore -- people who work offshore.  
01:41 10 They have a lot of commercial fishing. They have recreation,  
01:41 11 particularly in the charter boat industry.

01:41 12 And the people who live there, you have large numbers  
01:41 13 of Croatians, African Americans, and Southeast Asians.

01:41 14 If we compare that to Dulac, Louisiana, where we have  
01:41 15 also a lot of commercial fishing, we also have offshore service  
01:41 16 companies. We have fabrication yards. And the people who live  
01:41 17 there are largely Cajun and Native American.

01:41 18 Q. Did you only speak with people in the case study  
01:41 19 communities in doing your -- in doing the research for the  
01:42 20 social effects study?

01:42 21 A. No. The -- the approach that we took by focusing on case  
01:42 22 studies was to use that as a focal point -- point and then to  
01:42 23 spread into surrounding communities, into urban areas, and to  
01:42 24 seats of government that have responsibility for those  
01:42 25 communities. And that allows us to further -- better



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01:42 1 understand what is happening.

01:42 2 **MS. FIDLER:** Let's go to the next slide. Please call  
01:42 3 D-33306.

01:42 4 **BY MS. FIDLER:**

01:42 5 **Q.** What sources of data did you rely on for the social  
01:42 6 effects study?

01:42 7 **A.** Well, this was an ethnographic study, so we conducted  
01:42 8 interviews. And we did two types of interviews. Drop-in  
01:42 9 interviews are interviews that are fairly short, and we use  
01:42 10 them so we can spread across large areas in these regions, and  
01:42 11 often are repeated interviews where we go in to try and get at  
01:42 12 that moment what is happening in a business, in an office, or  
01:42 13 for an agency.

01:42 14 So, for example -- and those interviews give you a  
01:43 15 picture of what's happening at that point in time. They give  
01:43 16 information about, say, the business that we're talking to, but  
01:43 17 also the community more broadly.

01:43 18 So, for example, we interviewed florists and kept  
01:43 19 track of what was happening for the florists; and they would  
01:43 20 tell us what was happening in their business, but they would  
01:43 21 also tell us things such as the fact that at times of economic  
01:43 22 distress, they were not receiving any orders for floral  
01:43 23 blankets for funerals, which is a very common practice in these  
01:43 24 communities. And they would report that, in fact, the only  
01:43 25 orders they were receiving were Internet orders coming from

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01:43 1 relatives from out of town. So it helps us track, again, what  
01:43 2 is happening in the community.

01:43 3 We also used extended interviews, which are longer  
01:43 4 interviews with people, aimed both at people, say, for  
01:43 5 instance, in these economic sectors; so we talked to fishermen.  
01:43 6 But we also conducted interviews with people who work with  
01:44 7 large numbers of people in these sectors. So the people who  
01:44 8 provide loans to fishermen, for example, we would also talk to.

01:44 9 We attended lots -- hundreds of public and private  
01:44 10 meetings and events.

01:44 11 We also tracked news reports, the information sheets  
01:44 12 that were put out during this period, industry publications,  
01:44 13 court filings, and other documents.

01:44 14 Q. And who did you decide to talk with?

01:44 15 A. We used that approach for sampling, which is called  
01:44 16 "purpose of sampling." And the idea is that you understand --  
01:44 17 from the beginning you have a strategy to go about how to  
01:44 18 determine who to talk to.

01:44 19 We began with a matrix, which is a common way to  
01:44 20 start a community study. And that is, based on our knowledge  
01:44 21 of this region, we developed a series of categories of economic  
01:44 22 sectors, but also organizations, churches, banks, the kinds of  
01:44 23 entities that are important at the community level.

01:44 24 And from that, we then -- that gave us an idea of  
01:45 25 where to begin so that we would spread our interviews across

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01:45 1 the community.

01:45 2 Then another important strategy, of course, is to  
01:45 3 interview knowledgeable people, people who know about their  
01:45 4 communities, who know about what is happening in them.

01:45 5 Q. Did the researchers know the participants they  
01:45 6 interviewed?

01:45 7 A. I've worked in this region for 18 years, so I know a lot  
01:45 8 of people. Some of those people we contacted as to get started  
01:45 9 with the -- the study. We informed them the study was going  
01:45 10 on. In some cases we actually interviewed them; in other cases  
01:45 11 they referred us to other people. So we knew some of them. We  
01:45 12 certainly did not know the majority of the people we talked to.

01:45 13 Q. Has BP challenged your methodology?

01:45 14 A. Yes.

01:45 15 Q. What are some of the challenges they've made?

01:45 16 A. Well, most of them revolve around the question of whether  
01:45 17 this is a biased form of research or data collection, whether  
01:45 18 you can collect unbiased data using this approach.

01:46 19 MS. FIDLER: Please call D-33307.

01:46 20 BY MS. FIDLER:

01:46 21 Q. What steps, if any, did you take to protect against  
01:46 22 potential bias in the study?

01:46 23 A. Well, first of all, as in any research, you begin with a  
01:46 24 well-qualified team. We had 19 researchers working on this  
01:46 25 study, all of whom had either worked with us or had done

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01:46 1 ethnographic research before. I've already discussed the  
01:46 2 purpose of sampling that we use.

01:46 3 We also use an approach, which is very common in  
01:46 4 science, called "triangulation." And the idea is that you come  
01:46 5 at a question from multiple directions. So in this case, we  
01:46 6 triangulated across the researchers. We had multiple  
01:46 7 researchers working across the case study locations and also  
01:46 8 across the methods which I've just described.

01:46 9 And, fundamentally, we were seeking out opposing  
01:46 10 viewpoints to identify and describe all the effects, the  
01:46 11 positive and the negative. Again, the purpose of the study was  
01:46 12 to identify the range of effects.

01:47 13 Q. Dr. Austin, you just said that one of the points of  
01:47 14 triangulation was across the methods. Did you mean to say  
01:47 15 "methods" in terms of the --

01:47 16 A. I'm sorry. The slide says "data sources." Certainly, the  
01:47 17 methods lead to the sources of data, that is correct.

01:47 18 Q. What do you mean by the last bullet on the slide?

01:47 19 A. And we then -- in terms of processing and analyzing the  
01:47 20 data, we developed new standardized protocols that are common  
01:47 21 in qualitative research.

01:47 22 Q. How did the combination of these measures protect against  
01:47 23 bias?

01:47 24 A. Well, essentially what they allowed us to do was to ensure  
01:47 25 that the results or findings from any one interview or any one

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01:47 1 observation would not bias the findings of the entire study.

01:47 2 It's important to remember that in qualitative  
01:47 3 research, we're not trying to average across the responses. So  
01:47 4 what we're trying to do is to identify patterns in the  
01:48 5 research. And what happens, if we find a finding that does not  
01:48 6 fit the pattern, we have the opportunity to either go back to  
01:48 7 that individual and understand, realize maybe we've missed an  
01:48 8 entire area or find out that we misunderstood or to take the  
01:48 9 information that was shared in that interview and take it to  
01:48 10 others and try to further understand what was going on.

01:48 11 **MS. FIDLER:** You can take down that slide. Thank  
01:48 12 you.

01:48 13 **BY MS. FIDLER:**

01:48 14 **Q.** How many interviews were conducted in all?

01:48 15 **A.** We conducted interviews with over 1,300 individuals. A  
01:48 16 number of those interviews were -- a number of those  
01:48 17 individuals were interviewed more than once.

01:48 18 **Q.** Were those the only people the team spoke with?

01:48 19 **A.** No. We give unique identifiers to individuals with whom  
01:48 20 we've had an extended interaction. However, as I mentioned, we  
01:48 21 use participant observation, so we're attending festivals,  
01:48 22 we're talking to lots of people that are attending meetings;  
01:49 23 and all of those individuals do not get an identification  
01:49 24 number.

01:49 25 **Q.** Do you have a rough estimate of how many people your team

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01:49 1 spoke with?

01:49 2 A. I would argue that certainly we talked to at least as many  
01:49 3 people that did not get identification numbers as we did, so  
01:49 4 probably over 2,000.

01:49 5 Q. How did you decide when to cut off further research in a  
01:49 6 particular subject area?

01:49 7 A. Well, again, it's important to remember the purpose of  
01:49 8 this kind of research is to identify the range of effects. And  
01:49 9 so once we are hearing the same information over and over again  
01:49 10 from people in a particular community or people in a particular  
01:49 11 sector, we would stop and move on to another sector or another  
01:49 12 topic.

01:49 13 Q. For the question that you were looking at in the social  
01:49 14 effects study, were the data you considered, including the over  
01:49 15 2,000 people you spoke with and the hundreds of meetings you  
01:49 16 attended, sufficient to reliably determine the range of  
01:49 17 effects?

01:49 18 A. In terms of an ethnographic research study, this was a  
01:49 19 large study, and any findings that we reported in our reports  
01:50 20 to BOEM are ones about which we have confidence that the  
01:50 21 findings are reliable.

01:50 22 Q. Is this information sufficient to be generalizable across  
01:50 23 the Gulf?

01:50 24 A. Yeah. The notion of generalizability in qualitative  
01:50 25 research is that findings from a situation or a location or --

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01:50 1 findings across situations or across locations or across time  
01:50 2 can be generalized to other locations and at other points in  
01:50 3 time where the conditions are the same.

01:50 4 Q. Was the social effects study reviewed and accepted by  
01:50 5 BOEM?

01:50 6 A. Yes, it was.

01:50 7 Q. Do you know whether they've used this study?

01:50 8 A. The findings from this study have been incorporated into  
01:50 9 the most recent EIS on the upcoming lease sale.

01:50 10 MS. FIDLER: Please call D-33303.

01:50 11 BY MS. FIDLER:

01:50 12 Q. Just coming back to your findings on the *Deepwater Horizon*  
01:50 13 disaster, I would like you to elaborate a little bit on your  
01:51 14 findings that the *Deepwater Horizon* disaster caused serious and  
01:51 15 widespread sociocultural harm.

01:51 16 Have you prepared a series of slides to help you  
01:51 17 describe your findings?

01:51 18 A. Yes, I have.

01:51 19 MS. FIDLER: Please call D-33308.

01:51 20 BY MS. FIDLER:

01:51 21 Q. We've been calling this "the *Deepwater Horizon* disaster."  
01:51 22 Can you please explain what you mean by that term?

01:51 23 A. Certainly. From the perspective of understanding the  
01:51 24 sociocultural effects of this disaster, it was actually a  
01:51 25 series of events.

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01:51 1 It began with the blowout of the Macondo well and the  
01:51 2 search and rescue efforts, the -- the explosion that resulted  
01:51 3 in the death of 11 individuals and the injury of 17 more as  
01:51 4 well as the exposure to the trauma of the others on the rig and  
01:51 5 the rescue workers. That process occurred over several days.

01:51 6 Then the next series of events were -- as we've heard  
01:51 7 is a series of oil spills, the way they were experienced with  
01:51 8 oil continuing to come over 87 days.

01:52 9 There were then response efforts to clean up the oil.  
01:52 10 And those, too, had lasted over a period of time. One thing to  
01:52 11 remember is each of these series of events also continued to  
01:52 12 change over time. So what the response was, where it was  
01:52 13 directed changed.

01:52 14 Then we had the accident investigation, which was  
01:52 15 ongoing and spread across many people and involved a large  
01:52 16 number of people.

01:52 17 Then there was the moratorium and suspension of  
01:52 18 drilling and the changes to the permitting of drilling in the  
01:52 19 Gulf of Mexico. Again, those changed over time and led to  
01:52 20 effects.

01:52 21 And then, finally, the reparations, which included  
01:52 22 the claims, which included compensation funds, lawsuits, all of  
01:52 23 those evolved over time as well, changed over time, and had  
01:52 24 effects.

01:52 25 **MS. FIDLER:** And please call the next slide, D-33309.



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01:53 1 **BY MS. FIDLER:**

01:53 2 **Q.** And what is the importance of context for understanding  
01:53 3 the effects -- the sociocultural effects of the *Deepwater*  
01:53 4 *Horizon* spill?

01:53 5 **A.** Well, the -- in any study, understanding the -- context  
01:53 6 affects the way that any event is experienced and the way that  
01:53 7 it is either mediated or exacerbated. So I've put here several  
01:53 8 of the contextual elements that were particularly important  
01:53 9 here. One is that the region was just recovering both from the  
01:53 10 recession that began in late 2007, but also from the series of  
01:53 11 hurricanes, Katrina, Rita, Gustav and Ike, and which had both  
01:53 12 physical -- caused both physical destruction and -- I'm sorry,  
01:53 13 physical destruction and disruption of social relationships and  
01:53 14 networks.

01:53 15 The -- at this time when -- in April of 2010, there  
01:53 16 was an expectation in the region that that spring and summer  
01:54 17 was going -- 2010 was going to be a good year across a number  
01:54 18 of economic sectors. So, for instance, in tourism, the hotels  
01:54 19 had been rebuilt, people were expecting tourists to come back.  
01:54 20 In addition, the oil and gas industry was expecting --  
01:54 21 generally the industry slows down in the winter and moving into  
01:54 22 the spring and summer was expecting a busy year.

01:54 23 Another example of a contextual factor that's  
01:54 24 important to remember is that this region -- across the region  
01:54 25 suffers from very high levels of social and economic

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01:54 1 inequality.

01:54 2 MS. FIDLER: And please call the next slide, D-33310.

01:54 3 BY MS. FIDLER:

01:54 4 Q. What do you mean when discussing sociocultural harms from  
01:54 5 the disaster, starting with your first bullet?

01:54 6 A. Well, first, to give an example of how sociocultural  
01:54 7 harms, you know, develop and spread is obviously the deaths and  
01:54 8 injuries of the men on the rig had an immediate impact on their  
01:55 9 families and friends; but it's also important to remember that  
01:55 10 this is a region where the oil and gas industry is prevalent  
01:55 11 and important. And so there are many people who work offshore.

01:55 12 Working offshore is known to involve risks. Having  
01:55 13 this kind of disaster occur in that industry rippled throughout  
01:55 14 the industry to workers, to the spouses of people who work  
01:55 15 offshore, and the concerns were -- surfaced again of having  
01:55 16 family members and friends work offshore. Again, because it is  
01:55 17 so prevalent, this rippled throughout communities.

01:55 18 Q. And turning -- and what do you mean by your second bullet?

01:55 19 A. Well, there was -- the -- and this disaster caused  
01:55 20 widespread disruption across all of the economic sectors that  
01:55 21 we studied and including their commodity chains. And it's  
01:55 22 important to remember that it affected successful business  
01:55 23 owners as well as struggling deckhands when these industries  
01:55 24 were affected. And so the -- having that disruption occur, it  
01:56 25 disrupts the lives of people. So I'll give a few examples.

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01:56 1 So, for instance, in this region, people's work and  
01:56 2 their recreation, which also occurs in -- many people are tied  
01:56 3 to the Gulf, help structure people's daily lives. And when  
01:56 4 that's disrupted, it has a -- it disrupts those lives.

01:56 5 Work and recreation also are important for the social  
01:56 6 relationships that people have, as well as -- and another  
01:56 7 example is in this region is -- is very accustomed to both  
01:56 8 seasonal and cyclical fluctuations. People recognize that, and  
01:56 9 their major industries do fluctuate and have developed  
01:56 10 livelihood strategies to move from one sector to another or to  
01:56 11 work across those sectors.

01:56 12 So, for instance, people who work offshore oftentimes  
01:57 13 also fish. Grocery stores that provide food to commercial  
01:57 14 fishing vessels also provide to the offshore oil and gas  
01:57 15 industry, the OSVs or the offshore service vessel. When all of  
01:57 16 these economic sectors went down at the same time, it had a  
01:57 17 huge effect because people were not able to use their typical  
01:57 18 livelihood strategies to respond.

01:57 19 Q. And what do you mean by "high levels of uncertainty"?

01:57 20 A. Well, high levels of uncertainty pervaded this disaster.  
01:57 21 First of all, the extent and duration of the disaster. At the  
01:57 22 time that the disaster began, the region -- we were just moving  
01:57 23 into hurricane season. And so throughout 2007 and even in  
01:57 24 2011 -- I'm sorry, throughout 2010 and even into 2011, there  
01:57 25 was the concern that a hurricane would come into the Gulf and

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01:58 1 further spread this oil.

01:58 2 So where the oil was going to end up and what was  
01:58 3 going to happen was really unknown at that time. There were  
01:58 4 concerns about exposure, exposure to the oil, exposure to the  
01:58 5 dispersants, exposure to seafood that had been affected by any  
01:58 6 of those -- of either the oil or the dispersants.

01:58 7 There was uncertainty related to livelihoods.  
01:58 8 Fishing areas were closed, the oil and gas drilling had  
01:58 9 stopped. People faced a very uncertain future about what was  
01:58 10 coming next. And then, finally, there was the fact that  
01:58 11 certainly -- uncertainty about who to trust, who to turn to,  
01:58 12 where to get information about what was happening.

01:58 13 Q. And please call D-3303 (verbatim) again.

01:58 14 Returning to your key findings, have you prepared a  
01:58 15 series of slides explaining each of these specific  
01:58 16 sociocultural harms that you've identified?

01:59 17 A. Yes, I have.

01:59 18 MS. FIDLER: And please call D-33311.

01:59 19 BY MS. FIDLER:

01:59 20 Q. Turning to your first finding, what do you mean when you  
01:59 21 say that the *Deepwater Horizon* disaster disrupted lives and  
01:59 22 livelihoods?

01:59 23 A. Well, as I mentioned, the disaster affected all of the  
01:59 24 economic sectors that we studied. And so I will provide  
01:59 25 some -- just some examples.

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01:59 1 So in fishing, there were fish closures and these  
01:59 2 closures, they were -- the areas were closed and then opened  
01:59 3 and then new areas were closed. And that itself created  
01:59 4 confusion and disruption in people's lives. For some of the  
01:59 5 fisheries, such as crabbers, if they had their crab pots out in  
01:59 6 one area and then that area was closed, they couldn't even get  
01:59 7 back in to retrieve their pots to move them to another area.

01:59 8 The fact that people -- the fishermen were being  
01:59 9 moved, it affected fishermen in areas that were not affected by  
01:59 10 the oil because as fishermen would move from the areas they  
01:59 11 normally fished into other areas, that created conflict in  
02:00 12 those areas.

02:00 13 And then across the Gulf, people rely on seafood  
02:00 14 for -- to supplement their diets. Many people fish or harvest  
02:00 15 food from the Gulf. And when this disaster affected their  
02:00 16 ability to acquire seafood, it affected also their ability to  
02:00 17 share that with their neighbors or to provide for their  
02:00 18 families.

02:00 19 Q. And turning to the -- your second set of examples  
02:00 20 regarding oil and gas, could you explain those?

02:00 21 A. Well, the drilling sector in the oil and gas industry is  
02:00 22 a -- one of the sectors that employs a lot of people and a lot  
02:00 23 of companies both in contract companies and service companies;  
02:00 24 so whether they're companies that provide transportation, such  
02:00 25 as the service -- offshore service vessels or helicopters or

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02:00 1 those that provide wireline services and other types of  
02:00 2 service.

02:00 3 So when that sector was affected and the drilling was  
02:01 4 halted, the companies that provide service to that sector faced  
02:01 5 decisions about what to do. Companies worked very hard not to  
02:01 6 lay off their workers. So in some cases, they relocated their  
02:01 7 entire offices to regions such as Pennsylvania where the oil --  
02:01 8 the shale gas was expanding, or sent workers to Brazil. And so  
02:01 9 those relocations, of course, disrupt people's lives.

02:01 10 In addition, I mentioned the -- the companies didn't  
02:01 11 lay off workers, but many workers' hours were reduced or the  
02:01 12 amount of work that a contract company had was reduced. And  
02:01 13 that affected -- that meant that people were home.

02:01 14 So, for instance, commercial oilfield divers work on  
02:01 15 an on-call basis, 24/7. They wait to be called out. When  
02:01 16 there's no work, they still hang around, waiting for the call.  
02:01 17 And in this case, they had no resources to go do anything else.  
02:01 18 So they're now home and their presence home in -- which was  
02:02 19 not -- they were not expecting and neither were the rest of  
02:02 20 their households expecting, affect their entire household under  
02:02 21 conditions that are often not positive because there's a lot of  
02:02 22 tension about whether they're going to go back to work.

02:02 23 Q. Turning to the tourism examples that you provided, could  
02:02 24 you explain those?

02:02 25 A. Certainly. Tourism was in a state of flux. The people in

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02:02 1 the tourist industry reported getting calls. There were  
02:02 2 questions again about where the oil was or where the oil might  
02:02 3 end up. And so as soon as there's information out that there's  
02:02 4 oil gushing into the Gulf, people start canceling their hotel  
02:02 5 rooms, they cancel their charter fishing trips. And so the  
02:02 6 businesses that operated in that industry were left to try to  
02:02 7 go from day to day, trying to figure out what to do. Many  
02:02 8 small businesses were simply forced to close because they  
02:02 9 didn't have the capital to withstand this.

02:03 10 The fabrication and shipbuilding is a unique industry  
02:03 11 in this region. It has largely evolved to respond and service  
02:03 12 the offshore oil and gas industry and also services commercial  
02:03 13 fishing. So, of course, when both of those industries are  
02:03 14 affected, fabrication and shipbuilding was affected.

02:03 15 There were contracts that were canceled, companies  
02:03 16 did not get contracts for new builds during this time of  
02:03 17 uncertainty. And, in particular, the small yards were often  
02:03 18 hardest hit, and these are yards that are very important in  
02:03 19 these communities. They hire local workers. Oftentimes, it's  
02:03 20 workers' first jobs. So when they have no work and they no  
02:03 21 longer employ people, it has an effect on those people's lives.

02:03 22 Q. And turning to your next subfinding, please call D-33312.

02:03 23 Overall, what do you mean by the disaster exacerbated  
02:04 24 economic and social inequality?

02:04 25 A. Well, I've mentioned that this is a region of high levels

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02:04 1 of social and -- of both economic and social inequality. So if  
02:04 2 we start with the response that the effect was unequal, people  
02:04 3 who had boats, especially people who had fast boats or larger  
02:04 4 boats, could enter those boats into the Vessels of Opportunity  
02:04 5 program and some of them made a lot of money. But there were  
02:04 6 also people who could not get their boats in or didn't have  
02:04 7 boats to begin with, or people who had boats that got into the  
02:04 8 program, they were not able to fish, but they did never get  
02:04 9 called out, so they made no money.

02:04 10 This beach cleanup in a similar way, there were  
02:04 11 contractors hired to help with the beach cleanup. And  
02:04 12 people -- if -- those folks who had connections into getting  
02:04 13 hired were the ones who were more likely to be hired.

02:04 14 Q. How did BP's reparation efforts exacerbate economic and  
02:05 15 social inequality?

02:05 16 A. Well, I will talk about two just as an example. The -- if  
02:05 17 we talk about the claims processes that were put in place, and  
02:05 18 as I described, changed over time, they were very confusing for  
02:05 19 people and they required documentation that not everybody had.  
02:05 20 In the initial phases of those claims processes, there was a  
02:05 21 lack of understanding of just how complex the livelihood  
02:05 22 strategies of people in this region are, and so for them to be  
02:05 23 able to document where they had losses.

02:05 24 So, again, those people who had access to the  
02:05 25 resources, those people who could get help filling out forms



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02:05 1 and understanding the process were better able to get help than  
02:05 2 those who were not.

02:05 3 In a similar way, BP provided tourism grants, which  
02:05 4 were provided through the states and were -- the aim was to  
02:05 5 help the industry, the tourist industry, get back on its feet  
02:06 6 to advertise that the oil was not everywhere in the Gulf.

02:06 7 Now, of course, for those communities where oil was  
02:06 8 still coming ashore, they were hit twice. They not only could  
02:06 9 not advertise that there was no oil there, but there started to  
02:06 10 become a perception that all the oil was gone. And, in fact,  
02:06 11 for those communities that were still not able to access their  
02:06 12 fisheries or their beaches, that wasn't the case.

02:06 13 Q. Based on your research, did everyone who qualified for  
02:06 14 compensation actually apply for it?

02:06 15 A. No. It was a complicated decision about whether to apply  
02:06 16 for compensation or not. As I mentioned, the processes were  
02:06 17 complicated and some people simply could not pull together the  
02:06 18 documentation.

02:06 19 It's also important to recognize that in this region,  
02:06 20 as I -- that if we -- to expand a little bit on my comment  
02:06 21 about everybody being affected from successful business owners  
02:06 22 to people who were less successful; and that is that especially  
02:06 23 the oil and gas and the commercial fishing industry, people are  
02:07 24 very proud of the work that they do and they're quite  
02:07 25 successful.

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02:07 1 So it's very difficult for somebody who -- and  
02:07 2 especially in an area where people are used to upturns and  
02:07 3 downturns and organize their businesses to respond to those to  
02:07 4 come forward and to seek assistance.

02:07 5 Q. Did you look at the potential benefits of the claims  
02:07 6 process?

02:07 7 A. Certainly.

02:07 8 Q. And did you find there were positive effects?

02:07 9 A. Yes, we did.

02:07 10 Q. Did you look at whether BP's tourism grants had positive  
02:07 11 effects?

02:07 12 A. Certainly.

02:07 13 Q. And what did you find?

02:07 14 A. And again found that for those communities that were able  
02:07 15 to access those resources to expand their festivals that, in  
02:07 16 fact, they had a positive effect.

02:07 17 Q. You next mention the differential effects on communities.  
02:07 18 What do you mean by that?

02:07 19 A. Well, in the same way that an individual's ability to  
02:07 20 access resources depends in part on their economic and social  
02:08 21 capital are -- and in the case of the communities, also on  
02:08 22 their political capital. Some communities were better able to  
02:08 23 get members of their communities into the VoO program or to get  
02:08 24 offices and assistance for their communities than others. So  
02:08 25 those communities who were the most disadvantaged were often

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02:08 1 the ones who were not able to get any help here either.

02:08 2 Q. What do you mean by differential effects on ethnic  
02:08 3 subpopulations?

02:08 4 A. Well, across the region we find there are a lot of ethnic  
02:08 5 enclaves, people who -- and those are often tied to occupation.

02:08 6 So if we take an example of central Plaquemines  
02:08 7 Parish and oystermen, we have Croatian oyster fishers -- oyster  
02:08 8 harvesters and we have -- who -- many of whom have fairly large  
02:08 9 operations. We also have communities of very small oyster --  
02:08 10 African American oyster fishermen and harvesters who often may  
02:09 11 not even own their own boat, but certainly operate at a much  
02:09 12 smaller scale. And so there was a differential effect both on  
02:09 13 their ability to even get, say, a vessel into the VoO program  
02:09 14 or to have the information needed to file a claim.

02:09 15 MS. FIDLER: And turning to the next in the series of  
02:09 16 the slides, please call D-33313.

02:09 17 BY MS. FIDLER:

02:09 18 Q. What do you mean when you say that the *Deepwater Horizon*  
02:09 19 disaster challenged individual and collective identity?

02:09 20 A. Well, it's important to recognize that in this region,  
02:09 21 many people are tied to the Gulf of Mexico, for work, for  
02:09 22 recreation, but also culturally. There are festivals that  
02:09 23 occur there. The Gulf inspires artists and people. And having  
02:09 24 the experience of oil in their -- in the Gulf and witnessing  
02:09 25 treasured places, birds, wildlife being oiled challenged that

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02:09 1 connection that people have to the Gulf.

02:10 2 In addition, their -- the identities are closely tied  
02:10 3 to occupations. People are shipyard workers or oilfield  
02:10 4 workers or fishermen, and this was particularly difficult for  
02:10 5 people who worked in the offshore oil and gas industry. This  
02:10 6 is the region where the offshore oil and gas industry actually  
02:10 7 began off the coast of southern Louisiana.

02:10 8 And to have the critique and the criticism that came  
02:10 9 upon this industry because of this disaster caused effects to  
02:10 10 people who -- negative harm to people who were part of that  
02:10 11 industry, and particularly to offshore workers who were being  
02:10 12 criticized and very angry people were talking to them about and  
02:10 13 criticizing their role and the role of this region in this  
02:10 14 industry.

