

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

PROGRAMMATIC DEIS SEISMIC SURVEYS  
IN THE BEAUFORT AND CHUKCHI SEAS  
PUBLIC HEARING/MEETING

Wainwright, Alaska  
Taken April 25, 2007  
Commencing at 7:30 p.m.

Volume I - Pages 1 - 50, inclusive

Taken at  
Robert James Community Center  
Wainwright, Alaska

Reported by:  
Mary A. Vavrik, RMR

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

A-P-P-E-A-R-A-N-C-E-S

Albert Barros  
Community Liaison  
Minerals Management Service  
Bruce M. Herman  
Geophysicist  
Minerals Management Service  
Ken Hollingshead  
Fisheries Biologist  
National Marine Fisheries Service

Taken by:

Mary A. Vavrik, RMR

BE IT KNOWN that the aforementioned proceedings were taken at the time and place duly noted on the title page, before Mary A. Vavrik, Registered Merit Reporter and Notary Public within and for the State of Alaska.

1 P-R-O-C-E-E-D-I-N-G-S

2 MR. KEN HOLLINGSHEAD: Good evening. I'm  
3 Ken Hollingshead, National Marine Fisheries Service.  
4 Working with me tonight are Albert Barros, our community  
5 liaison from Minerals Management Service; Bruce Herman  
6 from Minerals Management Service; and our court reporter  
7 tonight is Mary Vavrik. And also we have -- our  
8 interpreter is Madeline -- where is Madeline?

9 MS. LYDIA AGNASAGGA: She went next door  
10 to make them cool down.

11 MR. KEN HOLLINGSHEAD: When Madeline comes  
12 back, Madeline will be our interpreter. Thank you,  
13 Madeline.

14 I will try to project my voice over that of the  
15 youngsters. The subject for tonight is an environmental  
16 impact statement that was prepared by the National Marine  
17 Fisheries Service and Minerals Management Service. I'll  
18 get into a greater detail a little bit later, but  
19 essentially this is to -- it was to analyze the  
20 environmental and sociological impacts of seismic surveys  
21 by the oil and gas industry in the Chukchi and Beaufort  
22 Seas for 2007 and future years.

23 Before we get into that, I would like to ask Lydia to  
24 have our blessing.

25 (Blessing offered by Lydia Agnasagga in

1 Inupiat.)

2 MS. MADELINE HICKMAN: I can translate  
3 what they are saying.

4 MR. KEN HOLLINGSHEAD: As mentioned,  
5 National Marine Fisheries Service and Minerals Management  
6 Service have produced this environmental impact statement,  
7 and we are going to the various communities to try to get  
8 comments on this environmental impact statement. We have  
9 two ways of getting comments. One is verbally, your  
10 opportunity to be -- during the course of this evening, if  
11 you come up with questions or comments that you wish to  
12 make into the court reporter's record, National Marine  
13 Fisheries Service and Minerals Management Service will use  
14 that in their decision-making process. I'll mention --  
15 I'll talk more about that a little bit later.

16 The second is Albert has copies of this. You don't  
17 have to use this, but this is a form to submit comments.  
18 One of the issues that we are looking at, one of the  
19 concerns we are looking at is to try to get more  
20 traditional knowledge of this. And I'll get into that in  
21 a little bit. So these two forms are the methods of  
22 getting comments to the National Marine Fisheries Service.  
23 At this time the comment period is scheduled to close on  
24 May 14th of 2007.

25 Right now I'd like to say, are there any technical

1 questions -- not technical. Any procedural questions that  
2 people understand or do not understand about what we are  
3 doing? Okay.

4 Let me give a little bit of a background. After many  
5 years or, in the case of the Chukchi Sea, several decades,  
6 the oil industry showed interest in returning for oil  
7 exploration in the Chukchi Sea and in the Beaufort Sea.  
8 In the Beaufort Sea, we had not seen activity for about  
9 four years, since about 2000; but, of course, with the  
10 price of oil, there was more interest. So they came to  
11 Minerals Management Service in late 2005, and the Minerals  
12 Management Service prepared a -- what's called a  
13 programmatic environmental assessment which could be  
14 thought of as a baby EIS, or environmental impact  
15 statement. Even though they are both about the same size  
16 documents, they go through a less rigorous review process.

17 What Minerals Management Service did with National  
18 Marine Fisheries Service as a cooperating entity was to  
19 evaluate four seismic survey operations in the Chukchi Sea  
20 and four seismic surveys in the Beaufort Sea at the same  
21 time.

22 What that means is four of the big vessels, these big  
23 seismic vessels towing a large streamer array and creating  
24 a large noise that penetrates the bottom of the ocean,  
25 sends back signals, it tells the oil industry if there is

1 oil or gas in the bottom that's worth them to further  
2 explore.

3 What we found in the -- as we said, we had four  
4 operations proposed. In 2006 we had Shell Oil,  
5 ConocoPhillips and a company from Houston, Texas that does  
6 not have experience on the Slope called GX Technology, as  
7 in George Texas Technology, GXT. Those companies  
8 conducted seismic.

9 GXT went -- spent part of the summer in the Canadian  
10 Beaufort, then in the fall came back into the Chukchi Sea  
11 and did additional seismic. Shell Oil conducted some  
12 early seismic in the Chukchi Sea, then went off the -- in  
13 the U.S. Beaufort off of Nuiqsut to conduct additional  
14 seismic and returned to the Chukchi Sea. ConocoPhillips  
15 essentially spent most of their time -- did I get that  
16 right, Bruce?

17 MR. BRUCE HERMAN: All their time, but  
18 Shell didn't collect any deep seismic in the Beaufort,  
19 just high resolution.

20 MR. KEN HOLLINGSHEAD: They just did high  
21 resolution, so they had a smaller boat, a smaller seismic  
22 source in the Beaufort. ConocoPhillips, though, did work  
23 in the Chukchi Sea for most of the summer.

24 We thought we would see even greater interest in the  
25 Chukchi and Beaufort Sea in 2007, so Minerals Management

1 Service and National Marine Fisheries Service decided to  
2 spend the effort needed to produce an environmental impact  
3 statement to get a much more deeper analysis of what was  
4 happening in the Chukchi and the Beaufort Seas.

5 What has happened is that there has been actually  
6 less interest this year with GXT saying they will not  
7 construct operations in the Chukchi Sea, ConocoPhillips  
8 also withdrawing its application, leaving only Shell to  
9 conduct operations in the Chukchi and Beaufort Seas.  
10 However, this document is going to be for future years and  
11 we could see a lot of additional activity in here. So we  
12 really want community participation in reviewing this  
13 document and also future documents that I'll be talking --  
14 future reviews that I'll be talking about in a minute.

15 At this point are there any questions?

16 MS. LYDIA AGNASAGGA: Lydia, you said  
17 that --

18 THE ARBITRATOR: Could you say your name  
19 first for our court reporter?

20 MS. LYDIA AGNASAGGA: Oh, I'm sorry. My  
21 name is Lydia Agnasagga, Wainwright resident. You  
22 mentioned that 2006 there was these people inexperienced  
23 from Texas. Did you say inexperienced people from Texas?

24 MR. KEN HOLLINGSHEAD: Yeah.

25 MS. LYDIA AGNASAGGA: That went to do

1 seismic.

