963199

EPA Region 5 Records Ctr.

216822

St. Clair Court Reporting

Post Office Box 245 Mishawaka, Indiana 46546

"Preserving your record"

574-291-9125 * FAX 574-291-9753
TOLL FREE 1-888-989-DEPO (3376)

May 30, 2003

Lawrence Perea
CH2MHill
Suite 300
8501 West Higgins Road
Chicago, Illinois 60631

Re: Himco Superfund Site; Public Hearing April 23, 2003

Dear Mr. Perea;

Enclosed is the transcript of the proceedings had during the public hearing held on April 23, 2003 in connection with the Himco Superfund Site. Located at the rear of your transcript is your complimentary condensed transcript and word index.

At the commencement of the proceedings I was approached by John Horwitz in regards to a prepared statement that he was going to read during comments portion of the evening. Mr. Horwitz advised me that he would e-mail a copy of the statement to my office. Although Mr. Horwitz left before reading his statement he did e-mail it to my office that evening. I have attached that statement at the rear of the transcript.

If we may be of further service to you, or your firm, at any future time your call is greatly appreciated and welcomed.

Sincerely,

Timothy B. St. Clair, RPR

Enc.

St. Clair Court Reporting

Post Office Box 245 Mishawaka, Indiana 46546

"Preserving your record"

574-291-9125 * FAX 574-291-9753
TOLL FREE 1-888-989-DEPO (3376)

INVOICE

DATE: May 30, 2003

TO:
Lawrence Perea
CH2MHill
Suite 300
8501 West Higgins Road
Chicago, Illinois 60631

RE:
Himco Superfund Site
Public Hearing; 4-23-03

Transcript of Public Hearing		$741.00
Condensed Transcript w/Index		**N/C**
E-mail .pdf file		**N/C**
Postage		**N/C**
	TOTAL:	$741.00

All payments may be sent to:

St. Clair Court Reporting
P.O. Box 245
Mishawaka, IN 46546

PUBLIC HEARING

APRIL 23, 2003

RE: HIMCO DUMP SUPERFUND SITE

LOCATION: Elkhart City Council Chambers

229 South Second Street

Elkhart, Indiana

TIME: 7:00 o'clock p.m.

St. Clair Court Reporting
Post Office Box 245
Mishawaka, Indiana 46546
574.291.9125 / 1.888.989.3376

1 **MR. HILL:** My name is Stuart Hill, I'm a
2 visitor to your community. I'd like to ask, for no
3 particular reason other than to open this meeting, are
4 there any Baptist ministers in the body? Okay. There's
5 another reason that I need to ask; we need to check the
6 acoustics in here. So if you have a problem hearing
7 please speak up, as this lady did, so that I can address
8 you and make sure that you can hear. We can activate a
9 microphone system that is used by the City Council. So
10 if we need that we can activate that as well if we need
11 to. Okay.
12 **MRS. MASSENBURG:** I have a big voice. You
13 can hear me better than Mr. Stuart, so I prefer, if you
14 don't mind, if I not use the microphone. And if my voice
15 doesn't fill up this room, then I'll use the microphone.
16 But I speak a little louder than he does.
17 So while he's speaking speak into the
18 microphone, I won't. But if that's okay with you -- if
19 my voice starts to crack after 15 or 20 minutes into the
20 presentation then I will get on the microphone. But I'm
21 going to be standing up and speaking to you.
22 And I think I have a really -- my mommy said I
23 have a loud mouth, so it's going to pay off for me today,
24 so ...
25 **MR. HILL:** Well, I can hear this one

1 bumping around, so I know that this activates -- there
2 are other microphones back behind here that we could try
3 to bring more into play.
4 The reason I asked about the Baptist ministers
5 is because, as you can tell from probably from the sound
6 of my voice I'm not from around here, I'm originally from
7 the deep south. Deep south. And while I had a, a fairly
8 religious upbringing when people started filtering into
9 the room early this evening at about 6:30, 30 minutes
10 before the meeting scheduled to start, I knew that
11 probably we had some problems.
12 And it reminded me of a story about Baptist
13 Sunday School. And these were about ten a year old boys,
14 and they were in the Baptist Sunday School. And the
15 Sunday school teacher said; I'd like to have a show of
16 hands of all the people in -- of the class members who
17 would like to go to heaven.
18 Well, all the little boys in the room Raised
19 their hand except one. And the Sunday school teacher
20 said; what is the matter Johnny, don't you want to go to
21 heaven. And he said; oh yes sir, I was just afraid you
22 were getting up a bus load for right now.
23 So I'm afraid that we have a bus load, and that
24 sometimes happens to us. And if it's any inconvenience
25 we'll try to accommodate you as best we can from the side

of the room. There may be a few more chairs out in the hall that can be brought into the council chambers here. If you wish you can make yourself comfortable in one of the councilman's seats. They probably won't mind at this point.

Again, my name is Stuart Hill. I'm a community involvement coordinator with the U.S. EPA out of Chicago. We're here tonight -- this is a formal meeting to present a -- a proposed plan by the EPA to clean up the Himco dump -- I may not even be pronouncing that right. If I'm not please let me know.

It is a formal process, this particular meeting, in that you will be given an opportunity to make comments, state your opinion. State any objections, or any personal feelings, or a emotions that you may have about the proposed clean up. As a matter of fact, you have until April the 12th to do that. This meeting is simply a convenience for you to -- to make all the --

UNIDENTIFIED SPEAKER: May 12th.

MR. HILL: Excuse me, May 12th. Excuse me. You do read your mail. I apologize, and thank you.

So you have until the 12th. And the comments can be given to us in a number of ways; e-mail, voice mail, written. We'll even take telephone messages if it's absolutely necessary. So there are many ways that

you can contact us.

Now, it is my hope that many of you have received, in the mail, a publication similar to this, which would announce this meeting, and would try to describe in fairly general terms what the EPA is about to propose in more detail here tonight.

That -- that has information about how to contact us with your comments. Your comments are an integral part of the EPA Superfund process. As our project manager Gwen Massenburg will explain this, it's absolutely critical and has to be -- has to be considered one of the nine points that are against anything that EPA might do. Not only for this, but for any Superfund site. So it is very, very important. And we urge you to -- to participate.

If you don't intend to make statements tonight -- and I understand that some have prepared statements, and to that end, we have a court reporter with us this evening. The court reporter is, of course, responsible for transcribing this meeting, and the contents of this meeting as precisely as he can.

Now, to that end, when we get to the point where questions or discussions are started we hope that when you stand you would state your name. If there is an unusual spelling of your name would you please spell it

1 for the court reporter. Also I've asked him to interrupt
2 at any time that he feels that he does not understand
3 either a name, or what is said so that he can have the
4 record as correct as possible. I hope that you can help
5 us in achieving that.
6 Insofar as the format for tonight, we would
7 like to keep it as informal as possible. Gwen as
8 indicated that she'll take questions during her
9 presentation about the proposed plan, but that's
10 questions only. Please keep in mind that it's not to be
11 a discussion. It's not to be a debate. But the
12 questions can be used to edify, and to inform what we
13 don't get in a one-on-one conversation about issues that
14 may be done in the process.
15 Towards the end you will be given an
16 opportunity to state, as I said, your opinions
17 objections, affirmations, confirmation, happiness,
18 displeasure, whatever. And we'll hear it.
19 Also there are representatives here tonight
20 from the EPA as well as from the State Department of
21 Environmental Management. They may be able to address
22 some of your questions, and/or issues. And excuse me for
23 asking, but are there representatives from the local
24 health unit? They are also with us in the back of the
25 room. So perhaps -- perhaps they could help where they

1 feel that it may be helpful.
2 We do have some information that is available.
3 If you did not receive a copy of the generalized fact
4 sheet that explains the program it is being circulated
5 around in this section, I believe. As one of the bases
6 for the sign-in sheet, and we'll have that toward the end
7 of the program, and it's something that you can take with
8 you. If for some reason we don't have enough we'll make
9 a check mark by your name and we'll make sure that you
10 get one. But we'll do everything that we can to
11 facilitate here this information, your information.
12 Now, this has been an extremely long preamble,
13 and I do apologize for that, so we'll go directly to the
14 presentation by project manager Gwen Massenburg. From
15 that we'll move into questions and answers. And
16 following that Craig Hodgson of the City's Brownfield
17 area will give you a very brief overview of some of the
18 possibilities -- well, maybe not the possibilities, but
19 Craig will discuss what is going to be done towards
20 looking at potential reuse for the Himco area, as well as
21 maybe some other areas in the City. I'm not trying to
22 put words in his mouth, but he'll have the floor to -- to
23 share some redevelopment issues, and information with
24 you. Following that well go to a comment period and well
25 take the comments.

1 Now, in the comment period there will be no
2 discussion. It is simply a comment period. It is open
3 for you to make a statement regarding what your relative
4 thoughts to the situation and the site. Once that is
5 done your comments will be addressed in what called a
6 responsiveness summary. And that summary will be a part
7 of the official record, just as this transcript will be.
8 I think that just about covers it for me. And
9 unless there are any questions we'll begin. Questions?
10 Gwen Massenburg.
11 **MRS. MASSENBURG:** Thank you. As he has
12 mentioned to you all, my name is Gwen Massenburg, and I'm
13 the project manager for the site. And I just want to
14 take this opportunity right now to briefly introduce the
15 people who have also been involved in this particular
16 site.
17 First of all, this is Pat Van Leeuwen, and
18 she's our toxicologist. There is Mr. Larry Johnson, and
19 he's our attorney. This is Jessica Fliss, and she's with
20 IDEM; Indiana Department of Environmental Management.
21 This is Phil Schonhoff. And --
22 **MR. SCHONHOFF:** I'm with the geological
23 services with IDEM with Jessica.
24 **MRS. MASSENBURG:** And this is Steve --
25 **MR. DAVIS:** My name is Steve Davis. I'm

1 the project engineer for IDEM.

2 **MR. HODGSON:** Craig Hodgson, I'm with the

3 City of Elkhart. Planning Development.

4 **MR. HULEWICZ:** I'm with the Elkhart County

5 Health Department.

6 **MRS. MASSENBURG:** Okay. Thank you.

7 While we're -- I just want to have a brief show

8 of hands; how many of you are familiar with where the

9 location of the Himco dump site is? Everybody. That's

10 very good. Okay. Great.

11 What I'm going to do for you tonight is to try

12 to edify you, or to give you more information about what

13 has been going on with the site. The site is a very old

14 site, and I got involved with the site back in 1999. So

15 what we're going to do is we're going to venture down and

16 show you some history, and then we're going to come up to

17 the present time. So as Mr. Hill has already said, if

18 you have any questions, ask your questions. Hopefully we

19 can entertain the question briefly and move on, because

20 there is a pretty in-depth presentation, because it has

21 been such a long time. And we're going to try to just

22 highlight a few of the main points of what's happened at

23 the site.

24 And I see that some of you -- I see that some

25 of you have already picked this up. I had a few copies

of it, but there is the actual presentation that I'll be doing tonight. So if you desire a copy, if you didn't get a copy, just let us know by -- say by your name that you want a copy of the presentation, and we'll try to provide you with a copy of it.

UNIDENTIFIED SPEAKER: It's already come by, and I can't check it.

MRS. MASSENBURG: I mean before the end of the night you can go back and do that. And we can have a brand new sign up sheet for that only if you like, if you care for it. So -- okay. So I'm going to go ahead and get started -- it is Windows, it shut down on me, it will come back up.

As I said, I'm going to speak about the site background, the site description, the site history, and previous site work. I'm also going to speak about the post record of decision, which you'll here me say many times ROD. And when I say the word ROD I'm speaking about the post -- I mean the record of decision. The sampling locations that we sampled at the Himco dump. And I'm going to briefly discuss the analytical results, basically from 1995 to 2000. The ROD had already been written.

Basically a ROD is just briefly -- one quick thing though, I do have a list of definitions here that's

1 going to be some of the words that I'll use here, and you
2 can get that later and all it will be is just definition
3 of words that I'll use. I thought we passed it out
4 earlier, but we have not, so we won't hold up any other
5 time we'll just go ahead.
6 I'm going to talk about an area we call the
7 construction debris area. And I'll show you all this.
8 I'm going to speak about the ground water, the samples
9 that we investigated, the soil samples that we collected,
10 and soil gas that we collected. There's also a
11 residential area east of the landfill. I'm going to
12 speak about its ground water samplings that we collected,
13 and the soil gas that we collected.
14 I'm going to tell you about the recommended
15 changes. The 1993 ROD had a remedy in it, and we decided
16 to change that remedy and I'm going to speak about the
17 changes for that remedy. And then I'm going to tell you
18 what the next steps are.
19 Basically Himco dump is a closed landfill
20 covering approximately 60-acres. It operated between
21 1960 and it closed in September of 1976. The site was
22 owned by Mr. -- privately owned by Mr. Charles Himes and
23 was operated by Himco Waste Away Service, Inc. Of
24 course, everybody knows, I asked for a show of hands.
25 The site is located at the intersection of

1 County Road 10 and Nappanee Street extension in the town
2 of Elkhart. Elkhart County, Indiana. This is a visual
3 of the site, it's an aerial photograph. The red here is
4 the boundary of the site. The yellow line, dotted line
5 here, is the footprint of the landfill. This area down
6 here is the construction debris area.
7 I'm sure you all are familiar with this pond
8 that exists off Nappanee Street. To give you your
9 barings here. This is Nappanee Street extension right
10 here (indicating). This is County Road 10 (indicating).
11 But this, again, is the landfill proper. This is where
12 we did the original 1993 work that was performed here.
13 And now we were -- basically after the 1993,
14 basically in 1995, we started focussing down here which
15 is called a construction debris area. The area was
16 initially a mixture of marsh and grassland. When the
17 landfill was in operation there was no liner, or leachate
18 collection system, or gas recovery system constructed as
19 a part of the landfill. As far as we could tell.
20 And an estimated two-thirds of the waste in the
21 landfill was calci -- was where calcium sulfate was
22 deposited from Miles Laboratories at the time. It's now
23 Bayer. So -- and we believe that as much as 60 tons a
24 day, per day, of calcium sulphate was dumped in the
25 landfill over an unknown period of time. There were

1 other wastes accepted in the landfill, including
2 household and commercial refuse, construction, demolition
3 debris, as well as medical waste, and industrial waste.
4 The area bordering on the southern perimeter of
5 the landfill consists of construction rubble mixed with
6 nonnative soil, and has been named the construction
7 debris area. And this was the area I showed you south of
8 the landfill.
9 The construction debris area boundaries are
10 defined primarily by thirteen tes trenches that were
11 excavated in 1991. And this is the study that did the
12 excavation it was our Remedial Investigation/Feasibility
13 Study performed by Donohue. He was one of the EPA
14 contractors.
15 The construction debris area is about four
16 acres in size and is subdivided into seven residential
17 parcels, one commercial parcel. The residential
18 properties are currently occupied. And we talked about
19 south of the landfill near County Road 10 -- correction,
20 north of 10, but south of the landfill. And there's one
21 commercial parcel that's not operating right now.
22 The existing homes on these residential
23 properties are connected to the local municipal water
24 supply. However, these homes, we are understand, still
25 have their private wells operable.

1 Again, I just want to show you another
2 photograph of the landfill. This is the landfill here in
3 red. The area of concern here is this construction
4 debris area, this yellow area down here (indicating).
5 These are the parcels of land -- these are, like, little
6 houses and everything that exists south of that landfill.
7 And that's the area we're calling the CDA area, or the
8 construction debris area.
9 Okay. The previous site work that was
10 performed on this site was in 1971. Indiana State Board
11 of Health first identified the site as an open dump. In
12 1974 the Indiana State Board of Health, after receiving
13 complaints about the color, taste, and odor, they
14 analyzed the samples from residential wells in the
15 construction debris area.
16 The analysis indicated the presence of high
17 levels of manganese and iron. Mr. Himes was advised by
18 the Indiana State Board of Health to replace the six
19 shallow water wells to the deeper water wells for the
20 residents south of County Road 10. That's still the
21 construction debris area.
22 And what I did here is I showed you what was
23 shallow is anywhere from 15 to 22 feet below ground
24 surface is what we considered shallow wells. And then
25 152 to 172 feet deep below ground surface is what we

1 called deep wells.
2 In 1975 Mr. Charles Himes Sr. signed an
3 agreement with the Indiana State Board of Health Stream
4 Pollution Control Board to close the dump by September
5 1976 with application of final cover consisting of
6 calcium sulfate overlain by sand.
7 1984 the United States Geological Survey --
8 better known as the USGS in cooperation with the Indiana
9 Department of Natural Resources and the Elkhart Water
10 Works completed a study to determine the extent of the
11 leachate potentially emanating from the site by using
12 bromide concentration in the ground water as an
13 indicator.
14 So basically what they did was -- when I say
15 leachate plume, this is just what contaminants are moving
16 out of the landfill. So that's what I mean by leachate
17 plume. And for some reason or another, the bromide was
18 there as a natural tracer that we could study the site
19 and figure out how the ground water was flowing, and what
20 direction it was flowing, and what concentration of
21 bromide we were finding.
22 And that study -- I mean, that study by the
23 USGS is -- if you wanted to get further information it's
24 entitled the *Hydrologic Chemical Evaluation of Ground*
25 *Water Resources of Northwest Elkhart County, Indiana.*

1 The Imbrigotta and Martin. And this was done in 1981.
2 In 1984 EPA field investigation team -- we call
3 them FIT prepared a Hazard Ranking System, HRS, scoring
4 package for the site. Basically an HRS scoring package
5 is where we go and look at potential sites, contaminated
6 sites, hazardous waste sites. We score them. And based
7 on their HRS there is a national priorities list based on
8 their score that they make. And it has to be 28.5 in
9 order to get placed on this national priorities list.
10 And as the name says "national priority list",
11 these are based on the score of 28.5, or more. We
12 developed a list of the whole United States. And this is
13 our national priority that we're focussing on. And Himco
14 scored high enough to get on the list. And if you hear
15 people talk about NPL that's the National Priority list.
16 It's a list that's basically associated with
17 the whole United States, not just limited to particular
18 states, but the whole United States. And they rank them
19 in terms of severity, the need to be cleaned up. And
20 that's the national priority list. And that list exists
21 today.
22 And the monitoring wells were previously
23 installed by USGS. Now, that is the down gradient ground
24 water. When I say down gradient I just mean the water
25 moving down was contaminated with inorganics, semi

1 volatile organic compounds and volatile organic
2 compounds.
3 This is a slide to just show you -- this is
4 Himco Dump. They're both here. This is -- this is
5 Nappanee Street extension. And all these little -- well,
6 the circles are the wells the USGS placed into and around
7 the landfill to do their monitoring of that study in
8 1981.
9 These triangles are the wells that the United
10 States Environmental Protection Agency put in. And you
11 can see the location of these wells. There's one there,
12 there. It is not just limited to the landfill, but we
13 really wanted to know the extent of the contaminants
14 moving off of this site.
15 So we just didn't stop there. So we went
16 further south. We went east. And the north wells were
17 considered our background wells. Because it didn't have
18 an influence of the landfill. And the ground water flow
19 is in this direction. The ground water flow is coming
20 from up here travelling south, and southeast. This is
21 why we consider this our background well because it
22 wouldn't have gone through the landfill.
23 In 1984 these were the metals that were
24 detected in the landfill. We detected aluminum; arsenic,
25 barium, beryllium, cadmium chromium, cobalt, copper,

1 lead, manganese, mercury nickle, cellenium, and zinc.
2 Now, we detected these metals, it doesn't
3 necessarily mean that they were over a limit. But these
4 are the things that we found in the water. And I'll get
5 back to those. The VOC's, or volatile organic compounds
6 which we detected were; acetone, benzene, 2-butanone,
7 chloroethane, trans-1,2-dichloroethene, freon,
8 4-methylphenol, phenol and pyrene. And these are just
9 the laundry list of chemicals that we found in the water
10 when we did our sampling in 1984.
11 Okay. So now, it's June 1988. The site was
12 proposed for the national priorities list based on the
13 chemicals that we found in the ground. In that
14 preliminary study we decided that based on the score that
15 this site should be placed on the national priorities
16 list.
17 In 1988 -- '89. A remedial investigation study
18 was initiated by Donohue under a contract for the U.S.
19 EPA. Basically in 1989 we decided we needed to go and
20 investigate the site to try and understand what's going
21 on at the site. And that's called a remedial
22 investigation. A feasibility study basically tells you,
23 okay, now we know what's going on at the site, what's
24 feasible to clean the site up.
25 In February 1990 the place site was placed on

1 the NPL. So it went from being proposed to actually
2 being placed on the NPL. In April of 1990 the residents
3 with private wells living south of the landfill, which is
4 the construction debris area, started to complain about
5 the taste, odor, and color of their water again. Because
6 remember they had complained before and they started to
7 complain again.
8 The EPA's emergency response branch sampled 27
9 residential wells in late April 1990. The water quality
10 analysis indicated relatively high concentration of iron
11 manganese, and sodium. So iron was there before the
12 neighbors complained. The manganese was there. Now, we
13 picked up sodium.
14 And we have an agency called the Agency for
15 Toxic Substances and Diseases we call them the ATSDR.
16 They recommended an alternative water supply due to the
17 high level of sodium that was found. It wasn't the iron.
18 It wasn't the manganese. It was because of the sodium.
19 And we were concerned about people who might have
20 hypertension, or heart problems, or diabetes, or anything
21 like that. And that was the reason why they was placed
22 on the water.
23 September '91. Test pits were excavated to
24 characterize the sites constituents during the remedial
25 investigation. Remember I told you we were trying to

1 investigation what was going on at this site. That
2 started in 1991.
3 During one of the excavations near the southern
4 edge of the landfill, large quantities of leachate --
5 which was just seepage -- were observed flowing from the
6 landfill's fill materials. Leachate was analyzed and
7 found to contain ethylbenzene at 6,400 parts per billion,
8 2-hexanone at 29,000 parts per million, toluene at
9 480,000 parts per million, and xylene at 44,000 parts per
10 million.
11 And basically that's when they were digging.
12 You can imagine digging into the ground and something
13 start to ooze, and it's not oil. And that's what we
14 found after we analyzed it. We found this.
15 And parts per million simply is one part -- say
16 if you had a swimming pool and you put one teaspoon of
17 salt in and a million teaspoons of water, and that's kind
18 of what parts per million sort of correlates with. Go
19 ahead.
20 In 1991 because of the sodium, municipal water
21 service was provided to the residents living south of the
22 landfill. Himco Waste Away, Miles Laboratories, and the
23 City of Elkhart paid for the water services to be
24 extended to the resident.
25 In May 1992 U.S. EPA initiated an emergency

1 removal action which located and removed 71 55-gallon
2 drums that were containing VOC's which included, ethyl
3 benzene and toluene.
4 So from that oozing that wasn't oil, they
5 decided to dig some more and they found that there were
6 drums buried. And in those drums 71 of them were
7 recovered. They contained the ethyl benzene and toluene
8 inside of the drums buried in the landfill.
9 In 1992 the remedial investigation, which is
10 entitled *Himco Dump Remedial Investigation and*
11 *Feasibility Study* was reviewed. So that was in 1992. In
12 1992 field work, RI field work, remedial investigation
13 field work, included geophysics, surveying, trenching,
14 soil sampling, monitoring well installation, ground
15 water, leachate sampling, landfill waste mass sampling,
16 residential basement gas sampling, surface water and
17 sediment sampling, and wetland determination. So
18 basically we tried to really understand what was going on
19 in this site by doing all these samples and collecting
20 all the samples in 1992.
21 In 1992 we performed what we called a Baseline
22 Risk Assessment. And that risk assessment indicated that
23 the potential excess lifetime cancer risk for the site
24 exceeded the acceptable Superfund carcinogenic risk range
25 of 1 times 10 to the minus 4, to one times 10 to the

1 minus 6.

2 And I'll have our toxicologist explain to you,

3 real briefly, what those numbers are all about.

4 **MS. VAN LEEUWEN:** Well, EPA has what they

5 call an acceptable risk range, but that includes the

6 concept called a point of departure. So when we go out

7 and we look at the risk posed by chemicals, if someone

8 can come in contact with the chemical and get that

9 chemical into their body, and incur a risk, if the risk

10 is greater than one in a million we say that we are now

11 within the risk range where EPA has to do an

12 investigation, and look at the risks.

13 If we get one times 10 to the minus 4, or one

14 in 10,000 risk, then we say we have reached a risk which

15 we think is appropriate to do some sort of remedial

16 actions. But within that risk range between ten to the

17 minus 4 and ten to the minus 6 we'll look at the

18 exposures, we'll look at the toxicity of the chemicals,

19 we'll look at the long term side effects, health effects.