02:10 15 This -- and the region also works very carefully to  
02:10 16 balance and has been in tenuous balance between commercial  
02:11 17 fishing, offshore oil and gas, and tourism for many, many  
02:11 18 years. And this certainly disrupted that balance. An example  
02:11 19 for the -- some of the fisheries is that these fisheries have  
02:11 20 been struggling against international competition and other  
02:11 21 factors. And one of the strategies that has been developed is  
02:11 22 to develop niche marketing.

02:11 23 So we have wild-caught Alabama shrimp. We have  
02:11 24 Louisiana seafood. And the tourists and people outside the  
02:11 25 region identify and eat seafood because it comes from this

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02:11 1 region. To then have that seafood tainted with oil or even the  
02:11 2 perception that it's tainted with oil had an effect on those  
02:11 3 businesses and markets.

02:11 4 And, finally, certainly the loss of a family business  
02:11 5 has economic ramifications, but it's more than that. Many of  
02:11 6 these -- the people in this region have businesses that go --  
02:12 7 that span over several generations. So to lose that or have  
02:12 8 that business threatened extends to, again, their identity.

02:12 9 Q. And what do you mean by pride in self-reliance?

02:12 10 A. This is a region where many people are very self-reliant.  
02:12 11 I've mentioned the mobility across industries. If one industry  
02:12 12 goes down, workers figure out how to go to another industry.  
02:12 13 Companies retool to work in another sector. Again, because all  
02:12 14 of these went down at the same time, they weren't able to  
02:12 15 practice that kind of mobility.

02:12 16 But it extends beyond that because it is a region  
02:12 17 where people have experienced disaster. They've experienced  
02:12 18 hurricanes and flooding and are -- frequently respond to that  
02:12 19 by getting out and put -- if they're repairing their roofs or  
02:12 20 cleaning out after floods, and moving on. In addition, even in  
02:12 21 the face of coastal erosion now, people are actively raising  
02:13 22 their homes and trying to figure out how to continue living.

02:13 23 This was a disaster to which few people actually  
02:13 24 could respond. There were some involved in the cleanup, but  
02:13 25 most people were simply not able to respond to help themselves.

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02:13 1 Q. And turning to your next finding, please call the next  
02:13 2 slide, D-33314.

02:13 3 What do you mean when you say the *Deepwater Horizon*  
02:13 4 disaster fostered conflict and divisiveness?

02:13 5 A. Well, for all the reasons I've just discussed, there was a  
02:13 6 lot of stress and anxiety in the region in terms of -- I talked  
02:13 7 about the uncertainty. But despite the uncertainty about what  
02:13 8 was going to happen in the Gulf or livelihoods, people had to  
02:13 9 make decisions. They had to decide whether to continue fishing  
02:13 10 or to enter the VoO program, whether to go to a workforce  
02:13 11 training program and get out of fishing.

02:14 12 So there were a lot of decisions that had to be made,  
02:14 13 but they were being made under conditions of uncertainty. When  
02:14 14 that happens, you have conflict. You have conflict at the  
02:14 15 level of the household. You have conflict within the business,  
02:14 16 should we invest, should we not invest. You have conflict  
02:14 17 within the communities.

02:14 18 On top of that, people were receiving conflicting  
02:14 19 information about what to do, what the long-term -- how long  
02:14 20 would this disaster last, where was the oil going to end up.  
02:14 21 And so all of that leads to this pervasive stress and anxiety,  
02:14 22 which then fosters conflict.

02:14 23 Q. And turning to your second point, could you describe the  
02:14 24 disparate impacts within tight-knit communities?

02:14 25 A. Certainly. I talked about the fact that some people

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02:14 1 benefited and some people were harmed. Having that kind of  
02:14 2 disparate effect causes rifts. People who normally -- they  
02:14 3 understand people's place in the economic system, they  
02:14 4 understand who makes money and who doesn't, and having this  
02:14 5 type of disaster where people's ability to work in the VoO  
02:15 6 program or to get their claims processed was not -- necessarily  
02:15 7 followed a pattern that people were already used to. And so  
02:15 8 having those kind -- some people are benefiting and some people  
02:15 9 are being harmed exacerbated or created conflict in these  
02:15 10 communities.

02:15 11 Q. What do you mean by your third bullet?

02:15 12 A. Well, one of the ways that, in society, we respond to the  
02:15 13 fact that we don't always get along and there -- there are  
02:15 14 rifts is that we work together, we recreate together, we attend  
02:15 15 cultural events together.

02:15 16 But in this case, because much of -- in this region  
02:15 17 that activity occurs in the Gulf of Mexico, it wasn't  
02:15 18 happening. And so fishermen who couldn't go fishing also  
02:15 19 couldn't go recreational if they weren't commercial fishing.  
02:15 20 Oilfield workers couldn't go fishing.

02:16 21 And so what was -- in addition to the fact that you  
02:16 22 had this conflict, you didn't have the usual support networks  
02:16 23 that people rely on to work through this. And for this -- the  
02:16 24 disaster was, for many people, very isolating because they were  
02:16 25 home without opportunities to do something else.

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02:16 1 Q. And turning to your next finding, please call D-33315.

02:16 2 How was this disaster disempowering for local  
02:16 3 governments and NGOs?

02:16 4 A. Well, in this region, local governments and NGOs provide a  
02:16 5 lot of the assistance to people in the communities and they're  
02:16 6 used to providing that to the people who are in their  
02:16 7 jurisdictions. And so for various reasons, there was  
02:16 8 uncertainty about how they would help.

02:16 9 We'll take the example of the oil coming into --  
02:16 10 potentially coming into the Gulf with a hurricane. The  
02:16 11 emergency response planners had to -- at the local level had to  
02:17 12 figure out how to adapt their emergency response plans in the  
02:17 13 face of a disaster they weren't -- they didn't have much  
02:17 14 information about and to figure -- to rewrite those plans if,  
02:17 15 in fact, oil was going to be coming ashore at the time that a  
02:17 16 hurricane hit.

02:17 17 In addition, for the individuals, but the same for  
02:17 18 the local governments and NGOs, there was uncertainty who had  
02:17 19 information, who to get information from, who had the authority  
02:17 20 to make decisions. All of that challenges your local leaders  
02:17 21 and their ability to help.

02:17 22 And one of the pervasive challenges that were  
02:17 23 reported across these communities from leaders was that it was  
02:17 24 not clear always who needed help or how to help. If we compare  
02:17 25 this to a hurricane, when you see the blue tarps on the roofs,



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02:17 1 you know whose home was damaged, you know where resources are  
02:17 2 needed.

02:17 3 In this case, many of those who were affected and  
02:17 4 harmed were hidden. They may not have been coming forward.  
02:18 5 They were proud, they didn't want to admit that something was  
02:18 6 going on, or they were fighting the claims processes on their  
02:18 7 own.

02:18 8 So for those who are used to responding, they didn't  
02:18 9 have -- it was very -- it was challenging for them.

02:18 10 Q. And what do you mean by your second point here?

02:18 11 A. Well, to add to that, because of the structure of -- of  
02:18 12 the response -- first of all, there were high levels of need.  
02:18 13 Even while it was difficult for governments or for NGOs to  
02:18 14 figure out where that need was, it was out there. And as  
02:18 15 people started realizing that they were going to have to come  
02:18 16 forward, they were going to have to seek help, this was  
02:18 17 extending over a long period of time, the expectation was they  
02:18 18 would turn to the same people they turn to after a hurricane,  
02:18 19 which would be the NGOs or the local agencies. And there were  
02:18 20 few resources, for multiple reasons, directed to them.

02:18 21 So, for instance, in the case of nonprofits, they by  
02:19 22 definition don't make a profit and so they couldn't show a  
02:19 23 business loss. So they were not eligible to apply for claims.  
02:19 24 In addition, the donors frequently, they would not give money  
02:19 25 because they recognized BP as the responsible party and said

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02:19 1 that BP was going to be cleaning -- you know, was responsible  
02:19 2 for helping with the financial needs.

02:19 3 Q. Have BP's experts criticized your work in this case?

02:19 4 A. Yes, they have.

02:19 5 Q. Have you prepared a summary to help you explain some of  
02:19 6 those criticisms?

02:19 7 A. Yes, I have.

02:19 8 MS. FIDLER: Please call D-33316.

02:19 9 BY MS. FIDLER:

02:19 10 Q. Can you please explain this first criticism.

02:19 11 A. Yes. The -- I will expand on -- on our discussion earlier  
02:19 12 about the -- the notion of generalizability. The criticisms  
02:19 13 are that at best, the information we have can only apply to the  
02:19 14 people we actually talked to or the communities we actually  
02:20 15 worked in.

02:20 16 In fact, as I've explained, in qualitative research  
02:20 17 there are mechanisms for us when situations, events -- or  
02:20 18 situations or circumstances are similar that these will apply  
02:20 19 elsewhere. We also incorporate approach -- methods and  
02:20 20 techniques to ensure that we understand the relationship with  
02:20 21 the communities that are case studies to other places.

02:20 22 So, for example, when we -- I mentioned we were  
02:20 23 talking about commodity chains. When we were looking at the  
02:20 24 effects on the oyster harvesters in Plaquemines Parish, we also  
02:20 25 talked to restaurants in New Orleans. We talked to oyster

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02:20 1 shuckers and learned what was happening to them as well.

02:20 2 In reverse, we talked to a lot of people in the urban  
02:20 3 areas notice centers of government who are responsible for  
02:20 4 providing resources in these communities. And in the fall of  
02:20 5 2011, when BP directed money, for instance, to the NGOs to  
02:21 6 help, at that point we talked to the organizations that were  
02:21 7 responsible for -- for organizing that response in the NGO  
02:21 8 community.

02:21 9 And we talked about the extent to -- the kinds of  
02:21 10 problems that were existing not just in the case study  
02:21 11 communities, but the extent to which what we were seeing was  
02:21 12 being found elsewhere as well.

02:21 13 Q. What is BP's criticism regarding preexisting  
02:21 14 circumstances?

02:21 15 A. Well, one of BP's expert, Dr. Bonanno, argues that -- two  
02:21 16 things. That first is you -- it's we didn't take into account  
02:21 17 preexisting circumstances, and then that it's impossible to  
02:21 18 differentiate the effects of this disaster from preexisting  
02:21 19 ones.

02:21 20 Q. How do you respond to that criticism?

02:21 21 A. Well, first of all, we did in fact. And the ethnographic  
02:21 22 research is designed to take into account preexisting  
02:21 23 circumstances. We consider them elements of the cumulative  
02:21 24 effects.

02:21 25 And as far as being able to differentiate which of

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02:22 1 these sociocultural harms would result from the disaster as  
02:22 2 opposed from -- from the *Deepwater Horizon* disaster as opposed  
02:22 3 from other disasters, clearly the fishing closures, the claims  
02:22 4 processes, the things I've described are direct results of this  
02:22 5 particular disaster.

02:22 6 Also, we identified where the fact that these  
02:22 7 communities have faced other disasters exacerbate the effects  
02:22 8 of this disaster. So, for instance, fishermen were -- had --  
02:22 9 were receiving loans in 2008 to help in response to the damages  
02:22 10 caused by the hurricanes and the damage to their businesses,  
02:22 11 et cetera. When this disaster began, they were not eligible to  
02:22 12 take out any more loans because they had those loans. That's  
02:22 13 an example of how the effect is exacerbated.

02:22 14 Q. What is BP's criticism regarding resilience?

02:22 15 A. Well, Dr. Bonanno also -- he argues that fundamentally,  
02:23 16 these -- the communities are -- the people of the region are  
02:23 17 resilient and, therefore, these effects that -- the effects  
02:23 18 in -- in the research exacerbate -- that the effects are  
02:23 19 exacerbated.

02:23 20 Q. And what is your response to that criticism?

02:23 21 A. Well, Dr. Bonanno considers resilience at two levels. He  
02:23 22 talks about individual resilience, which he defines as being a  
02:23 23 trajectory -- a stable trajectory of healthy functioning.  
02:23 24 And -- but, in fact, in his own research, he documents that up  
02:23 25 to 35 percent of people in the community -- actually, I'm

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02:23 1 sorry, that -- that trajectory of stably functioning is the  
02:23 2 outcome of exposure to extremely stressful or traumatic events.

02:23 3 And yet he provides data in his own research that up  
02:24 4 to 35 percent of people actually do not return to a stable --  
02:24 5 or do not maintain a stable trajectory of healthy functioning  
02:24 6 after exposure to such an event.

02:24 7 In addition, Dr. Bonanno seems to argue that you can  
02:24 8 measure resilience at the community level. This is something  
02:24 9 that is being debated in social science. There are questions  
10 about what it means.

02:24 11 He adopts an approach and cites the work of Craig  
02:24 12 Colton and others that argue that resilience -- community-level  
02:24 13 resilience is built in the face -- in response to -- or is  
02:24 14 increased in response to events like hurricanes because people  
02:24 15 pull together and they increase their resilience.

02:24 16 In this case, as I've already described, that was not  
02:24 17 the case. And, in fact, in most technological disasters of  
02:24 18 this nature, they do not cause people to come together for a  
02:25 19 myriad of reasons. So, if anything, we would argue that the  
02:25 20 community resilience was decreased as a result of this  
02:25 21 disaster.

02:25 22 Q. What do you mean by "averaging masks harm"?

02:25 23 A. Well, one of -- another BP expert, Dr. Scott, uses  
02:25 24 macroeconomic analyses to identify or to assess general  
02:25 25 increases and decreases in income and revenue.

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02:25 1 Q. And what is your response to that?

02:25 2 A. Well, first of all, that approach dilutes effects in the  
02:25 3 sense that in that sort of averaging, what you lose are the  
02:25 4 patterns of losses and gains. You certainly don't get any  
02:25 5 information about why some individuals or businesses are doing  
02:25 6 better, some are breaking even and some are doing worse. And  
02:25 7 it completely misses any effects that are not monetized.

02:25 8 Q. Having read BP's expert reports, what is your overall  
02:26 9 response to their arguments?

02:26 10 A. Well, first, many individuals, businesses, and  
02:26 11 organizations were not compensated or were not fully  
02:26 12 compensated for even their economic losses. But if -- and if  
02:26 13 we go beyond economic losses, even for those who were  
02:26 14 compensated, monetary payments cannot erase the disruption of  
02:26 15 lives and livelihoods, the fracturing of social relationships  
02:26 16 that occurred as a result of this disaster. And they certainly  
02:26 17 cannot bring back the lives of the people who were lost in this  
02:26 18 disaster or erase the suffering of their loved ones.

02:26 19 MS. FIDLER: Thank you, Dr. Austin.

02:26 20 I have no further questions at this time.

02:28 21 MS. KARIS: May I proceed?

02:28 22 THE COURT: Yes.

02:28 23 MS. KARIS: Thank you, Your Honor. Hariklia Karis on  
02:28 24 behalf of BP conducting the cross-examination of Dr. Austin.

25

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**CROSS-EXAMINATION**

1  
2 **BY MS. KARIS:**

3 **Q.** Good afternoon, Dr. Austin. You were retained by the  
4 United States Government to be an expert in this penalty phase  
5 case; correct?

6 **A.** That is correct.

7 **Q.** And you are speaking to the seriousness of the  
8 sociocultural effects?

9 **A.** That is correct.

10 **Q.** And you told us that as part of the work that you did, you  
11 looked at some of the actions that BP took, positive effects I  
12 think you called them; correct?

13 **A.** Our responsibility was to look across the range of effects  
14 to all of the aspects of the disaster. That included the  
15 response, whoever provided it.

16 **Q.** You were not asked to consider, as part of your agreement  
17 in this case, what impact BP's mitigation efforts had on the  
18 harm that you were reporting on; correct?

19 **A.** No. I was asked to look at the sociocultural effects  
20 between April of 2010 and March of 2012.

21 **Q.** Is it correct, then, that you were not asked to look at  
22 BP's mitigation efforts as to the harm that you are speaking  
23 to?

24 **A.** No, I was not.

25 **Q.** Thank you.

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02:29 1 A. Can I clarify?

02:29 2 Q. And to be clear -- well, let's pull up your deposition,  
02:29 3 please.

02:29 4 You agree you were not asked, before we pull up your  
02:29 5 deposition, to look --

02:29 6 A. That's correct.

02:29 7 Q. Okay. Then we don't need the depo.

02:29 8 **THE COURT:** Well, hold on a second. She's -- she  
02:29 9 answered, but then she said she wanted to clarify something.  
02:29 10 So I think the witness has a right to do that.

02:29 11 **THE WITNESS:** Again, when -- I was -- we were  
02:29 12 asked -- I -- I was asked to assess the sociocultural effects  
02:29 13 of the disaster. I was not asked to look -- to separate what  
02:30 14 was mitigation, what was response. I was asked to assess the  
02:30 15 effects.

02:30 16 **BY MS. KARIS:**

02:30 17 Q. You were not asked to even consider the impact of BP's  
02:30 18 mitigation efforts; is that correct?

02:30 19 A. It was not separated out, that is correct.

02:30 20 Q. But you're aware that BP took several steps in order to  
02:30 21 mitigate the impact of the spill; correct?

02:30 22 A. I'm aware that BP provided extensive response and reported  
02:30 23 on that.

02:30 24 Q. Okay. We'll talk about those shortly. But to be clear,  
02:30 25 your sociocultural effects report is not an econometric study



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02:30 1 of what effect the spill had on the Gulf Coast communities;  
02:30 2 correct?

02:30 3 A. That is correct. It was not intended to be.

02:30 4 Q. And while your report speaks to mental health effects,  
02:30 5 you're not a psychologist; correct?

02:31 6 A. That is correct.

02:31 7 Q. You're not a psychiatrist?

02:31 8 A. That is correct.

02:31 9 Q. And you're not diagnosing anyone in the Gulf Coast  
02:31 10 community, any individual as to what effect the spill had on  
02:31 11 them from a medical perspective; correct?

02:31 12 A. That is correct. That was not the goal and we -- and I  
02:31 13 did not diagnose anyone.

02:31 14 Q. Now, the study that you did, it was based on a study that  
02:31 15 BOEM had commissioned shortly after the spill, as you've told  
02:31 16 us; correct?

02:31 17 A. That is the study that I did, yes.

02:31 18 Q. Okay. And you took the results from that study and then  
02:31 19 you prepared expert reports in this case?

02:31 20 A. I used the results of that study as well as my 18 years of  
02:31 21 experience working in this region and the six months I spent in  
02:31 22 this region after the spill -- the disaster began.

02:31 23 Q. Both the BOEM study and your expert reports in this case,  
02:31 24 the two that we saw, are qualitative ethnographic studies;  
02:32 25 correct?

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02:32 1 A. That is correct.

02:32 2 Q. You did not go out and collect any quantitative data as  
02:32 3 part of that study; correct?

02:32 4 A. The only quantitative data that our researchers collected  
02:32 5 was that which was provided say, for instance, by a fishing  
02:32 6 agent on catches or the -- the information in the course of an  
02:32 7 interview that an individual provided. We did not design the  
02:32 8 study to collect quantitative data.

02:32 9 MS. KARIS: If you can pull up your deposition,  
02:32 10 please, lines -- I'm sorry, page 62, lines 11 to 15.

02:32 11 And we have the same question, Your Honor, for  
02:32 12 each of the industries.

02:32 13 BY MS. KARIS:

02:32 14 Q. Were you asked at your depositions:

02:32 15 "QUESTION: Did you go out and collect any  
02:32 16 quantitative data regarding the oil and gas industry from  
02:32 17 April of 2010 to March of 2012?"

02:33 18 And you say what? "We did not," correct?

02:33 19 A. And I say, "We did not." That's, I believe, what I just  
02:33 20 said. We did not design this study to set out to collect  
02:33 21 quantitative data, no.

02:33 22 Q. Okay. Now, the purpose of a qualitative study is not to  
02:33 23 generalize in a quantitative way from the study sample size to  
02:33 24 a larger population; correct?

02:33 25 A. Qualitative and quantitative research approaches are

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02:33 1 completely -- are distinct. So, no, we do not take the goals  
02:33 2 or the approaches used in quantitative research and apply them  
02:33 3 to qualitative research.

02:33 4 Q. At no time have you quantified how many people were  
02:33 5 affected by the spill; correct?

02:33 6 A. Correct. That was not the intent.

02:33 7 Q. Now, you told us you did a qualitative study, and I'd like  
02:33 8 to talk about the time period for which your quantitative --  
02:33 9 I'm sorry, qualitative study uncovered. You contend in your  
02:34 10 expert report that it is a reflection of what happened for the  
02:34 11 period of April 2010 to January of 2012; is that correct?

02:34 12 A. That is the time that the researchers were in the field,  
02:34 13 yes.

02:34 14 Q. And, accordingly, the analysis of the BOEM report and your  
02:34 15 expert reports look only at the short-term effects of the  
02:34 16 *Deepwater Horizon* spill and response; correct?

02:34 17 A. That is correct. We are -- we have an ongoing study of  
02:34 18 the midrange effects; but the data are not analyzed, so I  
02:34 19 cannot report on that.

02:34 20 Q. Okay. So your opinions in this case pertain to short-term  
02:34 21 effects that end in early 2012; correct?

02:34 22 A. The data upon which I'm drawing, yes, is drawn from the  
02:34 23 period that ends in March of 2012.

02:34 24 Q. Not only the data, but the opinions that you are offering  
02:34 25 are limited to research that was conducted through early 2012;

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02:35 1 correct?

02:35 2 A. The opinions that I'm offering are based on the research  
02:35 3 that was conducted at that time.

02:35 4 Q. You have not conducted any interviews since then that  
02:35 5 you're relying; correct?

02:35 6 A. That is correct.

02:35 7 Q. You are not -- you have not done any analysis of any data  
02:35 8 since early 2012; correct?

02:35 9 A. That is correct. Not that I'm -- I'm in the process. I  
02:35 10 have no analyses to report of current research.

02:35 11 Q. So you reference Dr. Bonanno and his comments about  
02:35 12 resiliency. You have not looked at the resiliency -- haven't  
02:35 13 opined on the resiliency of the Gulf Coast communities after  
02:35 14 early 2012 when you stopped your analysis; correct?

02:35 15 A. The report that I'm reporting on is from data from that  
02:36 16 earlier period.

02:36 17 Q. And so with respect to resiliency after early 2012, you  
02:36 18 have no opinions in this case on that; correct?

02:36 19 A. As I described in terms of the -- at the level of the  
02:36 20 individual, we did not measure individual mental health  
02:36 21 functioning. At the level of the community, there's a question  
02:36 22 of what that means. But certainly at the -- as of 2012, we did  
02:36 23 not see that the communities were more resilient based on his  
02:36 24 definition.

02:36 25 Q. And to the extent that Dr. Bonanno is speaking for the

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02:36 1 community's resiliency after 2012, you haven't looked at that;  
02:36 2 correct?

02:36 3 A. I don't know that he was speaking to that period after  
02:36 4 2012 either.

02:36 5 Q. Now, we're talking about the period of after 2012, but is  
02:37 6 it correct that for some topics -- tourism, for example -- your  
02:37 7 research stopped in 2011, September of 2011? So you looked at  
02:37 8 it from September of 2010 to September of 2011?

02:37 9 A. As I described, in ethnographic research, if the topic  
02:37 10 that we are studying, we have -- we are learning no new  
02:37 11 information at the time of that study, we move on. So the  
02:37 12 study -- tourism was part of the study through the end of the  
02:37 13 fieldwork. But the data that's reported on tourist, the  
02:37 14 economic data that's reported in the report was through  
02:37 15 September of 2011.

02:37 16 Q. Okay. And we'll talk a little bit more about tourism.  
02:37 17 But just to be clear on what time period you were looking at,  
02:37 18 your analysis was stopping basically in September of 2011, or  
02:37 19 at least the data that you were collecting; correct?

02:38 20 A. No. The quantitative data that was reported in the report  
02:38 21 stopped then. The interviews on people in the tourism industry  
02:38 22 continued throughout the report.

02:38 23 Q. Okay.

02:38 24 A. Or throughout the period of the study.

02:38 25 Q. All right. And so you learned, then, how tourism was

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02:38 1 performing in the Gulf Coast communities up through the time  
02:38 2 that you stopped your -- collecting your data in early 2012?

02:38 3 A. We documented what was happening in the tourism industry,  
02:38 4 yes.

02:38 5 Q. Okay. And to be clear, was the intent of your report to  
02:38 6 identify the negative effect, but then also identify the  
02:38 7 positive effects?

02:38 8 A. Excuse me, which report are you referring to?

02:38 9 Q. The expert reports.

02:38 10 A. Yes. The intent of that report was to describe the  
02:38 11 sociocultural effects, to render an opinion on that and then  
02:38 12 support that opinion.

02:38 13 Q. Okay. And that would include negative as well as positive  
02:38 14 is what I'm trying to get at?

02:38 15 A. The -- what went into deciding whether there was, in fact,  
02:39 16 sociocultural harm or not was a weighing of all of the data,  
02:39 17 positive and negative. My opinion was that there was  
02:39 18 sociocultural harm. So the report supports that opinion.

02:39 19 Q. Okay. Now, just so I'm clear, we spoke to the fact that  
02:39 20 your analysis stops in early 2012. Is it correct that you are  
02:39 21 not offering any opinions to this Court regarding the impact of  
02:39 22 the spill after early 2012?

02:39 23 A. I am not offering opinions on data that I collected after  
02:39 24 that point. I am offering the fact that qualitative research  
02:39 25 data is generalizable across places and times, as long as

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02:39 1 conditions are the same.

02:39 2 Q. Okay. Now, you say it's generalizable as long as  
02:39 3 conditions are the same; correct?

02:39 4 A. Yes. So, for example, the claims process is still  
02:40 5 ongoing. Oil -- tar mats with oil from the Macondo were  
02:40 6 washing up on the beaches of Florida in 2014. Those are the  
02:40 7 types of conditions that result in sociocultural harms and that  
02:40 8 are ongoing.

02:40 9 Q. I'm glad you mentioned Florida. Does your report include  
10 impact on Florida?

02:40 11 A. No, it does not. I simply used that as an example of  
12 something that has been widely reported in the media.

02:40 13 Q. All right. But not something you studied or are opining  
14 on in this case; correct?

02:40 15 A. I am not offering opinions as to what happened in Florida.  
16 I did not --

02:40 17 Q. All right.

02:40 18 A. -- do research in Florida.

02:40 19 Q. And you were saying that they are generalizable as long as  
20 conditions are the same.

02:40 21 The conditions of the tourism industry changed on an  
22 annual basis; correct?

02:40 23 A. That is true.

02:40 24 Q. And the conditions of the seafood industry which you told  
25 us about changed on an annual basis; correct?

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02:40 1 A. Some of -- well, let me clarify. Some of those conditions  
02:40 2 changed, yes.

02:41 3 MS. KARIS: Can you please pull up deposition --  
02:41 4 Dr. Austin's deposition, page 302, line 9 to line 11.

02:41 5 BY MS. KARIS:

02:41 6 Q. Were you asked the following question at your deposition  
02:41 7 and did you give the following answer?

02:41 8 A. I did.

02:41 9 Q. "The conditions of the seafood industry changed on an  
02:41 10 annual basis; correct?"

02:41 11 A. That is true.

02:41 12 Q. And you said, "That is correct." Correct?

02:41 13 A. That is correct.

02:41 14 Q. Likewise, the conditions of the oil and gas industry  
02:41 15 changed on an annual basis?

02:41 16 A. That is correct.

02:41 17 Q. And the conditions of the shipyard industry, the other  
02:41 18 industry you looked at, changed on an annual basis; correct?

02:41 19 A. That is correct.

02:41 20 Q. And so when you say things are generalizable, you did not  
02:41 21 look at any data at all after 2012 to present to generalize  
02:41 22 whether the conditions of the four industries that you are  
02:41 23 speaking to changed; correct?

02:41 24 A. I just concluded -- reported that the conditions do  
02:42 25 change.



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02:42 1 Q. And you did not look at any data to determine whether they  
02:42 2 changed; correct?

02:42 3 A. No, I did not.

02:42 4 Q. Thank you.