2 MR. KEN HOLLINGSHEAD: When I say  
3 inexperienced, I don't mean they are inexperienced in  
4 conducting seismic. They are -- they were inexperienced  
5 in community relations with the North Slope residents.

6 MS. LYDIA AGNASAGGA: Okay.

7 MR. KEN HOLLINGSHEAD: Companies that have  
8 worked up here for a long time for one reason or another,  
9 Shell, BP, they know that they have to communicate with  
10 the communities. When you work down in the Gulf of  
11 Mexico, they don't -- they don't have that relationship.  
12 They just go offshore, do the work, come back to their  
13 corporate headquarters. So they had to understand that  
14 there are a number of things, as I will mention this  
15 evening, that they had to get involved with. So that was  
16 the intent of my saying inexperienced.

17 MS. LYDIA AGNASAGGA: Okay.

18 MR. KEN HOLLINGSHEAD: One aspect I'd like  
19 to bring into play here for the community is that there  
20 are, in addition to what's called the National  
21 Environmental Policy Act, which is the law that required  
22 us to produce this environmental document, we also have a  
23 law called the Marine Mammal Protection Act. That law was  
24 passed in 1972. It was amended in 1981 to recognize --  
25 and again 1994 to recognize that if you are working on the

1 North Slope or in Arctic waters, that in addition to  
2 making sure that activities are having no more than a  
3 negligible impact on marine mammal populations, we need to  
4 ensure before we issue them a permit to take marine  
5 mammals and also a permit by Minerals Management Service  
6 for them to conduct their seismic work, the National  
7 Marine Fisheries Service has to make a determination that  
8 the activity will not have an unmitigable -- it's a big  
9 word -- adverse impact on subsistence uses for marine  
10 mammals.

11 So what the National Marine Fisheries Service did in  
12 2006 was to look at the bowhead whale subsistence harvest  
13 in the Beaufort Sea, the western migration, the spring  
14 migration of bowhead whales along the Chukchi coast, and  
15 beluga migration on the Chukchi coast. The mitigation  
16 that we had or that was arranged through the Alaska Eskimo  
17 Whaling Commission in part for the Beaufort Sea, there  
18 were blackout areas in the fall. And those blackout areas  
19 went -- they protected each of the villages, and they  
20 moved progressively -- so Kaktovik was the first  
21 protected, then Nuiqsut had a protection. These are  
22 overlapping because if you impact the bowheads here, the  
23 bowheads could be -- still be affected here (indicating).  
24 They could be skittish and hard to harvest, or they could  
25 go further offshore and put the whalers in danger.

1           Then there was another one for Barrow. And the  
2 Barrow what we call blackout area went halfway to Peard  
3 Bay. So essentially the Barrow area was about like that  
4 area (indicating). For the spring -- you have a question?

5                   MS. LYDIA AGNASAGGA: Again, what are  
6 those -- I noticed you have color-coded map. I see big  
7 greens and a blue, small blue, whatever they stand for.

8                   MR. KEN HOLLINGSHEAD: The blue areas, I  
9 believe, are the areas that the Minerals Management  
10 Service has leased for oil exploration. The areas that  
11 are in these hatched are -- they are called --

12                   MR. BRUCE HERMAN: There is a legend up  
13 there.

14                   MR. KEN HOLLINGSHEAD: Okay. Deferred  
15 blocks from sale. That is mostly -- there is some --  
16 there is some work for that. A lot of the seismic work is  
17 looking at -- is for future lease sales. So for the  
18 Chukchi Sea, you have an area called Lease Sale 193. So  
19 the industry is interested in conducting deep ocean  
20 seismic in those areas to get an estimate of how much oil  
21 might be there so they can bid to the federal government,  
22 to Minerals Management Service, for that oil reserve. If  
23 they didn't know how much that's worth, then they could  
24 bid too much and hurt their company's finances or bid too  
25 little and hurt the federal government's return on those

1 leases. That's a little bit off our subject.

2 For -- did I get that -- did I answer your question  
3 on that?

4 MS. LYDIA AGNASAGGA: No.

5 MR. KEN HOLLINGSHEAD: What we are trying  
6 to do here with this map is to show just so people, if  
7 they want to talk about a concern area -- for example,  
8 Shell wants to work a Sivulliq lease sale. We show where  
9 Sivulliq is. So I'm using this in generality right now to  
10 try to bring forward what kind of mitigation, what kind of  
11 protective measures we did in 2006 and what kind of  
12 protective measures we could be looking at in 2007.

13 Bruce?

14 MR. BRUCE HERMAN: Lydia, the green is  
15 federal land. The one on the left is the National  
16 Petroleum Reserve, and the one on the right is the -- what  
17 do they call it, Gates of the Arctic? Arctic National  
18 Wildlife Refuge. So that's federal land. All the yellow  
19 is State -- well, not federal. Put it that way.

20 MR. KEN HOLLINGSHEAD: I was talking  
21 offshore. You were looking onshore. Sorry.

22 MS. MADELINE HICKMAN: The ones you were  
23 saying on the -- the blue ones are where they are doing  
24 some activity right now, the oil companies are doing  
25 activity in?

1                   MR. BRUCE HERMAN: No. That means that  
2 they have rented the land, but they are not necessarily  
3 doing anything right now. When they lease the land, they  
4 get a lease for ten years, and all those blue are in the  
5 federal water, and so they are three miles or more  
6 offshore because three miles or closer is State water.  
7 But they can own -- they can have a lease for ten years  
8 and do nothing if they choose to. But they have to do --  
9 to keep the lease more than ten years, they have to do  
10 some work on it, which could be just more seismic. They  
11 don't necessarily have to drill.

12                   MS. MADELINE HICKMAN: Thanks. Lydia, did  
13 you understand now?

14                   MR. BILLY K. NASHOALOOK, SR: What did you  
15 call the yellow, all that yellow?

16                   MR. KEN HOLLINGSHEAD: Could we get your  
17 name for the record?

18                   MR. BILLY K. NASHOALOOK, SR.: Who own  
19 that land?

20                   MR. KEN HOLLINGSHEAD: This is State-owned  
21 land.

22                   MR. BRUCE HERMAN: State and Native.

23                   MR. KEN HOLLINGSHEAD: State and Native  
24 land. What we will do -- let me talk a little bit about  
25 what we did in 2006 in the Chukchi Sea in order to make a

1 determination that there would not be an unmitigable  
2 adverse impact on subsistence harvest. That doesn't mean  
3 there was no impact, but it meant that nothing would  
4 prevent subsistence users of bowheads, belugas or seals  
5 from being able to get their harvest.

6 We put a prohibition and didn't issue any  
7 authorizations before July 15th. July 15th was the date  
8 that we had been told was when the beluga and bowhead had  
9 both passed the communities and were no longer available  
10 for subsistence. It did not mean that there were no  
11 belugas or bowheads in the area in the Chukchi Sea, but  
12 what it meant is that the subsistence, traditional  
13 subsistence harvest had ended by that time. That was the  
14 main one that we put in there for the spring.

15 There was also a seismic area was going to be  
16 approximately 60 miles offshore so that there would not be  
17 effects on any other local or traditional seal hunting or  
18 any late harvest and also to reduce impacts of any animals  
19 coming that were still migrating through.