20 And determine what the remedy, or what needs to be done

21 to reduce that risk to a level which is acceptable and a

22 level we can live with.

23 And often the level that we choose within that

24 range is determined by how confident we are about the

25 risk. How much sampling we've done, whether we know

1 precisely, with good confidence -- when I say precisely,
2 I mean we know with good confidence, and we've done
3 enough sampling, and we know about the health effects of
4 that chemical whether we need to clean up the site to a
5 lower level to be more conservative. Because we aren't
6 certain we have to leave a little larger margin for
7 error. Or we can clean it up to a higher level because
8 we have great confidence that we know a risk, and we know
9 what the potential for a health effect is.
10 **MRS. MASSENBURG:** So basically just to
11 kind of reiterate what she said is, we consider risks
12 such that we're not sure that you will get cancer, or any
13 kind of disease from it. But you're at risk of getting
14 those things.
15 It's sort of like crossing the street when no
16 traffic is coming. You can cross the street without any
17 risk of getting hit by a car. But if you try to cross
18 the expressway the risk increases. And this is sort of
19 what we're speaking about here. If the wrist -- if the
20 risk of one times 10 to the minus 4 says that there is a
21 one in a thousand tenths that you may get some type of --
22 I mean one in 10,000, I'm sorry -- chance that you may
23 get some type of adverse reaction from this.
24 And so we just have a range where we say it's
25 acceptable, or it's -- or the probability is that you

1 won't get hit by that car. But then once you get to the
2 range that you may get hit by the car that's where EPA
3 says we have to do something.
4 [redacted] Is that over the life -- I'm
5 sorry, I'm [redacted] -- is that over a lifetime of
6 exposure, or after one incident of exposure?
7 **MRS. MASSENBURG:** That's a good
8 observation. It's over seven years of exposure.
9 **MS. VAN LEEUWEN:** Right. But for cancer
10 we do not consider that there is a threshold. We
11 consider that any exposure that is great enough to cause,
12 you know, any exposure to a concentration that's high
13 enough to cause a risk can cause cancer, any time within
14 the lifetime. But we extrapolate over a lifetime for
15 cancer risk.
16 [redacted] So your number is based on
17 over a lifetime?
18 **MS. VAN LEEUWEN:** It's over a lifetime for
19 cancer risks. Now, we also --
20 [redacted] Would the risk be the
21 same --
22 **MS. VAN LEEUWEN:** It also is for
23 noncarcinogens.
24 [redacted] Would the risk be the same
25 where somebody came in contact with one single incident

1 versus someone who had constant contact?

2 **MS. VAN LEEUWEN:** Well, you get into a

3 question about whether you have long term low level

4 exposure to the chemical, which is what we usually

5 consider. It's also possible to have short term exposure

6 to higher levels to get into what we call chronic, or

7 subchronic, or usually EPA's numbers, the potency factors

8 that Gwen will talk about, are considered long term

9 chronic exposure. But we can calculate short term

10 exposures. And at this time our agency does do that.

11 **MRS. MASSENBURG:** And just to bring the

12 point home; if you try to cross the street and there's a

13 lot of cars coming, see, like a contaminate, your chances

14 of getting hit by one of those cars is greater. That's

15 that one time exposure, that one time of crossing the

16 street of a high concentration of whatever carcinogen

17 that's there.

18 So you realize that if you try to cross the

19 street and there's a lot of cars there that your chances

20 of getting hit by one of those cars is great. But if you

21 try to cross the street over seven years and there's one

22 or two cars coming across your chances of getting hit by

23 the car is smaller. But you still have a chance of being

24 hit by a car. It's just that it's diminished over seven

25 years.

1 Yes, sir.

2 [redacted] My name is [redacted] Now,

3 you're mentioning the threshold of -- if they did reach

4 the threshold, so something should be done. What was the

5 number of cars coming down the street.

6 **MRS. MASSENBURG:** We'll get to that.

7 [redacted] Okay.

8 **MRS. MASSENBURG:** We'll get to that. So

9 the risk --

10 **UNIDENTIFIED SPEAKER:** Excuse me. Why

11 eleven years go by before we we're ever notified. I

12 never even got a letter for this meeting.

13 **MRS. MASSENBURG:** Okay.

14 **UNIDENTIFIED SPEAKER:** Why we're we told

15 then don't drink the water.

16 **MRS. MASSENBURG:** That's not -- because

17 there wasn't a reason for anybody to tell you as far as

18 we know there. We tell you as we know. We tell you what

19 we know. And remember all the people that I was talking

20 about, that we felt like that needed to be known were the

21 people that lived south of landfill.

22 **UNIDENTIFIED SPEAKER:** That's me.

23 **MRS. MASSENBURG:** Well, you should have

24 been told that.

25 **UNIDENTIFIED SPEAKER:** No, I never

received nothing. Not even --

MRS. MASSENBURG: Oh, I --

UNIDENTIFIED SPEAKER: I'm -- I found about this meeting from this.

MRS. MASSENBURG: Okay. Let me ask you this. Were you in the area called construction debris area? See there's an impact of the ground water. Ground water could have -- you could be living south of the landfill, but not be effected by the landfill. We base -- our consideration is based on how the ground water was flowing. And if you lived immediately south, or east of the landfill that's where the ground water was flowing. But if you lived -- if you lived kind of southwest to the landfill then we weren't really concerned. And perhaps you lived southwest, and not --

MS. VAN LEEUWEN: If you lived south of County Line Road and was on municipal water.

UNIDENTIFIED SPEAKER: I live on the east side and I never got anything in the mail.

MRS. MASSENBURG: We'll get to that, you'll see. If you guys would just be patient a little bit we'll get to a whole lot of the questions that you're asking. And if I don't get to it then please ask a them again. Okay. Because those are concerns -- those are questions that we were concerned about, and we appreciate

1 your concern.

2 **UNIDENTIFIED SPEAKER:** Just we'll quickly

3 I think I counted like 27 metals and chemicals this you

4 have listed there. Do I understand that every one that's

5 listed is of a dangerous, or toxic level?

6 **MRS. MASSENBURG:** Potentially they could

7 be, but they were not. The reason we didn't give you any

8 numbers is because there weren't any numbers of concern.

9 This is just what we found in the water. But EPA has

10 numbers, they have what we call maximum contaminate

11 limits of how much of a particular chemical can exist in

12 ground water.

13 And all those chemicals that were listed they

14 were in the ground water, but they weren't over that

15 level, that maximum contaminate level that we have for

16 drinking water. We don't regulate wells, private water

17 wells, we regulate the municipal water and we tell the

18 municipal system you can only have X amount of these

19 contaminates in the water. And not be concerned about

20 it.

21 **UNIDENTIFIED SPEAKER:** So do I understand

22 that all of these now are above the acceptable limits of

23 the water?

24 **MRS. MASSENBURG:** No.

25 **MS. VAN LEEUWEN:** Maybe I can answer your

1 question. Most of the metals that you saw may have been
2 naturally occurring. But in order to be considered in a
3 risk assessment we have to find them at levels that
4 exceed --
5 **MRS. MASSENBURG:** Right.
6 **MS. VAN LEEUWEN:** -- the background for
7 the naturally occurring level. Now, none of the organic
8 compounds that Gwen has listed as volatile organic
9 compounds, or semi volatile organic compounds are
10 naturally occurring. And so if you find those in the
11 ground water there must be a source of those chemicals.
12 So when we do a risk assessment we only do the chemicals
13 that we backgrounds, or should not be there because
14 they're unnaturally occurring.
15 **MRS. MASSENBURG:** And I just wanted to
16 make -- and I apologize if I'm over simplifying, but I
17 just want to make a visual word picture. Basically it's
18 just like the chemicals or the components are making the
19 cake. And as long as you keep those components in the
20 right proportion everything is fine and the cake is
21 beautiful. But if you put too much egg, or too much
22 sugar, or too much salt, then the cake does not turn out
23 the way that it should be turned out.
24 And this is basically what happened here,
25 although they're chemicals, unfortunately, but there are

chemicals that we eat every day from the grocery store because they too have a limit of what pesticides, or whatever can be acceptable in the grocery store. And then once they leach past that limit then you have to do something.

And so that's why I didn't put any numbers there. But remember I did list those numbers that were 44,000 because there were past the --

Please -- yes, sir.

[redacted] [redacted] My name is spelled; [redacted] Last name; [redacted]. I moved out of the area in 1951. And Miles Laboratory was dumping out there at that time. And -- but I didn't know it. And we were also living there in the water over there, in that big hole over there. So how dangerous is what the calcium sulphate.

MRS. MASSENBURG: Yes, sir.

[redacted] That's what they were dumping over there back in the early 50's.

MRS. MASSENBURG: The calcium sulphate.

MR. SCHONHOFF: My name is Phil Schonhoff. The calcium sulphate is -- it's almost like gypsum, which is the same stuff they make drywall out of. In and of itself it's not that toxic.

MRS. MASSENBURG: Yes, sir.

1 [redacted] I was wondering -- my name
2 is [redacted] [redacted] [redacted] just like it sounds.
3 I was wondering what the water table on the site is
4 sitting at.
5 **MRS. MASSENBURG:** The water table ranges
6 at anywhere the 15 to 20 feet. Easily.
7 [redacted] Okay.
8 **MRS. MASSENBURG:** And we'll get to all of
9 that. Yes, sir.
10 [redacted] [redacted] The minerals that
11 you have on there, if you look at the One-A-Day vitamin
12 box that's what you're taking, the vitamins. A lot of
13 them are in there, it's not bad. You need a trace
14 element -- traces of all of that for your body to
15 function properly. So it's not all bad.
16 **MRS. MASSENBURG:** Yeah, too much of
17 anything is bad. But, you know.
18 [redacted] Too much water is bad.
19 **MRS. MASSENBURG:** That's right. So -- but
20 we'll get to a whole lot of these questions that you're
21 asking. And let's just move on and again. If you feel
22 like I haven't answered your question please feel free to
23 ask the question. Okay. Let's just go back one.
24 I just wanted you to know when we talk about
25 risks we're talking about risks from ingesting, drinking,

1 eating, risks from dermal contact, touching your skin.
2 Kids playing in the yard, rubbing the skin, you taking a
3 shower. Inhalation, just simply breathing.
4 And that's how we -- those are what we look at
5 when we look at risks. And that's how we define what
6 risks are. Either risks from drinking, risks from
7 eating, risks from smelling, or breathing, or risks from
8 just being in contact.
9 Now, we're going to talk about hazardous index
10 and the hazardous index for humans interacting with the
11 site exceeded the acceptable hazardous index of 1.0. And
12 again I'll refer to my toxicologist, I'll let her explain
13 to you what a hazardous index is.
14 **MS. VAN LEEUWEN:** When we talked about a
15 risk range for chemicals that can cause cancer, that are
16 considered carcinogens, for cancer, for chemicals that
17 can cause other effects such as dermatitis; skin
18 irritations, stomach irritation that would lead to
19 nausea, and upset stomachs, impairment of the kidneys,
20 problems with the liver, problems with the blood system.
21 Maybe effecting the immune system, cause respiratory
22 problems, cause central nervous system problems,
23 dizziness. Cause reproductive problems; lowering of
24 sperm count, and miscarriage rates. Those chemicals are
25 considered noncarcinogenic.

1 And we look at all of these affecting -- we
2 look at the effect of each compound individually, and
3 that we have a value of, a concentration at which that
4 chemical may trigger an effect. And that's called a
5 hazard quotient for that chemical.
6 And the hazardous index is the sum of the
7 hazard quotient for all of the chemicals that can cause
8 similar effect. So if we have three or four chemicals
9 that can affect the central nervous system and can cause
10 dizziness -- many chlorinated solvents that we talk about
11 can do that. Each one of them will be looked at
12 individually to see if they exceed the hazard quotient
13 for that chemical. And then all of them will be summed
14 to see whether they exceed the hazard index for the
15 effect.
16 And if the hazard index is greater than one
17 then we say that there is a potential for the effect.
18 And that doesn't mean that you necessarily have the
19 effect, but there is a potential for the effect.
20 **MRS. MASSENBURG:** The thing that I want
21 you to keep in mind is, in a the hazardous index, we use
22 that number when we were talking about chemicals that are
23 known that does not cause cancer.
24 When we're talking about chemicals that do
25 cause cancer then we use another number. That was one --

1 that's one times ten to minus four. So that's the way
2 that we kind of separate the noncarcinogen, or the
3 noncancer causing chemicals from those that could cause
4 cancer.
5 We have to have a standard for them, and the
6 standard can't be the same for the chemicals that cause
7 cancer. So we had to figure out another way to find out
8 what is associated because it doesn't cause cancer.
9 Okay.
10 So this is all the preliminary studies. We're
11 still in 1992 just to reiterate where we are. We're
12 still in 1992. And for the future use of ground water
13 beneath the landfill the hazardous index values, those
14 are the noncancer causing values, were 500 to a thousand.
15 And antimony was the primary contributor to that risk.
16 So, in other words, that was the number that
17 we -- this number is the number that was calculated in
18 the risk assessment back in 1992. And as you find -- as
19 I go through this slide that we realize that maybe we
20 should have calculated it in a different way because
21 their number is ridiculous. It is compared to one. It's
22 ridiculous.
23 So we were forced to look at it in a different
24 way, and we'll get to the way that. We looked at it and
25 come up with a better way than this. Because this is

1 just outrageous. The other chemicals.
2 Okay. Antimony was the chemical that was
3 contributing to that risk. It was just that one chemical
4 that gave us a number like this. The other chemicals
5 contributing to the risk included, arsenic beryllium,
6 cadmium, chromium, vanadium, alpha-chlordane, and
7 nitrate, and nitrite. And we'll get to -- this all will
8 come together in a few minutes.
9 Okay. In September '92 we proposed a clean up
10 plan and it was issued to the public for review and
11 comment. So we've been here before. And we're here
12 again. But basically we've been here before. And we
13 gave you all of that historical information, probably in
14 much more detail back then in that time.
15 At in a time on September 30th 1993, EPA issued
16 a ROD -- again, that's the record of decision, and that's
17 our decision document -- for the site. The purpose of
18 the selected remedial action as specified in the record
19 of decision was to eliminate, or reduce, the migration of
20 contaminates to ground water, and to reduce the risks
21 associated with exposure to the contaminated materials.
22 Okay. Back in 1993, the major components of
23 that record of decision was to construct a composite
24 barrier over the landfill. Basically we call it a cap.
25 Consisting of the following components -- and this is in

the top down, so if you would imagine, let me go from the ground surface up.

So the ground surface is here (indicating). The landfill, as it exists, we were going to put a soil buffer layer of variable thickness to attain the State of Indiana grade requirements -- grading requirements. In other words, we were going to slope it such that -- that the water would drain off properly.

We were going to put a two foot thick low permeability clay liner on top of that. Then we were going to put a 40-mil high density polyethylene flexible membrane liner. Basically a tarp. But it's the expensive part. Plastic. Yeah. A six inch thick sand drainage layer. And then we were going to put an 18 inch thick vegetative layer.

So if you can imagine -- again, this is the bottom, this is the ground surface. And all of this was going to be built on top of that landfill. That was in 1993.

We were also going to use institutional controls on the landfill property to limit land and ground water use. All this is saying is, we were going to put some kind of control on the landfill to say that you can't use the land and you can't use the ground water.

1 We asked that an installation of an active gas
2 collection system. Because when you have landfill you
3 have the components in the landfill breakdown. And as
4 these components breakdown -- as the bacteria that's in
5 the ground breaks the components down they give off gas.
6 So we wanted to collect that gas as it was coming off the
7 landfill, and treat the gas from the landfill.
8 We wanted to monitor the ground water to insure
9 that the cap that we put on the landfill was going to be
10 effective and remain effective. And we wanted to take
11 mitigative measures to have as minimal adverse impacts
12 that we could on the wetland areas.
13 Okay. We're in the present. So that ROD was
14 never implemented. That decision document was never
15 implemented. We never did those things. And in 1995 the
16 Army Corps of Engineers went out to do what we call post
17 ROD investigations before -- while it was during their
18 design they were going to design this cap that we had
19 just spoke about.
20 And in doing that they wanted to see -- the
21 last sampling that occurred was in 1992 -- so they did
22 some additional sampling in 1995 just to see if things
23 changed so they could make sure that the design fit the
24 change. So the -- basically the over all objective of
25 the post ROD activities beginning in 1995 was to conduct

1 additional data to supplement additional data that
2 already existed, such as; the soil gas investigation.
3 And that was leading to supplement. And this
4 is just the final predesign technical memorandum document
5 for a Superfund site. And it was in 1996 that the EPA
6 wrote the report. So these reports that I have in
7 italics should be in your local library. If not we're
8 going together get them there. But these should be
9 there. And this is the report telling what they did.
10 And they also wanted to perform a supplemental
11 human health risk evaluation that was needed for the site
12 in the construction debris area. Because basically what
13 we did was we didn't look at the construction debris area
14 by itself, we sort of like moved the people off the
15 construction debris area and moved them onto living on
16 the landfill, and that's why the numbers were so high.
17 We're saying these people are not living where
18 they're living in the construction debris area. In the
19 recent assessment we had a scenario where it said the
20 people were actually living on the landfill and drinking
21 the water from the landfill. That would never happen.
22 And that's basically where we are today.
23 We realize that people would never live on the
24 landfill and they would never drink the water underneath
25 the landfill, although they might drink the water coming

1 off the landfill. They're not going to drink the water
2 on the landfill proper. So that's how we did the risk
3 back then.
4 [redacted]
5 [redacted]. I used to swim there as a little girl.
6 **MRS. MASSENBURG:** In the ponds?
7 [redacted] In the pond. I used to swim
8 there and play in the dirt. It was recreation for all
9 the kids that lived in the area. I still live there now.
10 It scares me to death. I didn't even know that Himco
11 owns it, I considered it as being a Miles' dump area.
12 When I got the letter in the mail of Himco I had no idea
13 that that was called Himco.
14 **MRS. MASSENBURG:** Okay. Okay. The
15 purpose of this supplemental risk investigation was to
16 conduct a human health evaluation for the sites off
17 property areas that were not addressed in the 1992
18 baseline risk assessment. Which I basically said that we
19 wanted to look at the area as where it is now, and not
20 place it on the landfill. We wanted to see what was
21 actually happening to the construction debris area and
22 the people living in that area, where they live and not
23 imagine that they would live on the landfill. And we
24 wanted to direct additional ground water data to insure,
25 again, that remedial action would work.

1 We haven't implemented this cap that I just
2 showed you, but we just wanted to make sure of the
3 numbers that existed. And since it had been a couple of
4 years since they took the sample, and the supplemental
5 investigation included the September 1995 sampling -- and
6 that's detailed in the document the *Final Pre-Design*
7 *Technical Memorandum* for this dump. And that was done by
8 Himco -- excuse me, U.S. Army Corps of Engineers. That's
9 USACE is U.S. Army Corps of Engineers. So this is 1995.
10 So this is what happened.
11 So in 1996, and in 1998, the investigations
12 were done. The data was collected from the construction
13 debris areas. These are the samples we collected; we
14 collected soil samples, we collected soil gas samples,
15 and we collected ground water samples from the area down
16 gradient. Because the water flow is coming down through
17 the landfill, down south through the construction debris
18 area of the landfill.
19 The investigation was conducted during April.
20 Then we did some more investigations; April, May, and
21 November 2000. So which involved characterizing the
22 ground water migrating east.
23 And I'll tell you a little story about that,
24 but basically what happened was when we was collecting
25 the soil gas samples from the people living from -- I

1 mean, in the area south of the landfill, we said; well,
2 let's go up Nappanee Street extension to see how far the
3 gas migrated. And we didn't expect anything.
4 So when we got our results back we found out
5 that, yes, in fact, not only was the soil was coming down
6 from the two, you know, down south of the landfill, but
7 it was also going east. And while we were over east
8 we -- so we got our results from that and then we
9 realized that the gas was actually moving east. So we
10 wanted to find out how far east is it moving.
11 And so what we did was we -- the people living
12 on Westwood Drive we knocked on the door and said can we
13 take soil gas samples in your yard, and they said yes.
14 And the few people we asked -- we didn't ask everybody,
15 because again we're only working from the data that we
16 collected and it gave us an indication of to see how far
17 it's moving. And when we did that people said; well, how
18 come you never sampled my water. And we said; what.
19 We didn't know that -- I didn't know it. I was on the
20 scene then in 2000. In 1999 I came on the scene. And they
21 said; why didn't you sample our water. We didn't realize that
22 the water had not been sampled. And the only thing I can
23 realize there is they didn't think the landfill was impacting
24 the people east of the landfill. Southeast of landfill there
25 was no way that they thought the landfill was impacting them.

1 So we thought, okay, we can have one last shot at this
2 site, why not sample the water. We didn't expect to get any
3 hits from the water, but unfortunately we did. And that's where
4 we are today.
5 We found out that some of the homes closest to the
6 landfill that are located on Westwood Drive did have hits. Now,
7 when I say "hits" that means that there were things in the water
8 that shouldn't be in the water. But that doesn't necessarily
9 mean that it was outside of that gradient.
10 One second, I'll -- I just want to make my point. But
11 there was one residence that exceeded the range out of all the
12 samples their's --
13 **UNIDENTIFIED SPEAKER:** My house is east of
14 landfill too, and I live just -- our water and our
15 neighborhood was tested.
16 **UNIDENTIFIED SPEAKER:** Michelle
17 (inaudible). I was wondering why there was no --
18 there -- we never received anything to test our water
19 also.
20 **MRS. MASSENBURG:** Okay.
21 **UNIDENTIFIED SPEAKER:** We just live a
22 little north and west.
23 **MRS. MASSENBURG:** Right. Again, we are
24 sampling the landfill. We're sampling the people who we
25 felt like are impacted by the landfill. So you can live

1 right across the street, and there isn't any impact.
2 Because, again, we're looking at what's
3 happening underground. And how the ground water is
4 flowing underground. And you can live right next door to
5 the landfill, but the ground water that's coming through
6 the landfill -- we're looking at the water that's coming
7 through the landfill and into the water. And so there's
8 a good possibility, based upon the data we collected, we
9 made an educated guess that your house wasn't impacted.
10 Okay. That's an educated guess. All right.
11 **UNIDENTIFIED SPEAKER:** So --
12 **MS. VAN LEEUWEN:** That was the first round
13 of sampling.
14 **MRS. MASSENBURG:** Yeah. The first round
15 of sampling. So take into consideration this is 1993.
16 2000. And we had no idea that the residents living east
17 of the landfill were impacted.
18 **UNIDENTIFIED SPEAKER:** Are we going to
19 have our water tested? I think we should.
20 **MRS. MASSENBURG:** I'll get to that.
21 **UNIDENTIFIED SPEAKER:** I have children I
22 don't want --
23 **MRS. MASSENBURG:** That's a good concern.
24 **UNIDENTIFIED SPEAKER:** Why didn't you tell
25 anybody if you found something bad?