02:42 5 We talked about the time period for your report and  
02:42 6 where your analysis stopped. I'd like to talk to you a little  
02:42 7 bit about the geography, the limitations of the geographic  
02:42 8 scope that you looked at.

02:42 9 You have no opinions at all about the impact of the  
02:42 10 spill on the State of Florida, as you just told us; correct?

02:42 11 A. That is correct.

02:42 12 Q. Your opinions and the work that was done by BOEM  
02:42 13 researchers -- strike that.

02:42 14 The BOEM researchers prioritized small cities and  
02:42 15 communities as part of this work; correct?

02:43 16 A. That is correct.

02:43 17 Q. And in the states that you did study, none of the  
02:43 18 communities that you selected were urban communities; correct?

02:43 19 A. Again, the case study focal communities were not urban  
02:43 20 communities. The research extended into the urban centers.

02:43 21 MS. KARIS: Can we please pull up Dr. Austin's  
02:43 22 deposition, page 90, lines 9 to 11.

02:43 23 BY MS. KARIS:

02:43 24 Q. Were you asked the following question and did you give the  
02:43 25 following answer in your deposition, again, page 90, line 9 to

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02:43 1 11:

02:43 2 "QUESTION: None of the communities that you selected  
02:43 3 were urban communities; correct?"

02:43 4 And you gave the following answer:

02:43 5 "ANSWER: That is correct."

02:43 6 A. And that is what I just said, yes.

02:43 7 Q. Thank you. All of the communities that were selected by  
02:43 8 BO -- by the BOEM study were rural towns within the coastal  
02:43 9 region; correct?

02:43 10 A. The question of whether they were rural, these are  
02:43 11 communities with small populations, linear communities with a  
02:43 12 lot of industrial activity, but they are small communities.

02:44 13 Q. So they're rural towns; correct?

02:44 14 A. Again, from a social science perspective, "rural" implies  
02:44 15 certain things. They are small communities across this region.

02:44 16 MS. KARIS: Could we pull up Dr. Austin's deposition,  
02:44 17 please, again, line (verbatim) 90, 12 to 15.

02:44 18 BY MS. KARIS:

02:44 19 Q. All the community -- were you asked the following question  
02:44 20 and did you give the following answer:

02:44 21 "QUESTION: All the communities that you selected  
02:44 22 were rural coastal towns within the coastal region?"

02:44 23 "ANSWER: Yes."

02:44 24 Correct?

02:44 25 A. They are within the coastal region, yes.

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02:44 1 Q. You did not conduct any study of any inland communities;  
02:44 2 correct?

02:44 3 A. We did gather data from inland communities where it was  
02:44 4 relevant to the case study communities. So, for instance, many  
02:44 5 people in Mississippi work offshore from the inland  
02:44 6 communities, and they are tied to the coastal communities, so  
02:44 7 we were conducting interviews with those -- some of those  
02:44 8 offshore workers.

02:44 9 MS. KARIS: Can we pull up her deposition again.  
02:44 10 Page 100, line 8 to 11.

02:45 11 BY MS. KARIS:

02:45 12 Q. While we were talking at your deposition about what you  
02:45 13 looked at, did I ask you the following question:

02:45 14 "QUESTION: So you did not conduct any case study for  
02:45 15 any inland communities; correct?"

02:45 16 And you gave me the following answer:

02:45 17 "ANSWER: That is correct."

02:45 18 A. Yes.

02:45 19 MS. FIDLER: Objection, Your Honor. This is improper  
02:45 20 impeachment.

02:45 21 THE COURT: The problem, Ms. Karis, is the witness is  
02:45 22 giving essentially the same answers and may be expanding a  
02:45 23 little bit, and then you're bringing up the deposition. And, I  
02:45 24 don't know, you seem like you're quibbling about words here,  
02:45 25 you know. You know, it's not -- you're not proving anything to

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02:45 1 me. You're overdoing this deposition stuff.

02:45 2 Just because she didn't say it exactly the same  
02:45 3 way maybe, if -- if the substance is the same, I think we ought  
02:45 4 to move along, you know.

02:45 5 **BY MS. KARIS:**

02:45 6 **Q.** Dr. Austin, you would agree that your study does not  
02:45 7 address the impacts of disaster on large inland areas; correct?

02:45 8 **A.** That is correct.

02:46 9 **Q.** And your study also does not address the impact of the  
02:46 10 disaster on large corporations whose offices and decision  
02:46 11 makers are located outside of the region but operate in the  
02:46 12 Gulf of Mexico; correct?

02:46 13 **A.** That is correct.

02:46 14 **Q.** You spoke to the economic effects that individuals  
02:46 15 experienced with respect to their change in income as a result  
02:46 16 of the spill; correct? You spoke to the --

02:46 17 **THE COURT:** Wait. Wait. Reask your question. I  
02:46 18 think she was changing a tape here.

02:47 19 **BY MS. KARIS:**

02:47 20 **Q.** I'm going to try and say it the same. Certainly. I'll  
02:47 21 try and ask it the same. Can't promise that.

02:47 22 You spoke to the effect of the spill on the economic  
02:47 23 situation on various members of the Gulf community; correct?

02:47 24 **A.** Yes.

02:47 25 **Q.** And to be clear, the information that you had from all the

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02:47 1 research in your study did not at any time collect information  
02:47 2 about the individuals you were speaking to, their incomes;  
02:47 3 correct?

02:47 4 A. I'm sorry, you began with "the information you had."  
02:47 5 Could you repeat the question, please.

02:47 6 Q. Sure. That was a very poorly worded question. So let me  
02:47 7 back up.

02:47 8 You would consider income level to be a relevant  
02:47 9 consideration for your study; correct?

02:47 10 A. I would consider that -- they were -- yes, that what --  
02:48 11 people's income or resources that they had available to them  
02:48 12 was important, yes.

02:48 13 Q. And to be clear with respect to what information you  
02:48 14 collected as part of your study, you didn't ask the individuals  
02:48 15 that you were speaking to about the range of their income or  
02:48 16 the change in their range of incomes; correct?

02:48 17 A. No. We were not trying to assess income level of the  
02:48 18 individual households.

02:48 19 Q. The 1300 individuals that you spoke to, you did not  
02:48 20 decipher them by what their individual range of incomes was;  
02:48 21 that is, how many were living in poverty levels before the  
02:48 22 spill, how many were living in affluent households before the  
02:48 23 spill; correct?

02:48 24 A. That is correct. We did not -- we did not collect  
02:48 25 individual household income level.

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02:49 1 Q. You also mentioned that you interviewed some people more  
02:49 2 than once; correct?

02:49 3 A. That is correct.

02:49 4 Q. But using the information that you've collected from your  
02:49 5 study, it's not possible to determine from any of the pulled  
02:49 6 reports that you've provided which individuals were interviewed  
02:49 7 more than once; correct?

02:49 8 A. That is correct. Each interview gets a unique identifier.

02:49 9 Q. And it's not possible to tell how many people you spoke to  
02:49 10 more than once; correct?

02:49 11 A. That is correct.

02:50 12 Q. Dr. Austin, you spent quite a bit of time on direct  
02:50 13 telling us about the social effects or harms that people told  
02:50 14 you about, and many of those were the result of interviews that  
02:50 15 your team conducted; correct?

02:50 16 A. The data that we gathered, yes, came from both interviews  
02:50 17 and observation -- and participant observation.

02:50 18 Q. The BOEM report that is the result of those interviews,  
02:50 19 that data and data observation notes in several places a  
02:50 20 positive impact from BP's actions after the spill. You share  
02:50 21 those opinions that are in the BOEM report; correct?

02:50 22 A. Yes. The information that we reported, I -- I still stand  
02:51 23 by.

02:51 24 Q. I'd like to talk about some of the specific positive  
02:51 25 impacts that you found and that were documented in the BOEM

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02:51 1 report that we did not previously hear about.

02:51 2           You agree that BP's funds were used immediately after  
02:51 3 the spill to help reduce the immediate economic effects of the  
02:51 4 spill; correct?

02:51 5 A. That was the intent of the -- of BP putting money into the  
02:51 6 communities.

02:51 7 Q. And so the intent of why BP put money into the communities  
02:51 8 was to help reduce any immediate economic effect; correct?

02:51 9 A. That's what I understood it to be, yes.

02:51 10 Q. And those monetary inputs included both money that  
02:51 11 individuals and companies received in exchange for  
02:51 12 participating in cleanup efforts; correct?

02:51 13 A. Correct.

02:51 14 Q. And they also included money that individuals and  
02:52 15 companies received as part of payments in the initial claims  
02:52 16 process or emergency claims payments; correct?

02:52 17 A. Yes, some individuals and companies did receive money at  
02:52 18 that time.

02:52 19 Q. And the payments that went to those individuals helped  
02:52 20 them. You would agree with that?

02:52 21 A. In most cases, yes.

02:52 22 Q. You would agree it was a good thing that BP made those  
02:52 23 early payments in order to help reduce the immediate economic  
02:52 24 effects of the disaster?

02:52 25 A. I agree that where family -- households or businesses

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02:52 1 received income that they were able to use to address the  
02:52 2 effects of this disaster, that was good, yes.

02:52 3 Q. VoO is one of the programs that were put in place  
02:52 4 immediately after the spill; correct?

02:52 5 A. That is correct.

02:52 6 Q. And VoO was a program that BP put in place. When we say,  
02:53 7 VoO, for the record, that's the Vessels of Opportunity program,  
02:53 8 first of all; correct?

02:53 9 A. That's correct.

02:53 10 Q. And the BOEM report specifically discusses the VoO program  
02:53 11 in some detail; correct?

02:53 12 A. It does.

02:53 13 MS. KARIS: And if we could now look at D-35337,  
02:53 14 please.

02:53 15 BY MS. KARIS:

02:53 16 Q. And this is from the social effects report that was  
02:53 17 published, Volume I. It says:

02:53 18 "To help mitigate the effects of the disaster on  
02:53 19 fishermen, BP created the Vessels of Opportunity program to  
02:53 20 employ local boat owners and operators to develop boom and to  
02:53 21 seek and clean up oil. Many fishermen did benefit from their  
02:53 22 participation in the program, but so, too, did others who saw  
02:53 23 and capitalized on the opportunity to make a lot of money."

02:53 24 Correct?

02:53 25 A. That's what it says, yes.



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02:54 1 Q. You agree with that statement in the BOEM report?

02:54 2 A. Yes, I do. One of the points being made was that  
02:54 3 individuals beyond fishermen were, in fact -- entered their  
02:54 4 boats and were able to make money off of this program.

02:54 5 MS. KARIS: And if we can now look at D-35338,  
02:54 6 please.

02:54 7 BY MS. KARIS:

02:54 8 Q. The report goes on to say: "In May of 2010, soon after  
02:54 9 the spill, training for the Vessels of Opportunity (VoO)  
02:54 10 Program, began at various sites along the Mississippi Coast,  
02:54 11 including Point Cadet in Biloxi. At the program's height, it  
02:54 12 employed around 800 Mississippi fishermen."

02:54 13 Correct?

02:54 14 A. Correct.

02:54 15 Q. And you understand those 800 individuals, they were just  
02:54 16 in Mississippi, and there were many others who were employed in  
02:54 17 Louisiana as well as Alabama that participated and benefited  
02:55 18 from the program; correct?

02:55 19 A. According to this, these 800 were Mississippi fishermen  
02:55 20 which would be -- I would read that to be they were fishermen  
02:55 21 from Mississippi.

02:55 22 Q. And you understand that there were, similarly, VoO  
02:55 23 participants in Louisiana?

02:55 24 A. Certainly.

02:55 25 Q. And there were VoO participants in Alabama; correct?

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02:55 1 A. Yes, there were.

02:55 2 Q. Let's talk about how much money was spent on the Vo0  
02:55 3 program.

02:55 4 MS. KARIS: If we could pull up D-35309.

02:55 5 BY MS. KARIS:

02:55 6 Q. And do you recognize this as coming from the time line of  
02:55 7 the BOEM report that you were the principal author of?

02:55 8 A. Yes, I do recognize this.

02:55 9 Q. And according to this, BP officially halted the Vo0  
02:55 10 program on September 15th of 2010 in Florida, Alabama, and  
02:55 11 Mississippi. In these three states, the program spent  
02:56 12 \$500 million and hired 3,500 vessels; correct?

02:56 13 A. That is correct.

02:56 14 Q. And that does not include Louisiana, where the program  
02:56 15 continued at this time; is that correct?

02:56 16 A. That is correct.

02:56 17 Q. And to be clear, for every one of those 3500 vessels -- or  
02:56 18 I should say for many of those 3500 vessels, there were  
02:56 19 multiple individuals that were hired; correct? To participate  
02:56 20 as part of Vo0. That is, these were multi-person vessels?

02:56 21 A. Okay. It's -- yes, it's impossible to know from this  
02:56 22 statement how many people were working on any of these vessels.  
02:56 23 But, yes, some -- the vessels, in fact, hired multiple deck  
02:56 24 hands.

02:56 25 Q. Are you aware that by the end of the Vo0 program, BP had

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02:56 1 spent approximately \$600 million for the four states?

02:56 2 A. Yes, I am.

02:56 3 Q. And you understand that BP set that program up  
02:56 4 voluntarily?

02:56 5 A. Yes. BP -- Vessels of Opportunity is a -- one of many  
02:57 6 responses that companies can make and -- after a disaster like  
02:57 7 this, and BP chose to set up a VoO program.

02:57 8 Q. Let's talk about the effects, then, of spending  
02:57 9 \$600 million.

02:57 10 MS. KARIS: If we can go to D-35310.

02:57 11 BY MS. KARIS:

02:57 12 Q. Again, in your BOEM report, it says, "Fishermen who worked  
02:57 13 for VoO for a significant amount of time built up a financial  
02:57 14 reserve they used to maintain their vessels, do repairs, or pay  
02:57 15 down debts, helping some return to fishing, while others took  
02:57 16 the rest of 2010 off."

02:57 17 Correct?

02:57 18 A. That is correct.

02:57 19 Q. And that's consistent with what individuals were telling  
02:57 20 your team when you were interviewing them; correct?

02:57 21 A. Yes. Those fishermen who worked for VoO for a significant  
02:57 22 amount of time and were able to build up a reserve, in many  
02:57 23 cases, they did, in fact, use that money to repair their  
02:58 24 vessels and/or upgrade, pay down their debts, et cetera.

02:58 25 Q. And you agree that was a good thing that BP voluntarily

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02:58 1 put that program in place that allowed those fishermen that are  
02:58 2 referenced here to take all those actions; correct?

02:58 3 A. I agree that the VoO program had these kinds of results.  
02:58 4 I'm not in a position to evaluate it as opposed to other  
02:58 5 options that they had.

02:58 6 Q. But at least the program that was put in place did have  
02:58 7 those results?

02:58 8 A. For those fishermen and other individuals who made a lot  
02:58 9 of money, yes, it had positive effects.

02:58 10 MS. KARIS: Now, if we can pull up D-35311.

02:58 11 BY MS. KARIS:

02:58 12 Q. We've been looking at the BOEM report. But as part of the  
02:58 13 case study, various individuals from your team went out and  
02:58 14 conducted interviews and took notes from what people were  
02:59 15 telling them; correct?

02:59 16 A. That is the methodology, yes.

02:59 17 Q. And those -- you call those code reports; correct?

02:59 18 A. These are reports pulled from the interviews, yes.

02:59 19 Q. Okay. And so what we're looking at here, to be clear, are  
02:59 20 notes from your team from a specific interview that was  
02:59 21 conducted of somebody who was identified as PP 928; correct?

02:59 22 A. That is correct.

02:59 23 Q. And what this person told your team was, they said that,  
02:59 24 "Honestly, the oil spill had probably helped the local economy  
02:59 25 around Pascagoula more than anything.

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02:59 1 "BP was, quote, just handing money out, end quote,  
02:59 2 last summer, he said. People were getting money for any sort  
02:59 3 of claim. Plus, lots of people had been hired into the VoO  
02:59 4 program and just to clean up the beaches. There had been  
02:59 5 thousands of people just walking around picking up trash along  
02:59 6 the beaches."

02:59 7 That's what this individual told your team; correct?

02:59 8 A. Yes. This is exactly the type of conversation that I was  
03:00 9 referring to in the communities where people have a belief that  
03:00 10 there are lots of people getting money, and some people are  
03:00 11 getting money, some people aren't, and it increases local  
03:00 12 discord.

03:00 13 Q. It also, if BP is handing out money, helps the local  
03:00 14 economy; correct?

03:00 15 A. Yes, that obviously is a phrase this individual used. I  
03:00 16 imagine BP was not walking up and down the beach handing out  
03:00 17 money.

03:00 18 Q. Well, are you aware of the program where BP was writing  
03:00 19 claims checks for \$5,000 early on in the program to help the  
03:00 20 local fishermen and others who had lost their jobs?

03:00 21 A. Certainly I'm aware of that program.

03:00 22 Q. And that program definitely helped the local economy;  
03:00 23 correct?

03:00 24 A. For the people that got money and were able to use that  
03:00 25 money to pay off their bills or otherwise invest in their local

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03:00 1 community, it helped the local economy.

03:00 2 Q. And we were talking about VoO, and this individual is  
03:00 3 referencing VoO here. You're aware that BP did not require  
03:01 4 anyone to make any deductions from any claims they were filing  
03:01 5 if they had participated and gotten paid as part of the VoO  
03:01 6 program; correct?

03:01 7 A. I'm aware that eventually that was the case. When the  
03:01 8 program began, there was -- people were not certain. There was  
03:01 9 a lot of mixed information coming out about what was going to  
03:01 10 be the effect on people's ability to file claims or if they  
03:01 11 participated in VoO. Eventually, yes, that was clarified.

03:01 12 Q. And when you say "eventually," we're talking about how  
03:01 13 much time? After people started working in the VoO program,  
03:01 14 did they learn they can double collect, get paid from VoO and  
03:01 15 also file a claim for having been out of work as fishermen?

03:01 16 A. That's correct. If they could -- if -- if they could  
03:01 17 document those losses and go through the claims process, they  
03:01 18 could enter the claims process, and their participation in VoO  
03:01 19 was seen as a separate action.

03:01 20 Q. You referenced "eventually" when I asked you previously,  
03:02 21 and I was wondering if you knew how quickly people learned that  
03:02 22 they could do the double-dipping, if you will?

03:02 23 A. I do not recall the date that that occurred.

03:02 24 Q. Do you know whether it was pretty quickly?

03:02 25 A. No. I -- I don't know what pretty quickly -- it was

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03:02 1 within months of -- I -- I will withdraw that. I do not  
03:02 2 remember exactly when.

03:02 3 Q. Now, this individual also referenced people participating  
03:02 4 in the cleanup efforts. And you agree that participation in  
03:02 5 the cleanup efforts and claims processes made good the losses  
03:02 6 of many commercial fishermen and seafood businesses; correct?

03:02 7 A. There are -- there were people who participated in this  
03:02 8 program, in the cleanup, who benefited in the same way there  
03:02 9 were people who benefited from the VoO program.

03:02 10 Q. You agree that some fishermen would have been worse off  
03:03 11 economically had BP not set up this VoO program?

03:03 12 A. Certainly some fishermen would have been worse off.

03:03 13 Q. And you agree that this wasn't the only individual that  
03:03 14 told you that they benefited significantly. Many individuals  
03:03 15 told your team that they were significantly financially  
03:03 16 benefited as a result of the VoO program; correct?

03:03 17 A. Yes. To clarify, this individual doesn't say whether he  
03:03 18 benefited or not. He's referring to people in his -- in  
03:03 19 Pascagoula. There were people who reported to our team that  
03:03 20 they had benefited.

03:03 21 Q. And they told you that they had significantly benefited;  
03:03 22 correct?

03:03 23 A. There were people, in the same way there were people who  
03:03 24 reported to our team that they had not been able to participate  
03:03 25 in VoO at all.

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03:03 1 Q. You're familiar with Dr. Luton; correct?

03:03 2 A. Dr. Luton, yes.

03:04 3 Q. Luton. Excuse me. And you read Dr. Luton's testimony in  
03:04 4 connection with giving your opinions in this case?

03:04 5 A. I read his deposition.

03:04 6 Q. Yes, I'm sorry, deposition.

03:04 7 A. Yes.

03:04 8 Q. And you're aware that he was the United States' corporate  
03:04 9 representative to speak to the social effects of the spill?

03:04 10 A. Yes.

03:04 11 MS. KARIS: And if we can now pull up D-35342.

03:04 12 BY MS. KARIS:

03:04 13 Q. And to be clear, Dr. Luton participated in this BOEM study  
03:04 14 along with you; correct?

03:04 15 A. No. Dr. Luton was the BOEM's contracting officer's  
03:04 16 technical representative. In that role, he does not play any  
03:04 17 role in actually conducting the research or analyzing the data  
03:04 18 or anything else.

03:04 19 Q. Fair enough. He was the technical representative for the  
03:04 20 BOEM here; correct?

03:04 21 A. That is correct.

03:04 22 Q. And he was also the U.S.' corporate representative. And  
03:04 23 Dr. Luton was asked:

03:04 24 "QUESTION: So what you're saying, Dr. Luton, it  
03:04 25 sounds you agree that researchers who wrote this report,



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03:05 1 that many fishermen did benefit from participation in the  
03:05 2 Vessel of Opportunity program?"  
03:05 3 He says:  
03:05 4 "ANSWER: Correct."  
03:05 5 And he says:  
03:05 6 "QUESTION: It helped both fishermen and  
03:05 7 nonfishermen, too, make a lot of money?"  
03:05 8 He says:  
03:05 9 "ANSWER: Some to make a lot of money, yes.  
03:05 10 "QUESTION: And that's because, as you understand,  
03:05 11 participation in the Vessel of Opportunity program was  
03:05 12 lucrative to many?  
03:05 13 "ANSWER: Yes."  
03:05 14 And you agree with that testimony; correct?  
03:05 15 A. Yes.  
03:05 16 Q. We've been talking about fishermen. And to wrap up on  
03:05 17 VoO, it wasn't just fishermen who -- who benefited. There were  
03:05 18 others like suppliers, for example, who benefited and made huge  
03:05 19 profits; correct?  
03:05 20 A. I'm sorry, suppliers to -- suppliers to the VoO program,  
03:05 21 is that what you're referring to?  
03:05 22 Q. Suppliers to the VoO vessels.  
03:05 23 A. Yes. The -- the suppliers who were providing supplies  
03:05 24 that were needed in the VoO program, yes, some of them also  
03:06 25 benefited.

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03:06 1 Q. Earlier when you were telling us about the effects of the  
03:06 2 spill, you said you looked, for example, even at flower shops  
03:06 3 that had incurred effects from the spill; correct?

03:06 4 A. That is correct.

03:06 5 Q. All right. And similarly, for the VoO program, it wasn't  
03:06 6 just those individuals who participated; there was a whole  
03:06 7 chain of people who benefited from the VoO program, including  
03:06 8 suppliers, as well as others; correct?

03:06 9 A. Yes. The thing to clarify there is that not all of the  
03:06 10 suppliers in a program like that are from local areas, so as  
03:06 11 opposed to the flower shop, which is in the local community we  
03:06 12 were researching, but certainly there were suppliers to the VoO  
03:06 13 program, and some of them were local companies.

03:06 14 Q. Okay. And so at least -- you agree that at least some  
03:06 15 local companies made huge profits off of the VoO program?

03:06 16 A. Yes, some companies did.

03:07 17 Q. You referenced shipbuilding as one of the industries you  
03:07 18 looked at; correct?

03:07 19 A. That is correct.

03:07 20 MS. KARIS: And if we can look at -- look at D-35339.

03:07 21 BY MS. KARIS:

03:07 22 Q. You state in your report that before the start of the 2011  
03:07 23 May shrimp season -- I'm sorry -- shipyards were reportedly  
03:07 24 doing record amounts of repair work on shrimp boats, as many  
03:07 25 captains reinvested their VoO and claims earnings into the

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03:07 1 vessels.

03:07 2 Yet, this is another example of how the VoO program  
03:07 3 benefited another industry; correct?

03:07 4 A. That is correct, those yards that got this kind of repair  
03:07 5 work. This makes the same point we made earlier is that some  
03:07 6 of the fishermen took their VoO money and reinvested into their  
03:07 7 vessels to improve their business.

03:08 8 Q. Let's talk about another program that was put in place  
03:08 9 that benefited or mitigated the impacts of the spill. You  
03:08 10 referenced the claims process as part of your testimony on  
03:08 11 direct examination that was put in place; correct?

03:08 12 A. That is correct.

03:08 13 Q. You're aware that as early as early May, there was a  
03:08 14 claims process put in place in order to compensate out-of-work  
03:08 15 fishermen?

03:08 16 A. Early May 2010.

03:08 17 Q. Yes, I'm sorry.

03:08 18 A. Yes.

03:08 19 Q. Okay.

03:08 20 MS. KARIS: And if we can look at D-35313.

03:08 21 BY MS. KARIS:

03:08 22 Q. And this is under a section in your report entitled  
03:08 23 "Immediate Oil Spill Impacts, Summer Through Fall of 2010."

03:08 24 You say: "By early May, out-of-work fishermen could  
03:08 25 avail themselves of the economic claims offices that BP had

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03:09 1 opened around the Gulf Coast. The first claims process, which  
03:09 2 ran until August 23rd, directly under BP's authority, focused  
03:09 3 primarily on paying commercial fisheries' claimants and wrote  
03:09 4 checks of up to \$5,000 a month based on presented registration  
03:09 5 documents, seafood sales receipts, and tax records."

03:09 6 That's the \$5,000 that we were talking about earlier;  
03:09 7 correct?

03:09 8 A. Correct.

03:09 9 Q. And these claims facilities, they were open within a  
03:09 10 couple of weeks of the spill; correct?

03:09 11 A. Yes. Where those claims office opened, they -- those  
03:09 12 opened up quickly.

03:09 13 MS. KARIS: If we can now go to D-35347.

03:09 14 BY MS. KARIS:

03:09 15 Q. "By May 26th" -- again, this is from your BOEM report --  
03:09 16 "BP reported receiving 25,000 claims and paying \$29 million to  
03:09 17 12,000 claimants, denying no claimant by that date. Claimants  
03:09 18 could get up to \$5,000 a month through the process and were not  
03:10 19 required to waive their right to sue for future damages.  
03:10 20 Commercial fishermen, shut down by area closures resulting from  
03:10 21 the spill, made up a major part of the claimants during the BP  
03:10 22 process, as claims offices began regularizing what became  
03:10 23 monthly payments as the spill stretched through the summer of  
03:10 24 2010."

03:10 25 Correct?

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03:10 1 A. That is correct.

03:10 2 Q. So within just under a month of the spill, \$29 million had  
03:10 3 been paid out under that claims process; correct?

03:10 4 A. According to what BP reported, yes.

03:10 5 Q. And that's what is in BOEM's report; correct?

03:10 6 A. Yes. As it is worded there, BP reported doing that, and  
03:10 7 we cite the source.

03:10 8 Q. Okay. You referenced on direct that there was some  
03:10 9 frustration resulting from people needing to document their  
03:10 10 claims as part of the early claims process or unable to  
03:11 11 document their claim; correct?

03:11 12 A. That is correct.

03:11 13 Q. But you see that at least with respect to those 12,000  
03:11 14 claimants, not a single claim was denied; correct?

03:11 15 A. That's what was reported.

03:11 16 Q. Dr. Austin, you're aware that in addition to the early  
03:11 17 payments, BP has paid out billions of dollars in claims to  
03:11 18 individuals and businesses in the Gulf states; correct?

03:11 19 A. That is correct.

03:11 20 Q. As part of the report that you put together for the BOEM  
03:12 21 where you were looking at the impacts, did you determine or did  
03:12 22 you learn what the total amount of claims was that BP had paid  
03:12 23 out by early 2012 when you stopped interviewing individuals and  
03:12 24 collecting data and information?

03:12 25 A. Yes, that information was in the report.

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03:12 1 Q. And do you know, sitting here, how much that was?

03:12 2 A. I would misrepresent it if I tried to pull it off the top  
03:12 3 of my head.