20 We don't know a lot of information about the animals  
21 in the Chukchi Sea. When the industry was here 20 years  
22 ago, the federal government didn't have any programs. We  
23 were not told what was happening. We were operating with  
24 the oil companies, WesternGeco over in the Beaufort Sea.  
25 We were protecting the bowhead harvest in the Beaufort

1 Sea, but they didn't tell us anything that they were  
2 shooting seismic over here.

3 So now in 2006 we did this environmental assessment,  
4 and as part of that, under the discussions that we had  
5 with Shell, with the North Slope Borough and other  
6 scientists, the oil industry implemented a research  
7 program. They put up underwater we call them hydrophones.  
8 They are essentially underwater microphones. They record  
9 vocalizations of bowheads and belugas. The scientists are  
10 studying those vocalizations now. Based on information we  
11 have seen previously at the Northstar facility, which is  
12 an oil form platform just to the other side of Prudhoe  
13 Bay, we can tell if they are deflecting. At Northstar we  
14 are able to see that there is a slight deflection. There  
15 are three waves, a near shore, a mid shore, and an  
16 offshore migration path. And we found, based on  
17 vocalizations, that all three moved in sequence. So if  
18 there was a lot of noise, they moved offshore a little  
19 further. If there was no noise, they were closer to  
20 shore.

21 This year, 2007, Shell will be putting those  
22 hydrophone arrays -- they are sort of like a Z-shape going  
23 offshore so they can triangulate on the mammals in  
24 addition to on the Chukchi coast. So we will have one set  
25 on the Chukchi coast and one set on the Beaufort coast.

1 And the scientists will study that to see what the  
2 vocalizations are. If there is no vocalizations, it may  
3 be that there are no belugas. And if there are no  
4 belugas, the question becomes why. That's a question for  
5 the scientists, and that's the design of the research.

6 So that essentially is a summary of what we will do,  
7 what we are looking at in 2007. Shell's application under  
8 the Marine Mammal Protection Act has not been released to  
9 the public at this time. I'm still working on it. It's  
10 going to take me two or three more weeks to finish it up.  
11 It will then go out for public review. So we will have  
12 another 30-day comment period.

13 So hopefully not confusing you, we have an EIS with  
14 comments due May 14th. Approximately at that time we will  
15 then go out with the seismic application from Shell. We  
16 were preparing one for the GX Technology, but they have  
17 asked us to suspend their processing until 2008. So they  
18 are going to work over in the Canadian Beaufort, but  
19 that's not U.S. jurisdiction so we don't have anything to  
20 do with that. Their work in the Chukchi has been  
21 suspended. So we have one company, one boat coming in.

22 I feel like a schoolteacher. And I have been a  
23 schoolteacher. Do you have any questions at this time?  
24 As I said, this is your meeting. We want to get your  
25 input on what we have here.

1                   MR. KENNETH TAGAROOK: Is there a way you  
2 guys can put a hydrophone in front of Wainwright when they  
3 are doing the seismic activity next time they are out  
4 there?

5                   MR. KEN HOLLINGSHEAD: I think they have.  
6 I think this -- this --

7                   MR. HERBERT TAGAROOK: They have got buoys  
8 out out in areas from Point Hope to Barrow somewhere.

9                   MR. KEN HOLLINGSHEAD: They are going to  
10 repeat the same locations. And I think they wanted to  
11 capture -- they wanted to put the hydrophones -- and there  
12 is more than one. They have near shore and then they have  
13 a couple more offshore. And I believe that they wanted to  
14 catch -- get them off of each of the villages they hunted,  
15 bowheads and belugas.

16                   MR. HERBERT TAGAROOK: They had put some  
17 buoys out every five miles, and the last one was about 30  
18 miles out.

19                   MR. KENNETH TAGAROOK: He was on the ship.  
20 If they do put hydrophones, is there a way for us to  
21 listen, too? I mean, if they do put hydrophones out  
22 there, is there a way for us in the village of Wainwright  
23 to listen to the activity going out there?

24                   MR. KEN HOLLINGSHEAD: I'm at a loss for  
25 words. I think that they -- they have -- you have the

1 ability to go out -- go out there. They are trying to --  
2 the scientists are trying to be cooperative, so if there  
3 are vocalizations, that they are -- it's vocalizations.  
4 What it means is subject to interpretation, of course.

5 MR. KENNETH TAGAROOK: I know there is  
6 vocalization from all the animals, but I want to listen to  
7 the seismic activity and see what kind of decibels are  
8 going on, how much of a noise are impacting our  
9 refrigerator out there.

10 MR. KEN HOLLINGSHEAD: I don't think you  
11 need to -- what I've heard is you could hear it yourself  
12 by just being on the coast if they are close enough to  
13 shore. The noise carries a great distance. So you should  
14 be able to hear it. The whalers have said that you can  
15 hear it in a boat. You know, the hunters for the walrus  
16 go out there and they say that they are very quiet and you  
17 can hear the seismic boat as its working. Even though  
18 they don't see it, they can hear it. But it would take  
19 scientific instruments to be able to -- to be able to know  
20 how loud it is.

21 And, of course, it's in -- what we talked about  
22 earlier, in decibels. The decibel level, which is -- it's  
23 a different system than what we have for human hearing.  
24 It's a different area. But what we use is 120 decibels.  
25 A bowhead whale will have a reaction at 120 decibels. We

1 measured that level in the Chukchi Sea last year, and it  
2 was, like, 30 -- I think it was 30 miles or farther,  
3 depending on which company has it -- has that.

4         They did those measurements last year. There may be  
5 a requirement for them to repeat some of them, but all  
6 noise sources by the oil industry are measured by a  
7 group -- really the best group available from Southern  
8 California to come up and actually set up their recording  
9 equipment at different distances and different depths.  
10 The sound travels different at different water depths  
11 because of lensing and thermal layers, et cetera.

12         And you would have to work out with Shell as to  
13 exactly when they are going to do something and what  
14 arrangements they might have for observers to come out  
15 there.

16         They will have -- they will have -- during these  
17 operations this year, Shell has mentioned they will be  
18 hiring 92 Inupiats to go out on the vessels. All vessels,  
19 whether the seismic, the big seismic, or boomer boats as  
20 we call them, or support vessels, all will have observers,  
21 either trained, college-trained biologists or Inupiats  
22 working in conjunction with it.

23         When Shell comes up for their various meetings here,  
24 I suggest that you talk to them to see what arrangements  
25 can be made.

1                   MR. KENNETH TAGAROOK: Does the public  
2 have access to other sound recordings that they did during  
3 the seismic activity last summer?

4                   MR. BRUCE HERMAN: I don't know the answer  
5 to that, Kenneth, but I believe we can find out.

6                   MR. KENNETH TAGAROOK: I sure would like  
7 to listen to it.

8                   MR. BRUCE HERMAN: And that's what you  
9 would like to listen to this summer, too.

10                  MR. KENNETH TAGAROOK: Just the seismic  
11 activity because I recorded -- out of Point Barrow we were  
12 listening to the marine life working for the Naval Arctic  
13 Research Lab, so I know what's out there, but I just  
14 wanted to hear the noise that the seismic boats create.