1 **MRS. MASSENBURG:** Hold --
2 **UNIDENTIFIED SPEAKER:** I'm talking about
3 the road right here.
4 **UNIDENTIFIED SPEAKER:** I was never
5 informed.
6 **MRS. MASSENBURG:** But, it's -- for us to
7 know -- put it this way --
8 **UNIDENTIFIED SPEAKER:** You mentioned right
9 was the street.
10 **UNIDENTIFIED SPEAKER:** Four years ago.
11 **MRS. MASSENBURG:** We'll get to that. Be a
12 little patient. We'll get to all of that. We're not
13 trying to have you drink the water you shouldn't be
14 drinking. Just keep that in mind we're on your side,
15 trust us.
16 The reason why we didn't sample ground water
17 we -- again, we felt like it -- there shouldn't have been
18 any impact on the water. Unfortunately -- unfortunately
19 we found that, and we went out again. And we moved to
20 the next -- across the street where we didn't find
21 anything. We didn't find anything.
22 That doesn't mean that nothing exists because
23 the problem that exists for us over in your neighborhood
24 is we don't know where your wells are screened. You
25 follow me. Some people have their wells screened

1 anywhere from 30 feet to 35 feet where they collect the
2 water. Somebody's living right next to you and their --
3 their well is down at 60 feet. So we're trying to
4 understand that.
5 But keep in mind also, on the east side of the
6 landfill we have monitoring wells. So it's not like
7 we're just leaving you guys out there to be exposed to
8 the contaminates. We were monitoring that landfill and
9 that monitoring well never gave us any indication that
10 anything was happening east of the landfill. It just
11 didn't. So we were looking. It's just unusual.
12 **MS. VAN LEEUWEN:** Can I say something.
13 Often when EPA goes out to do some early testing, what
14 we'll do is look at the area of highest potential risk,
15 and do the sampling there to see whether we find anything
16 in an area. And if we do find it then we'll spread out.
17 **MRS. MASSENBURG:** Move over.
18 **MS. VAN LEEUWEN:** Go --
19 **UNIDENTIFIED SPEAKER:** Like go all the way
20 around. The whole water system all the way around the
21 whole area. The whole area around it.
22 **MS. VAN LEEUWEN:** But the whole area may
23 not be impacted. So what we have to do is look for the
24 worse case. First to determine, one; is there an impact
25 that's occurring in the area. And you'll find that when

1 we talk about the soil gas.
2 But we want to know, is there a way by which
3 the chemicals can get to the people in the area. So
4 we'll look at the area that's most likely to be impacted.
5 The first question we have to answer is; can these people
6 be impacted.
7 **MRS. MASSENBURG:** Right.
8 **MS. VAN LEEUWEN:** And if they can be
9 impacted then we'll go on to try to move on to and area.
10 And --
11 **UNIDENTIFIED SPEAKER:** But people in our
12 neighbor have cancer, and all kinds of stuff. And we're
13 worried about it.
14 **MRS. MASSENBURG:** And that's unfortunate.
15 And I'm not trying to make light of your questions. The
16 problem we have is, there are people who are living
17 nowhere near the landfill that's dieing of cancer.
18 **UNIDENTIFIED SPEAKER:** Right.
19 **MRS. MASSENBURG:** So we can't really
20 directly correlate it. But what we can try to do is
21 protect you, and that's what we're trying to do is be
22 there and protect you. If you can give me just a little
23 bit more patience I do have photographs of how the ground
24 water is flowing, which you don't see, which is
25 underground.

1 And you can see that it doesn't really go as
2 far east. The ground water is still coming your
3 direction, but it's not effecting the landfill. And
4 that's the whole thing that I want you to put in your
5 mind is we're only concerned about the area that gets
6 water after it leaves the landfill. Because the water is
7 going to come -- and there's no landfill in between you
8 and the water. That's the area that we're concerned
9 with. Only the area that the is impacted as it passes
10 through the landfill, and then gets to you.
11 State your --
12 [redacted] [redacted] I live down
13 the road from it. And it's been four years, and I
14 figured this all out. And you try to say the water flow
15 flows one direction. And so this lady can't get her
16 water tested because there ain't no reason why you
17 didn't.
18 All right. Like, she said, if you're going to
19 do it, do it right. All right. Nearly -- it's been
20 eight years. It's been eight years, and you guys haven't
21 done anything down there. You know, all these studies,
22 and all this other stuff, it sounds good. You know, it
23 sounds good --
24 **MRS. MASSENBURG:** Right.
25 [redacted] -- for government. But

1 you're going to wait until Bayer leaves town.

2 [redacted] No.

3 **UNIDENTIFIED SPEAKER:** And the well --

4 [redacted] Of course it doesn't --

5 it will look like --

6 **UNIDENTIFIED SPEAKER:** I've been out here

7 eight years.

8 [redacted] Bayer will leave town.

9 And that's not limiting them --

10 **UNIDENTIFIED SPEAKER:** (inaudible)

11 paperwork. And, you know, Bull crap going on. And I'm

12 just thinking, let's get something done here.

13 **MRS. FLISS:** I want to say -- Jessica

14 Fliss from IDEM. Once we give you guys a map later on

15 during the presentation that will give you a good

16 indication of why we did sample, or why we didn't sample

17 certain residences. And we'll show you a map, and it

18 will make it much more clearer why we sampled there, and

19 did -- and why we chose not to sample at the same time

20 where we chose not to.

21 **UNIDENTIFIED SPEAKER:** If the fumes are

22 coming off of -- fumes coming off of it are toxic --

23 **MRS. MASSENBURG:** We tested the fumes. We

24 know all of that. And honestly we have not been spinning

25 our wheels. We know that human health is our major

concern and unfortunately. It looks like to the citizen were not doing anything, but boy are we working hard. We are really looking towards trying to protect your health. That is just a given to us. Whereas you're not on -- you're not on my side so you can't see it. You're on the other side of the fence. And it seems likes we're not doing what we're suppose to be doing. But honestly we're trying to really understand what's happening to your neighborhood.

Yes, sir.

[redacted] Yeah, [redacted] How long have you guys known about the water on Westwood Drive and that area being contaminated?

MRS. MASSENBURG: We just found it out in 2000.

[redacted] 2000. So we've been doing this three years, and I can tell you about 20 people on Westwood Drive who had new wells put in and the County had not done something to stop that. What's the idea of putting wells in if we're to tap into city water? Where's the protection for the people?

MRS. MASSENBURG: Let me just say this sir -- and this is something for future reference for all of you all, because you may not stay in the area all of the time. That is, if you have concerns talk to your

county health department.

[redacted] Well, you guys should have notified County Health Department --

MRS. MASSENBURG: We did.

[redacted] -- to stop issuing water permits.

MRS. MASSENBURG: We did. And the thing is we issued bottled water to those people who we found that needed to get off of the water. We went to every house that was impacted on Westwood Drive. We knocked on every door on Westwood Drive.

[redacted] Where's the impact at?

MRS. MASSENBURG: If you give me a chance I'll show you. We went to every house on Westwood Drive and we found out people were already drinking bottled water, but it's not from the chemicals of the landfill, it was the taste and odor that was naturally occurring in that particular area of where you live. There's a lot of iron in the water. That's not a contaminate of concern for us.

So these people evidently didn't like the taste of the water coming out of their wells and decided to drink bottled water on their own.

Yes ma'am.

[redacted] My name is [redacted]

1 [redacted] (sic), and I lived over off of Willard Road, and I
2 played in the bottom of that pit that's full of water now
3 and played in that dump. I'm one of the people that got
4 hit by that truck. I've had breast cancer. We buried my
5 sister.
6 **UNIDENTIFIED SPEAKER:** Me too.
7 [redacted] My mother has cancer
8 twice. And instead of going around worrying about the
9 drinking water why don't you knock on everybody's door
10 and say how many people in your family has died of
11 cancer, and how many people have miscarriages. Start
12 there instead of worrying about the ground water and
13 giving people bottled water. Find out what it's done to
14 us already, and what it may do to me later on.
15 **UNIDENTIFIED SPEAKER:** Or couldn't have
16 children.
17 **UNIDENTIFIED SPEAKER:** Better yet, why
18 don't you hook everybody up to city water.
19 **MRS. MASSENBURG:** The process that you are
20 all talking about seems reasonable, it really does.
21 **UNIDENTIFIED SPEAKER:** That's the only
22 reason I'm here, personally. Is right now you're running
23 city water from Bristol Street to a new aeroplex park by
24 the airport.
25 **MRS. MASSENBURG:** We're not doing that

1 sir.

2 **UNIDENTIFIED SPEAKER:** Well the city is.

3 And you guys are in charge of --

4 **MRS. MASSENBURG:** No, no, no.

5 **UNIDENTIFIED SPEAKER:** -- of this EPA

6 clean up program.

7 **MRS. MASSENBURG:** Only for Himco. We're

8 not responsible for anything else.

9 **UNIDENTIFIED SPEAKER:** Find out that the

10 area has toxic substances. There's only two neighbors in

11 this whole area that's to the south, and to the east.

12 Find that out. We have a problem. We need to get those

13 people city water.

14 I asked construction workers by my house that

15 were running that water two blocks away from my house;

16 are you going to run me city water. No. Why. I've got

17 a toxic lagoon an eighth of a mile away from my home.

18 **MRS. MASSENBURG:** Remember this, we

19 weren't going to get into discussion. We were going to

20 simply answer questions. Hold up. And I'm hoping that

21 everything that I show you tonight will educate you to

22 give you a better understanding of what's going on.

23 **UNIDENTIFIED SPEAKER:** You just told me

24 that I'm going have to walk with my daughter across the

25 street and take a chance of getting hit by a car.

1 **MRS. MASSENBURG:** You misinterpreted that.
2 I was trying to give you a good illustration of what
3 risks were. I didn't mean to say that you were being at
4 risk right now. You misinterpreted it.
5 **UNIDENTIFIED SPEAKER:** I --
6 **MRS. MASSENBURG:** Excuse me.
7 [redacted] [redacted] You say you have
8 the sample -- the sampling wells, or the monitoring
9 wells. How often are they sampled?
10 **MRS. MASSENBURG:** Monitoring wells, I
11 think from 1995 we sampled them in '95, '96. '98. And
12 then 2000. So --
13 [redacted] It's periodically.
14 **MRS. MASSENBURG:** It's periodically.
15 [redacted] Once a year, six months.
16 **MRS. MASSENBURG:** No. We're still trying
17 to understand. Basically what happens is we did the
18 sampling, we got the results. We looked at the results
19 and decided we need to do additional sampling. And from
20 that sampling -- that's the way it works. We just don't
21 go out to --
22 [redacted] According to some of your
23 statements some of the information we've dug up on this,
24 it was estimated that this plume would expand at the rate
25 of a hundred and 21 feet a year.

MRS. MASSENBURG: Okay. That was in the remedial investigation.

[redacted] If that was the case --

MR. SCHONHOFF: Are you talking about the linear --

[redacted] Yes.

MR. SCHONHOFF: The rate at which the ground water travels.

[redacted] The potential of this is expanding, potentially, at a hundred and 21 feet per year.

MR. SCHONHOFF: In this aquifer that's a little high.

[redacted] Let's say a hundred feet a year.

MR. SCHONHOFF: That's right.

[redacted] In 30 years we're talking 3,000 feet.

MR. SCHONHOFF: That's reasonable.

MRS. MASSENBURG: So, is --

MS. VAN LEEUWEN: I think what Gwen is trying to tell you, if she gets to finish it. She's trying to put into perspective what has happened at this site, and how we got to be where we are.

Because when Gwen and I got involved in this

1 site there was a record of decision for this site. And
2 that record of decision did not include addressing your
3 ground water to the east of the site. It did not include
4 looking at any soil gas that's migrating off of the site.
5 And it did not include removing soil and debris, and
6 chemicals in what she called the construction debris
7 area.
8 And since the time she took over a lot of data
9 has had to be collected to determine that the record of
10 decision that we had might not be totally appropriate.
11 And that we might want to do some additional things.
12 And as we have found, that there are chemicals
13 in these areas in the water. We have tried to put in
14 place interim remedies, as she has said, the bottled
15 water. Because we know the process goes much slower than
16 any of us would like it to go.
17 **MRS. MASSENBURG:** And as --
18 **MS. VAN LEEUWEN:** But we're moving in that
19 direction.
20 **MRS. MASSENBURG:** And I just want to add
21 that you guys apparently have lived next to that landfill
22 for a long time. This meeting has happened before. And
23 the thing -- the issues that you are all are talking
24 about are things that, unfortunately, if you could have
25 voiced those back then. Because we're here now, we're

like cavalry trying to rescue what was improperly done.

We're not going to say everything was done correctly, we're not going to say that everything was done incorrectly. We're just trying to fix where we are. And that's basically where we are.

We understand that back in 1992 -- I'm sure they had this meeting -- or 1993. They had the same meeting. And unfortunately a lot of these questions --

[redacted] All the houses north of County Road 10 --

MRS. MASSENBURG: Or who are you sir?

[redacted] [redacted] And all of a sudden, they got city water. In fact, after the first inspection, 1993. Nobody's claimed responsibility of who paid for that or not paid or that. All of a sudden five of six houses all got city water. I don't know where it came from.

MRS. MASSENBURG: I went to that slide and said that Mr. Himes, and Bayer, and the City was also instrumental, and so was the City.

[redacted] I think what it was you guys tried to solve the problem and keep it quiet.

MRS. MASSENBURG: No.

[redacted] And eight years down the road you're going say we're going to fix it.

1 **MRS. MASSENBURG:** No. Basically what
2 happened was the people living south of the landfill were
3 the people we felt were impacted. It was only because of
4 sodium, it wasn't because of the chemicals that we talked
5 about.
6 And if it had not been because of the sodium
7 chemicals being high those people would not have gotten
8 the water. They would not have gotten the water.
9 [redacted] Well, I --
10 **MRS. MASSENBURG:** And I just want you to
11 know that we'll only talk to people who are effected.
12 There's no need for me to come to you and talk to you
13 about --
14 [redacted] I understand that. I
15 understand that ma'am, you have to do this thing right.
16 **MRS. MASSENBURG:** We're doing it right.
17 [redacted] For eight years you haven't
18 done anything in eight years.
19 **MRS. MASSENBURG:** Yes we have.
20 **MR. HILL:** Excuse me please. We're
21 getting into a discussion now sir. Mark we appreciate
22 all of your concerns and everyone is concerned. We would
23 like to get through this. If you'll bear with us please
24 and let us finish our presentation. And explain the
25 proposed remedies that we have offered tonight.

1 And if -- there are a number of us who will be
2 available as long as the room is available to us. We
3 technically have this until 9:00 in the evening. We'll
4 be happy to stay after the meeting. But I'm sure there
5 are some people who would like to see this done rather
6 expeditiously, so if we could proceed. Thank you.
7 **MRS. MASSENBURG:** Okay. So back in April,
8 May, and November of 2000 we started characterizing the
9 ground water migrating east and south -- east and south
10 in a south gradient to the landfill which is an unusual
11 flow of the water, it's unusual. And then as the
12 investigation -- the data was collected, and the recent
13 evaluation was done to get additional information to
14 determine if further remedial efforts were necessary and
15 warranted in the construction debris area there south of
16 landfill as well as the area surrounding the landfill
17 effected by the ground water migrating from the site.
18 So basically, just to reiterate that, we
19 started to look at what was going on east of the landfill
20 because the ground water flow was suppose to be going
21 south, not east. So we found out it was going east.
22 Okay. A complete list of the contaminants and
23 the sampling results and analysis from 1995 to 2000 is in
24 your public library. If it's not there today it will be
25 there tomorrow. It should be there today. But -- it's

there. You've seen it. Okay. Thank you.

[redacted] Our's south of town, not the one across the street, but the one south of town.

UNIDENTIFIED SPEAKER: They no longer have it there, they sent it all up town.

[redacted] They sent it up town. In the main library.

MRS. FLISS: The one across the street.

MRS. MASSENBURG: I know sometimes people might say; why do you put it in the library over there south and not over here. Sometimes we call the library and the library says, we don't want it.

UNIDENTIFIED SPEAKER: We went over there and asked about it. And --

MRS. MASSENBURG: Okay. So we put it there and they moved it over here. So I don't know what's all of that. Okay. But it's in your library. If you want to get all of the information about the sampling, what we found, the number -- the exact number, all of that information is in that library. In your library. And it's probably in the reference section.

UNIDENTIFIED SPEAKER: Reference.

MRS. MASSENBURG: Yes, ma'am. Okay. Now, this is the summary of the site risk that we found. This 2000 supplementary risk assessment identified the CDA

1 area, the construction debris area, and the eastern
2 residential area as exposure pathways for the site.
3 Basically it's saying that the site is, these
4 are the pathways that the site is impacting the area
5 south of landfill, and the area east of landfill. And
6 then, again, I'm reiterating the exposure routes is the
7 dermal contact with the ground water, such as showering
8 or bathing. Contact with the soil. Inhalation of vapors
9 breathing from the ground water. Drinking the ground
10 water, or ingesting the soil.
11 Just because I say that doesn't necessarily
12 mean that's what's going to happen at your house. I'm
13 just telling you what we're looking at when we look at
14 risks. These are parameters and numbers we look at when
15 we look at risks, but it doesn't necessarily mean this is
16 what's happening at your house.
17 Again, this is picture of the construction -- I
18 mean, of the landfill. That's the pond we tested. The
19 pond -- there was no contamination in the pond, so those
20 of you who were swimming in the pond you probably had a
21 good swim because we tested the pond. The fish living in
22 the pond today, they don't have green eyes, or big lips,
23 and 15 fingers, and all of that.
24 **UNIDENTIFIED SPEAKER:** They're big.
25 **MRS. MASSENBURG:** They're big. Because

1 nobody is fishing them out. So they just grow big again.
2 That's the construction debris area. Right
3 here the yellow -- and this is Westwood Drive and we'll
4 get to that. I just wanted to show you again.
5 Now, this is a sample of all the water wells.
6 Okay. This is the landfill, the slide is kind of skewed
7 because I tried to stretch it across the screen. All of
8 these lines are where we're sampling the water, and this
9 is around the landfill, even past the landfill,
10 everything.
11 So we are really looking at what risks of
12 exposure are you guys being exposed to. And again, we
13 have these levels that are built in, and if we ever was
14 to cut a sample and find out that these levels exceeded
15 our removal level we have to immediately do something.
16 So the reason why we haven't been doing
17 anything is because the levels are being so low. So just
18 keep that in mind. There is a level where we have to
19 respond in emergency response. There is a level that
20 exists. So we're not --
21 **UNIDENTIFIED SPEAKER:** Are you going to
22 (inaudible).
23 **MRS. MASSENBURG:** No. Now, here's this
24 EPA sampling location. So now what I -- I had showed you
25 on the previous site are the USGS wells is --

1 unfortunately that's a smaller slide, but I'll try to
2 point it out to you.
3 These are the wells. Here, here, here
4 (indicating). Wait, let me just show you this. This is
5 total landfill. These are the wells to show you that we
6 are sampling all the way around the landfill, so we are
7 aware of what's happening off of this landfill. These
8 are the houses that we sampled. If you gave us
9 permission to sample your houses -- I've I knocked on
10 some of the doors and they told me no we don't want you
11 to test the water.
12 **UNIDENTIFIED SPEAKER:** Not my house.
13 **UNIDENTIFIED SPEAKER:** Ma'am, on a heavy
14 dew night when I drive down County Road 10 I get like an
15 onion smell. I don't know what that is, but it don't
16 happen all the time. A lot of times -- I mean, if my
17 window is shut I still smell it. Now, it's just west of
18 that construction area, I guess. But I'm sure I'm not
19 the only one driving down there that smells it.
20 **MRS. MASSENBURG:** Okay.
21 **UNIDENTIFIED SPEAKER:** I don't know what
22 you said about the rain and snow.
23 **MRS. MASSENBURG:** Okay.
24 **UNIDENTIFIED SPEAKER:** There's an awful
25 smell, what's that?

1 **MRS. MASSENBURG:** What you have to keep in
2 mind is what we're sampling is what's under the ground
3 and the soil and everything. So what you're smelling
4 could be wild onions smelling, I don't know. I'm not
5 trying to make it light, but it could be wild onions. I
6 smell it sometimes too and I'm nowhere near Himco. I
7 know you can smell grass when it's freshly cut, so ...
8 So, again, in the construction debris area we
9 looked at the ground water and the maximum contaminate
10 level for drinking water has not been exceeded recently
11 from 1998 to 2000. I don't know that it's -- it's
12 probably been exceeded once in the construction debris
13 area, one time. After all of these monitoring that we've
14 done -- and you can go to the library and see is -- there
15 is a table that shows you each well, and what we found at
16 each well from 1995 to 2000. And there also is a
17 document in there that will show you the remedial
18 investigation and feasibility study that will show what
19 they found in '92 when they first started working on the
20 site. Only one time that we exceeded the contaminate.
21 Once.
22 And that's why you all probably feel like you
23 don't know anything because there was no need to alarm
24 you because we didn't find anything. Okay. We found
25 contaminates, but it wasn't over our level. Okay. So we

1 didn't want to alarm the whole neighborhood and making
2 them think that you're drinking bad water, you weren't
3 drinking bad water.
4 **MR. SCHONHOFF:** Phil Schonhoff with IDEM.
5 When she talks about maximum contaminate levels in ground
6 water that -- correct me if I'm wrong -- but you're
7 dealing with the amount of the contaminate that's allowed
8 in the ground water, and in the municipal water supply.
9 So for instance benzene is in the ground water, but
10 that's five parts per million. A municipality will have
11 one part per million. And you're going to be getting it
12 every day, but it's below the concentration.
13 So the problem is when you have -- when you see
14 it's there, and you have to be here for it to go up. So
15 she doesn't want to over alarm you it's not that kind of
16 thing.
17 **MRS. MASSENBURG:** Right.
18 **MR. SCHONHOFF:** We're not talking about
19 high concentrations, we're talking low concentrations,
20 very low concentrations.
21 **UNIDENTIFIED SPEAKER:** I understand. But
22 I can't believe you can't do an on-site investigation
23 inspection every six months. They have somebody here at
24 the health department that can do that. It's not just my
25 concern they're letting it go. And, like they said, two

1 years ago now everything is okay for right now. I mean,
2 nothing's changed. That's all I'm saying. I don't think
3 it's been monitored very well.
4 I've -- and I've been out there for 18 years
5 when I watch though people out there for EPA I think,
6 what are they doing out there, and to me I thought they
7 were wasting their time. And all of a sudden they're
8 gone, and all of a sudden what got accomplished here, you
9 know, nothing.
10 **MRS. MASSENBURG:** We haven't --
11 **UNIDENTIFIED SPEAKER:** I'm talking about
12 --
13 **MRS. MASSENBURG:** I'm go to move a little
14 faster so we can get through this, so we have time for
15 questions and answers. So, please, if you have any
16 questions right now -- because it's already 8:30 -- if
17 you can kind of remember your question and then ask the
18 question at the end because we're getting behind, and we
19 have a few more slides to go. Okay.
20 Okay. So the maximum contaminate level had not
21 been exceeded. The noncancer hazardous risk for child
22 residents however is unacceptable for the ground water in
23 the CDA area. The ground water. These are things
24 that -- this is what we found. This -- we have a
25 hazardous index of 46.0, and that's for the noncancer

1 causing chemicals; antimony, arsenic, iron, manganese,
2 thallium, 1,2-dichloropropane, benzene, and vinyl
3 chloride. We've already explained what the hazardous
4 index is, so I don't need to go through that slide again.
5 Okay. And then for the CDA soil. For surface
6 soils we have a screening level where everything has
7 standards. And you have to pass that standard in order
8 to get something down. And the screening level was 400
9 milligrams per kilogram for lead in the soil. If we find
10 anything that's over 400 milligrams per kilogram then we
11 have to do something. And there was one parcel that had
12 695 which is higher than 400 milligrams in the
13 construction debris area. And lead was also detected in
14 other surfaces in the construction debris area, but
15 never -- well, as far as we know -- it was not detected
16 over this concentration so we're going to do something
17 about this. We're going to do something about it because
18 it has exceeded our level, so we have to do something.
19 This is just a picture to you where the sample
20 location where, this is the construction debris area
21 right here. This -- my pen goes away -- but it's the
22 dotted line. And all the round circles with the half
23 black thing this is where we actually took the sampling.
24 We went to some residential parcels; no, we don't want
25 you to sample our well.

1 So, I mean, as you can see, this particular
2 parcel right doesn't haven't a little circle there, it's
3 not because we didn't want to sample, it's because the
4 person didn't want us to sample. So we have had to honor
5 it. Just like ground water they didn't want us sampling
6 the ground water.
7 Okay. So we have two phases of soil gas.
8 Because the soil gas south of the construction debris --
9 and we did a few sample areas southeast of the area. We
10 didn't think it was migrating east, and once we did the
11 sampling we realized; hey, this is moving east too.
12 Now, moving east doesn't necessarily mean
13 you're breathing it. We're just telling you it's
14 flowing. And I'll show you a picture to give you an
15 indication of what's going on.
16 So we did Phase I, 43 soil vapor samples from
17 those that that would allow us to get on the property and
18 do the sampling. And we analyzed it for VOC's, volatile
19 organic compounds in the southern construction debris
20 area. All of the compounds appeared to be distributed
21 with higher concentrations measured just off boundary of
22 the landfill, right next to the landfill and tended to
23 increase the concentration away from the landfill.
24 So the closer you were to the landfill the more
25 concentrations were as you moved away from the landfill

1 the gas concentration dropped. In all occasions of all
2 the samplings we did, the highest detected concentration
3 was found in the southeast corner of the landfill. And
4 that's right at the intersection of Nappanee Street
5 extension and County Road 10. That was where we found
6 the highest concentration for everything we measured.
7 What we found were chemicals called carbon
8 disulfide BTEX compounds, chlorinated ethenes,
9 chlorinated ethanes. And I'll tell you what those are.
10 Now, these little triangles are the samples that we did
11 12/98 of soil gas. And you can see the open triangle --
12 the open triangles are the ones we did 11/98. It took us
13 two months to do this.
14 And as you can see we sampled all up an down --
15 we sampled a lot of the areas south of the landfill, and
16 a few samples on the east side, on the east side of the
17 landfill. That's Phase I. We just sampled a few.
18 Next slide. This is what is called an iso
19 concentration map. And what it shows us is this dashed
20 line here -- I got to show you this. This is the boarder
21 of the landfill (indicating)that dashed line. Remember I
22 that the concentrations was high. This is like 10,000.
23 It's high. Closest to the landfill.
24 Move a little further back it's a hundred.
25 Move a little further back it's 10. And this line goes

all the way across. This is a concentration, not just at this point, all the way across. By the time we get here, that furthest line away, the concentration is one.