03:12 4 MS. KARIS: Let's look at D-35315, please -- I'm  
03:12 5 sorry, 35315.

03:12 6 BY MS. KARIS:

03:12 7 Q. This is just through the end of 2010. Total payments to  
03:12 8 individuals and businesses are over \$3 million; correct?

03:13 9 A. That is correct.

03:13 10 Q. I'm sorry, billion, excuse me. Yes, \$3.1 billion.

03:13 11 A. Yes, that is correct.

03:13 12 Q. So within eight months of when the spill occurred, BP had  
03:13 13 paid -- or had put over \$3 billion into the economy just from  
03:13 14 claim and government payments; correct?

03:13 15 A. That is correct.

03:13 16 Q. And that would be separate and apart from the \$600 million  
03:13 17 that we spoke to earlier under the VoO claims process; correct?

03:13 18 A. Correct.

03:13 19 Q. Now, one of the things that you did as part of your BOEM  
03:13 20 work was to inquire or to discuss with people what they did  
03:13 21 with some of the money they got from this claims process;  
03:13 22 correct?

03:13 23 A. That is correct.

03:13 24 MS. KARIS: And if we can look at D-35316.  
25

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03:14 1 BY MS. KARIS:

03:14 2 Q. Under "Specific Effects of the Spill," you state: "Those  
03:14 3 who received money from claims used the funds to finance their  
03:14 4 house or boat," repair -- I'm sorry -- "raise and repair homes,  
03:14 5 or invest in new nets or engines for their boats."

03:14 6 That's what folks told you they were doing with their  
03:14 7 money; correct?

03:14 8 A. Yes. That's what some of the folks did report.

03:14 9 Q. And then stories about some people were spending their  
03:14 10 money on new vehicles or recreational activities were common.  
03:14 11 That's how described it; correct?

03:14 12 A. Yes, as I mentioned that -- and you can see that the  
03:14 13 "some" is in italics. This is an example of how in the  
03:14 14 communities there's starting to become stories of people who  
03:14 15 didn't deserve the money, they were spending it on things that  
03:14 16 were inappropriate. So this is part of what creates that  
03:15 17 local-level discord.

03:15 18 Q. But from BP's perspective, they were putting that money  
03:15 19 into the economy through paying those claims payments; correct?

03:15 20 A. The money was going to individuals. How it was being  
03:15 21 spent varied across the communities.

03:15 22 Q. You agree that the money that BP put into the local  
03:15 23 economy, including the \$3.1 billion that we just looked at, had  
03:15 24 a substantial impact on minimizing the economic impact of the  
03:15 25 spill; correct?

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03:15 1 A. I'm sorry, would you repeat that again?

03:15 2 Q. Sure. Because it was a poorly phrased question, maybe we  
03:15 3 can do it easier.

03:15 4 MS. KARIS: Let's go to D-35341, please.

03:15 5 BY MS. KARIS:

03:15 6 Q. This is again the United States' corporate representative  
03:15 7 on the issue of effects of the spill, and he's asked if  
03:15 8 \$3.1 billion had an economic effect -- had an economic effect  
03:15 9 in Gulf communities along the coast and throughout the Gulf  
03:16 10 region, and he says, "Correct."

03:16 11 And then he's asked:

03:16 12 "QUESTION: A substantial impact?

03:16 13 "ANSWER: Yes.

03:16 14 "QUESTION: And that substantial impact by those  
03:16 15 claim payments made early after the spill helped to  
03:16 16 minimize the economic effects of the spill in the region,  
03:16 17 didn't it?"

03:16 18 And he says:

03:16 19 "ANSWER: Yes."

03:16 20 Do you see that?

03:16 21 A. Yes, he does.

03:16 22 Q. And you agree with Dr. Luton on that; correct?

03:16 23 A. Yes.

03:16 24 Q. You agree that it was a good thing that BP made those  
03:16 25 payments in order to help reduce the immediate economic effects



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03:16 1 of the disaster; correct?

03:16 2 A. I agree that the fact that BP -- that the economic  
03:16 3 payments helped to alleviate the economic harms was a good  
03:16 4 thing, yes.

03:16 5 Q. You referenced some grants on your direct examination;  
03:16 6 correct?

03:16 7 A. I referenced tourism grants.

03:17 8 Q. Tourism grants.

03:17 9 A. Yes.

03:17 10 Q. Are you aware that BP, in addition to tourism grants, made  
03:17 11 block grants to the various states?

03:17 12 A. Yes, I am.

03:17 13 MS. KARIS: And if we can now look at D-35318.

03:17 14 BY MS. KARIS:

03:17 15 Q. On May 5th of 2010 -- that's within a couple of weeks of  
03:17 16 the spill -- BP announces the release of 25 million block  
03:17 17 grants to each affected state to implement spill response area  
03:17 18 contingency plans. Do you see that?

03:17 19 A. Yes, I do.

03:17 20 Q. And do you know whether that, too, was a voluntarily  
03:17 21 program that BP put in place?

03:17 22 A. No, I don't.

03:17 23 Q. But you're aware that BP did, in fact, put that money into  
03:17 24 the local economies or the state economies in the Gulf;  
03:17 25 correct?

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03:17 1 A. I know that they gave the money to the State. Whether  
03:17 2 those ended up in the local economies, I can't tell you.

03:17 3 Q. You referenced tourism grants earlier.

03:17 4 A. That is correct.

03:18 5 Q. Let's talk about the benefits -- the economic benefits  
03:18 6 from BP's investment into the tourism industry following the  
03:18 7 spill. You understand that BP spent a significant amount of  
03:18 8 money intended to mitigate the effects of the spill on the  
03:18 9 tourism industry; correct?

03:18 10 A. Yes, I do.

03:18 11 MS. KARIS: If we could look at D-35340, please.

03:18 12 BY MS. KARIS:

03:18 13 Q. We looked at this document in your deposition. This is  
03:18 14 the announcement of those grants.

03:18 15 This says: "The Gulf tourism industry has seen a  
03:18 16 strong rebound, and numerous tourism records have been" -- I'm  
03:18 17 sorry -- "have been repeatedly broken in the last three years.  
03:19 18 BP is supporting Gulf Coast tourism through the payments of  
03:19 19 \$179 million for state-led tourism campaigns and \$57 million  
03:19 20 for nonprofit groups and government entities to promote the  
03:19 21 tourism and seafood industries."

03:19 22 You're aware of that fact; correct?

03:19 23 A. Yeah. This -- just to be clear, when you mentioned this  
03:19 24 was referenced, this was a report -- or this was on BP's Web  
03:19 25 site.

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03:19 1 Q. And there's also a reference to these funds in the BOEM's  
03:19 2 report; correct?

03:19 3 A. Correct.

03:19 4 Q. Is that "yes"?

03:19 5 A. Yes, I'm sorry. Correct.

03:19 6 Q. No problem. No problem.

03:19 7 MS. KARIS: And just for the record, if we could pull  
03:19 8 up TREX-011923.92.1. I'm sorry, TREX-011923.92.1.

03:19 9 BY MS. KARIS:

03:19 10 Q. And this is from the BOEM report; correct? Volume II. Do  
03:19 11 you recognize this?

03:19 12 A. Yes.

03:19 13 Q. And it says, "In the spring of 2011, BP announced a second  
03:20 14 round of tourism grants to affected states. The grants were  
03:20 15 slated to be dispensed and spent over three years. Florida  
03:20 16 received \$30 million to be divided between seven coastal  
03:20 17 counties. In March of 2011, Louisiana received \$30 million,  
03:20 18 with the greater New Orleans area set to receive \$6 million and  
03:20 19 with \$2.2 million set to issue to Jefferson, Terrebonne" --  
03:20 20 you're going to have to help me.

03:20 21 A. Lafourche.

03:20 22 Q. -- "Lafourche" -- apologies -- "St. Bernard, Plaquemines  
03:20 23 and St. Tammany Parishes."

03:20 24 You're aware that BP put that money into those  
03:20 25 tourism industries voluntarily; correct?

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03:20 1 A. Correct.

03:20 2 Q. "The remainder will go to the State Department of Culture,  
03:20 3 Recreation and Tourism to fund general tourism advertisement  
03:20 4 and marketing for the state and will be divided among the other  
03:20 5 Louisiana parishes according to the extent of oil spill impacts  
03:21 6 they each suffered."

03:21 7 Correct?

03:21 8 A. Correct.

03:21 9 Q. And we don't need to read the rest of it, but it then goes  
03:21 10 on to talk about the money put into Alabama as well as  
03:21 11 Mississippi, again, both to the states and then to local  
03:21 12 counties to support tourism; correct?

03:21 13 A. Correct.

03:21 14 Q. And, again, it was a good thing that BP was putting this  
03:21 15 money into the tourism industry to assist the local counties as  
03:21 16 well as the states with tourism; correct?

03:21 17 A. Just to clarify, when you said the money was being put  
03:21 18 into the states and to the local counties, the money was passed  
03:21 19 through the state to get to the local counties.

03:21 20 Q. Fair enough. It was given to the states and then directed  
03:21 21 to the local counties; correct?

03:21 22 A. Correct.

03:21 23 Q. And that was a good thing that BP put that money into the  
03:21 24 states to then pass off to the counties to assist the tourism  
03:21 25 industry?

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03:21 1 A. It was a good thing that the tourism industry was -- was  
03:22 2 assisted, yes.

03:22 3 Q. And it was a good thing that BP did that?

03:22 4 A. It was a good thing that BP attempted and did assist the  
03:22 5 tourism industry. Whether that was the best mechanism by going  
03:22 6 through the states, I do not offer an opinion on.

03:22 7 Q. Okay. You have no opinion whether it was the best  
03:22 8 mechanism, only that it helped; correct?

03:22 9 A. Yes.

03:22 10 Q. Dr. Austin, you agree that BP's grants had a positive  
03:23 11 effect on tourism, that you can't quantify that effect; is that  
03:23 12 correct?

03:23 13 A. That I -- again, the -- for the communities that got the  
03:23 14 money and invested it, that had a positive effect; and, no, I  
03:23 15 cannot quantify that effect.

03:23 16 Q. You spoke to individuals, though, who had knowledge of the  
03:23 17 tourism industry who tracked, as part of their livelihood, how  
03:23 18 the tourism industry was doing in the Gulf immediately after  
03:23 19 the spill or shortly after the spill, within a year; correct?

03:23 20 A. In 2011, yes.

03:23 21 MS. KARIS: And if we can now pull up D-35323,  
03:23 22 please.

03:23 23 BY MS. KARIS:

03:24 24 Q. And, again, these are field notes or code reports from a  
03:24 25 member of your team who went out into the community and spoke

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03:24 1 to somebody and came back and reported the results; correct?

03:24 2 A. These are his notes from an interview, yes, with this  
03:24 3 individual who was in Baldwin County, Alabama.

03:24 4 Q. And the top got cut off there, but there's a question  
03:24 5 that's asked:

03:24 6 "PP: Are you working on a study regarding the  
03:24 7 impacts of the oil spill at the moment?"

03:24 8 And here's the answer. It says:

03:24 9 "No, we're not working on any particular studies.  
03:24 10 The business council will continue to report, as always, but we  
03:24 11 do not have a specific study of the spill."

03:24 12 Do you know who the business council is that's  
03:24 13 referenced there?

03:24 14 A. Okay. Actually, I misspoke. This is an individual in  
03:24 15 Mississippi. He's referring to the University of Southern  
03:24 16 Mississippi.

03:24 17 Q. Okay.

03:24 18 A. The business council would be the council of the local  
03:24 19 government, and that information has been retracted to protect  
03:25 20 people's identities.

03:25 21 Q. It goes on to say that "USM recently did a project and  
03:25 22 partnership with us, but this has been stalled now due to the  
03:25 23 bureaucracy. There is a lot of emotion built into the issue of  
03:25 24 the oil spill and there is a lot of thinking that things must  
03:25 25 have gotten worse since the spill, but the numbers say the

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03:25 1 exact opposite. When you look at the numbers, you see that the  
03:25 2 casinos are up, the hotels are up, sales are up. The last two  
03:25 3 months have been very good. There were 5,000 people from BP  
03:25 4 here at one point during the summer, and this helped the  
03:25 5 economy a lot."

03:25 6 That's what somebody from the business council told  
03:25 7 your team; correct?

03:25 8 A. That is correct.

03:25 9 Q. The BOEM report speaks to the tourism numbers following  
03:25 10 the spill; correct?

03:25 11 A. Correct.

03:25 12 MS. KARIS: If we could look at D-35324.

03:26 13 BY MS. KARIS:

03:26 14 Q. According to the BOEM's report, at the end of 2011,  
03:26 15 Alabama's tourism numbers were reported to be up 51 percent  
03:26 16 since the previous year, while Mississippi was up 7 percent  
03:26 17 over 2010; correct?

03:26 18 A. That is correct.

03:26 19 Q. And individuals that you spoke to mentioned that part of  
03:26 20 the reason for the improvement in the tourism number was the  
03:26 21 grants and the money that BP had been putting into the economy,  
03:26 22 giving the states, which were then passed -- as well as the  
03:26 23 money given to the states, passed on to the local communities;  
03:26 24 correct?

03:26 25 A. Yes. And in this example, they're referring to the money

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03:26 1 that went to South Baldwin County to invest there.

03:27 2 Q. That was in Mississippi, you said?

03:27 3 A. No, that's South Baldwin County, Alabama. That's one of  
03:27 4 the more well-off counties in the region, and they were able to  
03:27 5 access resources fairly quickly.

03:27 6 Q. And to be clear, Alabama reported benefits through the  
03:27 7 tourism grant, Mississippi reported benefits. You're aware  
03:27 8 Louisiana also benefited from the tourism grants; correct?

03:27 9 A. Those communities that received the money, yes, they did.

03:27 10 Q. Just to wrap this up, Dr. Austin, you agree that the money  
03:27 11 that BP spent on VoO, on the claims process, on the block  
03:27 12 grants, on tourism grants all had the effect of mitigating the  
03:27 13 impact of the spill; correct?

03:28 14 A. I agree that all of those helped some individuals and for  
03:28 15 those individuals and businesses to address the economic losses  
03:28 16 that they had from the spill.

03:28 17 Q. Those individuals who received money from any of those  
03:28 18 programs, VoO, either a result of the tourism grants, the block  
03:28 19 grants or the claims payment process, were benefited by BP's  
03:28 20 programs; correct?

03:28 21 A. By and large, that is the case, yes.

03:28 22 Q. Thank you.

03:28 23 MS. KARIS: No further questions.

03:28 24 THE COURT: Does Anadarko have any questions of this  
03:28 25 witness?



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03:28 1 MS. KIRBY: No, Your Honor.

03:28 2 THE COURT: Okay. Thank you. Redirect?

03:28 3 MS. FIDLER: Your Honor, a very short redirect.

03:28 4 REDIRECT EXAMINATION

03:28 5 BY MS. FIDLER:

03:29 6 Q. Danielle Fidler on behalf of the United States.

03:29 7 Dr. Austin, you were asked about the failure to  
03:29 8 include quantitative data in your -- in the social effects  
03:29 9 study. I'd just like to know, do you try to include a  
03:29 10 quantitative assessment when designing a social effects study?

03:29 11 A. Yes. When I was asked to design the study, as I  
03:29 12 mentioned, I went to the region and I talked to people with  
03:29 13 whom we've worked with before and talked to, for instance,  
03:29 14 economists, who argued that they were happy we were doing the  
03:29 15 study, they could not participate in the early phases of the  
03:29 16 study because the data would not be available.

03:29 17 And that this particular disaster and the way that it  
03:29 18 was manifest would cause problems for their economic modeling  
03:29 19 because in the fact that all of the successful businesses --  
03:30 20 businesses, whether they were successful or not, were all being  
03:30 21 affected at the same time. So and -- so from an economics  
03:30 22 point of view, there were -- there was not data available,  
03:30 23 there wasn't -- there weren't economists that were in a  
03:30 24 position to be part of this study.

03:30 25 From the demographers, we are currently involved.

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03:30 1 Our phase 2 study involves demographers, and the purpose is to  
03:30 2 compare results from demography and ethnography and to  
03:30 3 understand for the BOEM how this -- you know, the results that  
03:30 4 were generated.

03:30 5 The problem for the demographers is in -- they need  
03:30 6 data over a period before the spill and after the spill. And  
03:30 7 for small communities, that means that in order to make sure  
03:30 8 that the -- the data has to be aggregated because of the size  
03:30 9 of the communities. So they have to go over a three-year  
10 period.

03:30 11 So this year is the first year that, for instance,  
03:30 12 the American Community Survey data will come out with three  
03:31 13 years post spill, three years prespill, in order for them to do  
03:31 14 that kind of an assessment.

03:31 15 Q. Dr. Austin, you testified that your opinions are  
03:31 16 generalizable if the conditions are the same. Are there any  
03:31 17 conditions that you believe are the same?

03:31 18 A. Certainly, as I mentioned, there are claims processes that  
03:31 19 are ongoing. As one of the other experts reports, 30 percent  
03:31 20 of the claims as of June 30th, 2014 have not been processed.

03:31 21 Q. Finally, in your opinion, did the positive effects of the  
03:31 22 BP actions BP asked you about on redirect -- I mean on  
03:31 23 cross-examination fully remedy the sociocultural harms that you  
03:31 24 identify in your report?

03:31 25 A. No. As I testified, the sociocultural harms are -- arise

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03:31 1 from disparities. And so BP did invest resources and respond  
03:32 2 to the spill. Many people benefited, many people did not. It  
03:32 3 is that disparity that generates sociocultural harms.

03:32 4 And among those who did not benefit from this  
03:32 5 disaster were some of the individuals, businesses, and  
03:32 6 communities that could least afford another blow.

03:32 7 **MS. FIDLER:** Thank you, Dr. Austin.

03:32 8 I have no further questions.

03:32 9 **THE COURT:** All right. Thank you, ma'am.

03:32 10 **THE WITNESS:** Thank you.

03:32 11 **THE COURT:** All right. All right. It's just about  
03:32 12 3:30. Let's take a 15-minute recess.

03:32 13 **THE DEPUTY CLERK:** All rise.

03:32 14 (WHEREUPON, the Court took a recess.)

03:50 15 **THE DEPUTY CLERK:** All rise.

03:50 16 **THE COURT:** All right. Please be seated, everyone.

03:50 17 All right. The government can call its next  
03:50 18 witness.

03:50 19 **MS. PENCAK:** Good afternoon, Your Honor. Erica  
03:50 20 Pencak for the United States. The United States calls  
03:50 21 Dr. Richard Clapp.

03:50 22 **THE COURT:** Okay.

03:50 23 (WHEREUPON, **DR. RICHARD CLAPP**, having been duly  
03:50 24 sworn, testified as follows:)

03:50 25 **THE DEPUTY CLERK:** Please state your full name and

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03:50 1 correct spelling for the record.

03:51 2 THE WITNESS: My name is Richard Clapp, spelled  
03:51 3 C-L-A-P-P.

03:51 4 MS. PENCAK: May I proceed, Your Honor?

03:51 5 THE COURT: Yes. There is a *Daubert* motion with  
03:51 6 respect to this witness also?

03:51 7 MS. PENCAK: Yes, Your Honor. That's correct.

03:51 8 THE COURT: And again, I've read the -- I've read the  
03:51 9 motion, I've read the expert reports of the witness, and I'm  
03:51 10 going to deny the motion. But, again, of course, if there are  
03:51 11 any particular questions that the -- that the other side feels  
03:51 12 are objectionable beyond the expertise of this expert, they can  
03:51 13 object as we go along.

03:51 14 Go ahead. Go ahead.

03:51 15 MS. PENCAK: Thank you, Your Honor.

03:51 16 DIRECT EXAMINATION

03:51 17 BY MS. PENCAK:

03:51 18 Q. Dr. Clapp, what question were you asked to address in your  
03:51 19 work in this matter?

03:51 20 A. I was asked to evaluate the evidence of health impacts of  
03:52 21 the *Deepwater Horizon* explosion, spill, and cleanup.

03:52 22 Q. And what do you consider to be your expertise as it  
03:52 23 relates to your work in this matter?

03:52 24 A. Epidemiology and public health.

03:52 25 Q. What is epidemiology?

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03:52 1 A. It's the study of the patterns and causes of diseases in  
03:52 2 humans.

03:52 3 Q. Do you have a specialty within the field of epidemiology?

03:52 4 A. Yes.

03:52 5 Q. What's that specialty?

03:52 6 A. Cancer epidemiology.

03:52 7 Q. Let's take a look at your educational and professional  
03:52 8 background. Dr. Clapp, did you prepare a slide that describes  
03:52 9 that background?

03:52 10 A. Yes.

03:52 11 MS. PENCAK: Charles, can you please pull up D-33600.

03:52 12 BY MS. PENCAK:

03:52 13 Q. Dr. Clapp, could you please walk through your educational  
03:52 14 background.

03:52 15 A. I have a Bachelor's in biology from Dartmouth College, a  
03:52 16 Master's in public health from Harvard School of Public Health,  
03:52 17 and a Doctorate in epidemiology from Boston University.

03:52 18 Q. Have you taken any courses related to the investigation of  
03:52 19 long-term health effects observed in populations?

03:52 20 A. Yes.

03:52 21 Q. What are those classes?

03:52 22 A. Primarily epidemiology classes, several of those over the  
03:53 23 years.

03:53 24 Q. Have you taken any courses related to the health effects  
03:53 25 of exposure to hazardous substances?

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03:53 1 A. Yes. A course called, "Introduction to the Workplace,"  
03:53 2 which is all about workplace or occupational exposures, and  
03:53 3 then a number of environmental health courses which also  
03:53 4 described, among other things, environmental hazardous  
03:53 5 exposures.

03:53 6 Q. Have you taken any courses related to mental or behavioral  
03:53 7 health?

03:53 8 A. Yeah.

03:53 9 Q. Can you describe those.

03:53 10 A. I took a course actually in medical school called  
03:53 11 "Psychiatry," and then courses in public health school called  
03:53 12 "Social and Behavioral Sciences," and actually undergraduate  
03:53 13 psychological courses as well.

03:53 14 Q. Let's talk about your professional background. How many  
03:53 15 years of experience do you have in the fields of epidemiology  
03:53 16 and public health?

03:53 17 A. Well, epidemiology, perhaps going back 20 or 25 years, but  
03:53 18 public health more like 40 years.

03:53 19 Q. And it says here on the slide that you have spent over  
03:54 20 15 years teaching epidemiology and environmental health. Are  
03:54 21 you currently teaching?

03:54 22 A. Yes.

03:54 23 Q. Where do you currently teach?

03:54 24 A. At Boston University School of Public Health, Harvard  
03:54 25 School of Public Health, University of Massachusetts at Lowell,

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03:54 1 and then occasionally at Clark University.

03:54 2 Q. Have you taught classes on any subjects that you believe  
03:54 3 are related to the work you did in this case?

03:54 4 A. Yes. Occupational epidemiology and environmental  
03:54 5 epidemiology, in particular, and then other courses where I  
03:54 6 have given lectures.

03:54 7 Q. Turning back to the slide on the screen, Dr. Clapp, can  
03:54 8 you describe your experience managing and directing local and  
03:54 9 state-level public health programs?

03:54 10 A. Yes. I think the first local state -- or local public  
03:54 11 health program actually I was involved in was in prisons in  
03:54 12 New York City in the New York City Health Services  
03:54 13 Administration, where I worked in the prison health program.  
03:54 14 And then I did a similar job at the Massachusetts Department of  
03:54 15 Public Health. I was deputy director of prison health for the  
03:54 16 state prisons in Massachusetts.

03:55 17 After that, I worked as director of a community  
03:55 18 health and counseling center in a small city called Lynn,  
03:55 19 Massachusetts. I was director of the statewide childhood lead  
03:55 20 poisoning prevention program in Massachusetts. And subsequent  
03:55 21 to that, director of the child -- sorry, the state cancer  
03:55 22 registry, also in the Department of Public Health in  
03:55 23 Massachusetts.

03:55 24 Q. It says here you also have done some consulting work.  
03:55 25 Could you describe that work briefly?

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03:55 1 A. Briefly, it was basically two jobs, one at a consulting  
03:55 2 company called JSI, which stands for John Snow, Incorporated,  
03:55 3 where we, among other things, provided technical assistance to  
03:55 4 communities concerned about toxic exposures and their health.  
03:55 5 And then a similar job at a place called -- another nonprofit,  
03:55 6 an environmental consulting company called Tellus Incorporated  
03:55 7 in -- or Tellus Institute in Boston.

03:55 8 Q. It states on the slide you've written over  
03:55 9 70 peer-reviewed publications. Do any of the peer-reviewed  
03:55 10 publications you've written investigate the health effects of  
03:56 11 exposure to substances that are constituents of crude oil or to  
03:56 12 substances that are created during the burning of crude oil?

03:56 13 A. Yes.

03:56 14 Q. Could you describe those publications?

03:56 15 A. Well, one was actually a review article reviewing the  
03:56 16 literature about petroleum refineries and exposure to benzene  
03:56 17 and the effects of that. I've written a number of publications  
03:56 18 regarding Agent Orange and its contaminant dioxin, which was  
03:56 19 produced in the *Deepwater Horizon* response.

03:56 20 Q. Do any of the peer-reviewed publications you've written  
03:56 21 investigate the long-term health effects of exposure to  
03:56 22 hazardous substances?

03:56 23 A. Yes.

03:56 24 Q. Can you briefly name those?

03:56 25 A. Well, several. But particularly, for example, studies of



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03:56 1 workers at IBM in the United States and especially in San Jose,  
03:56 2 California, and what IBM workers died of. Workers at a company  
03:56 3 where they were exposed to airborne synthetic fibers and what  
03:57 4 their incidence of lung cancer was and a number of other  
03:57 5 similar reports.

03:57 6 Q. Do any of the peer-reviewed publications you've written  
03:57 7 investigate the health effects of exposure to low levels of  
03:57 8 hazardous substances?

03:57 9 A. Yes.

03:57 10 Q. Could you briefly describe those.

03:57 11 A. Well, one, for example, was people who lived near the  
03:57 12 General Electric plant in Pittsfield, Massachusetts, where they  
03:57 13 were exposed to waste contaminant -- the waste transformer oil.  
03:57 14 It was actually used as fill -- the soil that was contaminated  
03:57 15 with transformer oil, it was used as fill in their backyards.  
03:57 16 And some of the people in that study were exposed to low levels  
03:57 17 of waste oil.

03:57 18 Q. And do any of the peer-reviewed publications you've  
03:57 19 written investigate mental or behavioral health issues?

03:57 20 A. Yes.

03:57 21 Q. Could you describe those?

03:57 22 A. Well, one in particular was Gulf War veterans, the first  
03:57 23 Persian Gulf war. And among other things, these were veterans  
03:58 24 who had been exposed to nerve gas; and the question was whether  
03:58 25 their symptoms might be also due to stress.

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03:58 1 Another publication was looking at an aluminum  
03:58 2 smelting factory in Washington State where one of the symptoms  
03:58 3 that was at issue was depress -- depression.

03:58 4 Q. Are any of the peer-reviewed publications you've written  
03:58 5 cohort studies?

03:58 6 A. Yes.

03:58 7 Q. What is a cohort study?

03:58 8 A. It's a study where you define a group of people based on  
03:58 9 their exposure. So, for example, it might be people who worked  
03:58 10 at a particular plant or in a particular industry, and then you  
03:58 11 follow them over time to see what happened to their health.

03:58 12 Q. How long do you follow them over time?

03:58 13 A. It depends on what it is you're studying. But they can --  
03:58 14 if it's a chronic disease, such as cancer, for example, those  
03:58 15 studies may take 10, 15, 20, or more years of follow-up.

03:58 16 Q. Dr. Clapp, what professional memberships do you hold?

03:58 17 A. I'm a member of the Society for Epidemiologic Research,  
03:59 18 the International Society for Environmental Epidemiology, the  
03:59 19 American Public Health Association, and the Massachusetts  
03:59 20 Public Health Association.

03:59 21 Q. Have you received any honors or awards you feel are  
03:59 22 relevant to your work in this case?