15                  MR. BRUCE HERMAN: And let me make sure I  
16 understand what it is that you are looking for. Your  
17 interest is in the near shore buoys, hearing the sound  
18 that is coming in close to Wainwright; is that --

19                  MR. KENNETH TAGAROOK: From these --

20                  MR. BRUCE HERMAN: -- from their gun  
21 boats.

22                  MR. KENNETH TAGAROOK: Yes.

23                  MR. BRUCE HERMAN: But the place you want  
24 to listen to the sounds is the buoys that are close to  
25 Wainwright, is that correct?

1 MR. KENNETH TAGAROOK: Yes.

2 MR. BRUCE HERMAN: I'm not absolutely  
3 sure -- and Herbert, you may actually know. I don't think  
4 that you can listen realtime to the sounds coming in. I  
5 think the recorders on the buoys pop to the surface at the  
6 end of the program and that's when they take out the tape  
7 recorders. Isn't that correct, Herbert?

8 MR. HERBERT TAGAROOK: Yeah. I think they  
9 ship them off somewhere.

10 MR. BRUCE HERMAN: But they are not  
11 transmitting by radio the information back to the ship  
12 during the program; it's only at the end. Is that your  
13 understanding, also?

14 MR. HERBERT TAGAROOK: Yeah. They have  
15 one real long line of hydrophone, too, they were dragging  
16 all the time.

17 MR. BRUCE HERMAN: So it would be at  
18 the -- in the fall when they would recover the buoys and  
19 you would be able to listen to it after the fact. And the  
20 current data set, the tapes from the current ones are with  
21 a professor at Cornell University, and that's where they  
22 are being analyzed. But we can ask the project managers  
23 if those tapes or copies of those tapes can be made  
24 available.

25 MR. KEN HOLLINGSHEAD: The person

1 analyzing those is Dr. Chris Clark, who with Dr. Bill  
2 Ellerson were the ones that were brought up here by the  
3 North Slope Borough way back in 1977 to verify the  
4 traditional knowledge that there were more bowheads up  
5 here than the American scientists believed there were.  
6 They were the first ones to use acoustic recordings to be  
7 able to say, yes, you have more whales than the  
8 International Whaling Commission believes were up here.  
9 So that was a very important finding for the Alaska Eskimo  
10 Whaling Commission. So we have several projects.

11 The one with the net array, the popup buoys, the 2006  
12 data is being analyzed. We are having a series of  
13 meetings to have a comprehensive report and to design  
14 the -- come to the final conclusions for the 2007 research  
15 design. The industry is not overly happy having to do  
16 this research, but when you are having impacts on marine  
17 mammals that are beyond the vessel, the observer on the  
18 vessel with his binoculars can't see these impacts, you  
19 have to do additional research. So the industry has that  
20 mandate and is trying to design a program in discussions  
21 with the North Slope Borough Department of Wildlife and  
22 the National Marine Fisheries Service scientists at the  
23 National Marine Mammal Laboratory in Seattle, Washington.

24 There are other aspects of the research program, but  
25 those are the ones that, I think, is pretty critical is

1 trying to collect the vocalizations.

2 The other part that you were talking about, the  
3 actual seismic noise, is another part. The industry at  
4 this point in time is pretty sensitive as to recordings of  
5 their work because that information is proprietary. They  
6 aren't worried about you or me hearing those recordings,  
7 but they have industry competition. And if they get those  
8 kinds of recordings, they can then backtrack to find out  
9 where they are doing their seismic exploration and  
10 therefore where they are interested in bidding on a lease.  
11 So there is a competition part there.

12 But we will pass that word back to see what  
13 arrangements can be made. Before we leave, if we have  
14 your name and address, then we can get back in touch with  
15 you.

16 Any other issues, concerns?

17 MS. LYDIA AGNASAGGA: You mentioned that  
18 Shell will hire 90 Inupiats. Is that North Slope wide?

19 MR. KEN HOLLINGSHEAD: You say white,  
20 also?

21 MR. ALBERT BARROS: Wide, across the North  
22 Slope.

23 MR. KEN HOLLINGSHEAD: I believe so, yeah.  
24 When they come up here with their community relations  
25 people, their discussions -- Albert, you have some

1 information?

2 MR. ALBERT BARROS: No. I'm just  
3 clarifying that her question that is it North Slope wide,  
4 meaning from Point Hope to Kaktovik all the way across.

5 MR. KEN HOLLINGSHEAD: I believe it is.

6 MS. LYDIA AGNASAGGA: Because 90 is a lot  
7 to me to hire Inupiats, that many. Got to be from all  
8 over.

9 MR. KEN HOLLINGSHEAD: I hope I'm not  
10 misspeaking, but that's what I -- we had a meeting in  
11 Anchorage two weeks ago, and they described their program  
12 there, and that was what stuck in my mind is that they  
13 were hiring 90 Inupiats for this -- for this work to  
14 assist out there. Now, how Shell is making those  
15 arrangements, I don't know. There have been some  
16 discussions in their community meetings. When they come  
17 up on the Slope to meet with the villages, you know,  
18 that's when they would put that out. I've seen some of  
19 their posters around, so I know they have been to some of  
20 the communities. I don't know when and where. Which, by  
21 the way, brings up another subject.

22 One of the requirements that we have for them is that  
23 they have a plan of cooperation, which means before we  
24 issue them a permit, we want to see that they have met  
25 with the various communities that would be affected. In

1 the past that has just been a we met with Wainwright on a  
2 certain day, we wet with Point Lay. We are changing that  
3 requirement. We want to know now what did you accomplish.

4 So they are not just going to come in, make some  
5 statement and go home. We want them to have serious  
6 discussions with the communities on what the problems are,  
7 what community impacts are going to occur from seismic,  
8 what can they do to mitigate those impacts. Some of them  
9 will be what I mentioned previously, but they may also  
10 have others.

11 There is an issue called a conflict avoidance  
12 agreement which some communities are unhappy with. That  
13 is not a federal government exercise. That's between the  
14 communities, the nonprofits, and the oil industry. We  
15 like to be informed as to what progress is made because it  
16 supports that information we want in the plan of  
17 cooperation, but we are not a party to that agreement.

18 Now, you had a question? Okay. Maybe later. Any  
19 other issues?

20 MR. KENNETH TAGAROOK: Have there been any  
21 studies done to see what kind of damage has been done to  
22 the microscopic animals that live off there when they did  
23 the seismic?

24 MR. KEN HOLLINGSHEAD: I think what they  
25 are doing is we are working down the food chain. I don't

1 want to be flippant about it, but essentially we focused  
2 on the bowhead whales and the large marine mammals. There  
3 is a lot of concern now for seismic and sonar on fish. A  
4 lot of research is being done because fish are important  
5 for subsistence use. They are important outside of this  
6 area for commercial fishing. Plankton probably are less  
7 of a concern.

8         The studies have shown that in order to be seriously  
9 impacted, there has to be what we call -- go into the big  
10 terms -- an acoustic impedance mismatch. You and I have  
11 an impedance mismatch because we have internal organs,  
12 internal organs that have air: our stomachs, our lungs.  
13 And so when a noise comes in and it resonates, it can  
14 cause damage. It can shear. It can pull away from the  
15 ribs. Your lungs can pull away from the ribs. That can  
16 cause serious injury.