UNIDENTIFIED SPEAKER: Could you point out which ones are which, where they're at?

[redacted] You can't see the road.

MRS. MASSENBURG: This is County Road 10.

UNIDENTIFIED SPEAKER: Okay.

MRS. MASSENBURG: We're still talking about the construction debris area. We only did a few samples here because we didn't think the gases migrated here.

UNIDENTIFIED SPEAKER: That's the John Weaver Parkway.

MRS. MASSENBURG: That's the John Weaver Parkway. And you can see all the little triangles samples. We directed, as I said, closest to the landfill the concentration is higher.

This is the corner that I'm talking about that had the highest concentration. This is 10,000, but by the time you move here it's one. This is the street right here (indicating). So this is the landfill. When I say "the corner" I don't mean right here at the corner but this -- I'll try to give you an idea of where the samples are.

1 Go ahead. Go back. I'm sorry. I just wanted
2 to explain to you what BTEX is; benzene, toluene,
3 ethylbenzene, toluene, etyhlbenzene. And this should be
4 xylene. Sorry. I looked at toluene. That's what BTEX
5 is, and we did detect that. Those are the chlorinated
6 ethenes that we detected.
7 And the chlorinated ethenes, again, as you get
8 closest to the landfill the concentrations are high. For
9 this particular compounds it's all up this side here, and
10 this is Phase I. We didn't think we would even get
11 numbers out here, but we did. Even though the numbers
12 was low. We wanted to resample this number here at the
13 4, this .02 compared to right in here was 10,000
14 (indicating). So right off the landfill. And again this
15 is chlorinated ethanes.
16 Again. The concentration is here. Pretty
17 much -- well, it's not as bad as the chlorinated ethane.
18 But, again, this is a hundred. You get down here this
19 concentration is .76.
20 Phase I, vinyl chloride. This shows you heavy
21 concentration of vinyl chloride. This first line here
22 was at 18,000. Then it gets smaller, a thousand, a
23 hundred, 10. At these lines. And then by the time you
24 get here, which is closest to where the people are --
25 because the people are living here.

1 Let me just point this out. These are the
2 houses right here (indicating), they're drawn here. And
3 all of this is important. If you want to look at this
4 very closely these are the houses, and these are the
5 concentrations that we're finding. And if we find a
6 concentration of .21 we're not concerned about. We're
7 concerned about what's still going on out here, and these
8 are where the people are living.
9 So, again, I showed you all the east side. We
10 only took a few samplings. And we didn't expect to get
11 any hits out there. So once we got the hits we decided
12 we needed to characterize what's happening out there. We
13 want to find out how far is the gas moving. Because we
14 didn't look at that.
15 Oh, and the compounds that were detected in
16 soil gas -- I mean, the soil gas Phase II was carbon
17 disulfide, which was detected in one. Styrene that was
18 not detected in one. Dichlorobenzene,
19 1,2-dichloropropane. BTEX again. The chlorinated
20 ethanes, and ethenes. And the halogenated methanes;
21 chloroform and bromomethane. They weren't detected
22 before. Freon and ketone. Those weren't detected. This
23 is on the east side.
24 Again, we say all detected compounds appear to
25 be distributed with higher concentrations closer to the

landfill. As you moved away from the landfill the concentration dropped. It just dropped in all cases. The results were consistent with observations made from Phase I soil gas investigations. And the extent of the detected concentration had been delineated.

So we found out how far it was moving. A total of 49 samples was taken this time trying to find out how far east it was moving. Before we did 43 in the south area, now we did 49. And this, again, are the chemicals that we detected.

And I'm just breaking out, what is a halogenated methane is chemicals called chloromethane chloroform, chloromethane. We picked up ketone compounds. And the ketone compounds are things like acetone, 2-butanone, and 4-methyl-2-pentanone. And these are what are called ketones. And this just showing you what the name of chemicals are.

Now this is -- these little triangles are the sampling locations. These little black triangles -- these things here are the houses that exist on the east side of the landfill. This house, this house, this house this house. On Westwood Drive. Okay. And these are the samples.

So you can see we not only sample behind the house we sample in front of the house to try to

1 understand where that gas was moving. And this is what
2 we detected the BTEX compounds; benzene, toluene,
3 ethylbenzene and xylene. As you can see these are --
4 **MR. SCHONHOFF:** Where's the zero line?
5 Where's zero line? Is that the zero line?
6 **MRS. MASSENBURG:** This one is a no detect.
7 We didn't pick up anything.
8 **MR. SCHONHOFF:** That's important to know.
9 **MRS. MASSENBURG:** You see these are where
10 the houses are located. We didn't pick up anything for
11 BTEX.
12 **MR. SCHONHOFF:** You're not showing that.
13 What you're doing in that is gas that's in the soil
14 between two saturated water tables and the top of the
15 ground.
16 **MRS. MASSENBURG:** Yeah. This is in the
17 ground, this is not --
18 **MR. SCHONHOFF:** As soon as you get away
19 from the landfill --
20 **MRS. MASSENBURG:** Landfill is here
21 (indicating). The landfill is here. Again these are the
22 houses. And this is where we picked up no detection.
23 That's no detection. This is 10, a hundred, and a
24 thousand.
25 As you get closer to the landfill. That's

1 BTEX. These are the chlorinated ethanes. They moved a
2 little further in terms of houses. But, again, these are
3 no detects. All of these samples are where we didn't
4 pick up anything.
5 This line we picked up 10,000 of these
6 compounds. This line a thousand. A hundred. 10. And
7 then nothing. This last line is the nothing line.
8 Again, just a different compounds. No detect
9 (indicating). Nothing.
10 Now -- and that's a typo though -- we did
11 ground water. We're looking at ground water. We just
12 got through looking at soil gas. We did pick up the MCL
13 for 1,2-dichloropropane is 5 micro grams -- that's a
14 typo, not milligrams, but 5 micro grams. And that's the
15 level that EPA says, once you hit this number and above,
16 then you've exceeded the maximum concentration we allow
17 you was --
18 **MS. VAN LEEUWEN:** In a municipal water
19 system.
20 **MRS. MASSENBURG:** In a municipal water
21 system, not a private monitoring well.
22 So we picked that up in one house on Westwood
23 Drive. We sampled a whole a lot of houses, we picked
24 that up on Westwood Drive. And the risks associated with
25 that is 5 times 10 to the minus four, which exceeds the

one times 10 to the minus four. I mean 5.5 is greater than one. So that's that one compound that we found in that one house. And it exceeded our acceptable risk range.

That's what's driving this whole thing that's getting ready to happen, one house. You guys believe it or not. One house. Okay. Go ahead.

This is just to show you the ground water flow how the ground water is flowing underground. And --

MR. SCHONHOFF: Go ahead.

MRS. MASSENBURG: Well, basically --

MR. SCHONHOFF: You want me to do it. Go ahead.

MRS. MASSENBURG: Basically these are just ground water contours right here. But it's showing you the direction of the landfill the water that's flowing underneath the ground and. That was done, mind you, in September of 1995. This is what we -- and this table comes from, is from the USGS.

And this is what they proposed was happening to the ground water flow. That it was flowing in this direction here. Like that (indicating). These are just the contours. But it's -- you draw a line, a straight line in between.

So you see how you can live right here on

1 Westwood Drive -- oh mind you, and the landfill is right
2 here. Right down here. So you can live on Westwood
3 Drive, but the water does not come through the landfill
4 before it gets to you. It's only the people living
5 south, the area right here. Because the water is coming
6 like this (indicating). And then southeast right down in
7 here. But we have houses all over in here too.
8 So that's the importance of understanding the
9 ground water flow. That even though the ground water --
10 even though you're close to the landfill the water that's
11 coming to you may not go through the landfill first. And
12 that's very important to know. Again this is 1995.
13 This is recent, like 1998/2000. The lines look
14 different now. And basically what this map is showing,
15 this is the residences on Westwood (indicating). There's
16 Plainfield Drive right there. There is County Road 10
17 (indicating). And what we're proposing is this line
18 right here, is the red line that we were looking at
19 before. But we think there may be some mounding because
20 if they put soil here that it would change the way that
21 the ground water would flow. And still --
22 **MR. SCHONHOFF:** Seasonal runoff. Runoff
23 off the landfill, and the adjoining sites, and for very
24 short -- in effect, for a short period of time. A matter
25 of days and weeks can effect ground water flow locally.

It will normalize back out, but if you have a big storm event it can change your ground water flow for a short period of time and then tend to correct itself. So you have to --

MRS. MASSENBURG: Is that snow and rain?

MR. SCHONHOFF: Yeah. Things that can have a big bearing on ground water flow.

MRS. MASSENBURG: So I just wanted to show you the difference.

This is the other map. The blue line is what it looked like. The red line is now because they built up on the landfill. The blue line would show you if there wasn't any construction activity in terms of putting --

[redacted] My name is [redacted] With the -- with the rain and the snow changing the way that the water goes, the city is currently putting in a sewer line to the industrial park on John Weaver. And they were pumping water from the wells because they're hitting water before they put the sewer line. How is that going to the effect the water table and that east side?

MRS. MASSENBURG: That's a good observation. And it does effect the water. We didn't know about it because the City didn't come to us and ask

us could we put in sewer lines. They didn't tell us that. We just found out by reading through the papers. But I'm sure they looked into the -- all that. But it does effect the water.

[redacted] Can you guys put a stop to it right now so an investigation can be done?

MRS. MASSENBURG: I think the only sewer line that I know is being put over here.

[redacted] It's going right now. Highland and Plainfield. And they're getting ready to go across Plainfield.

MS. VAN LEEUWEN: On the gradient for a short period of time.

[redacted] Because I live there almost on the corner.

MR. SCHONHOFF: On the Parkway?

[redacted] Yeah.

MR. SCHONHOFF: Which side of road?

[redacted] East side.

MRS. MASSENBURG: Right over here?

[redacted] Far east side, yeah.

MR. SCHONHOFF: How deep is that line going?

UNIDENTIFIED SPEAKER: They're hitting water.

1 **MS. VAN LEEUWEN:** It probably will have an
2 impact for a short period of time, maybe not a long term.
3 **MR. SCHONHOFF:** You know, we need to find
4 out more about that.
5 **MRS. MASSENBURG:** We do need to find out
6 more.
7 [redacted] Niblock is the one that's doing
8 the work.
9 **MRS. MASSENBURG:** Who is doing that?
10 [redacted] Niblock.
11 **UNIDENTIFIED SPEAKER:** On County Road 5,
12 whatever you prefer to call it. It's within a hundred
13 yards of that. It runs up Highland. It crosses
14 Edwardsburg and into the airport.
15 **MR. SCHONHOFF:** Good point.
16 **MRS. MASSENBURG:** We'll definitely look
17 into it. Like I said, I didn't know about it. I thought
18 it was just a sewer line.
19 [redacted] They've been working on it some
20 time now.
21 **MRS. MASSENBURG:** It will impact the flow
22 of the ground water temporarily, there's no doubt about
23 that.
24 [redacted] They've driven people's wells
25 dry from the pumping already.

1 **MRS. MASSENBURG:** Would you --

2 [redacted] We know there's five wells

3 pumped drive from that.

4 **MRS. MASSENBURG:** Again, this was showing

5 you -- that was the shallow aquifer. That slide I showed

6 you was the shallow aquifer; anywhere from 20 to 45.

7 This is intermediate aquifer from 35 to 75 feet. This --

8 and this is showing the ground water flow. And again the

9 direction is -- the water is flowing in this direction.

10 So you can see that some of these houses are

11 not going to be impacted because the water is flowing

12 here. We're only concerned about the houses where the

13 water flowed through the landfill and then into the

14 houses. Those are the houses that we're concerned about.

15 And those are the houses that were sampled based on what

16 we know about the ground water flow.

17 Even though you're close to the landfill you're

18 not being impacted. Okay. The hazardous index for the

19 eastern residential ground water that we found, the

20 propane is 28.95, and that's why we're here today to do

21 something about it. And those chemicals we found;

22 arsenic, chromium, iron, manganese, thallium, and

23 benzene, and 1,2-dichloropropane was not exceeding our

24 standards that we're looking for. We only found that one

25 chemical.

1 Again this Phase II soil gas detects for these
2 compounds; chlorinated ethanes, halogenated methanes;
3 ketone compounds.
4 So we're at the phase now where we want to
5 recommend changes to the 1993 ROD. We want to do
6 something different to the 1993 ROD, and EPA proposes to
7 amend that 1993 ROD to modify that cap. That cap that
8 was going to be on the landfill, and to change the
9 composite designed, and to establish a contingency for
10 further ground water containment and remediation.
11 If, during the long term monitoring of the
12 ground water a hazardous constituent exceeds a trigger
13 number -- a trigger number is based on our standards --
14 we want you to know that a contingency remedy will be
15 implemented. This is what we're proposing to do.
16 I'm -- okay. I'm talking about triggers. And
17 all that basically -- EPA triggers will be based on the
18 multiple exposure; drinking, eating, drinking, skin
19 contact, showering, inhalation. All of that is what
20 we're going to take into consideration.
21 And here's an example. Dichloropropane, for
22 example, the suggested trigger for dichloropropane, a
23 carcinogen, could be 16 ppm.
24 **MS. VAN LEEUWEN:** Ppb.
25 **MRS. MASSENBURG:** Ppb. I'm sorry. That's

1 another typo. Parts per billion, not million.
2 If we find in our monitoring wells this being
3 exceeded, then we would have them do a -- either put more
4 people on water, or do something to that water as it
5 comes off the landfill. So we are looking at it as it
6 comes off the landfill. And we have a number -- and this
7 is just as an example.
8 For every chemical we'll look at, if we find
9 that laundry list of chemicals we're going to look at it,
10 because each one has a unique trigger number. They're
11 not all 16, but each has a unique trigger number. That's
12 just an example.
13 When we found in a that one residence his water
14 was 10. But we're still going to do something about it.
15 But it wasn't -- it's much lower than 16. Okay. And for
16 a noncarcinogens, the chemicals that does not cause
17 cancer, the trigger levels measured would be any value
18 greater than one again. So that's still that trigger for
19 that particular compound -- I mean, the carcinogens.
20 The rational for modifying that 1993 cap is as
21 follows; since the landfill waste is in contact with the
22 ground water the effectiveness of that 1993 cap is
23 minimized and therefore is not cost effective. The waste
24 and the water are in contact with each other. So if you
25 put something on an impermeable surface. It doesn't

matter because the waste and the water is in contact with each other. The 1993 cap will not remove the potential threats to the receptor because it's in contact with the water.

In this proposed plan that we're talking about, the receptor, which are the residents, will be connected to -- we're proposing to connect them to the local municipal water supply, and therefore the increased cost of the 1993 cap is not necessary. We'll get into that.

It's not all about cost. We just wanted to explain to you it's not going to make any difference if they were going to put the remedy in place in 1993. The people -- we found the contaminants over on the east side still would have had the contaminant. It might have taken 2009 to find it because it slows it down, but it's still moving because the waste is in contact with the water.

[redacted] Would it not help minimize future, or slow down the whole process and give it a chance to decay down.

MRS. MASSENBURG: That's what we're proposing to try to do. Okay. Because it's already in contact. And you'll see what we're proposing to do. The structure of that cap of 1993, to protect it, the integrity of it, would have increased the cost, or

1 prohibited the potential redevelopment of the site.
2 We don't want to put a fence up and leave that
3 landfill just like it is. We wanted to help the City of
4 Elkhart, or some other city, somebody might want to put
5 the land to productive use. That's what we're hoping,
6 but if we kept the same remedy in 1993 that would have
7 been impossible. There's no way we could reuse the land.
8 And we're also proposing that an extensive ground water
9 system would be implemented to insure the that -- the
10 residents are protected. And we want to monitor the
11 water. And you'll see that in the next slide.
12 The second thing I spoke about, and this is
13 what Mr. Hodgson is going to speak about, is that we, as
14 the EPA, has given the City of Elkhart a grant to try and
15 figure out how can we reuse the property. Because we
16 don't want the property to just put a fence around it --
17 back at a day 1995 and previous we would just put a fence
18 around the hazardous waste sites and walk away. But
19 today is a new day, and we're trying to reuse the sites.
20 And basically what this grant has been given to
21 the City. And you all would have a good impact on what's
22 going to be done. And he'll speak with you more about
23 that. We are hoping to reuse the property so it won't
24 just have a fence around it.
25 Now, what we're proposing to do to this

1 modified soil cover is we want to -- a modified soil
2 cover will be placed over the footprint of that 60-acre
3 landfill. So that circle that I drew around the landfill
4 is about 60-acres. We want to contour and grade the
5 existing cover, the land surface. Now, we want to put 30
6 inches of soil on top of the landfill.
7 Now, the reason for doing that 30 inches is we
8 know that at least 24 inches is impacted by your winter,
9 your freeze and your thaw, and basically what that does
10 to soil -- and I don't know if you notice, but I notice
11 in my own yard the freeze/thaw in my soil, I have all the
12 cracks in my topsoil. And you can see it. And it's just
13 a phenomena of the soil of having ice and water inside of
14 it. And when it thaws it sort of like lives the cracks
15 in there.
16 And we know in this area of Indiana you have a
17 24-inch layer that will be impacted by the freeze/thaw
18 phenomena. So we want to put 30 inches of soil so that
19 the last six inches will not get cracked from the
20 freezing and thawing. And that will keep the
21 permeability, or the ability for water to percolate.
22 It will get easier and easier in that first
23 24 inches over time. But that six inches will not be
24 effected. And we're asking that the six, that the 30
25 inches of the soil have this permeability constant.

1 This basically tells you how fast the water
2 will drip, or leach through the soil. So that's the
3 permeability constant. And it slows it down. And we're
4 asking that the soil that be placed on top of the
5 landfill have the permeability constant where it slows
6 the infiltration of the water down significantly.
7 We just don't want any soil on top of landfill,
8 we want soil on top of the landfill that will only allow
9 to seep through -- only so many centimeters that the
10 water will seep through. And that's basically what it
11 is. That's just the permeability constant, or the
12 specification that they will have to meet.
13 And, again, I just spoke about it. The bottom
14 six inches of soil will not be impacted by the 24, the
15 potential of the 24 inch freeze/thaw phenomena. And we
16 want to random fill existing waste that's kind of left
17 over from the previous ROD. And also we want to use
18 institutional controls on the landfill property to limit
19 the land reuse to industrial, recreational or commercial.
20 Basically that means that nobody can ever live
21 on the landfill. That's the control we'll put on the
22 landfill. We'll allow you to do some type of industrial,
23 put another industrial thing there, or recreational thing
24 there, or something commercial there, like a Wal-Mart
25 that's commercial. Industrial will be something useful.

1 Yes, sir.

2 [redacted] [redacted] If you're going to

3 build something back there, isn't that going to mess up

4 your layer of soil you've got going on there.

5 **MRS. MASSENBURG:** That's the reason why we

6 gave them the grant to make sure they have to consider

7 all of that before they build anything. All of that has

8 to be considered.

9 But, you're right. Some things, like, it can't

10 have a foundation, it has to be slab on grade. So you're

11 absolutely right. Some things will effect it. We'll not

12 allow -- the EPA will not ever walk away from the site.

13 We're not going to allow anyone to come in and put

14 anything on the landfill that's going to disturb the

15 remedy that we've selected and that's going to compromise

16 human health. We'll not allow that.

17 They will have to come through us to do

18 whatever they want to do. And you'll see some of the

19 control things we're going to put on the landfill will do

20 just that. The construction cover will be implemented to

21 avoid, minimize adverse affects on the wetlands. There

22 are wetlands that exist on the landfill, and we want the

23 final grading of the total cover to be a slope of no less

24 than 2%. After accounting for the anticipated

25 settlement.

So basically we're trying to slope it such so that when it rains it won't sit there it will runoff. And that's what the 2% grade is all about.

MR. SCHONHOFF: How you manage the water. Protect the erosion.

MRS. MASSENBURG: Yes, sir.

[redacted] You just made reference to settling. And if you build any structure on top of it, I was under the impression that any landfill would not have a structure be erected on it for X number of years. Is that true?

MR. SCHONHOFF: It's modified soil.

[redacted] Yeah. [redacted] This is a little bit atypical because of what was put in there. The landfill has calcium sulfate, which is still basically just a lot like gypsum, plaster of paris.

Over time it hardens into a rock type structure. So the problem with most landfills you have trash in there, it's constantly degrading. And as it degrades it settles and compacts. The gypsum is pretty much an organic material.

So now any structure will require extensive engineering studies of the subgrade to make sure it's going to hold up. We're not going to let them put a building up there that is going to start settling,

1 cracking, or basically failing over in a short period of
2 time.
3 So the remedy, or the ROD will allow for
4 proposals for redevelopment. But they will have to be
5 demonstrated that the redevelopment is consistent with
6 protection of human health and environment, and not
7 damage what's in place.
8 **MRS. MASSENBURG:** This is a new day and
9 we're trying to use the property as much as possible.
10 And I see your hand, I'll get to you.
11 And we're requiring any developer, or anybody
12 to do the study, or demonstrate to us, that's not going
13 to affect us. So we're not going to say anything could
14 go there, or anybody can do anything. You have to show
15 us, you have to demonstrate in writing that this is not
16 going to impact the remedy. And that's part of the
17 institutional control that will go on the landfill.
18 Yes, sir.
19 [redacted] [redacted] If I read
20 that correctly. The plan is to raise the ground level by
21 5 feet.
22 **MRS. MASSENBURG:** 30 feet. 30 inches.
23 [redacted] 30 inches?
24 **MRS. MASSENBURG:** 30 inches.
25 [redacted] 30 inches total?

1 **MRS. MASSENBURG:** Yes.

2 [redacted] In any case, it appears that

3 the rain runoff pattern would change considerably on 60

4 acres of water coming off here. Is this likely to impact

5 any of the residences? Would changes in the runoff --

6 [redacted] Once again, likely

7 structure --

8 [redacted] Are you going to flood the

9 roads?

10 [redacted] Any structure -- when we go to

11 design phase, storm water management is a critical

12 portion of design. So there will be surface water runoff

13 structures. There will be ditches, retention ponds the

14 water will be directed to. Just like putting in a

15 development.

16 [redacted] Retained on the property

17 then?

18 [redacted] Retained on the property.

19 **MR. SCHONHOFF:** Temporarily.

20 [redacted] Because it will be held back

21 and then released.

22 [redacted] Thank you.

23 [redacted] Because there is also local

24 drainage and zoning.

25 **MRS. MASSENBURG:** Yes, sir.

1 [redacted] Do you have somebody
2 wanting to develop this area now?
3 **MRS. MASSENBURG:** Not to my knowledge.
4 [redacted] Nobody's approached you
5 about doing it?
6 **MRS. MASSENBURG:** Back a long time ago
7 they did, and not recently. And somebody that's
8 approached me is for a golf course and they've not
9 approached us recently. And I don't know what's going to
10 happen. And that was under an old administration also,
11 and recently nobody has done it.
12 We're just going to give the grant to the City
13 so they can see if something can be done. You know, it
14 may not -- anything feasible may not be done, but there
15 are several things that can be done. You can put
16 basketball, for instance. Tennis court. These are just
17 throwing out things. Not saying this is going to happen.
18 Those would be considered recreational uses. And
19 Mr. Hodgson, who works in the environmental department
20 for the City, he's going to talk to you all briefly at
21 the end of my presentation -- which I'm desperately
22 trying to get to.
23 Okay. We also want to install active gas
24 collection system, which was also part of the original
25 remedy, but now we see closest to that landfill we really

need it to keep the concentrations. Because once you put the soil on top of the landfill the lines that you saw are going to move. So we need something to keep the lines from moving. And we're going to put a gas collection system in there to keep the lines from moving, migrating even further. Because the soil we put on top is going to force that gas to keep moving. So we're going to ask that they put in an active gas collection system, and if necessary a thermal oxidation process will flare -- with a flare stack will be constructed as required by the Indiana Administrative Code.

So there's a lot of rules and regulations that exist that you have to -- just like if you have wanted to build something on your house you have to get a permit. Well, these things don't go away, they're still here for us too. We have to make certain that things are met too.