03:59 23 A. Yes. I think the most relevant perhaps is the  
03:59 24 International Society for Environmental Epidemiology gave me  
03:59 25 their Research Integrity Award in 2008. And also the

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03:59 1 Occupational Health and Safety section of the American Public  
03:59 2 Health Association gave me a research award in 2012.

03:59 3 Q. Turning to your work in this case, you prepared three  
03:59 4 expert reports; is that correct?

03:59 5 A. Yes.

03:59 6 MS. PENCAK: Charles, could you please pull up TREXs  
03:59 7 13346, 13347, and 13348.

03:59 8 BY MS. PENCAK:

03:59 9 Q. Dr. Clapp, are the bases for all of your opinions and  
04:00 10 conclusions set forth in your three expert reports in this  
04:00 11 matter?

04:00 12 A. Yes.

04:00 13 Q. And do you adopt the contents of these reports as your  
04:00 14 testimony in this matter?

04:00 15 A. I do.

04:00 16 MS. PENCAK: Your Honor, at this time I tender  
04:00 17 Dr. Clapp as an expert in epidemiology and public health, and I  
04:00 18 would also move his expert reports into evidence.

04:00 19 THE COURT: All right. Are there any questions on  
04:00 20 his qualifications?

04:00 21 MS. KARIS: Subject to our *Daubert* motion,  
04:00 22 Your Honor, none.

04:00 23 THE COURT: All right. Thank you. Go ahead.

04:00 24 BY MS. PENCAK:

04:00 25 Q. So, Dr. Clapp, turning to your work in this case, what are

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04:00 1 your opinions regarding the health effects of the  
04:00 2 *Deepwater Horizon* explosion, oil spill, and response?

04:00 3 A. Well, that there is -- there are substantial and numerous  
04:00 4 health effects for people who were, you know, exposed in the  
04:00 5 *Deepwater Horizon* explosion and subsequent activities.

04:00 6 Q. What are your opinions regarding long-term health effects  
04:00 7 of the explosion, oil spill, and response?

04:00 8 A. Well, it's, I think, too early to say; that the long-term  
04:01 9 effects will be observed in future studies.

04:01 10 Q. Did you prepare a slide that summarized the elements of  
04:01 11 your opinion?

04:01 12 A. Yes.

04:01 13 MS. PENCAK: Charles, could you please call up  
04:01 14 D-33601.

04:01 15 BY MS. PENCAK:

04:01 16 Q. Dr. Clapp, could you briefly walk through the elements of  
04:01 17 your opinion?

04:01 18 A. Yes. Well, first, 11 people were killed and then many  
04:01 19 others were injured -- injured or burned in the explosion and  
04:01 20 the fire that occurred on the rig in April of 2010. Thousands  
04:01 21 of injuries and illnesses were then documented amongst cleanup  
04:01 22 workers, volunteers, and others exposed during that time  
04:01 23 period.

04:01 24 There is an ongoing study, a cohort study that's  
04:01 25 being conducted now and will go on for several more years to

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04:01 1 determine the long-term effects of this spill and the -- and  
04:01 2 the aftermath.

04:01 3 And Dr. Cox's opinions in this matter and his  
04:01 4 conclusions don't alter my opinion, as I've expressed it in my  
04:01 5 reports.

04:01 6 Q. Let's take a look at the first element of your opinion.

04:02 7 MS. PENCAK: Charles, D-33601.1.

04:02 8 BY MS. PENCAK:

04:02 9 Q. Dr. Clapp, what information, if any, did you review that  
04:02 10 support this finding?

04:02 11 A. I read deposition transcripts and trial testimony,  
04:02 12 transcripts of people who were actually at -- on the rig at the  
04:02 13 time of the explosion. I've read a report published in the  
04:02 14 *New England Journal of Medicine*, first author is Goldstein and  
04:02 15 colleagues that describes this. And also the Institute of  
04:02 16 Medicine workshop summary from a workshop held in the summer  
04:02 17 of -- or I guess it was in June of 2010, also refers to this  
04:02 18 immediate effect.

04:02 19 Q. What types of injuries were described in the materials you  
04:02 20 reviewed?

04:02 21 A. Well, the deaths. And then, also, people got burns,  
04:02 22 fractures, and what I would call massive trauma, for example,  
04:02 23 from being blown across the room in the -- on the rig. So a  
04:02 24 combination of those things.

04:02 25 Q. Let's take a look at the second element of your opinion.

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04:02 1 MS. PENCAK: Charles, D-33601.2, please.

04:03 2 BY MS. PENCAK:

04:03 3 Q. It says on the screen: "Thousands of injuries and  
04:03 4 illnesses were documented amongst cleanup workers and  
04:03 5 volunteers during the response to the DWH oil spill."

04:03 6 Dr. Clapp, did you review any information that  
04:03 7 supports this finding?

04:03 8 A. Yes, I did.

04:03 9 Q. And did you prepare a demonstrative to help you walk  
04:03 10 through the information you prepared?

04:03 11 A. Yes.

04:03 12 MS. PENCAK: Charles, D-33602, please.

04:03 13 BY MS. PENCAK:

04:03 14 Q. Dr. Clapp, is this the demonstrative?

04:03 15 A. Yes.

04:03 16 Q. Could you walk through the information listed on this  
04:03 17 demonstrative?

04:03 18 A. The first line, the first bullet is NIOSH Health Hazard  
04:03 19 Evaluations. And these reports -- there's a series of them,  
04:03 20 actually, that describe work -- cleanup worker injuries and  
04:03 21 illnesses.

04:03 22 Next is a British Petroleum *Deepwater Horizon*  
04:03 23 incident response and recordable injury and illness data report  
04:03 24 that covered the time period April 22nd through December 3rd of  
04:03 25 2010.

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04:03 1 Next was a BP Medical Encounters Database. And then,  
04:03 2 lastly, a status report from the *Deepwater Horizon* medical  
04:04 3 benefits claims administrator, the one that was at least filed  
04:04 4 last August.

04:04 5 Q. Starting at the top, Dr. Clapp, what does "NIOSH" stand  
04:04 6 for?

04:04 7 A. It stands for National Institute for Occupational Safety  
04:04 8 and Health.

04:04 9 Q. And what is a Health Hazard Evaluation?

04:04 10 A. These are reports that NIOSH does periodically. They're  
04:04 11 based on observations or measurements taken at work sites where  
04:04 12 there was concern about health problems.

04:04 13 Q. Have you reviewed NIOSH Health Hazard Evaluations prior to  
04:04 14 your work in this case?

04:04 15 A. Yes.

04:04 16 Q. What is your opinion regarding the reliability of  
04:04 17 information set forth in NIOSH HHEs?

04:04 18 A. These are -- those are reliable documents in my view.

04:04 19 Q. Did you prepare a slide that describes what the NIOSH HHE  
04:04 20 in this instance entails?

04:04 21 A. Yes.

04:04 22 MS. PENCAK: Charles, D-33603, please.

04:04 23 BY MS. PENCAK:

04:04 24 Q. Dr. Clapp, can you explain what NIOSH HHEs entails?

04:04 25 A. This was a response to a request from British Petroleum,

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04:05 1 actually, to investigate health hazards in a variety of work  
04:05 2 sites in the -- in the Gulf of Mexico following the DWH spill  
04:05 3 and response.

04:05 4 So the first were teams that would go actually to  
04:05 5 places where workers were actually engaged in the cleanup or on  
04:05 6 the shore even. Secondly, they conducted quantitative and  
04:05 7 qualitative data collections. So the quantitative data  
04:05 8 included monitoring of the air levels of various contaminants.  
04:05 9 And the qualitative data was symptom surveys that were  
10 administered and then compiled.

04:05 11 There was some quantitative analysis of the symptom  
04:05 12 surveys, and a couple of these are in their Health Hazard  
04:05 13 Evaluations. And then they reported on what they saw in the  
04:05 14 form of work practices and procedures, such as personal  
04:05 15 protective equipment being used.

04:05 16 They also record -- reviewed records of people who  
04:05 17 had been hospitalized, either fishermen or others who had been  
04:06 18 hospitalized in the response. And then, finally, in almost all  
04:06 19 of these, they produced conclusions and recommendations.

04:06 20 Q. Dr. Clapp, you noticed that -- you noted that NIOSH  
04:06 21 collected air monitoring data. What is your opinion regarding  
04:06 22 the comprehensiveness of that data?

04:06 23 A. It was not comprehensive.

04:06 24 Q. What is the basis of that opinion?

04:06 25 A. The -- the air monitoring data was collected at the time



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04:06 1 of the site visit, so that might be on a particular day or a  
04:06 2 particular short -- short time period, and it could be  
04:06 3 different on other days or in other meteorologic conditions  
04:06 4 than on the days that the site -- the site visit occurred.

04:06 5 So it wasn't comprehensive. In fact, I don't think  
04:06 6 NIOSH would claim that it was comprehensive.

04:06 7 Q. Speaking generally right now, not necessarily about NIOSH,  
04:06 8 are there certain types of symptoms that are associated with  
04:06 9 human exposure to crude oil?

04:06 10 A. Yes.

04:06 11 Q. Did you prepare a slide to summarize those symptoms?

04:06 12 A. Yes, I did.

04:07 13 MS. PENCAK: Charles, could you pull up D-33604.

04:07 14 BY MS. PENCAK:

04:07 15 Q. Dr. Clapp, what is the source of this chart we're looking  
04:07 16 at?

04:07 17 A. This is a table from the workshop summary of that  
04:07 18 Institute of Medicine workshop that I mentioned. So it's a  
04:07 19 workshop entitled, "Assessing the Health Effects" -- sorry,  
04:07 20 "Assessing the Effects of the Gulf of Mexico Spill on Human  
04:07 21 Health: A Summary of the June 2010 Workshop."

04:07 22 So this is a table from that workshop summary.

04:07 23 Q. What is the Institute of Medicine?

04:07 24 A. It's one of the three components of the National Academy  
04:07 25 of Sciences. It's the one that deals with health and public

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04:07 1 health.

04:07 2 Q. Who participated in the IOM June workshop?

04:07 3 A. This workshop was public health experts, researchers who  
04:07 4 had studied the health effects of previous oil spills and --  
04:07 5 that was in the published literature. The agency  
04:07 6 representatives from a variety of government agencies and the  
04:07 7 public all participated in this workshop.

04:08 8 Q. What is your opinion regarding the reputation of the IOM?

04:08 9 A. Oh, the IOM has a good reputation. It's well respected in  
04:08 10 the field that I'm familiar with.

04:08 11 Q. What's your opinion on the reliability of information  
04:08 12 published by the IOM?

04:08 13 A. Their reports are reliable in my view.

04:08 14 Q. So going back to the demonstrative on the screen, D-33604,  
04:08 15 which for the record is a call-out from TREN-232509.066.

04:08 16 Dr. Clapp, what are some of the symptoms associated  
04:08 17 with human exposure to crude oil?

04:08 18 A. Well, first is the skin, dermal symptoms. So that can  
04:08 19 include redness, swelling, irritation, and a rash. Next, there  
04:08 20 are ocular -- in other words, the eyes -- which also can get,  
04:08 21 from exposure to airborne contaminants, redness, soreness,  
04:08 22 watering, itching of the eyes.

04:08 23 Respiratory effects, including cough, shortness of  
04:08 24 breath, wheezing, those kinds of things.

04:09 25 And then lastly, neurological effects, which include

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04:09 1 nausea, vomiting, headache, dizziness, confusion, weakness of  
04:09 2 the extremities.

04:09 3 Q. Have you reviewed other sources of information that list  
04:09 4 symptoms associated with human exposure to crude oil?

04:09 5 A. Yes.

04:09 6 Q. What are those other sources?

04:09 7 A. The article I mentioned in the *New England Journal of*  
04:09 8 *Medicine* mentions these, the article authored by Goldstein and  
04:09 9 coauthors. The previously studied oil spills that are in the  
04:09 10 published literature list all of these, actually, and different  
04:09 11 situations as symptoms from the exposures from previous oil  
04:09 12 spills.

04:09 13 Q. Dr. Clapp, turning back to the NIOSH HHEs, were symptoms  
04:09 14 associated with human exposure to crude oil reported in the  
04:09 15 responses to NIOSH's human health surveys?

04:09 16 A. Yes.

04:09 17 Q. What types of symptoms associated with human exposure to  
04:10 18 crude oil were reported in the responses to NIOSH's human  
04:10 19 health surveys?

04:10 20 A. All of these. Skin -- skin symptoms, ocular symptoms,  
04:10 21 respiratory symptoms, and neurological symptoms were all  
04:10 22 reported in the various databases.

04:10 23 MS. PENCAK: Charles, can you please bring up  
04:10 24 D-33603.

25

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04:10 1 BY MS. PENCAK:

04:10 2 Q. Dr. Clapp, as you discussed before, NIOSH conducted some  
04:10 3 quantitative analysis of the health systems surveys. Can you  
04:10 4 describe that analysis?

04:10 5 A. Yes. In particular, there was a survey that was done of  
04:10 6 workers who had been exposed to oil or dispersants. And they  
04:10 7 would compare -- the prevalence of certain symptoms were  
04:10 8 compared to the same symptoms in those not exposed. So it was  
04:10 9 a comparison of exposed to unexposed on specific symptoms.

04:10 10 Q. And you used the word "prevalence." Is this also known as  
04:10 11 a prevalence study?

04:10 12 A. Yes.

04:10 13 Q. What basis -- on what basis were the workers placed into  
04:10 14 an unexposed or exposed group?

04:10 15 A. It was based on self-report and also where they worked,  
04:11 16 where their jobs were located.

04:11 17 Q. How are prevalence studies used as a tool by  
04:11 18 epidemiologists?

04:11 19 A. Well, they're a way of estimating risks. I mean, there  
04:11 20 is -- it is one of the methods used by epidemiologists to  
04:11 21 estimate risk, either excess risk or even reduced risk in  
04:11 22 exposed populations.

04:11 23 Q. What did NIOSH find when it conducted its prevalence  
04:11 24 study?

04:11 25 A. Well, in particular, the respiratory symptoms were

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04:11 1 significantly higher amongst those who were exposed to either  
04:11 2 oil or dispersants in one particular analysis that they did.

04:11 3 Q. All right. Let's take a closer look at one of those  
04:11 4 analyses.

04:11 5 MS. PENCAK: Charles, can you pull up D-33605.

04:11 6 BY MS. PENCAK:

04:11 7 Q. Dr. Clapp, what are we looking at here?

04:11 8 A. This is a table from one of the NIOSH Health Hazard  
04:11 9 Evaluation reports, and it actually lists the symptoms on the  
04:11 10 left, the upper left. It says either upper respiratory cough  
04:11 11 or lower respiratory symptoms. And this analysis lists --  
04:11 12 focuses on lower respiratory, which they define in the footnote  
04:12 13 as trouble breathing, shortness of breath, chest tightness, or  
04:12 14 wheezing.

04:12 15 So in those who were exposed to oil -- since I have  
04:12 16 Charles' pointer, I'm going to use it here.

04:12 17 Those who were exposed to oil, 12 percent had lower  
04:12 18 respiratory symptoms. Those who were unexposed to oil, only  
04:12 19 4 percent had respiratory symptoms in this survey. And so the  
04:12 20 ratio of 12 percent divided by 4 percent is roughly 3, or 2.99,  
04:12 21 and that's what's referred to here as a prevalence ratio.

04:12 22 And then in the same column, lower -- or on the same  
04:12 23 line, lower respiratory symptoms, those who were exposed to  
04:12 24 dispersant, 18 percent got these lower respiratory symptoms.  
04:12 25 Those who were unexposed to dispersant, 4.7 percent had the

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04:12 1 lower respiratory symptoms. So that ratio of 18 divided by  
04:12 2 4.7 is 3.76, or almost a fourfold increased prevalence in the  
04:13 3 exposed population.

04:13 4 Q. Dr. Clapp, are any of the prevalence ratios shown on this  
04:13 5 slide statistically significant?

04:13 6 A. Yes, they all are. In this particular slide, all of them  
04:13 7 are.

04:13 8 Q. How can you tell?

04:13 9 A. There's a column here called "p-value." And then for the  
04:13 10 oil comparison, all of the p-values are less than .01. And  
04:13 11 similarly for dispersant, all of the p-values are less than  
04:13 12 .01. And in my field, by definition, that refer -- that is  
04:13 13 referred to as a statistically significant comparison and  
04:13 14 finding.

04:13 15 Q. And what does it mean that the -- the finding is  
04:13 16 statistically significant?

04:13 17 A. It's a way of saying the -- the likelihood -- the  
04:13 18 likelihood that this difference could be occurred -- could have  
04:13 19 occurred by chance is less than 1 percent.

04:13 20 Q. What relevance does this prevalence study have to your  
04:13 21 opinions in this case?

04:13 22 A. Well, it supports my opinions. It's part of the  
04:13 23 information I take into account to say that there was  
04:13 24 substantial evidence of health effects in the people exposed in  
04:14 25 the *Deepwater Horizon*.

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04:14 1 Q. Now, I want to be clear, are you testifying that any  
04:14 2 specific symptom reported in NIOSH's health symptom surveys  
04:14 3 was, in fact, caused by exposure to oil?

04:14 4 A. No.

04:14 5 Q. So have you drawn any conclusions about the specific cause  
04:14 6 of any given symptom observed or reported during the response?

04:14 7 A. No.

04:14 8 Q. Dr. Clapp, what is your opinion about the short-term human  
04:14 9 health effects of the spill?

04:14 10 A. That there were substantial -- the people who were exposed  
04:14 11 in the response work or in the cleanup showed evidence of  
04:14 12 substantial health effects, adverse health effects.

04:14 13 Q. How can you reach that opinion without drawing any  
04:14 14 conclusions about the specific cause of any given symptom  
04:14 15 observed or reported?

04:14 16 A. I'm looking at the pattern in the groups, in the groups of  
04:14 17 people who worked on the ships as doing, you know, immediate  
04:14 18 response, people who worked onshore, and the pattern in the  
04:15 19 databases that collected information about the health  
04:15 20 consequences.

04:15 21 MS. KARIS: Your Honor, I apologize. But at this  
04:15 22 time we renew our *Daubert* motion in light of testimony of  
04:15 23 Dr. Clapp, that he cannot -- he has no opinion connecting a  
04:15 24 single injury that was reported in these databases to the  
04:15 25 *Deepwater Horizon* spill. Without that connection, we believe

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04:15 1 that Dr. Clapp's testimony should be stricken.

04:15 2 **THE COURT:** Okay. I'll overrule the objection. I  
04:15 3 don't understand that that's the point of his testimony.

04:15 4 Am I right about that?

04:15 5 **THE WITNESS:** Yes.

04:15 6 **THE COURT:** Yeah. Okay. Go ahead.

04:15 7 **MS. PENCAK:** Thank you, Your Honor.

04:15 8 Charles, could you please pull up D-33602.

04:15 9 **BY MS. PENCAK:**

04:15 10 **Q.** And the second bullet point here, the BP *Deepwater Horizon*  
04:15 11 incident response and recordable injury and illness data  
04:15 12 report, can we refer to that more briefly as the BP injury and  
04:15 13 illness data report?

04:16 14 **A.** Yes, please.

04:16 15 **MS. PENCAK:** Charles, could you please pull up  
04:16 16 TREX-12020.003, please.

04:16 17 **BY MS. PENCAK:**

04:16 18 **Q.** Dr. Clapp, is this the -- the report?

04:16 19 **A.** This is the cover, yes.

04:16 20 **Q.** It says here on the screen that this information covers  
04:16 21 occupational illnesses and injuries. What is an occupational  
04:16 22 illness or injury?

04:16 23 **A.** In my field, that means something that occurred at work or  
04:16 24 arose as a result of the things that happened at work.

04:16 25 **Q.** What information, if any, did you find in this document



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04:16 1 that was pertinent to your work in this case?

04:16 2 A. Well, there were lots of examples actually, lots of  
04:16 3 documented cases that indicate that adverse health effect.

04:16 4 Q. In the fields of epidemiology and public health, are  
04:16 5 symptom summary reports like this something you or your  
04:16 6 colleagues rely on?

04:16 7 A. Yes.

04:16 8 Q. In what way?

04:16 9 A. It's a way of understanding the pattern of illness in an  
04:16 10 exposed or even a population of interest, what -- whatever they  
04:16 11 were exposed to. So these databases are used in other settings  
04:17 12 as well.

04:17 13 Q. In your work, have you relied on symptom databases in the  
04:17 14 past?

04:17 15 A. Yes.

04:17 16 Q. Can you give an example?

04:17 17 A. Well, I mentioned before, the Gulf War illnesses --  
04:17 18 Gulf War veterans. There was a database like this of Gulf War  
04:17 19 illnesses collected by the Veterans Administration that I and  
04:17 20 my colleagues looked at and relied upon.

04:17 21 Similarly, Agent Orange exposed Vietnam veterans.  
04:17 22 There were, you know, databases collected by the VA -- or data  
04:17 23 collected by the VA of people with illnesses that they  
04:17 24 considered were potentially related to Agent Orange.

04:17 25 Q. And what's your opinion regarding the reliability of such

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04:17 1 databases or reports compiling information of such databases?

04:17 2 A. Well, it's certainly reliable information and one takes  
04:17 3 those into account in perhaps doing further studies.

04:17 4 Q. Let's take a look at some of the injuries and illnesses  
04:18 5 described in this report.

04:18 6 MS. PENCAK: Charles, could you please turn to  
04:18 7 TREN-12020.041, please. Is there a way to blow that up to make  
04:18 8 it a little less blurry?

04:18 9 BY MS. PENCAK:

04:18 10 Q. I apologize for the quality. This is another deposition  
04:18 11 exhibit that's been scanned a few times.

04:18 12 Dr. Clapp, could you -- what is the title of this  
04:18 13 slide we're looking at?

04:18 14 A. The title is "Medical Treatment, Restricted Duty and Days  
04:18 15 Away from Work, Recordable Incidents," and this looks like all  
04:18 16 from July 10th.

04:18 17 Q. And if you can read on the screen in front of you, if the  
04:18 18 print is good enough, can you just describe a few of the  
04:18 19 injuries and illnesses on this slide?

04:18 20 A. Oh, I'll just read it. I think the third entry says,  
04:18 21 "Worker slipped and fell on oil covered stem of vessel," and  
04:18 22 then "pain in left arm and neck." And the treatment he  
04:18 23 received were -- he was -- his arm put in a splint, wrapped  
04:19 24 with an ACE bandage, transported to the hospital. And his arm  
04:19 25 was -- his arm was fractured.

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04:19 1           Going down another three or four, there's a person  
04:19 2 who had heat stress, nausea, vomiting, dehydration. And that  
04:19 3 person's treatment included IV, which I think means intravenous  
04:19 4 fluids, and cooling pack.

04:19 5           Further down, there was a worker who was -- had rapid  
04:19 6 progression of heart-related illness, clammy, chills,  
04:19 7 disoriented. He was transported to the hospital and also got  
04:19 8 intravenous fluids, and on with that.

04:19 9 Q. I know the print is bad, but is that heat-related illness,  
04:19 10 not heart?

04:19 11 A. Yes.

04:19 12 Q. Not heart-related --

04:19 13 A. Yes. That's what it said, rapid progression of  
04:19 14 heat-related illness, clammy, chills, disoriented.

04:19 15 Q. And then let's just briefly take a look at one more page.

04:19 16           **MS. PENCAK:** Charles, can you pull up TRES-12020.066.  
04:20 17 And if you can blow that up just a little bit.

04:20 18 **BY MS. PENCAK:**

04:20 19 Q. Dr. Clapp, can you walk through just a few of the injuries  
04:20 20 and illnesses reported on this page?

04:20 21 A. Yes. Here I think -- oh, what is it? The fourth one  
04:20 22 down, it's a person who was cutting rope on a boom, a wave hit  
04:20 23 the boat, his knife slipped, his or her knife slipped and the  
04:20 24 worker was stabbed in the arm. Then the treatment was pressure  
04:20 25 bandage, transported to medical center, and IV.

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04:20 1 And, again, further down, a little below the middle  
04:20 2 of that, there is another nausea, vomiting, headache, dizziness  
04:20 3 entry, and there the treatment was oxygen. And a similar  
04:20 4 combination of, I would say, symptoms and injuries are reported  
04:20 5 on this page.

04:20 6 Q. We just looked at injuries and symptoms that were reported  
04:20 7 on a few days during the response. Were the types of injuries  
04:20 8 you've just testified about reported on other days during the  
04:21 9 spill?

04:21 10 A. Yes.

04:21 11 Q. Dr. Clapp, were any of the symptoms you saw reported in  
04:21 12 the BP injury and illness data report symptoms that are  
04:21 13 associated with exposure to crude oil?

04:21 14 A. Yes.

04:21 15 Q. Can you give some examples just using the page that's  
04:21 16 still up on the screen?

04:21 17 A. Well, nausea, vomiting, headache, dizziness, those are all  
04:21 18 symptoms, as we've seen from the previous summary, that are  
04:21 19 related to exposure to oil.

04:21 20 It looks like the eyes in this instance on the  
04:21 21 bottom -- the line at the bottom is from sand. So that's not  
04:21 22 specifically to -- to oil. Those are the ones that I can see.  
04:21 23 The others on this page are more injuries.

04:21 24 Q. What relevance does the BP injury and illness data report  
04:21 25 have to your opinions in this case?

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04:21 1 A. Well, it's certainly one of the databases that I take into  
04:21 2 account. And I think it does document numerous illnesses and  
04:21 3 injuries in people exposed during the response.

04:22 4 MS. PENCAK: Charles, D-33602, please.

04:22 5 BY MS. PENCAK:

04:22 6 Q. Dr. Clapp, the third item on this list of information you  
04:22 7 reviewed is the BP Medical Encounters Database. What is the BP  
04:22 8 Medical Encounters Database?

04:22 9 A. This is a compilation of information at BP clinics that  
04:22 10 were compiled by people who visited or compiled, I believe, by  
04:22 11 medics who worked in these BP clinics, but it was people who  
04:22 12 visited those clinics over a time period.

04:22 13 Q. What are some of the symptoms you saw in the Medical  
04:22 14 Encounters Database?

04:22 15 A. These same types of symptoms: neurological effects such  
04:22 16 as dizziness, lightheadedness, respiratory effects, cough,  
04:22 17 upper respiratory irritation, skin rashes. All of that was  
04:22 18 recorded in the Medical Encounters Database.

04:22 19 Q. Let's take a look at the Medical Encounters Database for  
04:22 20 just a moment.

04:22 21 MS. PENCAK: And for the record, Your Honor, I'll let  
04:22 22 you know that a few of the columns have been hidden in order  
04:22 23 to, out of an abundance of caution, protect personal privacy.

04:23 24 Charles, can you please pull up TRES-230437 NR.  
25

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04:23 1 BY MS. PENCAK:

04:23 2 Q. Dr. Clapp, is that the Medical Encounters Database with  
04:23 3 some of the columns redacted?

04:23 4 A. Yes.

04:23 5 Q. And is there a way of telling from this database whether  
04:23 6 or not the symptoms reported are occupational?

04:23 7 A. Yes.

04:23 8 Q. How do you use this database to find that out?

04:23 9 A. There's a column where that is entered. It's either yes  
04:23 10 or no, occupational.

04:23 11 MS. PENCAK: Charles, you can pull down this TREX.

04:23 12 BY MS. PENCAK:

04:23 13 Q. Dr. Clapp, what relevance does the Medical Encounters  
04:23 14 Database have to your opinions in this case?

04:23 15 A. Well, this also supports my opinion that there's  
04:23 16 considerable evidence of adverse health effects in people who  
04:23 17 were exposed during the *Deepwater Horizon* spill and the  
04:23 18 aftermath.

04:23 19 MS. PENCAK: Charles, sorry, we're already there.

04:24 20 BY MS. PENCAK:

04:24 21 Q. Dr. Clapp, you also note that you reviewed the status  
04:24 22 report from the *Deepwater Horizon* Medical Benefits Settlement  
04:24 23 claims administrator. Is that correct?

04:24 24 A. Yes.

04:24 25 MS. PENCAK: Charles, can you please pull up

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04:24 1 TREX-232524.