17         A little plankton guy, he's 99.9 percent water, so  
18 he's just going to vibrate. And there is no pulling and  
19 tearing as we would have. Fish have a problem because  
20 they have a swim bladder. They have ears. So there can  
21 be problems with fish. So far the emphasis has been on  
22 marine mammals and now the fish. We have researchers at  
23 the University of Maryland that are taking fish up -- what  
24 we call catfish and trout because one is a sturdy fish, a  
25 hearty fish, and one is a very sensitive fish -- trying to

1 see what impacts occur. And we have some of that  
2 information late minute. We just got the information in  
3 just as we were going to press with this. So that's what  
4 we are looking at.

5 Yes, somebody is going to study the zooplankton, but  
6 right now we don't think the smaller, the microscopic and  
7 macroscopic, still tiny little krills and stuff are going  
8 to be affected. It's the state of our knowledge. It  
9 could change. We need to do the research, but right now  
10 we are looking at the fish.

11 Thank you, Ken.

12 Might be interested that there is additional -- there  
13 are two concerns with the National Marine Fisheries  
14 Service. One is seismic and the other is sonar, as I  
15 mentioned. So a lot of this is being driven. The seismic  
16 industry, though, has reacted. They have formed a program  
17 called the Joint Industry Program. And this is an  
18 international program because what you see up here  
19 potentially occurring in the Chukchi Sea is also occurring  
20 off West Africa. It's occurring in the North Sea. It's  
21 occurring worldwide. There is also big concerns off  
22 Sakhalin. Shell and Exxon have gone to Sakhalin. They  
23 are potentially having an impact on gray whales.

24 So the industry is reacting and putting large amounts  
25 of money into scientific research. One of the fields that

1 they are looking at is to improve on seismic. When the  
2 oil industry first started, what the industry did was they  
3 went out there with a couple sticks of dynamite, threw it  
4 over the side, and recorded the noise. You can imagine  
5 the damage to fish, to marine mammals and everything else  
6 in the vicinity.

7 They then invented seismic, and that was good for a  
8 long time, but now we are seeing that there is impacts on  
9 marine mammals and especially sensitive animals like the  
10 bowhead whale and the beached whales outside of the areas.  
11 Potentially we have seen a couple of strandings.

12 So now the industry is looking at a third generation.  
13 And what they are looking at right now is if they can  
14 increase the power output of vibrators. Currently you see  
15 the vibrators in the Beaufort Sea during the wintertime.  
16 The industry comes out with big caravans of trucks out  
17 onto the ice in the middle of the winter when the ice is  
18 sturdy enough to support these big vehicles. Even though  
19 they have big tires on them, they don't have a big weight  
20 on them.

21 They put this vibrator plate on the ice. They  
22 vibrate it. It sends a seismic wave through the ice,  
23 through the water into the sediment and then back up.  
24 They are going to use that, as to the extent they can, to  
25 avoid impacts on the bowhead whales and beluga whales. It

1 still has impacts on the ringed seals and other ice seals.  
2 But they are also trying now to see if they can use that  
3 in open water when we don't have the ice there.

4 So they are spending a few million dollars to try to  
5 see if they can do a research design that would allow them  
6 to go to a third generation and maybe end this issue that  
7 we have with impacts from oil industry by seismic on the  
8 marine mammals.

9 As mentioned, this is your meeting. What we are  
10 looking for is input. In the villages we have asked if  
11 there were Elders that might remember what happened 20  
12 years ago. Some may remember the big seismic boats and  
13 what happened; were there any effects on their hunting,  
14 any effects on subsistence fishing. We are looking at  
15 that. We are getting, what, the -- some of the whaling  
16 captains are going to be testifying on video camera out of  
17 Point Hope. Right now they were out whaling so they were  
18 not available for our hearing, so we are going to get  
19 their video testimony.

20 Last night we had two elders come in to discuss what  
21 was -- what their concerns were. One spoke in Inupiat.  
22 We did not have a translator, so we have that -- her  
23 testimony and we will have it translated, interpreted in  
24 Barrow when we get there.

25 That is one issue, one area where we think we can

1 improve our knowledge of what might -- the impacts,  
2 potential impacts on subsistence harvesting of marine  
3 mammals and fish.

4 MR. KENNETH TAGAROOK: Last fall after the  
5 seismic activity and when our river froze, went out with  
6 our whaling captain who does his fishing under the ice  
7 with a net. He barely got five or six all fall. I wonder  
8 if that was impacted by the seismic activity that was  
9 being done earlier this fall. Last year he got more  
10 than -- more than what he got this fall. Last fall, the  
11 year before he got more than -- more than last fall.

12 MR. KEN HOLLINGSHEAD: What species was  
13 that? What was he fishing?

14 MR. KENNETH TAGAROOK: Tipuk.

15 MR. KEN HOLLINGSHEAD: I'm a fish  
16 biologist. I don't know what --

17 MS. LYDIA AGNASAGGA: Whitefish.

18 MR. BILLY K. NASHOALOOK, SR.: Cisco.

19 MR. KEN HOLLINGSHEAD: Oh, cisco. Okay.

20 MR. KENNETH TAGAROOK: He go check his net  
21 every weekend. He have one compared to 25, 30 he used to  
22 get.

23 MR. KEN HOLLINGSHEAD: We don't know.  
24 Until we know what kind of impacts on fish are going to  
25 occur, we have to add to the knowledge base. When you

1 look at this document, you can find information that  
2 agrees and information that conflicts. Some of it may  
3 be -- most of it is probably correct. There may be a  
4 situation that occurs. But it's the accumulating base of  
5 that knowledge as we go over time that tells us whether  
6 that -- whether that's an effect or not. It could be any  
7 number of reasons.

8 MR. KENNETH TAGAROOK: Do you know what  
9 the oil companies out at Prudhoe put in to their wells to  
10 get all the oil out?

11 MR. KEN HOLLINGSHEAD: What they put into  
12 the wells to get the oil out? That's not --

13 MR. KENNETH TAGAROOK: The oil companies  
14 say they put water in the well to get the oil out because  
15 the water is heavier than the oil and the oil floats to  
16 the top. I think all the oil -- for 30-some years that  
17 they have been pumping the oil out of Prudhoe, I think the  
18 North Pole getting heavier than the South Pole and our  
19 earth is shifting and causing global warming. Why can't  
20 the oil companies go down to the South Pole and look for  
21 oil for 30 years to try to balance the earth back?

22 It's not funny. My great grandkids might not even be  
23 able to go out and subsist like we do. The earth and the  
24 atmosphere has gravitation pull. And I think the oil  
25 companies are causing the global warming.



1 additional issues?

2 MR. GEORGE AGNASAGGA: I know there is  
3 some seismics out in Beaufort last summer, but the way I  
4 think that's -- the impact that we are going to feel is  
5 going to be much later than trying to find out today or  
6 the same summer that they are taking seismic. I think the  
7 only way that we can measure what the impact is going to  
8 be is to keep studying the impact four or five years later  
9 because we don't know what's going to happen to the fish.  
10 Like Kenny was saying, somebody got some fish last summer,  
11 but he couldn't get as much as he used to. My thinking is  
12 that this is going to go on for several years before we  
13 can really measure the impact on our sea mammals and fish.

14 MR. KEN HOLLINGSHEAD: Okay. Thank you.  
15 We are looking -- it's unfortunate that nobody collected  
16 baseline data back in the 1980s or 1990s. We are looking  
17 now as to how to collect data, so that's an important  
18 point. And whether or not the industry stays, continues  
19 to work or not, we will at least have some baseline  
20 studies in case they come back in the future; if they  
21 don't continue, they come back in the future. Baseline  
22 study -- it's always the problem of how much money do you  
23 have and where do you invest -- where does the federal  
24 government invest that money. And if you had foresight,  
25 you would have been up here before that.