But this -- we're going to ask that it be monitored quarterly, once every three months that we come out and take a sample every three months. All the monitoring wells, plus the wells that we ask that they put in the neighborhood, just to make sure that the people who are not being placed on the water are going to be still protected.

And keep in mind, we'll have monitoring wells on the landfill, and away from the landfill. So we're

1 trying to protect you guys, we really have are. And we
2 also want quarterly monitoring of the soil gas to make
3 sure that the gas collection system is working. Okay.
4 We want semiannually for the next four years.
5 So basically we're saying based on the -- based
6 on the results, if everything is under control and
7 everything, then we'll go to semiannually for the next
8 four years. And if everything is under control. If
9 everything is not under control in that first year then
10 we won't allow you to monitor semiannually, we'll keep
11 the quarterly manually going.
12 Periodic inspections of the landfill gas
13 collection system. And this is basically the things that
14 we want; a complete inspection of the landfill cover
15 system drainage structure, landfill gas collection
16 system, and ground water wells, landfill collection
17 probes will be conducted periodically during the post
18 closure period.
19 So we're going to be monitoring, as part of the
20 remedy, we're going to put the soil cover, but we're
21 still going to monitor -- just to protect the humans to
22 make sure nothing has changed, the periodic inspections
23 will be performed on a quarterly basis during the two
24 years after post closure. Depending on what we find
25 following this period periodic inspections will be

1 conducted on a semi annual basis.

2 But, keep in mind, during the first two years

3 if we find all the violations we're not going to stop

4 them from doing it quarterly. They have to get it right

5 for two years in a row with no problems whatsoever before

6 we move it into the semi annual.

7 [redacted] Who's that?

8 **MRS. MASSENBURG:** The people, r.p.

9 [redacted] The developer?

10 **MRS. MASSENBURG:** No, the responsible

11 party.

12 [redacted] Okay.

13 **MRS. MASSENBURG:** I'm sorry. I didn't

14 mean to use the pronouns. It's the responsible party

15 that we're asking to do this. All of these things the

16 remedy we're asking -- we're asking them also to perform

17 operation and maintenance of the vegetation soil cover

18 the soil gas collection and monitor the well network for

19 a minimum of 30 years. We're asking them to do that.

20 But the CDA, the construction debris area,

21 we're going to ask that they excavate that lead parcel

22 that exceeded the 400 level. We're going to ask that

23 they remove that soil and put in clean soil. And we'll

24 excavate that soil.

25 All of this will be worked out in details, but

1 we're trying to show you all of the problems we
2 identified. These are the remedies to the problems.
3 We're going to ask that they remove all the construction
4 debris area. The debris rubble. Because there was just
5 a lot of dumping of aluminum, washing machines,
6 everything in this construction debris area.
7 We're going to ask them to clean that up and
8 replace it with the soil. Because when you take out,
9 like, a refrigerator then it leaves this big gaping hole.
10 So we want them to cover the hole with clean soil. We
11 want to get rid of the rubble, the cement and everything
12 that's in the construction debris area.
13 Those people who got placed on the municipal
14 water on south of the landfill -- now, remember, when we
15 first placed those people on the water we placed them on
16 the water because of sodium. But then you saw all those
17 other compounds that we have detected in the water. And
18 we want those people who receive that municipal hook up
19 in the CDA area now to have their wells abandoned. Their
20 private wells abandoned.
21 And the reason is people say; we don't use the
22 water in the house. But we water our plants, and we feed
23 the horses, or whatever. But the problem is now we have
24 real contaminates in that water. We don't want you using
25 the water. Because what's going to happen is sometimes

1 people who wash the car -- and for me I just take the
2 water hose and drink the water. And we don't want that
3 happening.
4 Now, before it was only sodium that we were
5 concerned about. But there are a lot of other chemicals
6 we don't want you to be exposed to. So we want you to
7 cap out the wells. And once the private wells are capped
8 we're going to put a restriction that says you can't
9 dig -- you can't put any more wells in the area. And
10 that's to prohibit the future use of private wells and
11 future ground water use in that area.
12 Yes, sir.
13 [redacted] [redacted] Will, you
14 also disclose that the sale of the property is near a
15 dump?
16 **MRS. MASSENBURG:** No. That has not been
17 a -- the question was raised whether or not we would also
18 put a deed restriction on the property that it was
19 located on a dump.
20 **UNIDENTIFIED SPEAKER:** That's already on
21 my property.
22 **MRS. MASSENBURG:** I don't know who put it
23 there, we didn't.
24 **UNIDENTIFIED SPEAKER:** As a matter of
25 fact, I left several messages for Mr. Johnson. I spoke

1 with you on the telephone regarding this. This was a few
2 months back, as a matter of fact.
3 **MRS. MASSENBURG:** I don't know who put it
4 there, it wasn't us.
5 **UNIDENTIFIED SPEAKER:** Because --
6 **MRS. MASSENBURG:** Do you know who put it
7 there.
8 **UNIDENTIFIED SPEAKER:** No, I don't. We
9 went to get a -- we went to refinance our home, and part
10 of the reason for the denial was because it was a
11 Superfund site.
12 **MRS. MASSENBURG:** That -- that's weird. I
13 haven't heard anything of that. Larry? That's just
14 something that I unfortunately. I don't know. That's
15 something that the bank is telling you, because it's not
16 coming from us. We didn't put that there. I don't know
17 where it's coming from.
18 **UNIDENTIFIED SPEAKER:** So when we
19 purchased the house in '99 we were never told that that
20 was a dump site there, that there was any contamination
21 there. Never told nothing about it. And then when we
22 went to refinance just a year or so ago now we can't
23 because it's a Superfund site, and we can't sell it.
24 **MRS. MASSENBURG:** That's unfortunate.
25 Why -- that's out of our jurisdiction. We didn't do

that. We didn't do it.

UNIDENTIFIED SPEAKER: Who has the authority to do that?

MRS. MASSENBURG: I don't know. Anybody know who has the authority to do that?

UNIDENTIFIED SPEAKER: I've talked to Elkhart County Zoning. Nobody knows.

[redacted] If there was a deed put in place after -- the deed restriction placed on your property you would have to be given notice. I don't know what the situation is. But it may be that a bank, or financing institution has become aware of some, you know, proximity or something. Their own policy is preventing you from financing. I don't know, that's just a guess. But that --

MRS. MASSENBURG: It's not us that's doing it. It might be the bank.

UNIDENTIFIED SPEAKER: This is what we're running into all along. I mean, right now we're trying to sell our house.

MRS. MASSENBURG: I've been on County Road 10, and I've actually seen for sale signs.

UNIDENTIFIED SPEAKER: Right. Our realtor -- as a matter of fact, I didn't come to this meeting because we're trying to sell our house.

1 **MRS. MASSENBURG:** That might be something
2 that he's telling you. But unfortunately that's not
3 anything we done.
4 **UNIDENTIFIED SPEAKER:** How can I go about
5 finding out who did this, and how can I clear this up?
6 **MRS. MASSENBURG:** That's out of my
7 jurisdiction.
8 [redacted] You might end up --
9 **MRS. MASSENBURG:** He'll --
10 [redacted] I'll talk to you.
11 **MRS. MASSENBURG:** He'll talk to you later.
12 He'll talk to you. Because that's out -- like he said,
13 any deed restrictions that we put on your property you're
14 going to know about it. You're going to know that we did
15 it. Now, when you talk about things that somebody else
16 is doing and we have no control over that. But he'll try
17 to talk to you and give you a little bit more advice.
18 Also in the area southeast -- I mean, east of
19 the landfill we have identified 20 selected houses that
20 we want to be placed on municipal water, and we also went
21 a little bit further just to do it as, what we call, a
22 buffer zone. And what we're going to do is it's a total
23 of 35 residences in the east area. And we'll contact
24 those residents individually as to who we are asking to
25 be placed on municipal water.

We're also going to ask that they abandon the wells once they get the water. Again, this is based on that impact zone of the ground water flow and all that. And we're just adding a buffer zone. There's no need for us to place you on municipal water and then place the next row of people on municipal water. So we're going to go with the people who need the water, and an extra row. And then we're going to see -- like I said, we monitor people the next street over, and next street over. And we didn't pick up anything. And we're going to continue to monitor that.

But the people that's living closest to the landfill on Westwood Drive, we're going to ask that they be hooked up to municipal water. We're going to establish a long term ground watch, watching travel and monitor the wells to make sure that the people who are using the water wells will not be impacted by the landfill.

We're going to monitor the landfill wells as they exist. And we're going to continue to do the monitoring. And we just want to make sure that the triggers and everything has not been exceeded, or anything like that. But it should never extend past the buffer zone.

And you'll find in the next slide. If we find

1 a hit in the buffer zone, it can't be just one hit, we'll
2 ask over the 12 month period of time if they don't get
3 the concentration down then they'll have to extend water
4 to those people also, or they'll have to do something so
5 the water comes off the land. So we're going to continue
6 to monitor it.
7 We're going to put nested monitoring wells.
8 And all that nested monitoring wells are -- the problem I
9 told you initially that we had with the neighborhood was
10 we didn't know the screening depth of people's wells. So
11 by placing nested monitoring wells we'll know exactly
12 where the wells are screened. So we'll put in clusters,
13 or nests, like, three groups of wells one in the shallow
14 aquifer 25 to 33.
15 The other is testing the water from 35 feet to
16 75 feet or a hundred feet. And the other one will be
17 testing from a hundred feet to deeper. So that way we'll
18 know if we find contamination in those wells where it is.
19 But right now we don't know where it is in your
20 neighborhood because, one, they weren't collecting the --
21 keeping the records of well screens since 1996. You guys
22 have been living in that neighborhood forever, you know,
23 a long time. So we went to the DNR, the Department of
24 Natural Resources and try to get your wells, and they
25 didn't have a record of it. Only those that are newly

installed did they have a record of it, that's why we're putting in the wells where there's screen at so we know where the contaminates are existing.

We're going to, again, monitor the ground water. And that's basically asking that all ground water monitoring wells be monitored for a minimum of 10 years, quarterly for the first two years. And in the first two years that's like every three months we're going to ask them to come out and take a sample. They'll take a look at the sample for the first two years. If we never exceed our MCL then we'll evaluate and say can you come out every six months instead of every three months, and that type of thing for a minimum of 10 years.

And what we're hoping is since the concentrations that we found were not, only one exceeded the MCL there's a good possibility that the contaminate concentration is going down. And we want to monitor that. And that's called monitoring natural attenuation. Meaning that it's just going away through dilution, or whatever. Just not --

MR. SCHONHOFF: Breaking down.

MRS. MASSENBURG: It's just breaking down. Any time you leave waste on a site, which we'll be doing, we'll be putting the 30 inch soil cover on the landfill. We have to -- meaning EPA -- now have to do what we call

1 a 5 year review. Every 5 years we have to come out to
2 the site. We have to come out to the site. This is a
3 part that's separate from the quarterly monitoring of the
4 soil gas and the ground water monitoring. But the U.S.
5 EPA comes out to the site and inspects the site every 5
6 years, or actually up to five years. Because we can do
7 it any time but why can't allow 5 years to pass and not
8 do the inspection.
9 But basically what we do we call it 5 year
10 review process. But basically in three and a half years
11 I can come back and say; okay, let's see if what the
12 responsible party has done is working. And if it's
13 working the way that we say it's working -- but keep in
14 mind they will give us monthly reports of what they're
15 doing at the site. So this is us coming in. We'll say
16 let us do -- they'll continue to give us the monthly
17 reports and everything, and if we find something in the
18 monthly reports -- keep in minds also that doesn't taste
19 right for lack of a better choice of words -- we come out
20 and do things. But it's mandatory by law any time you
21 leave waste on a site, then we have to come back out and
22 inspect everything to make sure it's working the way it
23 should be working.
24 We're going to implement institutional controls
25 with deed restrictions. Now, these are the deed

1 restrictions we're going to put on the landfill. We're
2 going to say that we want to limit the future ground
3 water use; can't use that ground water on the landfill.
4 We want to prohibit the installation of new private
5 wells. This is the deed restriction.
6 We want to implement or prohibit the
7 installation of new private wells in the area of the
8 landfill. There's no need to put those wells in when we
9 know there's a potential that it can be impacted. This
10 is what we're going to do.
11 We're going to ask that no drilling or digging
12 be done on the landfill cover itself. So any reuse or
13 anything like that has to follow these rules. They have
14 to follow the rules. So whatever use we come up with,
15 and they follow these rules, that's what they're going to
16 be doing in that feasibility study.
17 We also want a perimeter fence around the site.
18 We want a containment fence. Because we know there's a
19 quasi fence now and people are just trespassing terrible,
20 and we want to prevent that. We want a real fence with
21 barb wire, and everything, around the landfill.
22 Okay. We talk about landfill redevelopment.
23 These are the limitations that we're going to put on any
24 developer. We want the developer to determine the
25 property suitability for a particular reuse. We want

1 them to have a future land use and feasibility study must
2 be completed and approved by the EPA or IDEM before they
3 can even do this, or for anybody that's responsible for
4 trying to redevelop it. They have to come before IDEM
5 and the U.S. EPA and convince us that this will not, one,
6 compromise human health and environment, or two
7 compromise what we've already done at the landfill.
8 And, for example, any anticipated building
9 constructed on the site will have to be evaluated to
10 determine what the soil gas interaction, or impact on any
11 structure on the landfill as well as displacement of the
12 contaminated soils and waste. So, in other words, we're
13 not just going to let anything be placed on the landfill.
14 We have the make sure, again, that the human health is
15 protected and the remedy that's placed, that that 30 inch
16 soil cover will not be compromised either and compromise
17 means effected to an adverse use.
18 Again, this is just a recap of what the 5 year
19 review period is going to do. We're going to look at the
20 ground water results to determine if any trends of
21 contaminant concentrations might exist. Basically what
22 it's going to say is since you're monitoring quarterly
23 every year, that's like three samples for every year,
24 we're going to look at that in 5 years. That would be 15
25 samples that would be taken. And see if we can develop a

1 trend and say first year they sampled, for instance,
2 acetone concentration was 10 -- I won't give it units,
3 just to make a point. Okay. The next year that's, six
4 more samples down the road, the concentration was eight.
5 And it looks like it's going down. Okay. Or it could
6 very well be the acetone concentration that year was 10
7 and the second year the concentration was 15, or -- and
8 the concentration may be going up. And these are the
9 trends that we're going to be looking for over that 5
10 year review period.
11 Each year we get the sample result we're not
12 talking about exceeding anything, we're just talking
13 about the trends. We also want to make sure that the
14 effectiveness of the source control measures to prevent
15 contaminate migration beyond the down grade boundary.
16 We're going to be monitoring that also.
17 We're going to see if we pick up a
18 concentration on the landfill, and that's it. And if we
19 pick up a concentration of the landfill, that's not the
20 residence area, but if you pass the landfill and it might
21 be 12 that's going to make us raise an eyebrow and say
22 that's a possibility that the people that are way down
23 the line could potentially be impacted. So we're going
24 to look at all that.
25 We may have to change things if after we look

1 at the 5 year review process and say things aren't
2 getting better we may have to do things differently. And
3 that's basically what the slide is doing.
4 And the next step, that's my last two slides,
5 basically what's going to happen next I'm just showing
6 you what we're proposing to do. We haven't done this,
7 this is what we're proposing to do. The next steps are
8 we'll accept your oral comments tonight, in terms of what
9 we've talked about in terms of what we're proposing to
10 do.
11 Through May 12th, 2003 -- you can either stay
12 today or go home and say; hum, I should have said this
13 about the remedy. You can write us. Write your comment
14 down and send it to us. And we'll respond to those
15 comments in our ROD. We have to respond to every comment
16 that's being given. Well also, like I said, it will say
17 that EPA will evaluate and respond to all comments
18 received. So you don't have to feel pressured to give me
19 a comment today, you have until May 12th to make all your
20 comments.
21 And those that fliers that you received in the
22 mail have your contact people, as Mr. Hill has already
23 said. So you can do that. And the clean up plan will be
24 described in detail in a ROD amendment.
25 So basically what's going to happen is while

1 you give me your comments I'm going to go back and write
2 my decision document, that's my ROD. It's going to be
3 amended because remember you have a 1993 ROD, so we have
4 to amend that ROD. And basically it's going to be
5 everything that you see here. But it's in very much
6 detail.
7 Then what's going to happen is we're going to
8 talk with the responsible party, and ask the responsible
9 party, or say to the responsible party that this is what
10 we think that you should do to remedy this landfill. And
11 that can take anywhere from three weeks to six months,
12 nine months. Depending on how well, what we call the
13 negotiation process, goes with them.
14 Because what we want to do is we want them to,
15 the responsible party, to do this work. In the event
16 that the work doesn't get done, and we can't find a
17 suitable agreement, then there's some legal things we can
18 do to try to move forward. We're always trying to move
19 forward, although it doesn't appear we're moving forward.
20 We try to always move forward.
21 And if everything goes well the responsible
22 party will design -- just what we talked about tonight.
23 They will design, like a prefinal designing. They will
24 show us about the monitoring plan. They will give us the
25 plan. We'll review the plan. And there's going to be a

1 lot of behind the scenes work going on. And then there
2 will be the implementation of the remedial action.
3 Yes, sir.
4 [redacted] Two questions. One, in one of
5 the sites that we went through on the internet pulling up
6 this to do some research on this for radioactive material
7 it showed up as listed, this site. Is there anything in
8 there to --
9 **MRS. MASSENBURG:** They showed it? I never
10 seen it.
11 [redacted] It's on the -- yeah. Also.
12 Number two --
13 **UNIDENTIFIED SPEAKER:** Radioactive
14 material.
15 [redacted] Number two question. Is that
16 there is still, under high water conditions, stuff oozing
17 up out of the ground back in that area.
18 **MRS. MASSENBURG:** Excuse me.
19 [redacted] There is still materials
20 oozing up out of the ground back in the area, from people
21 I've talked to that's walked it. Is that going to be
22 addressed and taken care of?
23 **MRS. MASSENBURG:** Yeah. I've never seen
24 that. I've never seen that. Have you walked the site?
25 **MR. SCHONHOFF:** I want to make one comment

about that if I may.

MRS. MASSENBURG: Would you speak up please. Yeah.

MR. SCHONHOFF: Phil Schonhoff. They put the calcium sulfate, which is like plaster of paris. I don't know what you know about acids and bases, it's on a the base side and tends to be caustic range. Water has a pH, it has a little lower pH. When they come into contact you can get some visible calcium sulphate will react with rain water because of the differences in pH.

So I'm not trying to discount, or discredit anything that you're saying, I'm just saying we were out today looking at it and there's a lot of this calcium sulfate laying around. So it could very well. I'm sorry --

[redacted] We've been back in that area. I'm on the fire department, and we've been back there from time-to-time when the marsh caught fire and have seen different color stuff.

MR. SCHONHOFF: Odd colored stuff?

[redacted] Yeah. And that's not --

MRS. FLISS: Ground water is high.

[redacted] Generally it's like a foam comes out. Like a bubble gum somewhat.

MR. SCHONHOFF: You have to be kind of

careful. There's a lot of iron. A lot of things that can color --

[redacted] But not green.

MR. SCHONHOFF: No, I would not say so.

MRS. MASSENBURG: I just want to say something for the general public again. Now, you guys live here. We don't live here. And what I'm saying is, when you find things happening like what you just said, call us. Because we'll respond to questions, you know situations like that.

But when we go out on the site, we don't see these things. And people who live here every day, who are out there, they see things. I would put some kind of stake down. Mark it.

MR. SCHONHOFF: Locate it.

MRS. MASSENBURG: So we can come back and come out and say; look, this is what I found. We have to follow-up on it. I may not come out, but we have people in the area who we call on scene coordinators who will come out and investigate whatever you identify.

And if you see stuff and don't say anything then it frustrates you when you come to the meeting and it sounds like we're not working with you when we really want to work with you. We want to work with you. But you are our eyes and our ears. We don't live in the

1 community, you live in the community. And anything you
2 identify to us we are obligated to follow-up on it. We
3 might not fix it, but we can send somebody out there to
4 look at that. We need you all to do that for us. So,
5 you know, smelling of water, call the fire department.
6 Call us. Let somebody know.
7 Because we don't want you to be affected by
8 things. And we just don't know. It's not that we're not
9 doing things, we don't know.
10 What he said about radiation, I've been working
11 on the site 5 years and never heard about it. So now I
12 have to go back home and investigate it. What is this
13 all about.
14 Yes, sir.
15 [redacted] [redacted] Has anybody
16 ever gone out with a Geiger counter, or radiation
17 detector?
18 **MRS. MASSENBURG:** Not since I've been on
19 the site.
20 [redacted] When I've been on the site I
21 found it.
22 **MRS. MASSENBURG:** Did you have a gamma --
23 what type of Geiger counter? Was it either beta or gamma
24 emitter?
25 [redacted] I don't know. I'm not

1 sure. Something that detects radiation. I know that
2 there is detection devices to detect it.
3 **MRS. MASSENBURG:** Right. Right. Okay.
4 And see, again, if you had done that, called us, marked
5 that spot where you got the Geiger counter to go off, or
6 whatever, we would have come back out and investigated
7 it. We would have come out with our instruments that
8 would have been either the beta emitters or the gamma
9 emitters, or that type of thing. So we need you all to
10 work with us.
11 [redacted] I didn't come out there to
12 find any, it came up on the internet.
13 **MRS. MASSENBURG:** Okay. I didn't know
14 about it. So I have to go back home and investigate who
15 wrote this. Because as far as we know this site is not
16 listed on the sites of radiation sites as far as we know.
17 So we have to go back now and investigate that.
18 Okay. My last slide. I already spoke about
19 that. So what we're going to do now, is quickly turn it
20 over to Mr. Hodgson who will tell you about the
21 redevelopment potential for the site. And then well
22 entertain any questions or anything that you have. Thank
23 you.
24 *(Recess taken; Recess concluded)*
25 **MR. HILL:** As you can probably tell we've

had a technological glitch here, and due to the -- due to the fact that we've left -- we brought experts, and everything, but -- and the computers with us, I think in the interest of time, and your time especially, all of those who have been so kind to bear with us for such a long time this evening, and in the interest of those who have prepared comments, or have formulated comments based on tonight's discussion and presentation, we'll move to the formal part of the meeting where you are allowed to make your comments for the record.

We'll take those comments, and then well move to any questions, and answers. And we'll be happy to entertain the question and answer period for as long as it takes. Again, in making the comments, would you please, for the benefit of our court reporter, again, state your name, and any spelling that would be helpful to him. As good as he may be he can't remember all the names of all of the individuals who have spoken so far.

So with that we'll move to the sector for public comment. I'll open the floor. And we'll, please, take one at a time. And if you have additional follow-up please wait until the rest of your fellow citizen's have made the comments. The floor is now --

[redacted]

1 **MR. HILL:** Christy, will you please stand?
2 [redacted] Will the houses that you
3 propose to be switched to City water and sewage, will
4 those be disclosed.
5 **MR. HILL:** Christy, excuse me this is the
6 comment period. If you have a comment, not a question.
7 If you intend to make a statement about anything that we
8 have said today please do so at this time. Would you
9 hold any questions until after the comment period. Okay.
10 Is that understood? John Hardy.
11 [redacted] I've spoken with several of
12 the residents on County Road 10, and one particular, one
13 Pat Rumsfield who said I could use her name, and I an
14 sure if you go through there the data --
15 **MR. HILL:** As a matter of fact,
16 Mrs. Rumsfield called me and asked me to make a statement
17 for her.
18 [redacted] And her basis on what she said
19 to me she said her feelings were cap it. Take the gas
20 out of it, put the big fence around it and let it sit.
21 **MR. HILL:** That's what she said to me. So
22 we'll duly note it that Pat Rumsfield has been entered
23 into the record which she desperately wanted.
24 [redacted] Yes.
25 **MR. HILL:** And for the record, Mrs.