04:24 2 **BY MS. PENCAK:**

04:24 3 **Q.** Dr. Clapp, is this the status report that you reviewed or  
04:24 4 the first page of it, at least?

04:24 5 **A.** Yes.

04:24 6 **Q.** What relevance does the status report from the *Deepwater*  
04:24 7 *Horizon* Medical Benefits Settlement claims administrator have  
04:24 8 to your opinions?

04:24 9 **A.** Again, it provides evidence that people are already being  
04:24 10 compensated for claims that were described in this process as  
04:24 11 having occurred within 72 hours, for example, of the *Deepwater*  
04:24 12 *Horizon* event.

04:24 13 **Q.** Now, Dr. Clapp, you also reviewed peer-reviewed literature  
04:24 14 about prior spills; correct?

04:24 15 **A.** Yes.

04:24 16 **Q.** Why did you review that peer-reviewed literature?

04:24 17 **A.** I thought it would be important to know what had been seen  
04:24 18 in previous spills where people were exposed to oil from an  
04:24 19 accident at sea.

04:24 20 **Q.** Are there differences between those prior oil spills and  
04:25 21 this spill?

04:25 22 **A.** Yes.

04:25 23 **Q.** What impact do those differences have, in your opinion, on  
04:25 24 the applicability of that peer-reviewed literature on prior oil  
04:25 25 spills to an assessment of this spill?

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04:25 1 A. The differences did not render the prior oil spills  
04:25 2 inapplicable and the lessons learned in the prior oil spills  
04:25 3 inapplicable, even though the conditions themselves may have  
04:25 4 been somewhat different.

04:25 5 Q. Continuing on with the elements of your opinion --

04:25 6 MS. PENCAK: Charles, can you pull up D-33600.3,  
04:25 7 please.

04:25 8 BY MS. PENCAK:

04:25 9 Q. Dr. Clapp, this third element of your opinion is that  
04:25 10 ongoing work is being conducted to determine the long-term  
04:25 11 impact of the spill on human health and it is premature to draw  
04:25 12 conclusions about the long-term impacts at this time.

04:25 13 Can you explain about the ongoing work that is being  
04:25 14 conducted?

04:25 15 A. Yes. There is a cohort study, a large one, actually, of  
04:25 16 30,000 people or more that is being conducted by a federal  
04:25 17 agency called the National Institute of Environmental Health  
04:26 18 Sciences.

04:26 19 The people who have been enrolled in this study have  
04:26 20 already -- many of them had home visits, have given biological  
04:26 21 samples, and will be followed for another ten years or another  
04:26 22 five years. We're not quite halfway through the initial plan  
04:26 23 for the length of this particular cohort study. But it's still  
04:26 24 not quite half -- half finished.

04:26 25 Q. So what is the initial plan for the length of the cohort



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04:26 1 study?

04:26 2 A. The initial plan is for ten years.

04:26 3 Q. Dr. Clapp, have you read the report submitted by BP's  
04:26 4 expert, Dr. Cox, in this matter?

04:26 5 A. Yes.

04:26 6 MS. PENCAK: Charles, D-33604, please.

04:26 7 BY MS. PENCAK:

04:26 8 Q. Dr. Clapp, what's the final element of your opinion listed  
04:26 9 on this slide?

04:26 10 A. Well, Dr. Cox's opinions and conclusions have not altered  
04:26 11 mine in this matter in that this -- *this Deepwater Horizon*  
04:26 12 explosion, spill, and the response resulted in substantial  
04:26 13 human health impact.

04:26 14 Q. Does Dr. Cox draw any conclusions regarding the long-term  
04:27 15 impacts of the spill?

04:27 16 A. He says the long-term impacts of the spill are unlikely.

04:27 17 MS. PENCAK: Just for the record, I said the  
04:27 18 demonstrative number wrong. This is D-33601.4 that we're  
04:27 19 looking at.

04:27 20 BY MS. PENCAK:

04:27 21 Q. Dr. Clapp, what is your opinion regarding Dr. Cox's  
04:27 22 conclusions regarding long-term effects?

04:27 23 A. I don't think they're correct.

04:27 24 Q. Why is that?

04:27 25 A. Well, I think it's premature to have such an opinion,

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04:27 1 actually, that they were unlikely -- that it would be unlikely  
04:27 2 that there would be any effects. We're still looking.

04:27 3 Q. Does Dr. Cox draw any conclusions regarding the likelihood  
04:27 4 of adverse health effects due to inhalation exposure to oil or  
04:27 5 dispersants during the spill and response?

04:27 6 A. Yes.

04:27 7 Q. What are those conclusions?

04:27 8 A. Again, I think that they're unlikely.

04:27 9 Q. And do you agree with that conclusion?

04:27 10 A. No.

04:27 11 Q. What is the methodology that Dr. Cox relies upon to form  
04:28 12 that conclusion?

04:28 13 A. He conducted what he called a risk assessment, and in  
04:28 14 that, he relied on something called benchmark levels or  
04:28 15 benchmark doses.

04:28 16 Q. And how does he define a benchmark dose?

04:28 17 A. A level below which no adverse human health impact is  
04:28 18 likely to occur.

04:28 19 Q. And do you agree that benchmark doses, those that Dr. Cox  
04:28 20 relied upon, are levels below which no adverse health effects  
04:28 21 are expected?

04:28 22 A. No.

04:28 23 Q. Based on the data you reviewed, do you agree with Dr. Cox  
04:28 24 that most air measurements taken during the response were below  
04:28 25 the benchmarks used by Dr. Cox?

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04:28 1 A. Yes.

04:28 2 Q. What is your opinion regarding the health effects of  
04:28 3 exposure to components of crude oil at levels below the  
04:28 4 benchmarks used by Dr. Cox in his report?

04:28 5 A. It's my opinion that they can still occur.

04:28 6 Q. What's the basis for that opinion?

04:28 7 A. That there are, in any population, susceptible subgroups  
04:29 8 and people who are, for example, stressed from other conditions  
04:29 9 that were in their lives at the time. And also that there are  
04:29 10 some particular exposures, like, to benzene, which is a known  
04:29 11 human carcinogen, where there's no safe level. There's no  
04:29 12 benchmark level that would adequately protect all future health  
04:29 13 events.

04:29 14 Q. What do you mean by "no safe level"?

04:29 15 A. That any exposure to that chemical -- benzene, in  
04:29 16 particular -- above zero, can cause an adverse health effect.

04:29 17 Q. And what is the basis for -- what is your basis for that  
04:29 18 opinion?

04:29 19 A. Two things. There's an EPA guidance document which -- for  
04:29 20 benzene which suggests that the dose response for benzene  
04:29 21 exposure is linear, and that means that it just goes up with  
04:29 22 any increasing dose from zero. So that's guidance that the EPA  
04:29 23 uses.

04:30 24 Also, there's a journal article by, I think, one of  
04:30 25 the country's most -- foremost experts on how benzene affects

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04:30 1 the human body -- his name is Martin Smith -- where he says the  
04:30 2 same thing, there is no safe level of benzene.

04:30 3 MS. PENCAK: Charles, could you please pull up  
04:30 4 TREN-13108.

04:30 5 BY MS. PENCAK:

04:30 6 Q. Dr. Clapp, is this the first page of the EPA guidance you  
04:30 7 just mentioned?

04:30 8 A. Yes.

04:30 9 MS. PENCAK: And, Charles, could you please call up  
04:30 10 TREN-233329.

04:30 11 BY MS. PENCAK:

04:30 12 Q. Dr. Clapp, is this the first page of the Martin Smith  
04:30 13 article you just mentioned?

04:30 14 A. Yes, it is.

04:31 15 Q. Dr. Clapp, does Dr. Cox draw any conclusions regarding the  
04:31 16 likelihood of adverse health effects due to dermal exposure to  
04:31 17 oil or dispersant during the spill and response?

04:31 18 A. Yes, he does.

04:31 19 Q. What is his conclusion?

04:31 20 A. That they're unlikely, and I actually think he even says  
04:31 21 that because of personal protection equipment, there may be no  
04:31 22 dermal effects.

04:31 23 Q. Do you agree with that?

04:31 24 A. No.

04:31 25 Q. Why not?

## DR. RICHARD CLAPP - DIRECT

04:31 1 A. There's ample evidence of -- of dermal exposures and the  
04:31 2 kinds of effects that one would expect from oil exposures in  
04:31 3 these databases that we've been discussing. And also, we have  
04:31 4 photographs of people doing cleanup work where they were not  
04:31 5 adequately protected and their skin was not adequately  
04:31 6 protected.

04:31 7 MS. PENCAK: Charles, could you please pull up  
04:31 8 TREN-231739.

04:31 9 BY MS. PENCAK:

04:31 10 Q. Dr. Clapp, is this one of the photos you were referring  
04:31 11 to?

04:31 12 A. Yes.

04:32 13 Q. Could you explain what we're looking at here?

04:32 14 A. Yes. This is two women cleaning a bird, and one is  
04:32 15 holding the bird's beak and doesn't have gloves; the other  
04:32 16 woman does. And neither of them has long clothes -- or long  
04:32 17 sleeves, I should say, or long pants.

04:32 18 There are two other people on this slide who just  
04:32 19 seem to be observing, so I can't tell whether they should have  
04:32 20 been wearing personal protective equipment or not. But the  
04:32 21 woman holding the bird -- holding the bird's beak certainly  
04:32 22 should have.

04:32 23 MS. PENCAK: Charles, can you please pull up  
04:32 24 TREN-12621.

25

## DR. RICHARD CLAPP - DIRECT

04:32 1 BY MS. PENCAK:

04:32 2 Q. Dr. Clapp, is this another one of the photos you were  
04:32 3 referring to?

04:32 4 A. Yes.

04:32 5 Q. Can you describe what we're looking at here?

04:32 6 A. Well, here it looks like a man is dropping some kind of  
04:32 7 solution on the bird's feet, without gloves. And then the  
04:32 8 woman who is holding the bird does have gloves, but it looks as  
04:32 9 though there are some sort of smears on her right leg.

04:33 10 Q. Dr. Clapp, did NIOSH make any conclusions about PPEs  
04:33 11 during their response?

04:33 12 A. Yes.

04:33 13 Q. What were those conclusions?

04:33 14 A. Well, they concluded that it was used appropriately in  
04:33 15 many instances but that it was not always used.

04:33 16 Q. Switching topics for just a few questions.

04:33 17 Dr. Clapp, what is biomonitoring?

04:33 18 A. That refers to the collecting of biological specimens.  
04:33 19 Usually it's blood or urine.

04:33 20 Q. Was biomonitoring conducted by BP or federal agencies  
04:33 21 during the response?

04:33 22 A. No.

04:33 23 Q. What is your opinion regarding the implications, if any,  
04:33 24 of the absence of biomonitoring during the response?

04:33 25 A. It's going to -- it's going to make it more difficult to

## DR. RICHARD CLAPP - DIRECT

04:33 1 accurately characterize exposure. And it also will have  
04:33 2 implications for the cohort study and, again, the inability to  
04:33 3 fully characterize exposure.

04:33 4 Q. Did Dr. Cox rely on any -- did Dr. Cox rely on any  
04:33 5 biomonitoring data in forming his conclusions?

04:33 6 A. No.

04:33 7 Q. Does Dr. Cox criticize you for not conducting a risk  
04:34 8 assessment in this case?

04:34 9 A. Yes.

04:34 10 Q. What is your opinion regarding the necessity of conducting  
04:34 11 a risk assessment to answer the question you were asked to  
04:34 12 address here?

04:34 13 A. It doesn't affect my ability to answer the question I was  
04:34 14 asked. It isn't necessary for that purpose.

04:34 15 Q. Why not?

04:34 16 A. Well, there's -- in the databases that we've been  
04:34 17 discussing, there's ample evidence that there were health  
04:34 18 impacts and people were either going to clinics or being  
04:34 19 admitted to the hospital or getting IVs. That, you don't need  
04:34 20 a risk assessment to produce. It's already been -- it's  
04:34 21 already occurred, and the databases summarize that.

04:34 22 MS. PENCAK: Thank you.

04:34 23 No further questions for this witness at this  
04:34 24 time, Your Honor.

04:34 25 THE COURT: All right. Okay.

## DR. RICHARD CLAPP - CROSS

04:34 1 MS. KARIS: May I proceed, Your Honor?

04:34 2 THE COURT: Yes.

04:34 3 CROSS-EXAMINATION

04:34 4 BY MS. KARIS:

04:35 5 Q. Hariklia Karis for BP. And, Dr. Clapp, for the record, I  
04:35 6 have you on cross-examination.

04:35 7 Dr. Clapp, you are not a medical doctor; correct?

04:35 8 A. Correct.

04:35 9 Q. You are not licensed to evaluate or treat patients for  
04:35 10 medical conditions; correct?

04:35 11 A. Correct.

04:35 12 Q. You're not board-certified in any medical specialty;  
04:35 13 correct?

04:35 14 A. Correct.

04:35 15 Q. And you are also not a toxicologist; correct?

04:35 16 A. Correct.

04:35 17 Q. You spoke about Dr. Cox. You're aware that he is a  
04:35 18 board-certified toxicologist; correct?

04:35 19 A. I recall that on his CV, yes.

04:35 20 Q. And he is also a board-certified physician; correct?

04:36 21 A. As I recall, yes.

04:36 22 Q. You spoke about your prior experience. And to be clear,  
04:36 23 you have no prior experience assessing the potential toxicity  
04:36 24 of oil or oil constituents following an oil spill; correct?

04:36 25 A. Not of this type, correct.



## DR. RICHARD CLAPP - CROSS

04:36 1 Q. You have no prior experience assessing the potential  
04:36 2 toxicity of dispersants or constituents of dispersants  
04:36 3 following an oil spill; correct?

04:36 4 A. Correct.

04:36 5 Q. You have no experience assessing potential human exposure  
04:36 6 to weathered oil or its constituents following a marine oil  
04:36 7 spill; correct?

04:36 8 A. Correct.

04:36 9 Q. You have no experience assessing potential human exposure  
04:36 10 to volatile organic compounds, or VOCs, after a marine oil  
04:37 11 spill; correct?

04:37 12 A. Correct.

04:37 13 Q. And the same is true, with no experience for assessing  
04:37 14 potential human exposures to polycyclic aromatic hydrocarbons,  
04:37 15 PAHs as they're referred to, correct, following a marine oil  
04:37 16 spill?

04:37 17 A. Well, with that addition, yes, correct.

04:37 18 Q. You have no experience assessing any acute health  
04:37 19 conditions from potential exposure to oil or oil constituents  
04:37 20 following a marine oil spill; correct?

04:37 21 A. Correct.

04:37 22 Q. And the same is true with respect to chronic health  
04:37 23 conditions; correct? No prior experience following a marine  
04:37 24 oil spill?

04:37 25 A. With respect to chronic conditions, that's correct.

## DR. RICHARD CLAPP - CROSS

04:37 1 Q. Dr. Clapp, it's correct that you have no experience  
04:37 2 assessing any potential human health impacts to workers or to  
04:38 3 communities following a marine oil spill; correct?

04:38 4 A. Not an ocean spill such as this, no.

04:38 5 Q. Now, I noticed in your direct exam you didn't speak much  
04:38 6 of mental health; but in the reports that were put into the  
04:38 7 record, you have some opinions on mental health. And I want to  
04:38 8 be clear, although you speak in your report about mental  
04:38 9 health, you are not an expert in mental health generally;  
10 correct?

04:38 11 A. Well, I understand that it's the Court who decides who's  
04:38 12 an expert. I don't hold myself to be an expert in mental  
04:38 13 health as I sit here.

04:38 14 Q. And you don't hold yourself out to be an expert in  
04:38 15 psychiatry or psychology; correct?

04:38 16 A. Correct.

04:38 17 Q. In fact, you've never diagnosed any patient with any  
04:38 18 mental health condition; correct?

04:38 19 A. Correct.

04:38 20 Q. You have never conducted any research regarding  
04:38 21 individuals or community responses to disasters or highly  
04:39 22 stressful events, have you?

04:39 23 A. The Gulf War illnesses, I think, were an example of a  
04:39 24 highly stressful event, people were exposed to a nerve gas  
04:39 25 explosion.

## DR. RICHARD CLAPP - CROSS

04:39 1 Q. Let me make sure I asked the correct question. You have  
04:39 2 no experience conducting research regarding individuals or  
04:39 3 community responses to disasters in highly stressful events;  
04:39 4 correct?

04:39 5 A. Well, again, the individuals were U.S. veterans who were  
04:39 6 exposed to a highly stressful event, so I think it does apply.

04:39 7 Q. All right. Then if we can now look at your deposition.

04:39 8 MS. KARIS: Page 48, line 1 through 8, please.

04:39 9 I'm sorry. 49, line 1 through 8.

04:40 10 BY MS. KARIS:

04:40 11 Q. You were asked:

04:40 12 "QUESTION: You've never conducted research regarding  
04:40 13 individual and community responses to disasters and highly  
04:40 14 stressful events, have you?"

04:40 15 And then you say:

04:40 16 "ANSWER: The question was specifically about  
04:40 17 research, had I conducted research. The answer is no."

04:40 18 Correct?

04:40 19 A. Yes. There I responded -- referring particularly to  
04:40 20 communities.

04:40 21 Q. You are not an industrial hygienist?

04:40 22 A. I am not.

04:40 23 Q. And you've never evaluated safety programs for workers;  
04:40 24 correct?

04:40 25 A. No, correct.

## DR. RICHARD CLAPP - CROSS

04:40 1 Q. Now, you just testified you're not a toxicologist. Is it  
04:40 2 correct that in connection with rendering your opinions in this  
04:40 3 case, you did not consult with any toxicologist prior to  
04:40 4 issuing your report?

04:40 5 A. It's true I didn't consult with any toxicologist. I read  
04:41 6 the toxicological literature. In fact, I refer to several  
04:41 7 articles in the toxicological literature in my reports.

04:41 8 Q. We'll get to that toxicological literature. But with  
04:41 9 respect to consulting with any toxicologist, you did not  
04:41 10 consult with anyone; correct?

04:41 11 A. Correct.

04:41 12 Q. And there's extensive sampling -- toxicological sampling,  
04:41 13 air monitoring, water sampling -- that was done in this case;  
04:41 14 correct?

04:41 15 A. Yes. And I refer to that, and I think I even refer to  
04:41 16 Dr. Cox's summary of that.

04:41 17 Q. And you did not speak to any toxicologist about sampling  
04:41 18 that was done specifically following the *Deepwater Horizon*  
04:41 19 spill; correct?

04:41 20 A. Correct.

04:41 21 Q. And while you render -- you have in your expert report  
04:41 22 opinions about mental health, similarly, you did not consult  
04:41 23 with any mental health experts in reaching your opinions in  
04:42 24 this case; correct?

04:42 25 A. Correct.

## DR. RICHARD CLAPP - CROSS

04:42 1 Q. I heard you testify on direct that you did not conduct a  
04:42 2 risk assessment. Correct?

04:42 3 A. Correct.

04:42 4 Q. And you referenced Dr. Cox just a minute ago. You're  
04:42 5 aware that Dr. Cox did conduct a risk assessment; correct?

04:42 6 A. I am aware that he did something he called a risk  
04:42 7 assessment, yes.

04:42 8 Q. And you would agree with me that toxicologists are  
04:42 9 typically the discipline who do risk assessments; correct?

04:42 10 A. Yes.

04:42 11 Q. Now, you said that you reviewed publically available data.  
04:42 12 And you focused on literature, if I understood you correctly.

04:43 13 A. Well, I looked at databases that were part of the  
04:43 14 materials for this matter and then previously published  
04:43 15 peer-reviewed literature.

04:43 16 Q. And let's be clear when you reviewed databases. When you  
04:43 17 issued your opinions in this case on August 15th, the opinions  
04:43 18 that we saw -- not the rebuttal opinions, but the initial  
04:43 19 opinions -- you issued those opinions without having reviewed  
04:43 20 any of the data on the publically available databases; correct?

04:43 21 A. Could you tell me what you mean by "publically available  
04:43 22 databases"?

04:43 23 MS. KARIS: Sure. Let's pull up D-353 -- I'm sorry,  
04:43 24 35270.

25

## DR. RICHARD CLAPP - CROSS

04:43 1 BY MS. KARIS:

04:43 2 Q. Dr. Clapp, you're aware that numerous U.S. federal  
04:43 3 agencies and various entities of the government performed  
04:43 4 environmental sampling and monitoring for potential human  
04:44 5 health effects following the *Deepwater Horizon* spill; correct?

04:44 6 A. Yes.

04:44 7 Q. And I have here just a smattering -- a sample of some of  
04:44 8 the testing that was done. And to be clear, some of the  
04:44 9 agencies that conducted air sampling and other monitoring  
10 testing -- and testing included OSHA; correct?

04:44 11 A. Yes.

04:44 12 Q. NIOSH; correct?

04:44 13 A. Yes.

04:44 14 Q. And that would be the National Institute for Occupational  
15 Safety and Health; correct?

04:44 16 A. Yes.

04:44 17 Q. And OSHA, to go back, is the Occupational Safety and  
18 Health Administration; correct?

04:44 19 A. Correct.

04:44 20 Q. The EPA conducted some, the Environmental Protection  
21 Agency; correct?

04:44 22 A. Yes.

04:44 23 Q. You see at the bottom there OSAT, Operational Science  
24 Advisory Team. They conducted some sampling as well; correct?

04:44 25 A. Correct.

## DR. RICHARD CLAPP - CROSS

04:44 1 Q. And prior to issuing your opinions in this case, you had  
04:44 2 not reviewed any of that data and analysis, in -- on  
04:44 3 August 15th of 2014, in connection with this case; correct?

04:45 4 A. I had reviewed some of the materials that were in the  
04:45 5 database provided to me by attorneys for the Department of  
04:45 6 Justice. I can't speak to all of these that are listed on this  
04:45 7 chart that you have up on the table -- or on the screen, but  
04:45 8 some.

04:45 9 Q. Okay. We'll get to that in a minute.

04:45 10 BP also conducted sampling and testing; correct?

04:45 11 A. Yes.

04:45 12 Q. And you would agree with me, in total, there is over  
04:45 13 1.4 million pieces of data that has been analyzed from sampling  
04:45 14 that has been conducted following the *Deepwater Horizon* oil  
04:45 15 spill from the relevant area; correct?

04:45 16 A. The way you put that it was interesting. "Pieces of data"  
04:45 17 is correct, as I understand it. And I understand this from  
04:45 18 Dr. Cox's report, actually, not from my own counting of the  
04:45 19 pieces of data.

04:46 20 Q. I understand. But you had access to every single piece of  
04:46 21 data on any one of these databases; correct?

04:46 22 A. Potentially, I suppose. It wasn't pertinent to my opinion  
04:46 23 in this matter.

04:46 24 Q. You're aware that Dr. Cox has actually looked at that  
04:46 25 data, including all of those pieces of analyses, the

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04:46 1 1.4 million pieces of analyses; correct?

04:46 2 A. You know, I haven't actually heard him say that he looked  
04:46 3 at 1.4 million pieces of data in any of his reports. But he  
04:46 4 has provided a summary of it, which I have looked at.

04:46 5 Q. Did you look at what Dr. Cox said about his review of this  
04:46 6 data?

04:46 7 A. Yes.

04:46 8 Q. And he relied on this data in rendering his opinions in  
04:46 9 this case; correct?

04:46 10 A. He did, for his opinions, yes.

04:46 11 Q. And you criticized some of his opinions in this case;  
04:46 12 correct?

04:46 13 A. I did.

04:46 14 Q. And you're not sure what data he looked at in rendering  
04:46 15 those opinions, how much of this 1.4 million piece of analysis  
04:46 16 he looked at; correct?

04:46 17 A. Correct. I'm not sure how much of the 1.4 million pieces  
04:47 18 of data he looked at.

04:47 19 Q. And to be clear, Dr. Clapp, this data included  
04:47 20 occupational exposure data; correct?

04:47 21 A. Yes.

04:47 22 Q. That would be data that was collected by BP and various  
04:47 23 federal agencies from cleanup workers at various locations;  
04:47 24 correct?

04:47 25 A. Yes.



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04:47 1 Q. It would include response workers who were working near  
04:47 2 the well site, onshore, offshore, in various locations;  
04:47 3 correct?

04:47 4 A. Yes. And on ships, as I suppose you mean "offshore."

04:47 5 Q. Yes.

04:47 6 And it would also include air sampling data that was  
04:47 7 collected; correct?

04:47 8 A. Yes.

04:47 9 Q. And there was community exposure data that is not data  
04:47 10 from those who were working on the response, but from the  
04:47 11 various communities that were being impacted by the spill;  
04:48 12 correct?

04:48 13 A. Yes. I mean, I think those are described in, for example,  
04:48 14 the EPA TAGA reports, where the -- where the sampling was done.

04:48 15 Q. EPA deployed TAGA, that you referenced, the Trace  
04:48 16 Atmospheric Gas Analyzers, which were mobile labs, basically,  
04:48 17 to go and collect air monitoring -- air quality data; correct?

04:48 18 A. Correct.

04:48 19 Q. And as a result, they collected data from May through  
04:48 20 August of 2010 from Alabama, from Florida, from Louisiana, and  
04:48 21 from Mississippi; correct?

04:48 22 A. Well, that's not described on this slide. As I recall,  
04:48 23 they did do air TAGA sampling in all of those states, yes.

04:48 24 Q. But you know that from your access to the publically  
04:48 25 available data?

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04:48 1 A. Yes.

04:48 2 Q. Thank you.

04:48 3 The EPA set up 19 different sites to collect air  
04:48 4 monitoring and sampling data; correct?

04:48 5 A. Correct. I believe those are on the shore, primarily.

04:49 6 Q. And OSHA, they collected over 4500 pieces -- strike that.

04:49 7 They collected over 4500 exposure measurements,  
04:49 8 again, from May through -- May 27th through September 9th of  
04:49 9 2010; correct?

04:49 10 A. It looks to me like it's September 6th, but that's the  
04:49 11 OSHA entry.

04:49 12 Q. Let me reask the question. I apologize if I asked it  
04:49 13 incorrectly.

04:49 14 From May 27th, following the spill, through  
04:49 15 September 6th of 2010, OSHA collected 4500 pieces -- or  
04:49 16 exposure measurements from the vicinity in the *Deepwater*  
04:49 17 *Horizon* spill cleanup activities; correct?

04:50 18 A. I'd like to know what you mean by "from the vicinity."

04:50 19 Q. Do you know where OSHA collected -- I'm sorry -- yeah. Do  
04:50 20 you know where OSHA collected their information from?

04:50 21 A. Not specifically. It was work sites, but I'm not sure  
04:50 22 whether that means from the vicinity.

04:50 23 Q. Okay. Do you know whether these were air monitoring  
04:50 24 samples?

04:50 25 A. As I recall, OSHA was collecting air monitoring samples,

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04:50 1 yes.

04:50 2 Q. And do you know -- where it says "occupational," what  
04:50 3 would that indicate?

04:50 4 A. Where people were working.

04:50 5 Q. Where people were working on the response; correct?

04:50 6 A. Yes.

04:50 7 Q. So to summarize, there was data collected both from people  
04:50 8 working on the -- or in the areas where people were working on  
04:50 9 the response and from local communities, and in total that was  
04:50 10 approximately one and a half million pieces of analysis that  
04:50 11 comes out of that work; correct?

04:50 12 A. Well, now you're using the phrase "one and a half million  
04:51 13 pieces of analysis." I'm not sure I would agree to that.  
04:51 14 There certainly seems to be that many data points, but the  
04:51 15 analysis was something different from that.

04:51 16 Q. Now, you've referenced the NIOSH data. And I believe I  
04:51 17 heard you testify that you did not think that was  
04:51 18 comprehensive?

04:51 19 A. Yes, nor do I think NIOSH thought it was comprehensive.

04:51 20 Q. Do you know who John Howard is?

04:51 21 A. Yes.

04:51 22 Q. Who is Mr. Howard?

04:51 23 A. He's the director of NIOSH.