1           We are concerned about ringed seals, too, ringed seal  
2           and bearded seal. So we are trying to design those  
3           studies, also. You might talk to Robert Suydam or Craig  
4           George over at the wildlife department. They have got --  
5           that team over there has a lot of work on their shoulders,  
6           a lot of responsibilities to try to get the industry to  
7           make assessments. They are the ones that are up here for  
8           the profit, and so that work needs to be done by them.

9           Back to my schoolteacher time.

10                         MS. LYDIA AGNASAGGA: I just have one more  
11           comment. With so much advanced technology and the great  
12           scientists we have today, I wonder if they can study our  
13           marine mammals that lives in the ocean -- whales, walrus,  
14           seals, belugas or whatever -- that how sensitive their  
15           ears are, how far can they hear the sound and noise of  
16           whatever is making noise in the ocean. Can that be  
17           possible one day?

18                         MR. KEN HOLLINGSHEAD: Yes, it certainly  
19           can.

20                         MS. LYDIA AGNASAGGA: How far can they  
21           hear the noise, even if they are about how many miles away  
22           from the -- whatever they are doing? How sensitive their  
23           ears are.

24                         MR. KEN HOLLINGSHEAD: That kind of a  
25           study is a behavioral response study, so you look at what

1 kind of noise they are hearing, what levels they hear, and  
2 what their response is. So then you can judge from your  
3 source, the acoustic source, the noise source, how far  
4 away that source would be for their response. For seismic  
5 in the Beaufort Sea, we are finding that is 20 to 35  
6 kilometers, which is -- quick conversion.

7 MR. BRUCE HERMAN: .6 times that. So  
8 12 --

9 MR. KEN HOLLINGSHEAD: About 12 miles.

10 MR. BRUCE HERMAN: So 12 to 15 nautical  
11 miles.

12 MS. LYDIA AGNASAGGA: And be sure to put  
13 it in data collection.

14 MR. KEN HOLLINGSHEAD: We are also getting  
15 ready to have a study -- I mentioned previously that there  
16 is a second concern and that is Navy sonar, and so we are  
17 looking at a what we call behavioral response study where  
18 you put -- this Dr. Clark and others, they have these  
19 little devices that you put on the whale's back, and it  
20 records their depth, their diving, their vocalizations,  
21 so -- I'm paraphrasing, but if they hear a loud noise, it  
22 picks up that noise and it records whether that noise is  
23 bad for them, depending on their reaction. So it's video,  
24 acoustic. These are very -- very interesting devices.

25 It's a bit off the record, but I saw one where they

1 had the first experiments and they had it on a gray  
2 whale -- excuse me -- a humpback whale, and the whale must  
3 have said something like something is annoying me; go back  
4 and see what's on my back. And the other whale goes back  
5 and looks at it, and next thing you know, it's  
6 disappeared. So the other whale knocked it off.

7 So these animals are very smart. We have to implant  
8 these devices, make them very small so that they can't be  
9 knocked off by their buddies, and also it doesn't harm  
10 them. But our scientists, Chris Clark and others, are  
11 designing those kind of experiments so we can get that  
12 kind of data.

13 If this experiment -- and it's going to be  
14 released -- we are writing an environmental assessment  
15 right now for that, similar to this document. If that  
16 research gets done, the oil industry may say, let's do  
17 that on our species -- our instruments that are out there.  
18 So yes, a very good suggestion, and we are looking at  
19 that.

20 Bruce.

21 MR. BRUCE HERMAN: One of the things that  
22 we wanted to hear from you was about your traditional  
23 knowledge to add that to the draft EIS and, for instance,  
24 when you think the whales have finished their northward  
25 migration. When do you think the last whales have come

1 past Wainwright? How long do you hunt in the spring? How  
2 late do you hunt in the spring and early summer?

3 MR. KEN HOLLINGSHEAD: And fish.

4 MR. BRUCE HERMAN: And fish.

5 MR. BILLY K. NASHOALOOK, SR.: Did you ask  
6 how long they last, swim by?

7 MR. BRUCE HERMAN: The bowhead.

8 MR. KEN HOLLINGSHEAD: How long does the  
9 hunt last for bowhead, belugas?

10 MR. BILLY K. NASHOALOOK, SR.: We got a  
11 quota. You should know that. Before quota we used to  
12 hunt all the way to almost July.

13 MR. BRUCE HERMAN: Until July?

14 MR. BILLY K. NASHOALOOK, SR.: Until  
15 almost July, yes, when there was no quota. But right now  
16 it depends on how many we get and the ice conditions. We  
17 got a limit now.

18 MR. BRUCE HERMAN: Right, but before --

19 MR. BILLY K. NASHOALOOK, SR.: Before that  
20 we used to -- the last whale would come by June 22.

21 MR. BRUCE HERMAN: Okay. Yeah.

22 MR. BILLY K. NASHOALOOK, SR.: That was  
23 before they set quotas for the village.

24 MR. KEN HOLLINGSHEAD: But even with a  
25 quota, you still might not get that whale until late if

1       there is some --

2                       MR. BILLY K. NASHOALOOK, SR.: The ice  
3       conditions were good in them old days, but right now we  
4       got limits even staying out on the ice because we don't  
5       fish till December and it will melt by the last part of  
6       part of May sometimes. One time we were whaling right  
7       from the beach. That was about five years ago, because  
8       the ice melt. That's the condition of the ice nowadays.  
9       I think it's due to global warming.

10                      MR. KEN HOLLINGSHEAD: Okay. Thank you.

11                      MR. BILLY K. NASHOALOOK, SR.: Because I  
12       have been whaling all my life, and I know.

13                      MR. KEN HOLLINGSHEAD: Are there  
14       additional issues, additional concerns, questions? We  
15       have had some additional people come in that missed my  
16       being a schoolteacher.

17                      MR. GEORGE AGNASAGGA: Most captains will  
18       go out to the ice the second week of April, and then they  
19       will stay out there right through May, and sometimes the  
20       second or third week of June, depending whether they got  
21       their quota or not. But most times it's second week of  
22       April through end of May most years.

23                      MR. KEN HOLLINGSHEAD: Thank you. What  
24       about beluga?

25                      MR. GEORGE AGNASAGGA: Beluga would be the

1 first of July through the end of August.

2 MS. LYDIA AGNASAGGA: That's in Wainwright  
3 only.

4 MR. GEORGE AGNASAGGA: But if you go down  
5 to Point Lay, it's different.

6 MR. KEN HOLLINGSHEAD: Okay.

7 MR. GEORGE AGNASAGGA: The last two weeks  
8 of June and the first weeks of July at Point Lay.

9 MR. KEN HOLLINGSHEAD: Was there anything  
10 unusual about last year's beluga hunt in Wainwright?

11 MS. LYDIA AGNASAGGA: There was no belugas  
12 last year, I think.

13 MS. GLADYS NASHOALOOK: There were some  
14 coming back. There were thousands and thousands.

15 MR. KEN HOLLINGSHEAD: And that was in the  
16 fall, thousands? Was that the fall or spring?

17 MS. GLADYS NASHOALOOK: I don't know.  
18 Everybody was out on the beach looking at all those  
19 belugas coming out. That was last fall.