1 Rumsfield has indicated that she has a lengthy history
2 near the site, and we might also make that known.
3 [redacted] She was a primary
4 investigator -- litigant on the whole thing.
5 **MR. HILL:** And one of the litigants, yes.
6 **MR. HULEWICZ:** John Hulewicz I'm with the
7 Elkhart County Health Department. Last name
8 H-u-l-e-w-i-c-z. I have a number of comments, and in the
9 interest of brevity I'll only touch base on two.
10 Historically EPA and IDEM have moved to make
11 every effort to minimize exposure risks in these types of
12 situations. One of the things that has been lacking in
13 these situations is the potential for the responsible
14 party to give an opportunity to the residents in the area
15 to have some medical expertise given in two different
16 types of quorums.
17 And what I am suggesting is the potential that
18 the public be allowed to ask questions in an environment
19 where there might be an epidemiologist, toxicologist,
20 other medical practitioners that are qualified to answer
21 questions regarding the types of chemicals that
22 individuals may have been exposed to in this setting, and
23 that they receive answers to their questions from these
24 medical practitioners.
25 Secondly, we know that often times exposure

1 manifests problems in an individual 5, 10, 20 years down
2 the road. In order to be able to determine what this
3 exposure may have caused in that time frame, the medical
4 practitioners have to have some type of understanding.
5 The second forum would be one where individuals
6 who are practicing medicine in this area would have an
7 opportunity to meet, maybe to ground with some of these
8 experts to have a better understanding of what the total
9 exposure risks were, and what they might look for in
10 longer periods other than the short acute exposure
11 timeframes.
12 The second item that I have concern with is an
13 extension of water surfaces from the municipalities to
14 these residents, and the costs involved to the residents.
15 Historically areas that have not been annexed into the
16 City of Elkhart pay a different rate for services.
17 If the rate of service is higher than what it
18 is to City residences, there seems to be an inequity
19 there since the extension of those water mains will not
20 be a cost to the City, but actually a benefit to the City
21 in the long run if there are future plans of annexation
22 in those areas. So I would ask that the EPA, and the
23 responsible party have discussions with the City to look
24 at what the costs are of water service to those
25 residences, and making certain that they are equitable

1 and not exorbitant.

2 **MR. HILL:** Thank you John. As you know,

3 this was for comment, but we would like to invite you to

4 make a written supplemental comment if you choose to do

5 so.

6 Yes, sir.

7 **MR. OSLAN:** My name is Reed Oslan. And

8 it's O-s-l-a-n. I'm a lawyer from Chicago. And I've

9 been working with the Bayer and Miles people since 1989.

10 This -- this sight is probably one of the oldest

11 Superfund sites that I'm aware of. And like many of you

12 have asked the same question that we at Bayer have asked,

13 which is why is this taking so long.

14 I think that what you heard a little bit of

15 today suggests that what's taking so long here is that

16 despite all the talk about 10 to the minus 4, and these

17 big numbers about chemicals and so forth, EPA has never

18 really found a risk at this site. Back in the early 90's

19 when they made their proposal for the first remedies.

20 Bayer hired some of the best environmental consultants

21 around because Bayer was concerned about Elkhart. Bayer

22 is concerned about the people of Elkhart.

23 So we hired some of the best people around to

24 say how could it possibly be that -- not possibly be that

25 this site after all of these years, with all the calcium

1 sulphate in it -- which is not a hazardous chemical --
2 how could it have the risk that EPA says. We submitted
3 the comments to EPA like they're asking us to do again
4 today.
5 And what did EPA concluded after years and
6 years of monitoring the site, they concluded that, in
7 fact, we were right, that there was no risk as they told
8 you there was back in 1990, '91, '92 and '93. The great
9 news was EPA was wrong.
10 Now, the problem with them being wrong is that
11 they now scared the Hell out of everybody in Elkhart into
12 thinking, as some of you did today, that this is one of
13 these horrible environmental sites that we see reported
14 on television. It isn't.
15 So all this time that you've been concerned
16 about the site, as we have, from Bayer, all this time has
17 gone by because EPA first said it's a real bad site. We
18 told them, we don't think you're correct. They've now
19 agreed, what, 10 years later that we were right. And
20 they're now trying again to embark on a clean up that we
21 think frankly isn't any different than the last one 10
22 years ago.
23 What EPA didn't report to you today is all of
24 the facts regarding this site. They've conducted
25 thousand, thousands, of analyses, thousands. And maybe

1 out of those thousands of analyses guess how many hits
2 they have that are of concern, six, 12. Some immensely
3 small number.
4 So what EPA has done, in our view -- and we
5 support Elkhart, and we'll support Elkhart, and to make
6 sure that whatever is suppose to be done, the right thing
7 that needs to be done is done -- but what EPA has done in
8 our view is highly arbitrary and irresponsible. They
9 reached conclusions over the years. They reached these
10 conclusions that were wrong. They took all these samples
11 that showed nothing. No contamination, no problem. They
12 ignored those. And they've now, again, found a handful
13 of samples, and maybe 12, maybe 15, out of thousands and
14 thousands.
15 And what do they want to do. They want to
16 clean up the whole area. Now, we don't want anybody to
17 be concerned about their health. We never did. And
18 while Bayer is one of the hundreds of companies that has
19 used this landfill we all know that Bayer has had a
20 significant presence in Elkhart. We all know that Bayer
21 is here to support the effort to make sure that you're
22 comfortable about where you live.
23 Now, these years ago after the east side issue
24 came up the RP's, which included Bayer, discussed with
25 EPA -- and I think IDEM, I can't remember about that --

1 hooking up the east siders to city water not because
2 there is any environmental reason to do it. Miss
3 Massenburg here didn't say that any of you were at -- if
4 any of you thought you were at risk, some environmental
5 risk, then they have an obligation to go out that day and
6 clean up.
7 Now, here we are -- I started working on this
8 site right out of law school in 1989. We're now 14 years
9 later and nothing really has happened to the site other
10 than a lot of investigations, a lot of investigations,
11 which are, in our view, have left us not very far at all.
12 So Bayer's view is we continue to support the
13 effort. We think that EPA should find some reasonable
14 resolution for the City of Elkhart. But for them to
15 suggest, as they are again, that there is some enormous
16 risk out there is just wrong. For you to go home tonight
17 being scared to death is, again, arbitrary and
18 irresponsible of EPA, to not be telling you that there
19 are problems of this great magnitude in Elkhart. From
20 this site. Because we don't think that they're there.
21 And I don't think that EPA thinks so.
22 Now, we're going to submit written comments to
23 EPA. We've been working with them for years and years
24 and years. And you can imagine the amount of money that
25 Bayer has already spent trying to help EPA get this job

1 done in a way where you can use the site again for a golf
2 course, or tennis courts, or whatever it is. We want it
3 done.
4 But for them to suggest, again, after conceding
5 that there was no problem, when they said there was back
6 in 1993, they're now again saying the same thing again
7 that there's some big problem, and there isn't. So we're
8 going to continue to work with them. We're going to
9 support Elkhart.
10 We think that what they've proposed once again,
11 does not meet their standards. They've ignored all kinds
12 of data which confirms, according to our experts, that
13 this is not a site where you would spend 10, 20, 30,
14 40-million dollars of anybody's money to clean up. It's
15 just irresponsible.
16 And let me say the last point, if EPA thought
17 there was a problem here they'd have to spend government
18 money to clean it up. So when they talk about
19 responsible party, or parties it's really irrelevant.
20 Somebody is going to have to clean up an environmental
21 problem, if there is a true environmental problem. And I
22 submit to all of you that the reason the government has
23 never done that here is because they never found data
24 supporting the conclusion that you have a big problem at
25 this site.

1 So we'll do our best to continue to work with
2 them. We don't think they're going down the right path,
3 just like they didn't back in 1993. But my client Bayer,
4 who's had me on the payroll all these years contacting
5 Mr. Johnson, contacting Miss Massenburg and her
6 predecessors, I've been here the whole time. We've had
7 experts that have followed the data. We want to make
8 sure the right thing is done. And what they've proposed
9 is not the right thing. It's arbitrary. But we're going
10 to keep working with them anyway.
11 **UNIDENTIFIED SPEAKER:** I have one question
12 for you. Where did you say you were from? Where do you
13 live?
14 **MR. OSLAN:** I live in Chicago.
15 **UNIDENTIFIED SPEAKER:** That's what I
16 thought. Okay.
17 **MR. OSLAN:** But I am in Indiana.
18 **UNIDENTIFIED SPEAKER:** Yeah.
19 **MR. HILL:** Thank you counselor.
20 Additional comments for the record? Yes,
21 ma'am.
22 [redacted] My name is (inaudible) [redacted]
23 And I live near it. And you're saying all these people
24 had all their companies, have all their stuff there, and
25 you say that Bayer, was Miles, this wonderful company

that's doing so much for Elkhart. Three-fourths of the stuff back there is your garbage.

And the people that have built these homes and have lived there -- when they built there in this nice clean air, nice clean water. Don't sit there and tell me that your company isn't a majority factor in what is smelling, and everything else. You have really upset me.

MR. HILL: Additional comments. Sir.

[redacted] My name is [redacted] And I live on [redacted] just east of [redacted] [redacted] [redacted] I'm a business owner. And my home is right there which I purchased in 2001. So I have not put up with most of what you have right there. But my comment maybe supports his position, is what I have heard tonight, is there's not a lot of problems.

You suggested a fix. I, in my own mind, have pictured that as a beautiful corner. I was there when the dump was done. But it's nice. It has it's trees and things like that. And my only observation is if we have it fixed -- I agree that, that would be great, let's get it done.

But if that solves the problem why are we going to put a fence around 60-acres and make it look like a prison. That there describes it worse. So that's my recommendation. If it's fixed, there's no problem, don't

1 put a fence there. How could a developer but a
2 recreational or commercial or property there and be
3 inside the fence. There would be nobody that would visit
4 that site. So please reconsider that solution.
5 **MR. HILL:** Additional comments please.
6 Yes, sir.
7 [redacted]: Yeah. May name is Mike
8 Stoner. And I live near the site for six or eight years.
9 And some of the smells that came from that area were
10 really obnoxious. My water was tested by both the EPA,
11 and the Elkhart health community. And my water was
12 deemed to be okay. I've had to filter my water, soften
13 my water to make it usable.
14 In the meeting tonight there was mention of 71
15 barrels of toluene found on the property. That would, in
16 my estimation, that is a considerable pollutant for
17 ground water contamination. And if there's more of that
18 in that site, in my opinion, that needs to be taken away.
19 We can't -- we can't just cover up something
20 like that, that has already been found to have been
21 there. Just cover it up, and expect to just let time --
22 time go by and those chemicals to just go away. I think
23 there probably should be some more investigation into
24 what could be there that could be taken out, that could
25 be cleaned up before it's capped, and left as is, left

alone.

MR. HILL: Thank you sir. Additional comments? I'm like an auctioneer here. We're going once. We're going to 10:00 o'clock for that portion of it, and we'll just go right to the questions now.

We'll -- for the -- you may direct your questions specifically, if you wish, to an individual. Otherwise, we'll just ask the most -- the person with the most -- who feels the most qualified to address the issue to answer the question. So we'll start, again, with --

[redacted]: I stated my name earlier. I was wondering if you could disclose the houses, the addresses that you propose to be city water and sewage, or city water only. Whatever you're planning to do.

MRS. MASSENBURG: The houses that we're proposing to do have mostly to do with the houses located on Westwood Drive.

[redacted]: Could you pull the map up and show me those houses. I am located on Westwood Drive.

MRS. MASSENBURG: Both sides of the Westwood Drive.

UNIDENTIFIED SPEAKER: Both sides of the street?

MRS. MASSENBURG: Except -- you know where

the bend is?

[redacted]: Right.

MRS. MASSENBURG: And you know where Northwood is and Westwood, where the bend is. Right?

[redacted]: Right.

MRS. MASSENBURG: On Westwood nothing past Northwood. East of that. But Westwood and Northwood over to the -- closer to the landfill. Does that help you?

UNIDENTIFIED SPEAKER: Where? Northwood?

MRS. MASSENBURG: Westwood and South Northwood, not North Northwood. Because, you know, the ground water is moving south. So we're looking at Northwood -- okay. Westwood -- both sides. Then you get to the bend, and up to Northwood on the Westwood side. And there's about six houses on Northwood, south Northwood, three houses this way. And three houses that way.

I have a map here. Just to give you an idea. This is -- these are houses on Westwood, and this is the bend that I'm talking about. All these houses on Westwood up to Northwood. Not these houses over here. On Westwood. These few houses down here.

Can everybody see this. These are the houses on Westwood that -- and the landfill is right here. So

we're on both sides of Westwood all the way down including, all the way down to Northwood.

UNIDENTIFIED SPEAKER: From Plainfield?

MRS. MASSENBURG: From Plainfield.

UNIDENTIFIED SPEAKER: Have you tested all the wells in that area?

MRS. MASSENBURG: We've tested the wells that you allowed us to test.

[redacted]: No, you never come to my house and said we're the EPA.

MRS. MASSENBURG: Where do you live sir?

UNIDENTIFIED SPEAKER: I live on Westwood.

MRS. MASSENBURG: Where?

[redacted] Right -- this street.

MRS. MASSENBURG: Right here.

[redacted]: Yes.

MRS. MASSENBURG: Remember this is north of the landfill.

[redacted]: That's on Westwood. And you're saying you want to hook the whole street up.

MRS. MASSENBURG: The reason why we want to do that, is because on Nappanee Street there's already a water line there, you cannot get your water hooked up. And if you don't want to we'll say that you're doing it at your own risk. But you're in the buffer zone.

1 I talked about the buffer zone. We didn't find
2 any defects or anything. But we thought since we're
3 running this line here why not hook everybody up here.
4 We didn't test your water here at Plainfield because the
5 ground water flows this way. We started right here
6 because we thought the ground water flow would impact the
7 houses. We didn't find anything in their water. So we
8 didn't think about north of there. But we're going to go
9 ahead and do the whole Westwood because we're going to
10 put the line there.
11 **UNIDENTIFIED SPEAKER:** Who pays for all
12 the hook up?
13 **MRS. MASSENBURG:** We hope Bayer pays for
14 it. But as you see, Bayer doesn't -- we hope Bayer pays
15 for it, but as they say nothing is happening here the
16 operative word is there's no "big" problem. You heard
17 that.
18 **UNIDENTIFIED SPEAKER:** Who's going to pay
19 for the water bills?
20 **MRS. MASSENBURG:** We're hoping to ask
21 Bayer to give you -- to pay for a year of your water
22 bill, and after the year it's up to you.
23 **UNIDENTIFIED SPEAKER:** What does the water
24 bill run?
25 **MRS. MASSENBURG:** I'm not really sure, but

we'll find all of that out in the design phase. I also know that there's a levy placed on people who are not in the City that has water that will be extra. We've worked with the City, and the City says that they will not charge you extra because you're not in the City.

But we're hoping that Bayer will do all of this work. But you see, we have our hands full, and we need your support. Because they're saying no big problem is existing out is there. You all live there. You know different. So --

[redacted] For residents who have not had the opportunity to have their water tested maybe have -- will you come out and do that. You say you've been house to house, but we've never had a representative come to our home and ask for that, and I desire to have that done.

MRS. MASSENBURG: Either you weren't home that day. But we did try to get every house.

[redacted] But I want the same opportunity as everyone else.

MRS. MASSENBURG: And the reason why -- I'll just tell you, we don't plan to do that. Because it's not going to give us any more information, because we don't -- do you know where your well is screened?

UNIDENTIFIED SPEAKER: I've got a new well

1 in. I've got the paperwork with me.

2 **MRS. MASSENBURG:** Yeah. I think we met

3 you.

4 [redacted]: You're asking us to switch

5 to city water, then, as individual homes then I would

6 feel more comfortable if I knew my water was yea or nay,

7 it's either contaminated or not. And that would be

8 helpful to making a decision as to whether or not we want

9 to participate in the hook up.

10 **MRS. MASSENBURG:** The problems that exist

11 with that is we can sample your water, and your water can

12 come up negative, but it's only because where you have

13 your water screened.

14 [redacted] But if you come to my

15 house --

16 **MRS. MASSENBURG:** That's what I'm talking

17 about.

18 [redacted]: That's what I'm saying. If

19 you come to my house and test my water and I didn't have

20 that opportunity I want that opportunity now. If you

21 offered it before why can't you offer it to me now?

22 **MS. VAN LEEUWEN:** We really feel that we

23 need to test on a more repetitive basis because the water

24 table does go up and down slightly, and that shouldn't

25 change the contaminants, but it could influence the

1 contaminate levels slightly. So we would have to be
2 doing repeat measurements in each person's individual
3 private well, over time, before we determine whether
4 those wells were safe.
5 And rather than wait to find that, that now
6 you've got a hit, and then we have to go back and make
7 arrangements, it is more effective to hook up those
8 people who have a potential.
9 **UNIDENTIFIED SPEAKER:** So what you're
10 saying is the north end of Westwood you've not had a hit.
11 **MRS. MASSENBURG:** Right. Beginning about
12 where Reverend -- what's his name?
13 [redacted]: Hendricks.
14 **MRS. MASSENBURG:** From his house. He
15 wouldn't allow us to test his water, but we went to the
16 house next door to him. There wasn't any hit. We tested
17 the house second --
18 [redacted]: That's my neighbor right
19 across the street.
20 **MRS. MASSENBURG:** I can't remember the
21 lady's name.
22 [redacted]: Hibaugh. Carol Hibaugh.
23 **MRS. MASSENBURG:** Yeah. Hibaugh --
24 B-a-u-g-h. And we didn't find anything. North of here
25 we have a monitoring well coming from the landfill.

1 [redacted]: I know where that's at.

2 **MRS. MASSENBURG:** So we didn't find

3 anything in the monitoring well either. And that's why

4 we weren't so concerned about these houses.

5 But if you're going to lay a line down here, we

6 thought we were doing you a favor by hooking you up to

7 the water while the line is being laid. And we also --

8 these people over here, we tested Mr. -- what's his name.

9 At the corner of Westwood, and what's the name. Roberts?

10 **MRS. FLISS:** Yeah.

11 **MRS. MASSENBURG:** We tested his house way

12 over here from the landfill. We picked up nothing. So

13 we decided that we know that these people right here,

14 from Miss Ellis' house down, because she didn't have any

15 contaminates either. We knew that there were

16 contaminants in that water. We know that the ground

17 water flow is doing this.

18 **UNIDENTIFIED SPEAKER:** They're getting

19 hits.

20 **MRS. MASSENBURG:** They're getting hits.

21 **UNIDENTIFIED SPEAKER:** Are they doing

22 anything? Can they drink this water?

23 **MRS. MASSENBURG:** They were on the bottled

24 water.

25 **UNIDENTIFIED SPEAKER:** No. They did not

1 offer --

2 **MRS. FLISS:** I'm sorry.

3 **UNIDENTIFIED SPEAKER:** We're right.

4 **MRS. FLISS:** Can I have that please?

5 **UNIDENTIFIED SPEAKER:** And they never

6 offered us bottled water.

7 **MRS. FLISS:** That was about three years

8 ago we tested the water. There was only one at this

9 time. My name is Jessica Fliss I'm with the Department

10 of Environmental Management. Some of you might remember

11 we came and spoke with you once we got the results back.

12 **UNIDENTIFIED SPEAKER:** You never went to

13 my house, but go ahead.

14 **MRS. FLISS:** Because you weren't tested.

15 We went to the people's whose houses were tested, and the

16 U.S. EPA has levels for ground water. This is removal

17 action. And for them to be able to legally provide you

18 an alternate water supply to those wells that you had

19 tested had to be above that limit.

20 **UNIDENTIFIED SPEAKER:** Uh huh.

21 **MRS. FLISS:** IDEM does not have that kind

22 of restriction. Now, the wells that we tested, except

23 with one exception, were either below MCL's or there were

24 things there that should not be there, but they were not

25 above the levels that would be allowed in the municipal

1 water supply, which is what we feel would be a good
2 comparison, you know, the people who have the water
3 restrictions. You know, maybe you can --
4 The people at IDEM felt because we didn't have
5 the same restrictions that EPA did have, that until we
6 knew what was going on -- because we did this after the
7 first round -- that we would offer residents bottled
8 water to make them feel more comfortable until we had a
9 better idea of what was happening.
10 Now, when we actually went out and talked to a
11 lot of people, they said; hey, I'm already on bottled
12 water, thanks, but no thanks, we appreciate, you know,
13 the effort. We appreciate you asking, but we're already
14 drinking bottled water. And we said; okay, fine.
15 We asked the people whose wells we tested, and
16 the people across the street, and next door to the wells
17 we tested who had hits. And I have now seven people who
18 are drinking bottled water, even after we found that
19 maybe it wasn't necessary to have it right now.
20 We needed to do something in the future. I
21 didn't feel it was necessary to remove the bottled water
22 program. It's not a very honorous thing for me to do, I
23 just, you know, add people to the list.
24 **UNIDENTIFIED SPEAKER:** You're with the
25 County, right?

1 **MRS. FLISS:** I'm with the State.

2 **UNIDENTIFIED SPEAKER:** With the State.

3 **UNIDENTIFIED SPEAKER:** But you didn't

4 offer that bottled water to everybody.

5 **MRS. FLISS:** Only to the people's houses

6 we tested who had hits in their wells, that we're still

7 below MCL's. And even the house that was above MCL's and

8 the people across the street whose wells we did not test,

9 because it's going this direction (indicating). So I

10 asked these people right here across the street because

11 we weren't really sure how far this went.

12 And then when we got a better handle on, you

13 know, what was going on, we didn't feel the need to

14 spread out in this direction.

15 **UNIDENTIFIED SPEAKER:** See right here.

16 There.

17 **MRS. FLISS:** Where?

18 **UNIDENTIFIED SPEAKER:** I'm right at the

19 end of Highland or Midland, and you never asked me for

20 bottled water.

21 **MRS. MASSENBURG:** Who's that?

22 **UNIDENTIFIED SPEAKER:** [redacted]

23 [redacted]: [redacted]

24 **MRS. FLISS:** I believe I did. Do you

25 remember us coming and talking to you?

1 [redacted] Yeah.

2 [redacted] You said we were high on

3 sodium.

4 [redacted] Which is what you said, and

5 you never offered bottled.

6 **MRS. FLISS:** I offered bottled water to

7 all the names and phone numbers I've written down.

8 [redacted] I beg to differ, unless you

9 have it written down where I said no.

10 **MRS. FLISS:** I didn't force everyone to

11 sign a denial form saying no we don't want bottled water

12 because we weren't forcing you to take it.

13 [redacted] I understand that.

14 **MRS. FLISS:** I was offering it as a

15 comfort.

16 [redacted] If it was offered I may have

17 took it. I'm just telling you it wasn't offered.

18 **MRS. FLISS:** I'm sorry, I don't have it

19 written down. But I do have a lot of other ones written

20 down who said; no, I don't want it because we're already

21 drinking bottled water. I can only offer my assurance.

22 [redacted] You say you did, but I'm

23 saying you didn't. I'm the one that's not drinking

24 bottled water.

25 [redacted] And he's coming down with

1 the problem.

2 **MRS. MASSENBURG:** What's the address?

3 [redacted] 54231 Westwood Drive.

4 **MRS. FLISS:** I think I have a nondetect on

5 yours.

6 **MRS. MASSENBURG:** Can you read --

7 [redacted] You said the ones next to

8 the ones that were detected you offered them bottled

9 water.

10 **MRS. MASSENBURG:** For what?

11 **MRS. FLISS:** 231.

12 **MRS. MASSENBURG:** He's not on the list,

13 it's a nondetect.

14 **MRS. FLISS:** You're not even on the -- oh,

15 54231, you are on the sodium list, I'm sorry. We were

16 doing that for people who had volatile organic chemicals

17 and carcinogenic.

18 [redacted] That's not what you said.

19 You said you offered all the people bottled water and you

20 didn't offer me that, that's what I'm getting at.

21 **MRS. FLISS:** I apologize. I had your name

22 written down, and phone number, and everything to me that

23 signified that I asked. But apparently I didn't, I'm

24 sorry.

25 [redacted] [redacted] So they should be offered

1 it now.

2 **MRS. FLISS:** I suppose I could add you to

3 the list.

4 [redacted] Why don't you do that?

5 [redacted] His damage is already done.

6 **MRS. MASSENBURG:** What we only detected in

7 your water was salt.

8 [redacted] Salt. Blood pressure.

9 Blood pressure, heart problems.

10 **MS. VAN LEEUWEN:** 54231 has 85 micrograms

11 per liter of sodium, and --

12 **MRS. MASSENBURG:** Right. But I don't

13 know -- I didn't offer you the water, or not offer you

14 the water. But I was just asking you if you have

15 hypertension, or anything.

16 [redacted] Yeah, I do.

17 [redacted] And my kids who are 27 and

18 30 they have thyroid problems now, and they have high

19 blood pressure at their age. And we've lived there 27

20 years. And now we're having medical problems. What do

21 you do now?

22 **MRS. MASSENBURG:** She's going to add you

23 to the bottled water list.