04:51 24 Q. He's the director of NIOSH. And you are aware that he was  
04:51 25 deposed in this case; correct?

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04:51 1 A. Correct.

04:51 2 Q. And you read his deposition and you relied on it?

04:51 3 A. Correct.

04:51 4 MS. KARIS: Can we look at Mr. Howard -- Dr. Howard's  
04:51 5 deposition, please? Page 75, line 18 to page 76, line 6.

04:51 6 BY MS. KARIS:

04:51 7 Q. This is from Dr. Howard's deposition. He's asked:

04:51 8 "QUESTION: Would you describe NIOSH's -- oops, let's  
04:52 9 try it again.

04:52 10 Thank you.

04:52 11 "QUESTION: "Would you describe NIOSH's sampling for  
04:52 12 chemicals of concern that could be encountered by DWH  
04:52 13 workers as comprehensive?"

04:52 14 Do you see his answer? He says, "Yes."

04:52 15 A. Yes, I see that.

04:52 16 Q. And then it goes on. He was asked:

04:52 17 "QUESTION: Would you agree that NIOSH's HHEs were a  
04:52 18 thorough evaluation of potential *Deepwater Horizon*  
04:52 19 response worker exposures to chemicals of concern?

04:52 20 "ANSWER: Yes, to chemicals of concern."

04:52 21 Correct?

04:52 22 A. That's what he says in this deposition, yes.

04:53 23 Q. Did you consult with anyone who analyzed any of the  
04:53 24 environmental sampling or monitoring data associated with the  
04:53 25 *Deepwater Horizon* incident?

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04:53 1 A. No.

04:53 2 Q. If we can now pull up 13346.6.1.

04:53 3 Do you recognize this from your Round 1 report in  
04:53 4 this case, Dr. Clapp? This is your expert report; correct?

04:53 5 A. Yes.

04:54 6 Q. And I asked you earlier whether you had looked at any of  
04:54 7 the data that we just looked at prior to issuing your report.  
04:54 8 Do you recall me asking you that question?

04:54 9 A. I do.

04:54 10 Q. And do you see here when you say, "I've been asked to  
04:54 11 offer an opinion regarding health effects of the *Deepwater*  
04:54 12 *Horizon* explosion, the oil spill, and response in the Gulf of  
04:54 13 Mexico in 2010. My opinion is based on my review of documents  
04:54 14 provided to me by attorneys of the U.S. Department of Justice  
04:54 15 and my review of a summary of a June 2010 workshop at the  
04:54 16 Institute of Medicine"?

04:54 17 Correct?

04:54 18 A. Yes, and it lists where those references are to be found  
04:54 19 in my report.

04:54 20 Q. Okay. Now, I want to talk first about the June 2010  
04:54 21 workshop at the Institute of Medicine that you relied on. That  
04:54 22 was a workshop that was held, to be clear, less than two months  
04:54 23 after the spill took place; correct?

04:54 24 A. Correct.

04:54 25 Q. You did not participate in that workshop?

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04:55 1 A. I did not, is that a question?

04:55 2 Q. Yes. Is that correct, that you did not participate in  
04:55 3 that workshop?

04:55 4 A. It is correct.

04:55 5 Q. And is it also correct that you didn't review any audio or  
04:55 6 video from that workshop?

04:55 7 A. That's correct.

04:55 8 Q. You did look, though, at the summary that was developed  
04:55 9 from that workshop; correct?

04:55 10 A. Correct.

04:55 11 Q. And to be clear, let's first pull up D-35287. Is this the  
04:55 12 summary -- it's hard to see.

04:55 13 MS. KARIS: If you can -- pull up in the middle where  
04:55 14 it says a summary of the 2010 workshop. Just above there.  
04:55 15 There you go.

04:55 16 BY MS. KARIS:

04:55 17 Q. And to be clear, this package that you relied on prior to  
04:55 18 issuing your expert report is merely a summary of publications  
04:56 19 referenced therein; correct?

04:56 20 A. No. This is a summary of the discussion in the -- in the  
04:56 21 workshop by people, some of whom I know and some of whom I've  
04:56 22 had personal professional contact with, as well as prior  
04:56 23 publications. So it's a combination of both of those.

04:56 24 Q. And to be clear, it has the discussions and then it has a  
04:56 25 summary of prior publications; correct? It doesn't have the

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04:56 1 actual publications?

04:56 2 A. Well, with one exception. It actually does have a table  
04:56 3 in this report that is from a prior publication.

04:56 4 Q. It has one table from a prior publication, but none of the  
04:56 5 actual -- and none of the other actual publications referenced  
04:56 6 herein; correct?

04:56 7 A. Your -- your question is confusing me. I mean --

04:56 8 Q. I apologize. It was. Let me start again.

04:56 9 This summary document that you looked at prior to  
04:56 10 issuing your report, it references various publications;  
04:57 11 correct?

04:57 12 A. It does.

04:57 13 Q. The document itself, with the exception of that one table,  
04:57 14 doesn't actually contain those publications; correct?

04:57 15 A. Correct. It refers to them in the reference list.

04:57 16 Q. And at the time that you issued your -- I mean -- yeah, at  
04:57 17 the time you issued your report, you had not actually read the  
04:57 18 literature that was the subject of the IOM summary; correct?

04:57 19 A. I hadn't read the original articles. I read the author's  
04:57 20 summary of what was in those original articles, however.

04:57 21 Q. You had not read the original articles, nor had you looked  
04:57 22 at any of the data that was referenced in any of those original  
04:57 23 articles; correct?

04:57 24 A. No, that's not correct. As I just said, there was a data  
04:57 25 table from one of the original articles in this summary report.

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04:57 1 Q. I stand corrected. With that one single table as an  
04:57 2 exception, all the other publications referenced in this  
04:58 3 summary, you did not look at any of the other underlying data  
04:58 4 prior to issuing your expert report in this case; correct?

04:58 5 A. In August, that's correct.

04:58 6 Q. And, Dr. Clapp, you've testified on over 120 occasions; is  
04:58 7 that correct?

04:58 8 A. Yes.

04:58 9 Q. In fact, you've testified in court about 25 times?

04:58 10 A. Correct.

04:58 11 Q. At the time of your deposition, you could not recall any  
04:58 12 other expert report that you had ever written in which you  
04:58 13 relied only on the summary and had not actually read the  
04:58 14 studies as the basis for your opinions; correct?

04:58 15 A. Correct. And I gave the reason for that.

04:58 16 Q. And what you told us is after you issued your report, you  
04:58 17 then had the time to go and read the actual publications;  
04:58 18 correct?

04:58 19 A. Correct.

04:58 20 Q. But you didn't have the time to do that before you issued  
04:59 21 your expert report?

04:59 22 A. Correct. I was reading a lot of things, so I didn't go  
04:59 23 back to those particular articles.

04:59 24 Q. Now, the Institute of Medicine conference or workshop that  
04:59 25 was held in June of 2010.



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04:59 1 MS. KARIS: If we can pull up D-35286, please.

04:59 2 BY MS. KARIS:

04:59 3 Q. This is from the institute of workshop (verbatim) summary  
04:59 4 that you reviewed; correct?

04:59 5 A. I don't see a specific citation for that, but it looks  
04:59 6 familiar, yes.

04:59 7 Q. All right. I'll represent to you that this is straight  
04:59 8 out of the summary, and we've just retyped it because it was  
04:59 9 difficult to read.

04:59 10 It says: "While studies of previous oil spills  
04:59 11 provide some basis for identifying and mitigating the human  
04:59 12 health effects of these exposures, the existing data are  
04:59 13 insufficient to fully understand and predict the overall impact  
05:00 14 of hazards from the *Deepwater* oil spill on the health of  
05:00 15 individuals, including workers, volunteers, residents, visitors  
05:00 16 and special populations." Correct?

05:00 17 A. Correct. At the time of this workshop, that's what they  
05:00 18 were saying.

05:00 19 Q. And what they were saying is previous -- data from  
05:00 20 previous oil spills, which you testified about to on direct,  
05:00 21 was insufficient to fully understand and predict the overall  
05:00 22 impact of hazards arising from the *Deepwater Horizon* spill on  
05:00 23 humans -- I'm sorry, on health of individuals; correct?

05:00 24 A. Correct.

05:00 25 Q. And so you told us about prior publications that you

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05:00 1 consulted, or at least read the summary from, that referenced  
05:00 2 earlier spills; correct?

05:00 3 A. Correct.

05:00 4 Q. And to be clear, those earlier spills that are  
05:01 5 referenced -- strike that.

05:01 6 Those early -- those prior oil spills that are  
05:01 7 referenced in your report, those were surface spills. They  
05:01 8 were not deep sea spills; correct?

05:01 9 A. They were not underwater spills. They were surface  
05:01 10 spills. Two in particular are *Prestige* off the coast of Spain  
05:01 11 and the *Exxon Valdez* spill.

05:01 12 Q. They certainly were not at 5,000 feet below the surface of  
05:01 13 the water where the oil was being released; correct?

05:01 14 A. Those previous spills that I just referred to were not.

05:01 15 Q. And you agree that weathering is one of the factors that  
05:01 16 can affect the toxicity of oil; correct?

05:01 17 A. Yes.

05:01 18 Q. And weathering is one of the factors that can not only  
05:01 19 affect the toxicity, but may affect, then, the potential for  
05:01 20 having a human health effect; correct?

05:01 21 A. Correct. It might actually make the spilled oil more  
05:02 22 toxic, actually.

05:02 23 Q. But if the spill is closer to the shore, the oil would be  
05:02 24 weathered less if it had occurred -- than had it occurred  
05:02 25 further away; correct?

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05:02 1 A. Depending on how further away it was, as you've just put  
05:02 2 it. This is an area that others in this matter are going to  
05:02 3 testify to, and it's not something that I'm providing a strong  
05:02 4 opinion about.

05:02 5 Q. But you agree with me the further away from the  
05:02 6 shoreline -- I'm sorry, the further away the oil is from the  
05:02 7 shoreline, by the time it travels from 5,000 feet below the  
05:02 8 surface, to the surface, and then to the shoreline, that  
05:02 9 weather -- I mean, that oil weathers more; correct?

05:02 10 A. It certainly weathers. It transforms in some ways. The  
05:02 11 conditions under which the spill occurs and the distance from  
05:02 12 the shore all -- all would vary, in answer to your question.

05:02 13 Q. And you did not study in this case what effect that  
05:02 14 weathering had on the potential for harm or impact to human  
05:03 15 health; correct?

05:03 16 A. Correct.

05:03 17 Q. Now, I heard you testify that you're not offering any  
05:03 18 causal opinions in this case; correct?

05:03 19 A. With respect to individuals and individual symptoms,  
05:03 20 that's correct.

05:03 21 MS. KARIS: And if you can now pull up  
05:03 22 TREN-13348.5.2, please.

05:03 23 BY MS. KARIS:

05:03 24 Q. You say here in the report: "As I mentioned above, I made  
05:03 25 no causal conclusions in my report." Correct?

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05:03 1 A. Correct.

05:03 2 Q. And that's no causal conclusions for any cleanup workers  
05:03 3 or for anyone else that was exposed to any constituents from  
05:03 4 the *Deepwater Horizon*; correct?

05:03 5 A. For any individuals, that's correct.

05:04 6 Q. You're not offering any opinions concerning any causal  
05:04 7 link between symptoms reported by any Gulf Coast residents and  
05:04 8 potential exposures to oil or oil constituents; correct?

05:04 9 A. Correct.

05:04 10 Q. Likewise, you are not offering any opinions concerning any  
05:04 11 causal link between symptoms reported by Gulf Coast residents  
05:04 12 and potential exposure to dispersants or dispersant  
05:04 13 constituents; correct?

05:04 14 A. Correct.

05:04 15 Q. You're not offering any opinions that constitute causal  
05:04 16 conclusions for any observed symptoms; correct?

05:04 17 A. Correct. In any individual, that's true.

05:05 18 Q. Now, you agree, Dr. Clapp, that the measured air  
05:05 19 concentrations of specific chemicals sampled during the  
05:05 20 response were, as you describe them, relatively low; correct?

05:05 21 A. Yes.

05:05 22 Q. And even with the measured air concentrations being  
05:05 23 relatively low, you're aware that steps were taken to limit  
05:05 24 human health impact on response workers; correct?

05:05 25 A. Correct.

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05:05 1 Q. Some of those steps included the requirement for personal  
05:05 2 protective equipment to be used, PPE, as it's sometimes called;  
05:05 3 correct?

05:05 4 A. Yes, it was required. It wasn't always used.

05:05 5 MS. KARIS: If we can look at D-35280, please.

05:05 6 BY MS. KARIS:

05:05 7 Q. Do you recognize this document titled "*Deepwater Horizon*  
05:06 8 *Oil Spill: OSHA's Role in the Response*"?

05:06 9 A. Yes, I recognize that.

05:06 10 Q. Okay. And this is a government document generated from  
05:06 11 the Occupational Safety and Health Administration speaking  
05:06 12 specifically to the *Deepwater Horizon* oil spill; correct?

05:06 13 A. Correct.

05:06 14 Q. And you reviewed this as part of your subsequent reports  
05:06 15 and opinions in this case; correct?

05:06 16 A. Yes.

05:06 17 Q. If we can go to D-35281. OSHA writes: "OSHA stressed  
05:06 18 throughout the response that decisions about PPE should be  
05:06 19 based on a scientific characterization of the hazards,  
05:06 20 including air sampling."

05:06 21 It goes on to say: "OSHA assisted UC," Unified  
05:06 22 Command, "with performing these characterizations for each job  
05:06 23 task to determine the appropriate level of protection."

05:07 24 Correct?

05:07 25 A. Yes.

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05:07 1 Q. And then OSHA, based on these hazard assessments and  
05:07 2 guidance -- I'm sorry. "Based on these hazard assessments and  
05:07 3 guidance from OSHA and NIOSH, in early May, BP developed a  
05:07 4 matrix outlining the PPE that workers should use for each  
05:07 5 category of cleanup work."

05:07 6 Correct?

05:07 7 A. That's what it says, yes.

05:07 8 Q. And so OSHA and NIOSH provided to BP the matrix for what  
05:07 9 PPE equipment should be required; correct?

05:07 10 A. It does, yes.

05:07 11 Q. BP, as the report says, complied with OSHA's request to  
05:07 12 institute a credentialing program whereby workers received  
05:07 13 certificates after completing training; correct?

05:07 14 A. Yes, that's what it says.

05:07 15 Q. And then all workers engaged in the response and cleanup  
05:07 16 activities have to have a training certification card showing  
05:07 17 that they had completed the BP-sponsored training program;  
05:07 18 correct?

05:08 19 A. Again, that seems to be an accurate reading of what's in  
05:08 20 this document.

05:08 21 Q. And to your knowledge, that's an accurate reflection of  
05:08 22 what OSHA required and what BP did; correct?

05:08 23 A. Correct. Again, it was not always followed.

05:08 24 Q. You reference in your report that somebody elected to not  
05:08 25 follow it and held themselves out as a trainer and that person

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05:08 1 turned out to be a fraud; is that correct?

05:08 2 A. Yes.

05:08 3 Q. But you agree that BP put the steps in place in order for  
05:08 4 the OSHA requirements to be followed; correct?

05:08 5 A. BP did do that, and they apparently weren't always  
05:08 6 followed.

05:08 7 Q. Now, the sampling data that we looked at earlier -- and we  
05:08 8 don't have to put it -- we don't need to put it back up, but  
05:08 9 that data was taken with these PPE requirements in place;  
05:09 10 correct?

05:09 11 A. I don't know how to answer that question. I don't have  
05:09 12 any direct evidence of that.

05:09 13 Q. Do you know one way or the other?

05:09 14 A. No, not as I sit here.

05:09 15 Q. Dr. Clapp, we saw a couple of pages from different  
05:09 16 databases where it listed injuries that various individuals  
05:09 17 reported, one from the medical encounters database and one from  
05:09 18 another database. Do you recall those?

05:09 19 A. No, I think they were just from the BP occupational  
05:09 20 recordable injuries and illness database.

05:09 21 Q. So from the BP database; correct?

05:09 22 A. Yes.

05:09 23 Q. And to be clear, that information is all of the  
05:09 24 information that you have about what may cause those  
05:09 25 individuals' injuries; correct?

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05:10 1 A. The individuals on that table, yes, that's all the  
05:10 2 information I had. There's certainly other information about  
05:10 3 individuals injured in other ways.

05:10 4 Q. And I believe you testified that based on the two pages --  
05:10 5 two tables that you've put up there, you saw evidence of  
05:10 6 respiratory or dermatological or other effects like dizziness  
05:10 7 and headaches; correct?

05:10 8 A. Did I say that? I have to go --

05:10 9 Q. Well, would you agree that what those databases showed is  
05:10 10 some people complained of headaches, some people complained of  
05:10 11 certain other injuries like a bug bite or some other effect  
05:10 12 that was on that list?

05:10 13 A. Those things were on the list. I don't think I referred  
05:10 14 to bug bites in my testimony prior today.

05:10 15 Q. That's probably right. But the page that you showed had a  
05:10 16 bug bite on there?

05:10 17 A. It did.

05:11 18 Q. Now, for the -- I believe you said that you saw evidence  
05:11 19 of short-term effects, including, for example, respiratory  
05:11 20 effects; correct?

05:11 21 A. Yes.

05:11 22 Q. You would agree with me that acute respiratory effects  
05:11 23 could be caused by factors other than exposure to oil and oil  
05:11 24 constituents; correct?

05:11 25 A. Correct.



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05:11 1 Q. And similarly, there -- you said that there was evidence  
05:11 2 of acute -- or at least a reference to acute dermatological  
05:11 3 effects, rashes and the like; correct?

05:11 4 A. Correct.

05:11 5 Q. And you would agree with me that acute dermatological  
05:11 6 effects could likewise be caused by factors other than oil and  
05:11 7 oil constituents?

05:11 8 A. They can be. They could also be caused by oil and its  
05:11 9 constituents.

05:11 10 Q. Understood. You did not look at what caused those  
05:11 11 specific illnesses or effects; correct?

05:11 12 A. Correct.

05:12 13 Q. Dr. Clapp, to wrap this piece up, you agree you have no  
05:12 14 information or data that any short-term health effects for any  
05:12 15 population were, in fact, caused by exposure to any toxins or  
05:12 16 chemicals associated with the *Deepwater Horizon* incident;  
05:12 17 correct?

05:12 18 A. Well, not specific to that link as you put it, no, in your  
05:12 19 question.

05:12 20 Q. You referenced earlier NIOSH's work, and we talked a  
05:12 21 little bit about the sampling data that NIOSH had done, and we  
05:12 22 talked about Dr. Howard's testimony describing that data as  
05:13 23 comprehensive and robust.

05:13 24 MS. KARIS: If we can pull up D-35271, please.

25

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05:13 1 BY MS. KARIS:

05:13 2 Q. Do you recognize this document that we have here entitled  
05:13 3 "Review of the OSHA-NIOSH Response to the *Deepwater Horizon* Oil  
05:13 4 Spill" --

05:13 5 A. Yes.

05:13 6 Q. -- "Protecting the Health and Safety of Cleanup Workers?"  
05:13 7 Do you --

05:13 8 A. Yes.

05:13 9 Q. -- recognize this?

05:13 10 A. Yes, that's the full title.

05:13 11 Q. And this is a publication written by the directors of both  
05:13 12 OSHA and NIOSH; correct?

05:13 13 A. Yes.

05:13 14 Q. And it's published in PLOS; correct?

05:13 15 A. Correct.

05:13 16 Q. And you -- you have seen this article, I think you said;  
05:13 17 correct?

05:13 18 A. I have.

05:13 19 Q. NIOSH, to be clear, is the federal government agency  
05:13 20 responsible for conducting research and issuing recommendations  
05:13 21 for prevention of work-related injuries and illnesses?

05:13 22 A. Yes.

05:13 23 Q. And OSHA is the federal government agency within the  
05:14 24 Department of Labor responsible for regulating workplace safety  
05:14 25 and health; correct?

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05:14 1 A. Correct.

05:14 2 Q. And in this article, Drs. Michael and Howard, the  
05:14 3 directors of OSHA and NIOSH, respectively, discuss efforts  
05:14 4 taken by federal agencies and BP to protect health -- worker  
05:14 5 health; correct?

05:14 6 A. Yes, they do.

05:14 7 MS. KARIS: And if we can now look at D-35251.

05:14 8 BY MS. KARIS:

05:14 9 Q. And what they write and conclude in their report is that,  
05:14 10 "Overall, the efforts to ensure the safety and health of these  
05:14 11 cleanup workers were very effective." Correct?

05:14 12 A. That's in their conclusions. They also have a further  
05:14 13 statement that there should be follow-up to make sure that  
05:14 14 there aren't future health effects.

05:14 15 Q. The way they described the cleanup efforts -- or I'm  
05:14 16 sorry, the efforts to ensure the safety and health of cleanup  
05:15 17 workers was by using the words "very effective"; correct?

05:15 18 A. These are the words in this sentence, that's correct, and  
05:15 19 there's more.

05:15 20 Q. Okay.

05:15 21 MS. KARIS: And now let's look at D-35279, please.

05:15 22 BY MS. KARIS:

05:15 23 Q. In this same publication, they write: "OSHA worked  
05:15 24 closely with USCG" -- that is the Coast Guard -- "BP, and  
05:15 25 local, state, and federal health agencies to jointly plan and

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05:15 1 execute response actions and worker safety and health  
05:15 2 programs." Correct?

05:15 3 A. Yes.

05:15 4 Q. You reviewed Dr. Howard's deposition specifically  
05:15 5 regarding these efforts and the effectiveness of these efforts;  
05:15 6 correct?

05:15 7 A. Yes. This is about their collaborations.

05:15 8 Q. Right.

05:15 9 MS. KARIS: And we can pull it up, but D-5266  
05:15 10 (verbatim), please.

05:15 11 BY MS. KARIS:

05:15 12 Q. Dr. Howard says that it was his experience that NIOSH  
05:16 13 worked collaboratively with BP from early stages of the  
05:16 14 response; correct?

05:16 15 A. That was the question, and his answer was "Yes."

05:16 16 Q. You have no reason to disagree with that?

05:16 17 A. No, not as I sit here.

05:16 18 Q. And it says:

05:16 19 "QUESTION: It was your experience that other  
05:16 20 governmental agencies, such as OSHA, were working  
05:16 21 collaboratively with BP from the early stages of the  
05:16 22 response to protect human health?"

05:16 23 Correct?

05:16 24 A. Again, that's the question.

05:16 25 Q. And the answer was "Yes"?

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05:16 1 A. Correct.

05:16 2 Q. And, again, you have no reason to disagree with  
05:16 3 Dr. Howard, the director of NIOSH, in connection with those  
05:16 4 collaborative efforts; correct?

05:16 5 A. Not as I sit here. I don't know what the details were.

05:16 6 MS. KARIS: And to close this off, D-35268, please.

05:16 7 BY MS. KARIS:

05:16 8 Q. Dr. Howard was asked:

05:16 9 "QUESTION: So it was your view that NIOSH  
05:16 10 successfully partnered with BP and with other governmental  
05:17 11 entities within the Unified Command in successfully  
05:17 12 mitigating most" human -- I'm sorry, "most acute health  
05:17 13 effects on *Deepwater Horizon* response workers?"

05:17 14 And his answer was "Correct."

05:17 15 Is that right?

05:17 16 A. No, the last word in the question was "correct" and his  
05:17 17 answer was "Yes."

05:17 18 Q. Sorry. I stand corrected. Yes.

05:17 19 What he said is it was his view that NIOSH  
05:17 20 successfully partnered with BP and other governmental agencies  
05:17 21 in successfully mitigating most human health effects on  
05:17 22 response workers. He agreed with that; correct?

05:17 23 A. No --

05:17 24 MS. PENCAK: Objection to the characterization of the  
05:17 25 testimony. You left out a word, Counsel, "acute."

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05:17 1 **BY MS. KARIS:**

05:17 2 **Q.** I thought I said "acute." But to be clear, he's talking  
05:17 3 about successfully mitigating most acute health effects on  
05:17 4 *Deepwater Horizon* response workers; correct?

05:18 5 **A.** That's the way it read -- that's how the question reads,  
05:18 6 yes.

05:18 7 **Q.** Now, you've referenced the HHEs, the Health Hazard  
05:18 8 Evaluations, that were performed by NIOSH; correct?

05:18 9 **A.** Yes.

05:18 10 **Q.** And you reference those in connection with saying they  
05:18 11 supported your opinions in this case about human health  
05:18 12 effects, if I understood you correctly?

05:18 13 **A.** Yes.

05:18 14 **MS. KARIS:** If we can pull up TREX-232463.23.1.

05:18 15 **BY MS. KARIS:**

05:18 16 **Q.** And just to orient ourselves, HHEs are field  
05:18 17 investigations that were conducted by NIOSH to determine  
05:18 18 whether any substance was found in the place of employment or  
05:18 19 would potential -- that potential -- that potentially had a  
05:18 20 toxic effect; correct?

05:18 21 **A.** I'm not sure what this --

05:18 22 **Q.** We'll get to this in a second. But just to orient  
05:18 23 ourselves, HHEs, they were human health evaluations (verbatim)  
05:19 24 where field investigations were conducted to determine whether  
05:19 25 any substance was found in a place of employment that was

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05:19 1 potentially toxic; correct?

05:19 2 A. Well, there's a word missing in what you've just read.

05:19 3 Any substance normally found in a place of employment that has

05:19 4 potentially toxic effects in such concentrations as used or

05:19 5 found. This is sort of preamble of what they're going to do.

05:19 6 Q. Okay. And as part of what they were going to do, they

05:19 7 actually went forward and conducted those human health

05:19 8 evaluations; correct?

05:19 9 A. Health Hazard Evaluations is what they did, yes.

05:19 10 Q. Okay. And they published a series of reports, you told

05:19 11 us?

05:19 12 A. Yes.

05:19 13 Q. And you reviewed the results of those reports?

05:19 14 A. I did.

05:19 15 MS. KARIS: If we could look at TREX-232463.5.1,

05:20 16 please.

05:20 17 BY MS. KARIS:

05:20 18 Q. Do you recognize this --

05:20 19 MS. KARIS: Actually, maybe we need to pull up

05:20 20 D-35272 first.

05:20 21 BY MS. KARIS:

05:20 22 Q. These are the human health evaluation reports, correct,

05:20 23 that we've just been referencing?

05:20 24 A. This is one of them, yes. This is the August 2011 one.

05:20 25 MS. KARIS: And then if we could pull up

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05:20 1 TREX-232463.5.1.

05:20 2 **BY MS. KARIS:**

05:20 3 **Q.** Coming from this report, what NIOSH reports on these human  
05:20 4 health -- in these human health evaluation reports is, "The  
05:20 5 results of these investigations were reported in a series of  
05:20 6 nine reports and report summaries were posted on NIOSH's  
05:20 7 website." Correct?

05:20 8 **A.** That's what this says, with one additional word, nine  
05:20 9 interim reports.

05:20 10 **Q.** This -- I'm sorry. Nine interims and then report  
05:20 11 summaries were posted on NIOSH's website; correct?

05:20 12 **A.** Yes.

05:20 13 **Q.** And you're aware that BP requested that NIOSH expand the  
05:21 14 scope of this work in order to include all major offshore  
05:21 15 response activities; correct?

05:21 16 **A.** I'd have to see how that -- the sequence of those things  
05:21 17 occurred, but that's how I recollect it, yes.

05:21 18 **Q.** All right. Let's see if we can refresh your recollection.  
05:21 19 D-35252.

05:21 20 "As the plans were developing, BP requested that we  
05:21 21 expand the scope of the HHE to include all major offshore  
05:21 22 response activities. In addition to oil booming and skimming  
05:21 23 conducted by workers on VoO vessels, these activities included  
05:21 24 aerial and vessel-based dispersant releases, in-situ  
05:21 25 surface-oil-burning containment and recovery work at the oil



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05:22 1 source and other related offshore oil removal activities."

05:22 2 Correct?

05:22 3 A. Yes, that's approximately correct.