20 MS. LYDIA AGNASAGGA: Last fall, yeah. I  
21 remember that now. But nobody went out to hunt them,  
22 right?

23 MS. GLADYS NASHOALOOK: It was rough.

24 MS. LYDIA AGNASAGGA: It was too rough,  
25 but they were coming from up north, I think, or down

1 south.

2 MS. GLADYS NASHOALOOK: Yeah, they were  
3 coming back.

4 MS. LYDIA AGNASAGGA: They were going back  
5 south.

6 MR. KEN HOLLINGSHEAD: And that was what  
7 time?

8 MS. LYDIA AGNASAGGA: August. I remember  
9 now.

10 MR. BILLY K. NASHOALOOK, SR.: According  
11 to belugas, there is no break. Even right now, they are  
12 running north, the whales have already. And also some  
13 running from -- going through Point Lay, but sometimes  
14 they hardly see them there. And as soon as they leave  
15 where they are going, they are already coming back.  
16 That's what we saw last fall, coming back by thousands.

17 MR. KEN HOLLINGSHEAD: But none in the  
18 spring?

19 MR. BILLY K. NASHOALOOK, SR.: That's not  
20 counting the gray whales that are out there forever.

21 MR. GEORGE AGNASAGGA: I know that I have  
22 been hunting beluga since I was a little kid. And I know  
23 that the whales are very sensitive to noise. And even  
24 have an outboard five, ten miles away from the belugas,  
25 and once they hear that noise they are gone. And that's

1 probably one of the reasons they are not going through  
2 Wainwright because there is too many people going out  
3 boating.

4 MR. KEN HOLLINGSHEAD: And boating for  
5 fishing, hunting?

6 MR. GEORGE AGNASAGGA: People will be  
7 going upriver or hunting for bearded seals. You have  
8 enough outboards going on, the belugas aren't going to  
9 come through here. They are very sensitive to noise.

10 MR. KEN HOLLINGSHEAD: What about bearded  
11 seals; do you hunt them?

12 MR. GEORGE AGNASAGGA: They will hunt  
13 bearded seals -- when do we start -- last week of June  
14 through end of July.

15 MR. KEN HOLLINGSHEAD: You hunt them on  
16 the beach or in the water?

17 MR. GEORGE AGNASAGGA: In the water.

18 MR. KEN HOLLINGSHEAD: Offshore?

19 MR. GEORGE AGNASAGGA: Offshore. It's all  
20 in federal waters, though. They are more than two miles  
21 out.

22 MR. KEN HOLLINGSHEAD: Okay.

23 MS. LYDIA AGNASAGGA: I'd like to comment  
24 again. I remember when I was a small girl, I see a lot of  
25 changes here, especially our ice conditions. When we were

1 small, I remember that when the crews go out, there were  
2 not that many whaling crews anyway in our days when we  
3 were growing up. There would be about maybe three; three  
4 crews out on the ice every spring because there were not  
5 that many people whaling. I mean, like, five, six crews.

6       Anyway, I remember that they used to stay out longer,  
7 and there would be more ducks flying. And at the same  
8 time while they are waiting for the open lead, they stay  
9 down there and they would hunt ducks, Eider ducks or  
10 whatever ducks that come in; they would hunt for them.  
11 And then the crew would get how many of them, because I  
12 remember my brother used to go whaling with one crew here.  
13 I remember that. When they get how many ducks, that crew  
14 would divide among the crews how many ducks and we would  
15 get maybe ten ducks for my family. I don't see that  
16 anymore.

17       I mean, like I said, they stayed out for longer  
18 because they don't have to worry about so much -- right  
19 now with the late -- with the late, we didn't get ice till  
20 December this past year. And then, you know, with this  
21 unpredictable weather we have up here, we can never know  
22 what's going to happen. We all know that we always have  
23 to wait for the right weather to go down to the whaling,  
24 to go whaling, to have open lead first. And we have to  
25 depend on the nature to do all the work for us, and we --

1 we just wait and pray and hoping for the best.

2 Like I said earlier, in my days I remember people  
3 would be out more and they would be out on ice more, you  
4 know, more because there would be more solid ice.  
5 Nowadays they can't. They always have -- because of the  
6 thin ice or something or whatever, you know, so many  
7 change in our ocean down there. That's why we never  
8 really meet our quotas nowadays. It all depends on how  
9 the ice conditions are. That's the way I see it, anyway,  
10 myself. It's not like the old days anymore. That's what  
11 I'm trying to say.

12 MR. KEN HOLLINGSHEAD: Thank you.

13 MR. BILLY K. NASHOALOOK, SR.: Talking  
14 about global warming. Before in Alaska when we went out  
15 whaling, we see a lot of that permanent ice that used to  
16 be out in the ocean. That permanent ice, that was hardly  
17 broken up. And it drifted up all the way from Barrow past  
18 us, just plenty of big bunches, some of them about five  
19 miles long, maybe longer. Big pieces of permanent ice  
20 that have broken up from the main permanent ice.

21 That kind of ice is drinkable. We have a water  
22 supply. It's how we could obtain water for houses up  
23 here. And when that break loose, it's good water. And we  
24 had a lot of those last year, big chunks, maybe, George,  
25 about five miles.

1 MR. GEORGE AGNASAGGA: Yeah.

2 MR. BILLY K. NASHOALOOK, SR.: One big  
3 piece all the way from Barrow. So that -- the ice has  
4 been breaking up. They wouldn't be coming from the South  
5 Pole. They got to be coming from up there.

6 MR. KEN HOLLINGSHEAD: Does that affect  
7 your walrus? Do you see walrus? Do your walrus come on  
8 shore now or do they stay offshore?

9 MR. GEORGE AGNASAGGA: Walrus, they are  
10 offshore.

11 MR. BILLY K. NASHOALOOK, SR.: They are on  
12 the floating ice.

13 MR. KEN HOLLINGSHEAD: Do you hunt walrus?

14 MR. GEORGE AGNASAGGA: Yeah.

15 MR. BILLY K. NASHOALOOK, SR.: Oh, yeah.

16 MR. KEN HOLLINGSHEAD: But you have to go  
17 further now to get them?

18 MS. LYDIA AGNASAGGA: They are always on  
19 the ice pans, ice floe.

20 MR. GEORGE AGNASAGGA: About five miles  
21 and beyond offshore.

22 MR. BILLY K. NASHOALOOK, SR.: But how  
23 many years ago they got -- walrus is about 20, 30 feet  
24 offshore on top of the ice. So it depends on where the  
25 ice flows.

1                   MR. KEN HOLLINGSHEAD: So this is the  
2 polar ice that's coming down?

3                   MR. BILLY K. NASHOALOOK, SR.: It's a lot  
4 of food for the village once the walrus is hunted. They  
5 are on the ice.

6                   MR. KEN HOLLINGSHEAD: Are they affected  
7 by humans? Are they sensitive to you?

8                   MR. BILLY K. NASHOALOOK, SR.: They float  
9 on top of the ice. They stay on top of the ice and sun  
10 themselves wherever the ice goes.