24 **MRS. FLISS:** If you want me to add you to

25 the bottled water list. I apologize, I wasn't --

1 **MRS. MASSENBURG:** We don't live near
2 landfills, that's the problem of what's correlating in
3 your area. Like I said before, there's people who get
4 the same symptoms, and everything -- I'm not trying to
5 cut you short, or anything like that, that get the same
6 symptoms that you all are experiencing, that don't live
7 near hazardous waste sites. And it's difficult for us to
8 say this is the reason why you're getting it.
9 What I would suggest to people is that you talk
10 to your doctor, and have them document those kinds of
11 things. Because, as you know, paper trail, or paper,
12 anything written is worth a lot when you're dealing with
13 the Federal government, any kind of governmental agency,
14 or anything like that, if you find yourself having
15 problems.
16 And unfortunately I wish I was here in '92
17 because I would have told you these things. You know,
18 talk to your doctor and tell him you live next to a
19 landfill and ask him if there's any way there's a
20 correlation so we can have some kind of documentation, or
21 something like that. And I'm not saying that the
22 problems you are -- that you're experiencing does not
23 come from the landfill. I'm just saying that the reason
24 why it makes it's difficult for us, as a risk assessor,
25 is because these same problems that you're experiencing

1 happen to people who are not living near a landfill.
2 [redacted] Yeah n,we understand that.
3 **MRS. MASSENBURG:** And it makes it
4 difficult.
5 **UNIDENTIFIED SPEAKER:** Now, this man that
6 has -- how do we get checking everyone out?
7 **MS. VAN LEEUWEN:** Anyone who has any
8 questions about any of the chemicals that are in the
9 landfill, or any of the health effects from those
10 chemicals, if you'll write down either my telephone
11 number, or my e-mail address, I will answer any questions
12 that you have.
13 **MR. RANDALL:** Okay.
14 **MS. VAN LEEUWEN:** About any of the
15 questions that you heard about.
16 [redacted] Thank you.
17 **UNIDENTIFIED SPEAKER:** How long have you
18 guys decided you were going to do this?
19 **MRS. MASSENBURG:** Unfortunately with the
20 government it's a process, and we stopped our sampling in
21 2000. Okay.
22 **UNIDENTIFIED SPEAKER:** Then when did you
23 actually decide; hey, we're going to run City water down
24 to these people.
25 **MRS. MASSENBURG:** We were going to

1 consider that all along, but we have to document
2 everything we do.
3 **UNIDENTIFIED SPEAKER:** You've been
4 considering it?
5 **MRS. MASSENBURG:** It took us two years to
6 write the report, this report that I'm telling you about.
7 What I did, myself, was I made my contractor compile all
8 the data that was collected since 1995 because there was
9 a piece here, a piece there, and it was so difficult for
10 anybody to go to the library and find out what's going
11 on.
12 Because what was happening was they say refer
13 to document X, Y, and refer to this document, and refer
14 to that document. So what I decided to do, which I
15 thought was being helpful, was have everything combined
16 in one document so that you wouldn't have to keep running
17 from one document to the other document trying to find
18 out what was going on.
19 And, like I said, we did our last sampling in
20 November of 2000. And then we had to write this report.
21 Well, in writing this report we had to approve the repot,
22 because there were miscalculations of concentrations, and
23 all of that, and it went back and forth, back and forth.
24 And it went two years to write this report.
25 **UNIDENTIFIED SPEAKER:** So you haven't done

1 any soil sampling since 2000?

2 **MRS. MASSENBURG:** Since 1998.

3 **UNIDENTIFIED SPEAKER:** So how do we know

4 that the stuff hasn't come through the air and land on

5 our ground, and our kids are playing in it and everything

6 else. Because at the thing in Pierre Moran library it

7 says it's airborne.

8 **MRS. MASSENBURG:** I just showed you

9 samplings that there is known for the concentrations.

10 Unless there is something to make this happen, there's no

11 reason for the concentrations to move out further.

12 There's no reason for that to happen.

13 **UNIDENTIFIED SPEAKER:** So it won't come

14 out in the air.

15 **MRS. MASSENBURG:** Not right down the

16 landfill. That's why we say --

17 **MR. WENTLAND:** But for the stuff to blow

18 away, especially for the Randalls, they live right behind

19 it.

20 **MRS. MASSENBURG:** We tested the soil, not

21 on top of the soil. We had to put borings in the soil.

22 So it's not sitting on the top.

23 **UNIDENTIFIED SPEAKER:** The topsoil, did

24 you guys --

25 **MRS. MASSENBURG:** Yeah. The -- like, the

first six inches, or something like that. So it's not just floating there, the winds would change the concentration.

UNIDENTIFIED SPEAKER: That's what I'm asking.

MRS. MASSENBURG: Yes, sir. Behind you.

[redacted] My question is they've been pumping off north of us on Plainfield and all through the east of us down Highland for the last eight months to run this line in. Now, that had to significantly change the water direction.

MRS. MASSENBURG: And it did, but consider what you just said.

[redacted] So now I'm a car wreck basically.

MRS. MASSENBURG: Car --

[redacted] Your car analogy. All the cars are coming my direction now.

MRS. MASSENBURG: Let me explain. You're absolutely right, but where they're pumping they're way north.

[redacted] Yeah. They're way north but the ground water flow -- and they're over on Highland, which is by Midland.

MR. SCHONHOFF: We need to learn more

about it.

MRS. MASSENBURG: We need to investigate that. We just found that out this week.

[redacted] That's what ticks me off. You guys are doing all the studies and writing all this stuff down, and the guys are getting the permits and pumping this off, and EPA doesn't know what's going on.

MRS. MASSENBURG: And the only way we know what's going on is if you come and tell us.

[redacted] But it's a day late and a dollar short type of deal.

MRS. MASSENBURG: But you knew from the day -- from the beginning sir.

[redacted] It's been happening since last year.

MRS. MASSENBURG: Let me explain something to you. We're the Federal government, and we're the toppest tear, and there's so many layers that you get to before you get to us. And although we're investigating the site it starts at the local level.

[redacted] All right. Now, tomorrow -- now you know all of this is being pump off, are you going to cleck this further and see --

MRS. MASSENBURG: Yes, we are.

MR. SCHONHOFF: This gentleman over here

1 and I just had the same discussion.

2 [redacted] Yeah.

3 **MR. SCHONHOFF:** And we had to stop our

4 discussion so we could listen up. You know, we're not

5 aware of that. And City municipalities --

6 [redacted] Somebody had to be aware of it,

7 somebody had to get a permit.

8 **MR. SCHONHOFF:** Bear with me, if you don't

9 mind. You know, they have to be able to continue their

10 daily obligation. They have to be able to lay lines and

11 they can't be required to obtain environmental permits

12 for incidental --

13 [redacted] But -- I can understand that,

14 but you have a Superfund site sitting right on your next

15 door.

16 **MR. SCHONHOFF:** Follow me a second.

17 They're not going to pump this for ever. This will

18 probably -- when they stop pumping --

19 [redacted] The water changes.

20 **MR. SCHONHOFF:** Right .

21 [redacted] And I'm drinking, and I'm

22 breathing, and everything else.

23 **MR. SCHONHOFF:** I don't want to argue it.

24 But how long have they been pumping on-site?

25 [redacted] Back in October of last year.

24 hours a day. So much water that --

MR. SCHONHOFF: Just to put it in perspective, and I'm not going to get carried with it -- and as the gentleman over here mentioned, and it's not a bad number, about a hundred feet per year linear loss. Hundred feet per year linear loss if you pump it. That's two hundred feet. That's two hundred feet towards you, and then when they shut that off it's going to correct itself back. So --

[redacted] I can't believe that as much water as they've pumped out of there, 24 hours a day. That's a lot of water.

UNIDENTIFIED SPEAKER: It's not just one well.

[redacted] They're doing three or four of them --

MR. SCHONHOFF: Are these vertical wells, or horizontal transfers.

[redacted] Both.

MR. SCHONHOFF: My question is. Do they have an open trench?

MR. RANDALL: Yes. Along --

[redacted] Yeah. When they're dumping off the extension it's right in the trench, and going down to the creek.

MR. SCHONHOFF: How long is the trench that's open?

[redacted] Two miles.

MR. RANDALL: Quarter mile.

MR. SCHONHOFF: So six hundred feet open?

[redacted] Yeah.

MR. SCHONHOFF: So 20 feet deep and the bottom of it is water that they're pumping, is that right?

[redacted] I don't know how deep they're pumping.

MR. SCHONHOFF: Well, it's important because -- it's important because you -- it's probably not that deep because they're putting in line, and the lines they're laying is not that deep. So it has to be 15 foot maybe. Am I getting out of --

UNIDENTIFIED SPEAKER: We're talking two things here. The one item is the vertical pipes that they're putting down to suck the water out of the ground, and the other is the trench where they're dumping the water out on the north part. That's two different topics.

MR. SCHONHOFF: And so we have a withdrawal line, and injection point.

[redacted] I'm worried about the

withdrawal because the withdrawal is sucking out so much water that I'm getting water in the landfill coming my way now.

MR. SCHONHOFF: I think it's been running a year, I think you're too far away. Where do you live?

[redacted] I live on Southwood.

MR. SCHONHOFF: On what?

[redacted] Southwood.

MR. SCHONHOFF: Help me out.

[redacted] Northwood, Southwood and Southwood.

MR. SCHONHOFF: What's the distance from --

[redacted] From Westwood?

MR. SCHONHOFF: Yeah, that's okay.

[redacted] From Westwood to my house?

MR. SCHONHOFF: Yeah.

[redacted] Two blocks. Eight -- s.

MR. SCHONHOFF: Eight hundred feet.

[redacted] Probably.

MR. SCHONHOFF: I would say you wouldn't want to be pumping like that for several years. You wouldn't want to pump like that for a couple years. Are they about done? We need to find that out.

[redacted] I don't know.

1 **MR. SCHONHOFF:** Let me know. They don't
2 leave these trenches open like that. They're probably
3 trying to lay a sewer line and they have to establish a
4 grade.
5 [redacted] I'm not worried about the
6 trenches.
7 **MR. SCHONHOFF:** Once it's shut off --
8 they're not going to pump it forever.
9 [redacted] No.
10 **MR. SCHONHOFF:** Once it's shut off it will
11 correct itself.
12 [redacted] But for about a year or so I'm
13 going to be drinking maybe contaminated water.
14 **MR. SCHONHOFF:** I kind of don't think so.
15 I kind of don't think so.
16 [redacted] That's a good gamble there.
17 [redacted] The gamble --
18 **MRS. MASSENBURG:** We need to find this
19 out. Yes, sir.
20 [redacted] My name is [redacted] And
21 you made the statement in the pond there was nothing
22 wrong with that water.
23 **MRS. MASSENBURG:** We tested the water.
24 [redacted] And that's perfectly good
25 water?

1 **UNIDENTIFIED SPEAKER:** But that was two
2 years ago.
3 **MRS. MASSENBURG:** No. That was back in
4 the 90's, early 90's. There's no reason why -- unless
5 someone has done some dumping from the surface down but
6 it's not been -- the ground water has not been affected
7 by it. And unless there's some dumping into the pond
8 after we test it there's no reason to test it after it's
9 tested negatively.
10 You follow what I'm saying? Either it's coming
11 from the ground, or somebody's dumping it into it.
12 [redacted] It won't leach into it.
13 **MRS. MASSENBURG:** Right. Unless somebody
14 dumps into the ponds.
15 [redacted] I understand what you're
16 saying, that water is good. But you're saying I'm having
17 to hook onto water when I'm right across the street from
18 it.
19 **MRS. MASSENBURG:** Because you're drinking
20 the water under the ground. You see, you're not drinking
21 the pond water. Those are two different waters.
22 [redacted] It is.
23 **MRS. MASSENBURG:** The pond is not being
24 recharged by water underground, that's not the same
25 water. Do you understand what I'm saying?

1 [redacted]: If water comes off and runs
2 out --
3 [redacted]: It intermixes it, doesn't it?
4 **MRS. MASSENBURG:** It does not intermix.
5 No. That was a quarry pond. It has a rock cement
6 bottom, and it doesn't mix with the ground water that's
7 flowing underneath. It maybe one time when they was
8 digging it out they probably hit water. But now the
9 water --
10 [redacted]: You're saying the ground
11 water is anywhere 15 to 20-foot, right.
12 **MRS. MASSENBURG:** Except in that area that
13 they dugout and put cement blocks in. You following the
14 difference?
15 [redacted]: There's no cement blocks in
16 there.
17 **MRS. MASSENBURG:** There is some kind of
18 rock quarry.
19 [redacted]: It's a hard pan.
20 **MRS. MASSENBURG:** All I'm saying is the
21 water in the pond is not the same water that you're
22 drinking, those are two different waters. The water in
23 the pond does not seep down into the ground water and
24 come to you. I'm -- I must be missing the point, I'm
25 sorry.

1 [redacted]: The other point I'm trying
2 to make out is you say that water is good.
3 **MRS. MASSENBURG:** The water is not
4 contaminated.
5 [redacted]: When I stood back there and
6 seen stuff come out of that dump and run into it.
7 **MRS. MASSENBURG:** But it doesn't mean what
8 you saw was contaminated.
9 [redacted]: It was oily. What do you
10 call it?
11 **MRS. MASSENBURG:** I don't know what to
12 say.
13 **MR. HULEWICZ:** Maybe you should explain
14 about volatile organics and their persistence in the
15 environment as they are exposed to the atmosphere.
16 For instance, if you take a can of gas you can
17 see the fumes coming out of it, that's a volatile organic
18 that's making the gas going in the air. If you let it
19 sit long enough, sooner or later all the gas evaporates.
20 It's the same thing if you pour the gas on the water,
21 sooner or later it's going to evaporate given time
22 exposure to sunlight, and exposure to heat.
23 So certain chemicals are going to leave a
24 surface body of water, a pond, a ditch and a creek, given
25 the appropriate amount of time. So if it was

1 contaminated long ago, and I don't doubt that that pond,
2 at some point in time, had contaminates in it, you know,
3 because there had to be runoff in the landfill that got
4 in that pond.
5 But over time there was tremen -- the dump was
6 closed in '76, and they tested it in '90. That's 14
7 years. If you leave a can of gas out for 14 years you're
8 going to have an empty can of gas. Does that make sense?
9 [redacted]: It makes sense. But it
10 still boils down, my well is about 200 feet from there.
11 **UNIDENTIFIED SPEAKER:** But you're well is
12 down in the ground water.
13 [redacted]: That ground water is within
14 20 feet.
15 **UNIDENTIFIED SPEAKER:** It's like a river
16 underneath, it's way underneath the ground where you get
17 water out of.
18 **MR. HULEWICZ:** I think what would help you
19 understands sir is if that pond is not, does not have a
20 ground water/surface water interface by -- if there's no
21 connection between the ground water and surface water, no
22 spring that fills that ponds or no aquifer that supplies
23 water to the that pond, you know, water main, that if
24 there's nothing that supplies that pond in that manner,
25 then there would be no association between that pond, and

the ground water source you're pumping from.

[redacted]: My question is, does that -- and that's the question that I asked here, because they have all the studies. Why doesn't that water ever evaporate back there?

MRS. MASSENBURG: That's what we've just asked. Have you noticed a huge fluctuation in the pond?

[redacted]: When you get a dry spell it doesn't go down.

MRS. MASSENBURG: But that's not significant. I don't know.

MR. SCHONHOFF: What's the question?

UNIDENTIFIED SPEAKER: Is there ground water, surface water.

MR. SCHONHOFF: You mean up there at the north end, sure there is. Sure there is. Sure there's an interface. Sure there is.

MRS. MASSENBURG: But what was he saying, what was the original question.

MR. SCHONHOFF: Basically you have a hole that interacts with the ground water. So since there is no sand there you have a pond see.

[redacted]: Right. So that water is still coming in my well.

MRS. MASSENBURG: This is the water from

the ponds.

MR. SCHONHOFF: I don't know where you live at.

[redacted]: Two hundred feet from it.

MR. SCHONHOFF: Yeah. I would say you're probably getting a little. But not a lot. That's vague, but that's what it is.

[redacted]: So if that pond water --

MR. SCHONHOFF: Sir, don't forget one thing about all of this, we're talking distance. Distances have a lot to do. One reason in using distance scale you have the element of dilution. There is a lot of dilution if there isn't a little bit of contamination coming from the site. And what I'm hearing here tonight is I'm seeing a lot of marginal contamination. The reason EPA is here, is it's high enough to be concerned, but it's not so high that we need to be alarmed.

[redacted]: If we don't have to be alarmed then why do I have to hook up to water. They're saying that they're making me.

MR. SCHONHOFF: We're going to try to make it attractive.

[redacted]: Pardon.

MR. SCHONHOFF: Because you can't predict down the road how the waste that's in this landfill is

1 going to behave over time. We're talking forever. So
2 rather than put you at risk for something down the road
3 we're saying hook up to the City water and remove that
4 risk. That's what we're saying. I know, people like
5 their wells.
6 **MRS. MASSENBURG:** Yes, sir.
7 [redacted]: My name is [redacted]. I just
8 wonder, I'm on my third well now, and I went from 44
9 feet, to 77 feet, to a hundred, to a over a hundred feet.
10 And it's still not good. I live down the bend on
11 Westwood Drive.
12 **MRS. MASSENBURG:** Yeah, I know where you
13 live sir.
14 [redacted]: And I guess my question is, I'm
15 kind of looking forward to this City water. When am I
16 going to get it?
17 **MRS. MASSENBURG:** That's a good question.
18 [redacted] I'm tired of this junk ass
19 water.
20 **MRS. MASSENBURG:** That's a good question.
21 We're hoping -- as you heard from the gentleman from
22 Bayer, you can hear that they're not --
23 [redacted]: Excited.
24 **MRS. MASSENBURG:** -- excited about this.
25 [redacted]: Can we sue -- if this is their

1 fault can we sue them?

2 **MRS. MASSENBURG:** I can't advise you own

3 that, I'm not an attorney. I guess if you want to pursue

4 that you should talk to an attorney.

5 [redacted]: Not --

6 **MRS. MASSENBURG:** I'm saying if you want

7 to do that you should with an attorney.

8 [redacted]: I couldn't do anything, I know

9 that.

10 **MS. VAN LEEUWEN:** Write to the newspaper

11 every week.

12 **MRS. MASSENBURG:** You know what I'm saying

13 to you is, talk to an attorney and let the attorney talk

14 to you about that. I can't advise you on that.

15 What we're going to do is, you saw we had a

16 representative tonight from Bayer and we're doing to what

17 we call go into negotiations with Bayer, and get Bayer to

18 do the work. And the negotiations, as you can see, is

19 not going to be easy.

20 [redacted]: Is Bayer the only responsible

21 party named?

22 **MRS. MASSENBURG:** We're looking at other

23 people, but Bayer is the major player. We're looking at

24 other responsible players.

25 **UNIDENTIFIED SPEAKER:** What about Himco?

1 **MRS. MASSENBURG:** We're looking at Himco.
2 We're not going to exclude anybody because we want this
3 work done. But to answer your question; how long is it
4 going to take. I wish I could tell you. I don't know.
5 **UNIDENTIFIED SPEAKER:** What would you say?
6 **MR. HULEWICZ:** So is Gwen --
7 **MRS. MASSENBURG:** Roughly between six to
8 nine months. That's the best estimate. That's the
9 negotiation period. By that time we'll know whether or
10 not they're going to be in good faith.
11 **UNIDENTIFIED SPEAKER:** Okay. If they're
12 in good faith then what --
13 **MRS. MASSENBURG:** Then they'll be
14 implemented. We'll probably get the people off the water
15 immediately before we start doing anything with the
16 landfill. Then I can tell you this, Bayer is trying to
17 separate, divide and conquer here. You heard that. And
18 we have our back up against the wall. We're on your
19 side. Bayer is not on your side.
20 **UNIDENTIFIED SPEAKER:** We know that.
21 [redacted]: We know that.
22 **MRS. MASSENBURG:** I don't want to say that
23 in a bad way. And again he's saying, according to what I
24 was hearing, there's no big problem that exists out
25 there. He didn't say there was no problem.

1 **UNIDENTIFIED SPEAKER:** I know.
2 **MRS. MASSENBURG:** And those are the kinds
3 of things we have to work through. We have to work
4 through it.
5 **UNIDENTIFIED SPEAKER:** Say, for example,
6 everything clicks, how long are we looking before you
7 guys lay the pipe line.
8 **MRS. MASSENBURG:** Nine months.
9 **UNIDENTIFIED SPEAKER:** Nine months is when
10 you start?
11 **MRS. MASSENBURG:** Yeah. And the reason
12 why, we have all these instrumental I'm sure you guys
13 understand.
14 **UNIDENTIFIED SPEAKER:** Yeah.
15 **MRS. MASSENBURG:** All the levels that it
16 has to go through, and that type of thing. So we're
17 saying roughly six to nine months if everything went
18 well.
19 **UNIDENTIFIED SPEAKER:** If everything went
20 well?
21 **MRS. MASSENBURG:** Six to nine months, yes.
22 **UNIDENTIFIED SPEAKER:** So at the end of
23 the year we could be hooked up to City water?
24 **MRS. MASSENBURG:** Yes. That would be very
25 good. It would make me feel very good if that was

1 happening.

2 **UNIDENTIFIED SPEAKER:** And this

3 contaminate in that well, that Himco dump isn't going

4 make us have to move out of the houses and --

5 **MRS. MASSENBURG:** Nothing -- we have not

6 seen anything to suggest that. The bottom would have to

7 fall out, and it would have to get through the landfill

8 before it would get to you all. So we have not seen

9 anything like that.

10 **UNIDENTIFIED SPEAKER:** How can you guys

11 tell what's down in there?

12 **MRS. MASSENBURG:** We don't know.

13 **UNIDENTIFIED SPEAKER:** You never will.

14 **MR. HILL:** Excuse me, we've move into

15 another discussion area here. We're not adverse to

16 discussions, but let's move to discussions after we end

17 the question period. Let's move to a closure here and

18 then we can continue with discussions as long as we have

19 the willingness of the people of the City here. We need

20 to be considerate of them as well. We may have to move

21 some of this outside. Okay. The question in the back.

22 **UNIDENTIFIED SPEAKER:** What is the flow

23 rate of this contamination?

24 **MRS. MASSENBURG:** Flow rate?

25 **MR. HILL:** That's been answered several

1 times.

2 **MR. SCHONHOFF:** What was the question?

3 **MRS. MASSENBURG:** Flow rate of the ground

4 water.

5 **MR. SCHONHOFF:** The speed the water

6 travels?

7 **UNIDENTIFIED SPEAKER:** Yeah.

8 **MR. SCHONHOFF:** It depends on gradient.

9 There was a gentleman that brought a number up that I

10 didn't think was bad. I was thinking on the order -- I'm

11 going to give you a range between 75 to a hundred feet a

12 year. On that order.

13 **UNIDENTIFIED SPEAKER:** So how many years

14 are you saying before we actually get --

15 **MR. SCHONHOFF:** Are you worried about the

16 pumping?

17 **UNIDENTIFIED SPEAKER:** No, no, no. I'm

18 saying that you're saying that the contamination is right

19 on the border now. And you have a line that there's no

20 contamination on that one map that you have.

21 **MRS. MASSENBURG:** With the circles, and

22 lines. That was gas. That was soil gas. That wasn't

23 water. That's different.

24 **UNIDENTIFIED SPEAKER:** Okay. Where's the

25 ground water contamination?

1 **MR. SCHONHOFF:** You know, the ground water
2 contamination is kind of a funny thing because it's as a
3 width. So, you know, we think in terms of vectors or
4 lines. You saw the flow maps, the lines of equal
5 elevation. Okay. If you draw a right angle at that
6 point that's the direction that ground water goes at that
7 point.
8 So obviously the line moves. So the thing is
9 the contamination has a width. So with that width, you
10 know, you can be -- the width, if you can visualize,
11 moves down gradient. And it just depends on where you
12 fall within that width.
13 Say -- I'm going to pull, one -- say it's six
14 hundred feet across, or something like that. And the
15 ground water flow changes it, and it does change, it
16 fluctuates based on changes, and recharge. It has to do
17 with your rain, your snow.
18 My point is, how long does it take. If you're
19 directly down gradient it, you know, a hundred feet per
20 year you might get something. But again these levels are
21 low.
22 **UNIDENTIFIED SPEAKER:** Even coming direct?
23 **MRS. MASSENBURG:** Yes that's a -- that's
24 not a big problem.
25 **MR. SCHONHOFF:** If you look due east --

let me come back, I'll give you a perspective.

Let's say you live at Plainfield and John Weaver Parkway. You go due east of that a hundred feet. You're probably not going to get anything. Nothing. For example.

MRS. MASSENBURG: Yes, ma'am.

MR. SCHONHOFF: You know we haven't had great hits here. This is cause for concern. But it's nothing to cause you alarm. Something needs to be done.

UNIDENTIFIED SPEAKER: I'm just saying --

MR. SCHONHOFF: That's a good question. I don't mean to -- really, it's a good question.