05:22 4 Q. "And in the weeks that followed, teams of NIOSH industrial  
05:22 5 hygienists, medical officers, and other occupational health  
05:22 6 specialists conducted on-site investigations at locations  
05:22 7 throughout the Gulf region to collect quantitative and  
05:22 8 qualitative data on potential worker exposures, health  
05:22 9 symptoms, work practices and procedures and work  
10 organizations"; correct?

05:22 11 A. Yes. I think I put that on one of the slides we were  
12 looking at earlier.

05:22 13 Q. And then on June 22nd, NIOSH received a request from BP  
14 for a second HHE to investigate potential hazards associated  
15 with onshore response work activities; correct?

05:22 16 A. Yes. And I think here it's saying "onshore response."  
17 Earlier I think you were asking me about offshore.

05:22 18 Q. So they did offshore; they also did onshore?

05:22 19 A. That's correct.

05:22 20 Q. And in response, again, to this request, teams of NIOSH  
21 personnel evaluated practices and procedures, including  
22 wildlife cleanup operations, beach cleanup operations, and  
23 decontamination, and waste management activities throughout the  
24 states of Louisiana, Alabama, Mississippi, and Florida;  
25 correct?

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05:23 1 A. Correct.

05:23 2 Q. "The goal of the NIOSH HHE assessment was to describe  
05:23 3 acute health effects, to evaluate occupational exposures in  
05:23 4 both qualitative and quantitative assessments"; correct?

05:23 5 A. Yes.

05:23 6 Q. As part of this work, a large number of chemicals were  
05:23 7 sampled over the course of the HHEs; correct?

05:23 8 A. I'm not sure what you mean by "a large number." There  
05:24 9 were certainly more than one or two. I don't know how large.

05:24 10 Q. We can go back to D-35270, but there were over 4,000  
05:24 11 samples -- or analyses of samples; correct?

05:24 12 A. There were that many samples collected, but I'm not sure  
05:24 13 how many -- I think your question was about different  
05:24 14 substances.

05:24 15 Q. There were over 4,000 samples collected over the course of  
05:24 16 this work?

05:24 17 A. Yes.

05:24 18 Q. And those samples included VOCs, or volatile organic  
05:24 19 compounds; polycyclic aromatic hydrocarbons; carbon monoxide;  
05:24 20 glycol ethers; and a bunch of other compounds. Correct?

05:24 21 A. I would be interested in what the "bunch" includes, but,  
05:24 22 yes, other compounds than the ones you just named.

05:24 23 Q. Well, you looked at these HHEs. You know what they  
05:24 24 included?

05:24 25 A. Yes, I did.

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05:24 1 Q. You know that they included a number of different  
05:24 2 compounds, and we can go through them. But you have no doubt  
05:25 3 that they included particulates from combustion sources,  
05:25 4 including burning oil and natural gas; correct?

05:25 5 A. Correct.

05:25 6 Q. And then NIOSH compared the air monitoring data to its  
05:25 7 benchmarks for OELs; correct?

05:25 8 A. Yes -- no, sorry. NIOSH refers to RELs as its reference  
05:25 9 levels, not OELs.

05:25 10 Q. Tell the Court what an REL is.

05:25 11 A. It's a recommended exposure limit.

05:25 12 Q. So NIOSH took the air monitoring data and compared it to  
05:25 13 its recommended exposure limits; correct?

05:25 14 A. It did, as well as to the OSHA what are called OELs or  
05:25 15 PELs, which are different --

05:25 16 Q. And OELs are what?

05:25 17 A. Occupational exposure limits, and that's a term of art  
05:25 18 that's used by OSHA in particular.

05:25 19 Q. And PELs?

05:25 20 A. It's a permissible exposure limits. And all of those are  
05:25 21 different from what NIOSH represents.

05:25 22 Q. These are all benchmarks or limits that government  
05:25 23 agencies have set for exposure limits; correct?

05:26 24 A. No, they're not benchmarks. That's a different concept.

05:26 25 Q. Well, those are all exposure limits that various

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05:26 1 government agencies have set as recommended exposure levels;  
05:26 2 correct?

05:26 3 A. Well, no. You're confusing two different things here.  
05:26 4 OSHA sets permissible exposure limits as not just recommended;  
05:26 5 that's the law, so to speak. Whereas NIOSH recommends levels  
05:26 6 of exposure that might be different from what OSHA has. In  
05:26 7 fact, that's the case with respect to benzene.

05:26 8 Q. So whether they're required levels or recommended levels,  
05:26 9 those are levels that are set for exposure limits for people to  
10 be exposed to; correct?

05:26 11 A. In this context we're talking about work place exposures?

05:26 12 Q. Yes.

05:26 13 A. Yes.

05:26 14 Q. And when NIOSH collected these air samples and compared  
05:26 15 the air monitoring data to these RELs, they then posted that  
05:27 16 data on a public Web site; correct?

05:27 17 A. Yes. I think they have a column that includes both RELs  
05:27 18 and OELs.

05:27 19 Q. Did you look at that data as a part of your work in this  
20 case?

05:27 21 A. Yes, I did.

05:27 22 **MS. KARIS:** If we can go to TREX-232463.5.2.

05:27 23 **BY MS. KARIS:**

05:27 24 Q. And this is on NIOSH's Web site. "All exposure and health  
05:27 25 symptom survey data were compiled into electronic spreadsheets

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05:27 1 and posted on all NIOSH Web sites."

05:27 2 And it tells you where to go get this information;  
05:27 3 correct?

05:27 4 A. Yes.

05:27 5 Q. And let's look now at what NIOSH found from those samples  
05:27 6 that it tested -- or I'm sorry, compared to air monitoring data  
05:27 7 and posted the results online.

05:27 8 MS. KARIS: D-35254, please.

05:28 9 BY MS. KARIS:

05:28 10 Q. As reported in NIOSH's health hazard evaluation report,  
05:28 11 they write, "Throughout the evaluation, results for all  
05:28 12 airborne chemical samples were uniformly nondetectable or at  
05:28 13 levels below applicable OELs"; correct?

05:28 14 A. Yes. Actually, they say "well below applicable OELs."

05:28 15 Q. Right. I need new glasses, I think.

05:28 16 So they were at levels well below applicable OELs, or  
05:28 17 occupational exposure levels, that you told us were  
05:28 18 requirements; correct?

05:28 19 A. Yes. The OSHA so-called PELs is what they're referring to  
05:28 20 here.

05:28 21 Q. Now, NIOSH wasn't the only government agency that's  
05:28 22 published how these samples that were collected compared to  
05:29 23 RELs, OELs, or PELs; correct?

05:29 24 A. Correct. I think the others issues we're referring to are  
05:29 25 environmental limits, which would not be applicable to

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05:29 1 workplaces.

05:29 2 Q. Well, let's look at OSHA's publication, D-35273. We'll  
05:29 3 move through this quickly.

05:29 4 You recognize this document. It's from OSHA's Web  
05:29 5 site; correct?

05:29 6 A. Yes.

05:29 7 Q. And it's entitled "OSHA Activities During the *Deepwater*  
05:29 8 *Horizon* Oil Spill"; correct?

05:29 9 A. Yes.

05:29 10 MS. KARIS: And if we can pull out the top there, it  
05:29 11 says "Efforts to protect workers." There you go. Thank you.  
05:29 12 And if we can go to D-35255.

05:29 13 BY MS. KARIS:

05:29 14 Q. OSHA writes in their publication: "To determine whether  
05:29 15 or not workers were exposed to dangerous levels of toxic  
05:29 16 chemicals, OSHA conducted its own independent air monitoring,  
05:29 17 both onshore and on the cleanup vessels, and reviewed data from  
05:30 18 BP; the Environmental Protection Agency, EPA; and the National  
05:30 19 Oceanic and Atmospheric Administration, NOAA. Correct?

05:30 20 A. Yes.

05:30 21 Q. And if we can go to D-35256. And what they found is, "No  
05:30 22 air samples by OSHA detected any hazardous chemicals at levels  
05:30 23 of concern"; correct?

05:30 24 A. That's what they say, and I think they're referring to  
05:30 25 exceeding the OELs.

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05:30 1 Q. So they didn't find a single air sampling result that  
05:30 2 exceeded the OELs; correct?

05:30 3 A. Well, again, I think that's what they mean by "at levels  
05:30 4 of concern." RELs are lower than that, and there were  
05:30 5 definitely BP samples that were above the REL.

05:30 6 Q. Well, to be clear, for the mandatory standards that OSHA  
05:31 7 sets, the sampling test showed -- the air sampling showed not a  
05:31 8 single level that was above the OSHA-required OEL level;  
05:31 9 correct?

05:31 10 A. That's my understanding, yes.

05:31 11 Q. You're familiar with the CDC as well; correct?

05:31 12 A. I am.

05:31 13 Q. And the CDC and the EPA did an independent analysis of its  
05:31 14 own; correct?

05:31 15 A. They did an analysis, yes.

05:31 16 MS. KARIS: D-35274. If we can pull out the top,  
05:31 17 please. Just call out the top with the title. Thank you.

05:31 18 BY MS. KARIS:

05:31 19 Q. And, again, this is the CDC response to the Gulf of Mexico  
05:31 20 oil spill; correct?

05:31 21 A. Yes.

05:31 22 Q. And what they were looking at is to determine -- they were  
05:31 23 looking at the sampling data to determine whether exposure to  
05:32 24 oil or oil constituents or dispersants might cause short-term  
05:32 25 or long-term health effects; correct?

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05:32 1 A. I don't see that on this page.

05:32 2 Q. Okay. Let's go to D-35257. If you can -- do you see  
05:32 3 where it says the CDC -- let's start at the beginning.

05:32 4 "CDC's Environmental Health Team reviewed nearly 400  
05:32 5 packages of data taken from environmental samples collected on  
05:32 6 Gulf Coast at the request of the EPA. CDC reviewed this  
05:32 7 sampling data to determine whether exposure to oil, oil  
05:32 8 constituents, or dispersants might cause short-term or  
05:32 9 long-term health effects. The data included sampling results  
05:32 10 for air, water, soil/sediment, and waste of oil samples  
05:32 11 (material actually reaching the beach or the marsh.)

05:33 12 "CDC's review was one of multiple independent reviews  
05:33 13 of this EPA data."

05:33 14 Correct?

05:33 15 A. Yes.

05:33 16 MS. KARIS: And if we can now pull up D-35258.

05:33 17 BY MS. KARIS:

05:33 18 Q. What they report here is that "...the samples collected in  
05:33 19 places where nonresponse workers would spend time showed none  
05:33 20 of those substances at levels high enough to cause long-term  
05:33 21 health effects"; correct?

05:33 22 A. Correct, in nonresponse workers.

05:33 23 Q. Correct. And then, "Working separately, EPA and CDC came  
05:33 24 to the same conclusion, that with respect to nonresponse  
05:33 25 workers - the agencies found no direct exposures to these



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05:33 1 substances at levels high enough to be expected to cause harm";  
05:33 2 correct?

05:33 3 A. That's what they say.

05:33 4 Q. The EPA put out its own publication, separate from the  
05:34 5 CDC; correct --

05:34 6 A. Yes.

05:34 7 Q. -- regarding monitoring air quality along the Gulf Coast;  
05:34 8 correct?

05:34 9 A. That's correct.

05:34 10 MS. KARIS: And if we can look at D-35282.

05:34 11 BY MS. KARIS:

05:34 12 Q. This is that publication, last updated Thursday,  
05:34 13 February 14th of 2013; correct?

05:34 14 A. That's what it says. I recall seeing that.

05:34 15 Q. And you have seen this document before?

05:34 16 A. Yes.

05:34 17 MS. KARIS: If we can go to D-35283.

05:34 18 BY MS. KARIS:

05:34 19 Q. "The EPA has been monitoring the air at multiple sites  
05:34 20 onshore along the Gulf Coast. The purpose is to see if  
05:34 21 spill-related pollutants are present in the air at levels that  
05:34 22 might cause health problems for people onshore in the Gulf  
05:34 23 region. EPA has been monitoring for pollutants that:

05:34 24 "can evaporate from fresh crude oil.

05:35 25 "can evaporate from weathered oil.

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05:35 1 "came ashore from burning oil out at sea.

05:35 2 "EPA has also monitored onshore air to determine

05:35 3 whether chemicals in the dispersants used offshore are reaching

05:35 4 onshore air."

05:35 5 Correct?

05:35 6 A. Correct.

05:35 7 Q. And you looked at the results of that work as well;

05:35 8 correct?

05:35 9 A. I did.

05:35 10 MS. KARIS: And if we can now look at D-35284.

05:35 11 BY MS. KARIS:

05:35 12 Q. What the EPA reported was that "based on monitoring to

05:35 13 date, EPA has not seen onshore levels of pollutants that are of

05:35 14 significant concern for long-term health effects"; correct?

05:35 15 A. That's what they say.

05:35 16 Q. Dr. Clapp, in the interest of time, I'm going to ask you

05:35 17 quickly, you know that OSAT, the Operational Science Advisory

05:35 18 Team, they reached a comparable conclusion; correct?

05:35 19 A. There were two OSAT reports, OSAT 1 and OSAT 2. And I

05:36 20 believe it was actually OSAT 2 that suggested there may still

05:36 21 be onshore tar paddies and tar balls that could become broken

05:36 22 up, and people could be exposed to harmful contaminants that

05:36 23 way.

05:36 24 Q. They found that the tar balls or tar paddies could be

05:36 25 broken up. It did not conclude that any exposure would result

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05:36 1 in health concerns, did they?

05:36 2 A. Not that I'm aware of. They didn't discuss exposure  
05:36 3 there. You're talking about cleanup.

05:36 4 Q. OSAT 1 found that none of the samples of the 6,090 water  
05:36 5 samples that they had collected -- not one of them exceeded the  
05:36 6 EPA benchmarks for human health; correct?

05:36 7 A. I'd have to refer to the EPA benchmarks that they're  
05:36 8 talking about.

05:36 9 Q. We can look at, perhaps to help refresh you, D-35260,  
10 please.

05:36 11 Actually, before we go there, since you said  
05:37 12 benchmarks, D-35259.

05:37 13 This is from the OSAT 1 report. "Human health  
05:37 14 benchmarks developed by the EPA, in coordination with the U.S.  
05:37 15 Department of Health and Human Services, are used to assess  
05:37 16 potential human health risks from exposure to oil-contaminated  
05:37 17 water. These benchmark are based on potential cancer and  
05:37 18 non-cancer health risks. Where applicable, the benchmarks  
05:37 19 account for both skin contact and incidental ingestion of water  
05:37 20 by a child swimmer, assuming 90 hours of exposure, or one hour  
05:37 21 per day for 90 days."

05:37 22 Correct?

05:37 23 A. Yes, this is for the child swimmer.

05:37 24 Q. And the child swimmer would reflect a lower level than an  
05:37 25 adult swimmer, for example, correct?

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05:37 1 A. I believe that's the case for this particular --

05:37 2 Q. So it's a more conservative level; correct?

05:37 3 A. It should be. Yes. I hope it is.

05:38 4 MS. KARIS: And if we can now go to D-35260.

05:38 5 BY MS. KARIS:

05:38 6 Q. Comparison to human health benchmarks: "A total of 6,090  
05:38 7 water samples were considered for comparison the human health  
05:38 8 benchmarks. None of the samples exceeded the EPA benchmarks  
05:38 9 for human health, child swimmer scenario."

05:38 10 Correct?

05:38 11 A. Correct. That is the water dermal exposure scenario.

05:38 12 Q. You referenced OSAT 2.

05:38 13 MS. KARIS: If you can pull up D-35276. D-35276.

05:38 14 Thank you.

05:38 15 BY MS. KARIS:

05:38 16 Q. This is the OSAT 2, the Occupational Science Advisory  
05:38 17 Team's Second Report for Gulf Coast Incident Management Team;  
05:38 18 correct?

05:38 19 A. Correct.

05:38 20 Q. And it's titled "Summary Report for Fate and Effects of  
05:39 21 Remnant Oil in the Beach Environment"; correct?

05:39 22 A. Yes.

05:39 23 Q. And you reviewed this as part of your work in this case?

05:39 24 A. I did.

05:39 25 MS. KARIS: And if we can now go to D-35261.

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05:39 1 **BY MS. KARIS:**

05:39 2 **Q.** And what OSAT 2 said was: "Calculated potential cancer  
05:39 3 and non-cancer health effects from short- and long-term  
05:39 4 exposures are below U.S. Environmental Protection Agency  
05:39 5 acceptable health-based risk and hazard levels."

05:39 6 Correct?

05:39 7 **A.** Yes.

05:39 8 **MS. PENCAK:** Your Honor, I would object to this  
05:39 9 demonstrative as not actually being a call-out of the text.  
05:39 10 It's just the front page and one snippet that looks like it was  
05:39 11 typed in rather than -- what we've been doing in this case is  
05:39 12 putting the full page up and then calling out, with  
05:39 13 highlighting or with a box, a portion of this text.

05:39 14 It doesn't let you see any of the context, and  
05:39 15 also, it has been retyped. We're not sure if there are any  
05:39 16 errors there.

05:39 17 **THE COURT:** Does this come from a particular page in  
05:40 18 the exhibit?

05:40 19 **MS. KARIS:** It does, Your Honor.

05:40 20 **THE COURT:** Why don't you identify that for us.

05:40 21 **MS. KARIS:** Page 3 of TRES-9105. Your Honor, I'm  
05:40 22 happy to go back to following protocol, but this is the  
05:40 23 protocol we've used in prior phases as well. Sometimes it's  
05:40 24 more difficult to read using the actual type, so we retype it.  
05:40 25 But here's the page from that report.

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05:40 1 As you'll see, it says "Key Findings" on top.  
05:40 2 If you can just call that out from the actual  
05:40 3 document.

05:40 4 **BY MS. KARIS:**

05:40 5 **Q.** Dr. Clapp, can you read to us what the key finding is from  
05:40 6 OSAT 2.

05:40 7 **A.** I'll read No. 4. "Calculated potential cancer and  
05:40 8 non-cancer health effects from short- and long-term exposures  
05:40 9 are below U.S. Environmental Protection Agency (US EPA)  
10 acceptable health-based risk and hazard levels."

05:40 11 **Q.** And I think the record will reflect that's exactly what  
12 D-35261 said.

05:41 13 **THE COURT:** Does that cure your objection?

05:41 14 **MS. PENCAK:** Your Honor, with respect to that  
15 demonstrative, yes, it does cure the objection. But my  
16 recollection from prior phases is that we weren't retyping text  
17 into call-outs, that call-outs were actually called out from  
18 the text.

05:41 19 **MS. KARIS:** Your Honor, we have a distinction between  
20 a D document, which is a demonstrative, which reflects  
21 something has been taken out and typed and retyped, because  
22 we've done that before. And TREXs.

05:41 23 And as you'll know, I referenced it as a TREX.

05:41 24 **THE COURT:** D.

05:41 25 **MS. KARIS:** D for demonstrative. We've been using

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05:41 1 D --

05:41 2 THE COURT: You referenced it as a D, as a  
05:41 3 demonstrative? Is that what you said?

05:41 4 MS. KARIS: Correct.

05:41 5 THE COURT: Okay. I overrule the objection.

05:41 6 MS. KARIS: Thank you.

05:41 7 THE COURT: Thank you.

05:41 8 It's getting late, and we're arguing about Ds  
05:42 9 and Ts.

05:42 10 MS. KARIS: Exactly. So to finish that -- we all  
05:42 11 have the same interest, to close this up.

05:42 12 THE WITNESS: It's time for tea.

05:42 13 MS. KARIS: If we can now pull up D, Demonstrative,  
05:42 14 35250, please.

05:42 15 MR. BROCK: Say the number again.

05:42 16 MS. KARIS: D-35250. My apologies.

05:42 17 BY MS. KARIS:

05:42 18 Q. All right. Dr. Clapp, you would agree with me that we  
05:42 19 have looked at a number of government reports and findings on  
05:42 20 human health here; correct?

05:42 21 A. On both human health and exposure levels, I suppose, yes.

05:42 22 Q. And all of those reports were issued by government  
05:43 23 agencies; correct?

05:43 24 A. The recent ones that we've looked at, yes.

05:43 25 Q. Now, let's move to the last topic and hopefully get

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05:43 1 through this quickly. You spoke to long-term health impacts,  
05:43 2 and I just want to make sure I'm clear.

05:43 3 It is not your opinion that we will see long-term  
05:43 4 human health effects as a result of exposure to chemicals or  
05:43 5 toxins associated with the *Deepwater Horizon* spill; correct?

05:43 6 A. Correct. The words I used were "may," "we may see."

05:43 7 Q. You have no information or data demonstrating any  
05:43 8 long-term effects in any population as a result of exposure to  
05:43 9 any toxins or chemicals associated with the *Deepwater Horizon*  
10 incident; correct?

05:44 11 A. Well, we've talked about benzene -- I mean, with respect  
05:44 12 to the benzene exposures in this matter, no, not yet. But  
05:44 13 there's certainly long-term effects of benzene exposure in  
14 general.

05:44 15 Q. Sitting here now, four and a half years after the  
05:44 16 incident, you have no information or data demonstrating any  
05:44 17 long-term effects in any population as a result of exposure to  
05:44 18 any toxins or chemicals associated with the *Deepwater Horizon*  
19 incident; correct?

05:44 20 A. Correct, not yet.

05:44 21 MS. KARIS: I have no further questions. Thank you.

05:44 22 THE COURT: Redirect?

05:44 23 MS. PENCAK: Very briefly, Your Honor. Erica Pencak  
24 for the United States.

25



## DR. RICHARD CLAPP - REDIRECT

## 1 REDIRECT EXAMINATION

05:44 2 BY MS. PENCAK:

05:44 3 Q. Dr. Clapp, do you recall that counsel for BP asked you  
05:45 4 some questions about data, air sampling measurements that were  
05:45 5 taken in this case?

05:45 6 A. Yes.

05:45 7 Q. In the data that you reviewed, were there any samples that  
05:45 8 exhibited levels that were of concern to you from an  
05:45 9 epidemiological perspective?

05:45 10 A. Yes.

05:45 11 Q. Can you briefly describe those?

05:45 12 A. Well, particularly the BP data on benzene levels, there  
05:45 13 were many that were above. As I mentioned, the REL for benzene  
05:45 14 that OSHA has -- sorry, that NIOSH has recommended, and then  
05:45 15 there were some that exceeded even the 1 PPM OSHA PEL.05:45 16 Q. Counsel for BP also asked you about the articles that were  
05:45 17 underlying the June 2010 IOM summary. Do you recall that?

05:45 18 A. Yes.

05:45 19 Q. And you testified that you did read those underlying  
05:45 20 articles?

05:45 21 A. I did.

05:45 22 Q. Did anything you read in those articles change your  
05:46 23 opinions --

05:46 24 A. No.

05:46 25 Q. -- after having first read the summary?

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05:46 1 A. No.

05:46 2 Q. Counsel for BP asked you a number of questions about  
05:46 3 OSHA's PELs; correct?

05:46 4 A. Yes.

05:46 5 Q. Were you aware of any public statements OSHA has made  
05:46 6 regarding some of its PELs?

05:46 7 A. Yes.

05:46 8 Q. What have they stated about those PELs?

05:46 9 A. They're under review. In fact, they're calling for input  
05:46 10 to update their PELs because they're outdated.

05:46 11 Q. And finally, Dr. Clapp, BP asked you some questions about  
05:46 12 not only those PELs, but also NIOSH's RELs and other  
05:46 13 benchmarks.

05:46 14 In your opinion, do exposures to some substances at  
05:46 15 levels below those benchmarks constitute a risk to human  
05:46 16 health?

05:46 17 A. Yes.

05:46 18 MS. PENCAK: I have no further questions, Your Honor.

05:46 19 THE COURT: All right. Thank you, Doctor.

05:46 20 THE WITNESS: Thank you.

05:47 21 THE COURT: All right. It's a quarter till 6:00.  
05:47 22 We'll just recess now for the evening, and we'll resume at  
05:47 23 8:00 in the morning.

05:47 24 The next two witnesses for the government, as I  
05:47 25 understand it, are Dr. Donald Boesch, and then Dr. Stanley

05:47 1 Rice?

05:47 2 MS. HIMMELHOCH: That's correct, Your Honor.

05:47 3 THE COURT: And then you have Captain Mark  
05:47 4 VanHaverbeke?

05:47 5 MS. HIMMELHOCH: Yes, Your Honor.

05:47 6 THE COURT: How many do you think we'll get through  
05:47 7 tomorrow? Do you have any sense?

05:47 8 MS. HIMMELHOCH: I think all three of those and  
05:47 9 possibly start on the next one.

05:47 10 THE COURT: The next one is Dr. Charles Mason?

05:47 11 MS. HIMMELHOCH: That's correct, Your Honor.

05:47 12 THE COURT: So three, possibly four tomorrow, right?

05:47 13 MS. HIMMELHOCH: That's correct, Your Honor.

05:47 14 THE COURT: All right. Everyone have a good evening.

05:47 15 MR. BROCK: Judge Barbier, may I mention one thing?

05:47 16 THE COURT: Sure.

05:47 17 MR. BROCK: Mike Brock for BP. I was just looking at  
05:47 18 the list also, and if we were to get three witnesses in  
05:47 19 tomorrow and start a fourth, it looks like that would leave us  
05:48 20 three or three and a half for Thursday. And I assume that  
05:48 21 would mean we would start our case Friday morning. Would that  
05:48 22 be the Courts' preference?

05:48 23 THE COURT: Well, as I recall, at the pretrial  
05:48 24 conference we had previously, you indicated that you would be  
05:48 25 prepared to do that.

05:48 1           **MR. BROCK:** I am. I just wanted to make sure that's  
05:48 2 right.

05:48 3           **THE COURT:** If we go beyond Thursday, into Friday --  
05:48 4 I mean -- it would be fine with me if you wanted to start your  
05:48 5 presentation on Monday. Because the government's apparently  
05:48 6 going to be not using all its time. That's the sense I'm  
05:48 7 getting here from Sarah.

05:48 8                     Right?

05:48 9           **MS. HIMMELHOCH:** It is our expectation, Your Honor.

05:48 10          **THE COURT:** Ms. Himmelhoch. I'm sorry.

05:48 11                     So if that's the case, we would still be on  
05:48 12 schedule for the trial.

05:48 13                     I'm just -- I'd like to accommodate you as best  
05:49 14 I can. If it's a problem for you -- if you can have witnesses  
05:49 15 here Friday, we'll -- I'm here Friday regardless.

05:49 16          **MR. BROCK:** Okay.

05:49 17          **THE COURT:** Do you want to think about it tonight?  
05:49 18 Is that what you want to do?

05:49 19          **MR. BROCK:** I'll think about it tonight and let you  
05:49 20 know tomorrow morning. Yes, sir. Thank you.

05:49 21          **THE COURT:** I think we can safely say that the  
05:49 22 government's evidence will go through at least Thursday  
05:49 23 afternoon, it looks like.

05:49 24          **MS. HIMMELHOCH:** Absolutely, Your Honor.

05:49 25          **THE COURT:** Maybe into Friday. We just don't know.

05:49 1 MS. HIMMELHOCH: Correct.

05:49 2 MR. BROCK: Thank you.

05:49 3 THE COURT: Thank you. Have a good evening.

05:49 4 THE DEPUTY CLERK: All rise.

05:49 5 (WHEREUPON, the proceedings were concluded.)

6 \*\*\*\*\*

7 CERTIFICATE

8 I, Jodi Simcox, RMR, FCRR, Official Court Reporter  
9 for the United States District Court, Eastern District of  
10 Louisiana, do hereby certify that the foregoing is a true and  
11 correct transcript, to the best of my ability and  
12 understanding, from the record of the proceedings in the  
13 above-entitled and numbered matter.

14  
15  
16 *s/Jodi Simcox, RMR, FCRR*  
17 Jodi Simcox, RMR, FCRR  
18 Official Court Reporter  
19  
20  
21  
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\$	197/20 258/1 288/5 18 percent [1] 257/24	33308 [1] 171/19 33309 [1] 172/25
\$179 [1] 230/19	19 [2] 167/24 286/3	33310 [1] 174/2
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