11                  MR. KEN HOLLINGSHEAD: And when do you  
12 hunt the walrus?

13                  MR. GEORGE AGNASAGGA: July; sometimes  
14 into August if they are late.

15                  MR. BILLY K. NASHOALOOK, SR.: We are not  
16 cowards. We get what we want.

17                  MR. KEN HOLLINGSHEAD: Thank you.

18                  MR. BILLY K. NASHOALOOK, SR.: We used to  
19 get a lot when we had dog team. Now we got iron dogs.

20                  MR. KEN HOLLINGSHEAD: Do we have  
21 additional comments, interests?

22                  MR. GEORGE AGNASAGGA: One last comment.  
23 Last summer after Nuiqsut and Barrow had their fall whale  
24 hunting, we were hoping that we would be going out on a  
25 whale fall hunting, too, for whales because we know that

1       there was some seismic going on 60 miles off of Barrow,  
2       and hoping that the noise would turn the whales along the  
3       coast, but that didn't happen.

4                       MR. BILLY K. NASHOALOOK, SR.: Maybe they  
5       went the other way straight out toward Wrangell Island.  
6       That's where they want. They didn't come ashore.

7                       MR. GEORGE AGNASAGGA: The one that was  
8       tagged made a beeline from Barrow -- from Point Barrow to  
9       Wrangell Island. Wrangell Island is over on the west  
10      side.

11                      MR. KEN HOLLINGSHEAD: Right here  
12      (indicating)? So they were heading over -- we presume  
13      they were going over to feed off the Russian coast and  
14      then they make their way down towards the Bering Strait.

15                      MR. GEORGE AGNASAGGA: Down towards --  
16      going down. We were hoping that the seismic noise would  
17      turn the whales down to Wainwright, but it didn't happen.

18                      MS. LYDIA AGNASAGGA: They never think of  
19      us.

20                      MR. KEN HOLLINGSHEAD: GXT was working up  
21      here somewhere?

22                      MR. GEORGE AGNASAGGA: Uh-huh.

23                      MR. KEN HOLLINGSHEAD: A little further  
24      west?

25                      MR. GEORGE AGNASAGGA: Yeah.

1                   MR. KEN HOLLINGSHEAD: They have just --  
2 we just posted their reports on our web page. We finally  
3 got all of the three company reports that are on our web  
4 page. If you would like, I have the location if you have  
5 Internet access and want to download them.

6                   Anything else? We are here --

7                   MR. BRUCE HERMAN: I have a question for  
8 George and Bill. When you hunt walrus, are they as  
9 sensitive to the noise as the beluga whales?

10                   MR. BILLY K. NASHOALOOK, SR.: No.

11                   MR. GEORGE AGNASAGGA: No.

12                   MR. BILLY K. NASHOALOOK, SR.: You can tap  
13 all you want when you are going toward them. They are  
14 sound sleepers.

15                   MR. BRUCE HERMAN: Sound sleepers.

16                   MR. GEORGE AGNASAGGA: You can go with an  
17 outboard. And I'll go down and ride up within a few feet  
18 of them and they won't scare until you hit the bottom,  
19 land the boat on a pan of ice that they are laying on.  
20 They are not sensitive to noise. If they are in the water  
21 I think they are.

22                   MR. BILLY K. NASHOALOOK, SR.: Yeah. If  
23 they are in the water they are sensitive, but on top of  
24 the ice you can go right up to them and pat them on the  
25 head.

1                   MR. BRUCE HERMAN: But in the water when  
2 you are approaching them with your motors --

3                   MR. BILLY K. NASHOALOOK, SR.: Once in a  
4 while they scatter.

5                   MR. GEORGE AGNASAGGA: They will go and  
6 you never see them again.

7                   MS. LYDIA AGNASAGGA: They do a deep sleep  
8 on the ice. They don't know what's going around. Heavy  
9 sleepers, maybe. Sun tanning.

10                  MR. BILLY K. NASHOALOOK, SR.: A long time  
11 ago our ancestors had -- already had radio to listen to  
12 animals, their paddle. They just stick it in the water,  
13 and if they hear a sound, that's the bearded seal going  
14 by. You can actually hear them with a fist on your  
15 paddle, put it to your ear. That used to be the way I've  
16 known there is bearded seal around.

17                  MR. GEORGE AGNASAGGA: You can listen to  
18 that oar, dipping it in the water, and you can hear the  
19 walrus and the bearded seal and the belugas.

20                  MR. BILLY K. NASHOALOOK, SR.: The bearded  
21 seal, they whistle, I think, just from the sound by  
22 listening to it through the paddle. Those were our  
23 radios.

24                  MR. GEORGE AGNASAGGA: Some of them make  
25 beautiful music, too.

1                   MR. KEN HOLLINGSHEAD: Additional issues,  
2 concerns? I want to remind everybody that this comment  
3 period is open until May 14th. Get your comments in. You  
4 don't have to use this form. We have information over  
5 there that -- on where to write into. Or you can get  
6 copies from Albert there if you want to make additional  
7 comments. We have your testimony here for the record.  
8 It's certainly very good information that we need to put  
9 down for our traditional knowledge. We will put that all  
10 into our environmental impact statement and --

11                   MR. BILLY K. NASHOALOOK, SR.: Leave those  
12 with the city, and maybe people will write down their  
13 comments. Mine are recorded.

14                   MR. ALBERT BARROS: What he's recommending  
15 is that we leave these with the City and if people want to  
16 make comments, they can go there and write them down and  
17 mail them in, which is a good idea. But we are leaving  
18 tomorrow at 9:00, so if someone is going to City Hall  
19 tomorrow, we'd appreciate these being dropped off. Also  
20 if you know people on the whaling crews or anybody else  
21 who wants to comment, we'll try to make these available at  
22 City Hall so they can stop by and pick them up.

23                   MR. KEN HOLLINGSHEAD: We'll also leave  
24 this with City Hall. This is one of our CD-ROMs of our  
25 environmental impact statement. We had mailed out a

1 number of copies. They should be in the local libraries,  
2 with the mayor, with the various villages. There are  
3 probably about four or five copies already in the village.  
4 It's also available on-line at the MMS website. And I  
5 think that information also is over there. It's  
6 [www.mms.gov/alaska](http://www.mms.gov/alaska), and then you find all of their  
7 reports, all their environmental impact statements,  
8 whether it's lease sale 193 or this document. Okay.

9 With that, we thank you all for attending and we will  
10 be around to answer additional questions if you have them.  
11 We will be off the record, but we are here for -- to help  
12 you in any way we can. Thank you.

13 MS. LYDIA AGNASAGGA: Thank you for  
14 coming.

15 (Proceedings adjourned at 8:57 p.m.)

16

17

18

19

20

21

22

23

24

25

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

REPORTER'S CERTIFICATE

I, MARY A. VAVRIK, RMR, Notary Public in and for the State of Alaska do hereby certify:

That the foregoing proceedings were taken before me at the time and place herein set forth; that the proceedings were reported stenographically by me and later transcribed under my direction by computer transcription; that the foregoing is a true record of the proceedings taken at that time; and that I am not a party to nor have I any interest in the outcome of the action herein contained.

IN WITNESS WHEREOF, I have hereunto subscribed my hand and affixed my seal this \_\_\_\_\_ day of \_\_\_\_\_ 2007.

\_\_\_\_\_  
MARY A. VAVRIK,  
Registered Merit Reporter  
Notary Public for Alaska

My Commission Expires: November 5, 2008