UNIDENTIFIED SPEAKER: I think you should have some type of neighborhood -- I live outside Netherlands Hills.

MR. SCHONHOFF: Okay.

UNIDENTIFIED SPEAKER: I think you need to have a neighborhood informational so these people understand.

MR. HILL: That's right. I wanted to move to that as a suggestion. It's obvious that we need to have a discussion. If we could -- I understand and this is only a proposal that we get a number of water experts together, and contact the residents who have a potential for being the most effected in the area, and have a

1 meeting between those interested people where we talk
2 about some generalized issues. As well, as some specific
3 issues relative to ground water in general, and ground
4 water specifically.
5 This, you know, seems as though that that would
6 be a wise thing for all of us to do. Rather than trying
7 to understand a very difficult technical problem --
8 **MR. SCHONHOFF:** We can get a map --
9 **MR. HILL:** -- you know, in a very brief
10 period of time.
11 **UNIDENTIFIED SPEAKER:** Yes. I just don't
12 know the objection to being hooked up to City water. You
13 can see right there there's a huge lack of information.
14 **MR. HILL:** That's very true. And it's
15 very difficult to address all of these issues in the time
16 that we have. That's why I propose that.
17 **UNIDENTIFIED SPEAKER:** Sure.
18 **MR. HILL:** If people were amenable to such
19 a thing we could find it helpful that maybe they could
20 look to facilitate, but we're not going to try to force
21 it upon anybody.
22 **UNIDENTIFIED SPEAKER:** Oh.
23 **MR. HILL:** You know, it's our charge to
24 try to make people understand, and to help them
25 understand, and to give them the information to allow you

1 to make the decisions and the judgments that you want to
2 make based on the information that we do.
3 We just have to make certain that we give it to
4 you correct, and as accurately as we can make it. We
5 would be happy to pursue that. But I need some
6 indication -- for example, sir would you be willing to
7 attend?
8 **UNIDENTIFIED SPEAKER:** Yeah, I would.
9 **MR. HILL:** You and your family be willing
10 to attend. Fine then we'll pursue that.
11 **UNIDENTIFIED SPEAKER:** Okay.
12 **UNIDENTIFIED SPEAKER:** I have a question
13 it sounds like some people want the City water, and some
14 people don't. Is there an option, or is it coming for
15 the ones that they --
16 **MRS. MASSENBURG:** We'll look at it more
17 specifically when they start to design who is going to
18 actually get hooked up. But the short answer to your
19 question as far as I know today, the answer is no. If
20 you want to get hooked up, and we're near your house, but
21 we haven't proposed that you be hooked up as far as it
22 being an EPA requirement, then you could probably pay to
23 hook yourself up. But in terms of we're asking the RP to
24 hook up for those people who are living in the
25 neighborhood that we're asking that they be hooked up to

1 the water, and they don't want to be hooked up to the
2 water, we can't force you to be hooked up to the water.
3 All we can tell you is you'll be drinking the water at
4 your own risk.
5 And you have to inform people -- say you decide
6 to move, you have to let these people know that water was
7 proposed. You know, that municipal water was proposed to
8 be hooked up to the house. We didn't decide to get it.
9 That has to be disclosed to the new owner that -- that
10 comes in.
11 But if you live there now and decide not to get
12 the water that's a risk that you're taking on yourself.
13 **UNIDENTIFIED SPEAKER:** I just wondered,
14 because I heard some say; yeah, we want it, and some
15 said; no, we don't.
16 **MRS. MASSENBURG:** Yeah. That's
17 unfortunately what happens.
18 **MR. SCHONHOFF:** There are some people that
19 think hard about it, and maybe some people it's not
20 facing them quite the same way.
21 **UNIDENTIFIED SPEAKER:** Now, west of there,
22 there was a lot of people that put new wells in, in the
23 last year.
24 **MR. SCHONHOFF:** Can I ask you a question?
25 How deep does your well go to?

1 **UNIDENTIFIED SPEAKER:** I have the paper
2 right here.
3 **MR. SCHONHOFF:** I'll look at it later.
4 **MRS. MASSENBURG:** Bring it down.
5 **UNIDENTIFIED SPEAKER:** We just did this
6 last month.
7 **MR. HULEWICZ:** A comment that I'd like to
8 make. The biggest concern here is the exposure of ground
9 water, drinking water. So if you do an informational
10 meeting, the soil gas vapors were great. And if you came
11 out to the demolition debris was fine and talking about
12 leads and soils is fine. But let's talk about the
13 greatest exposure risk, and try to delineate or show
14 where the potentials are, and what kind of levels you
15 have. And some of the monitoring wells in, and around
16 the landfill. Because right now I recognize that there's
17 only one well that is exceeded any kind of standard --
18 **MRS. MASSENBURG:** Right. Right.
19 **MR. HULEWICZ:** -- that exists for drinking
20 water quality other than some sodium standards.
21 **MRS. MASSENBURG:** Right.
22 **MR. HULEWICZ:** And heaven knows if you
23 have high blood pressure you don't want sodium, but
24 that's different than a carcinogen in your drinking
25 water. And an understanding that you could potentially

be exposed to that if you don't hook up to City water.

MR. HILL: Excellent suggestion John. We'll make sure that you're invited to the meeting.

MR. HULEWICZ: Talk to Gwen, she'll invite me.

MR. HILL: Yes. Other questions?

[redacted]: Yeah. We're returning to looking at a different locations. We're down on County Road 10, the Alcoa factory that's on the opposite side of the road.

MRS. MASSENBURG: Which way?

[redacted]: I own the house just west of Alcoa.

MRS. MASSENBURG: Okay.

[redacted]: We have City water that goes down to right in front of Alcoa, there's a hydrant. It's less than a hundred feet from my house. And she's right directly across the street. And I was told back in '93, I believe it was, that I couldn't get hooked into that City water, and I'm in the City. My house is in the City.

MRS. MASSENBURG: And you're on well water?

[redacted]: I'm on well water, and they wouldn't hook me into that City water.

1 [redacted]: They wouldn't pay the expense.
2 **MS. VAN LEEUWEN:** We're told that everyone
3 is --
4 **MR. HULEWICZ:** Is your line on the north
5 side of the road and your house is on the south side?
6 Are you on the south side of the road and the line is
7 on --
8 [redacted]: No. The line is on the south
9 side, and I'm on the south side. I'm on the south
10 side --
11 **MR. HULEWICZ:** And they hooked up the
12 houses on the north side.
13 [redacted]: Her's is not.
14 **MR. HULEWICZ:** It's not.
15 [redacted]: So there's three houses right
16 there. I mean, her's, and Mark -- the guy you probably
17 remember back in the corner, the three of us --
18 **MR. HULEWICZ:** You are annexed into the
19 City?
20 [redacted]: Yes.
21 **MR. HULEWICZ:** You could make an effort to
22 go to the Board of Works meeting and pose that question
23 to the Board of Works.
24 [redacted]: I went to the --
25 **MR. HULEWICZ:** You would have a fee

1 involved. There would be a tap in fee, I'm sure,
2 involved in it. But I think you're entitled -- if that
3 is available to you, and you have a city residence, and
4 you're being denied a service --
5 [redacted]: I guess my question is
6 because the -- I heard it said the water flows both south
7 and south east. And if there's a possibility for us to
8 be on the fringes. There was a statement that referred
9 to being close to the edge. If these three houses are
10 considered in that area, and we have City water that
11 close, within just a hundred feet or so, would the EPA
12 make the effort to get these three houses hooked into the
13 City water? It's right there anyway.
14 **MRS. MASSENBURG:** We have not tested any
15 houses that far west.
16 **MS. VAN LEEUWEN:** In general, the levels
17 even by the landfill decrease as you go to the west. We
18 have some monitoring wells.
19 [redacted]: Yeah. Well, buffer zone.
20 You talked about buffer zone.
21 **MR. HULEWICZ:** Gwen, he can pose that
22 comment for the record of decision requesting that to be
23 done.
24 [redacted]: Yeah. Yeah.
25 **MR. HULEWICZ:** If those are the only three

houses in that area you can request that, and the EPA has too give it consideration.

[redacted]: I want to formerly request that. And especially because the City water is already right there. We're not talking having to run a whole new line, it's right there closer than a --

My name is Mike Stoner.

MRS. MASSENBURG: But you know the meeting he's talking about.

[redacted]: I'll go there.

MRS. MASSENBURG: We were told everybody that lives south of County Road 10 was municipal water.

MS. VAN LEEUWEN: And everyone that was, yeah, on that side of the street. Because the -- and the mobile home --

[redacted]: Mine -- and my property backs right up to the mobile home lot, and they won't -- they won't give us City water.

MR. HILL: Any additional questions?

[redacted] [redacted]. The City's had a history of requiring people hooking up to City water to sign a paper saying that they would not fight annexation before they're allowed to sign up. I understand that if they receive that, that the people that want to sign up -- or, I'm sorry, that want to get

1 the water to receive a letter from the Health Department,
2 or EPA, or someone like an authority like this, that they
3 can receive the water, get hooked up to the water, and
4 still refuse to sign that paper.
5 Is it possible for the EPA, or whomever, to
6 issue these statements, or whatever, to those people that
7 you recommended to hook up to the City water?
8 **MR. HILL:** We can make note of that, that
9 you've asked for that, and we can ask -- we can ask the
10 City to give that consideration.
11 **MRS. MASSENBURG:** That's the first I've
12 heard of that too.
13 **MR. HILL:** We can't -- we're not familiar
14 with that. We certainly can't speak for the City. We
15 can certainly ask that the City address that issue.
16 [redacted]: I knew the standard
17 operating procedure in the past administration, I'm not
18 sure about the current City administration. But it was
19 done in the past.
20 [redacted]: Along with that if they would
21 waive that they may come back and say we'll charge you
22 three times the nominal rate, and that you need to
23 clarify too. I mean, if you have to hook up for health
24 reasons none of those issues should be put into it.
25 And what he's referring to is the remonstration

1 waiver. Along with that they have what they call the
2 Elkhart Compact. That if you sign up for the water to
3 come through, and you get on the Elkhart Compact, you are
4 then required to pay three quarters of what your tax
5 would be inside the municipality each year as a
6 surcharge.
7 **MS. VAN LEEUWEN:** That's different.
8 Because --
9 [redacted]: That's all part of the --
10 **MS. VAN LEEUWEN:** Because of a health
11 reason.
12 [redacted]: Correct. I don't know if
13 that's waived for that.
14 **MRS. MASSENBURG:** You understand what
15 she's saying that. If it's for nonhealth reasons that
16 they will charge you that three times -- I'll say
17 penalty, or fee.
18 [redacted]: Let's say if it's twenty
19 dollars a month what your normal rent, or your normal
20 rate for your water, you'll be charged sixty dollars a
21 month for water, or three times the nominal rate. They
22 don't charge you the nominal rate. If you sign up and
23 agree with the Elkhart Compact then if your taxes are,
24 let's say a thousand dollars a year for your home, and if
25 you would be inside the City your taxes would be $1,500 a

1 year. They would be charging you three quarters of that
2 difference, of 500 dollars, they charge you three
3 quarters of it, each year, as a surcharge. That's the
4 Elkhart Compact. Such a deal.
5 **MS. VAN LEEUWEN:** Those are issues which
6 will be worked out before --
7 **MR. HILL:** I think it's safe to say that
8 the EPA has had, at least, indication from the City of
9 Elkhart that they're willing to work with the situation
10 in order to be accommodating. So maybe we could -- maybe
11 we could ask that they put all water related issues
12 related to service, and costs, on the table for
13 discussion. Relative to health issue.
14 [redacted] Prior to signing up though.
15 **MR. HULEWICZ:** You do have a precedence
16 because. You do have another Superfund site that had
17 1,200 city limits that were out of -- Conrail had a same
18 type situation where residents were hooked up, extensions
19 made. So I think you need to look at that as a
20 precedence and see what the City was willing to do. And,
21 at a minimum, look at that as a negotiation point. I'm
22 not familiar with that arrangement.
23 Another comment I will make later on for the
24 public record when it comes to the ROD, is how do you
25 deal with the fire hydrants. Because the water mains

1 will be installed according to City specifications and
2 will include fire hydrants. In the Conrail area fire
3 hydrants were installed and not activated. That was a
4 significant public safety concern when you pull up to a
5 fire hydrant and it's dry.
6 So that would be something that -- as I said, I
7 have numerous points to make, for the ROD. And I didn't
8 want to be talking about that. But that was another one.
9 **MS. VAN LEEUWEN:** The City has mentioned
10 Conrail and what they've done from --
11 **MRS. MASSENBURG:** Send me an e-mail.
12 **MR. HULEWICZ:** Can I send it to you via
13 e-mail.
14 **MRS. MASSENBURG:** Yes.
15 **MR. HULEWICZ:** And will you share that
16 with the room if they want to send you a e-mail as well?
17 **MRS. MASSENBURG:** Yes.
18 **MR. HULEWICZ:** And the toll free number?
19 **MRS. MASSENBURG:** Yes.
20 **MR. HULEWICZ:** And the court reporter is
21 tired.
22 **MRS. MASSENBURG:** I have some business
23 cards up here if anybody would like one. So if you have
24 any concerns or anything that you find is going on in
25 your neighborhood that you would like us to know about,

please give me a call.

MR. HILL: This concludes the formal portion of our public meeting.

(Proceedings concluded)

1 STATE OF INDIANA)
) SS:
2 ST.JOSEPH COUNTY)
3
4 **CERTIFICATE OF COURT REPORTER**
5 I, Timothy B. St. Clair, RPR, a Notary Public in and
6 for the County of St. Joseph, State of Indiana, hereby
7 certify that at the request of the U.S. EPA, that on the
8 23rd day of April, 2003, commencing at 7:00 o'clock p.m.,
9 I reported in shorthand the proceedings had during the
10 Public Hearing held in connection with the Himco Dump
11 Superfund Site; that I did thereafter transcribe my said
12 shorthand notes into typewriting truly and completely;
13 that this transcribed typewritten manuscript is a true,
14 correct, complete record of said public hearing.
15 I further certify that I am neither counsel or attorney
16 for, or related to or employed by any of the parties to
17 this cause; nor am I financially or otherwise interested
18 in the outcome of this cause.
19 IN WITNESS WHEREOF, I have hereunto set my hand this
20 29th day of May, 2003.
21
22
23 Timothy B. St.Clair, RPR
Notary Public, State of Indiana
24 My Commission Expires; 2-4-2008
25

CONDENSED TRANSCRIPT

CONDENSED TRANSCRIPT

Page 1

PUBLIC HEARING

APRIL 23, 2003

RE: HIMCO DUMP SUPERFUND SITE

LOCATION: Elkhart City Council Chambers
229 South Second Street
Elkhart, Indiana

TIME: 7:00 o'clock p.m.

St. Clair Court Reporting
Post Office Box 245
Mishawaka, Indiana 46546
574.291.9125 / 1.888.989.3376

Page 2

[1] MR. HILL: My name is Stuart Hill, I'm a
[2] visitor to your community. I'd like to ask, for no
[3] particular reason other than to open this meeting, are
[4] there any Baptist ministers in the body? Okay. There's
[5] another reason that I need to ask; we need to check the
[6] acoustics in here. So if you have a problem hearing
[7] please speak up, as this lady did, so that I can address
[8] you and make sure that you can hear. We can activate a
[9] microphone system that is used by the City Council. So
[10] if we need that we can activate that as well if we need
[11] to. Okay.
[12] MRS. MASSENBURG: I have a big voice. You
[13] can hear me better than Mr. Stuart, so I prefer, if you
[14] don't mind, if I not use the microphone. And if my voice
[15] doesn't fill up this room, then I'll use the microphone.
[16] But I speak a little louder than he does.
[17] So while he's speaking speak into the
[18] microphone, I won't. But if that's okay with you -- if
[19] my voice starts to crack after 15 or 20 minutes into the
[20] presentation then I will get on the microphone. But I'm
[21] going to be standing up and speaking to you.
[22] And I think I have a really -- my mommy said I
[23] have a loud mouth, so it's going to pay off for me today,
[24] so ...
[25] MR. HILL: Well, I can hear this one

Page 3

[1] bumping around, so I know that this activates -- there
[2] are other microphones back behind here that we could try
[3] to bring more into play.
[4] The reason I asked about the Baptist ministers
[5] is because, as you can tell from probably from the sound
[6] of my voice I'm not from around here, I'm originally from
[7] the deep south. Deep south. And while I had a, a fairly
[8] religious upbringing when people started filtering into
[9] the room early this evening at about 6:30, 30 minutes
[10] before the meeting scheduled to start, I knew that
[11] probably we had some problems.
[12] And it reminded me of a story about Baptist
[13] Sunday School. And these were about ten a year old boys,
[14] and they were in the Baptist Sunday School. And the
[15] Sunday school teacher said; I'd like to have a show of
[16] hands of all the people in -- of the class members who
[17] would like to go to heaven.
[18] Well, all the little boys in the room Raised
[19] their hand except one. And the Sunday school teacher
[20] said; what is the matter Johnny, don't you want to go to
[21] heaven. And he said; oh yes sir, I was just afraid you
[22] were getting up a bus load for right now.
[23] So I'm afraid that we have a bus load, and that
[24] sometimes happens to us. And if it's any inconvenience
[25] we'll try to accommodate you as best we can from the side

Page 4

[1] of the room. There may be a few more chairs out in the
[2] hall that can be brought into the council chambers here.
[3] If you wish you can make yourself comfortable in one of
[4] the councilman's seats. They probably won't mind at this
[5] point.
[6] Again, my name is Stuart Hill. I'm a community
[7] involvement coordinator with the U.S. EPA out of Chicago.
[8] We're here tonight -- this is a formal meeting to present
[9] a -- a proposed plan by the EPA to clean up the Himco
[10] dump -- I may not even be pronouncing that right. If I'm
[11] not please let me know.
[12] It is a formal process, this particular
[13] meeting, in that you will be given an opportunity to make
[14] comments, state your opinion. State any objections, or
[15] any personal feelings, or a emotions that you may have
[16] about the proposed clean up. As a matter of fact, you
[17] have until April the 12th to do that. This meeting is
[18] simply a convenience for you to -- to make all the --
[19] UNIDENTIFIED SPEAKER: May 12th.
[20] MR. HILL: Excuse me, May 12th. Excuse
[21] me. You do read your mail. I apologize, and thank you.
[22] So you have until the 12th. And the comments
[23] can be given to us in a number of ways; e-mail, voice
[24] mail, written. We'll even take telephone messages if
[25] it's absolutely necessary. So there are many ways that

Page 5

[1] you can contact us.
[2] Now, it is my hope that many of you have
[3] received, in the mail, a publication similar to this,
[4] which would announce this meeting, and would try to
[5] describe in fairly general terms what the EPA is about to
[6] propose in more detail here tonight.
[7] That – that has information about how to
[8] contact us with your comments. Your comments are an
[9] integral part of the EPA Superfund process. As our
[10] project manager Gwen Massenburg will explain this, it's
[11] absolutely critical and has to be – has to be considered
[12] one of the nine points that are against anything that EPA
[13] might do. Not only for this, but for any Superfund site.
[14] So it is very, very important. And we urge you to – to
[15] participate.
[16] If you don't intend to make statements
[17] tonight -- and I understand that some have prepared
[18] statements, and to that end, we have a court reporter
[19] with us this evening. The court reporter is, of course,
[20] responsible for transcribing this meeting, and the
[21] contents of this meeting as precisely as he can.
[22] Now, to that end, when we get to the point
[23] where questions or discussions are started we hope that
[24] when you stand you would state your name. If there is an
[25] unusual spelling of your name would you please spell it

Page 6

[1] for the court reporter. Also I've asked him to interrupt
[2] at any time that he feels that he does not understand
[3] either a name, or what is said so that he can have the
[4] record as correct as possible. I hope that you can help
[5] us in achieving that.
[6] Insofar as the format for tonight, we would
[7] like to keep it as informal as possible. Gwen as
[8] indicated that she'll take questions during her
[9] presentation about the proposed plan, but that's
[10] questions only. Please keep in mind that it's not to be
[11] a discussion. It's not to be a debate. But the
[12] questions can be used to edify, and to inform what we
[13] don't get in a one-on-one conversation about issues that
[14] may be done in the process.
[15] Towards the end you will be given an
[16] opportunity to state, as I said, your opinions
[17] objections, affirmations, confirmation, happiness,
[18] displeasure, whatever. And we'll hear it.
[19] Also there are representatives here tonight
[20] from the EPA as well as from the State Department of
[21] Environmental Management. They may be able to address
[22] some of your questions, and/or issues. And excuse me for
[23] asking, but are there representatives from the local
[24] health unit? They are also with us in the back of the
[25] room. So perhaps – perhaps they could help where they

Page 7

[1] feel that it may be helpful.
[2] We do have some information that is available.
[3] If you did not receive a copy of the generalized fact
[4] sheet that explains the program it is being circulated
[5] around in this section, I believe. As one of the bases
[6] for the sign-in sheet, and we'll have that toward the end
[7] of the program, and it's something that you can take with
[8] you. If for some reason we don't have enough we'll make
[9] a check mark by your name and we'll make sure that you
[10] get one. But we'll do everything that we can to
[11] facilitate here this information, your information.
[12] Now, this has been an extremely long preamble,
[13] and I do apologize for that, so we'll go directly to the
[14] presentation by project manager Gwen Massenburg. From
[15] that we'll move into questions and answers. And
[16] following that Craig Hodgson of the City's Brownfield
[17] area will give you a very brief overview of some of the
[18] possibilities -- well, maybe not the possibilities, but
[19] Craig will discuss what is going to be done towards
[20] looking at potential reuse for the Himco area, as well as
[21] maybe some other areas in the City. I'm not trying to
[22] put words in his mouth, but he'll have the floor to -- to
[23] share some redevelopment issues, and information with
[24] you. Following that well go to a comment period and well
[25] take the comments.

Page 8

[1] Now, in the comment period there will be no
[2] discussion. It is simply a comment period. It is open
[3] for you to make a statement regarding what your relative
[4] thoughts to the situation and the site. Once that is
[5] done your comments will be addressed in what called a
[6] responsiveness summary. And that summary will be a part
[7] of the official record, just as this transcript will be.
[8] I think that just about covers it for me. And
[9] unless there are any questions we'll begin. Questions?
[10] Gwen Massenburg.
[11] MRS. MASSENBURG: Thank you. As he has
[12] mentioned to you all, my name is Gwen Massenburg, and I'm
[13] the project manager for the site. And I just want to
[14] take this opportunity right now to briefly introduce the
[15] people who have also been involved in this particular
[16] site.
[17] First of all, this is Pat Van Leeuwen, and
[18] she's our toxicologist. There is Mr. Larry Johnson, and
[19] he's our attorney. This is Jessica Fliss, and she's with
[20] IDEM; Indiana Department of Environmental Management.
[21] This is Phil Schonhoff. And –
[22] MR. SCHONHOFF: I'm with the geological
[23] services with IDEM with Jessica.
[24] MRS. MASSENBURG: And this is [redacted] --
[25] [redacted]. I'm

Page 9

[1] the project engineer for IDEM.
[2] MR. HODGSON: Craig Hodgson, I'm with the
[3] City of Elkhart. Planning Development.
[4] MR. HULEWICZ: I'm with the Elkhart County
[5] Health Department.
[6] MRS. MASSENBURG: Okay. Thank you.
[7] While we're -- I just want to have a brief show
[8] of hands; how many of you are familiar with where the
[9] location of the Himco dump site is? Everybody. That's
[10] very good. Okay. Great.
[11] What I'm going to do for you tonight is to try
[12] to edify you, or to give you more information about what
[13] has been going on with the site. The site is a very old
[14] site, and I got involved with the site back in 1999. So
[15] what we're going to do is we're going to venture down and
[16] show you some history, and then we're going to come up to
[17] the present time. So as Mr. Hill has already said, if
[18] you have any questions, ask your questions. Hopefully we
[19] can entertain the question briefly and move on, because
[20] there is a pretty in-depth presentation, because it has
[21] been such a long time. And we're going to try to just
[22] highlight a few of the main points of what's happened at
[23] the site.
[24] And I see that some of you -- I see that some
[25] of you have already picked this up. I had a few copies

Page 10

[1] of it, but there is the actual presentation that I'll be
[2] doing tonight. So if you desire a copy, if you didn't
[3] get a copy, just let us know by -- say by your name that
[4] you want a copy of the presentation, and we'll try to
[5] provide you with a copy of it.
[6] UNIDENTIFIED SPEAKER: It's already come
[7] by, and I can't check it.
[8] MRS. MASSENBURG: I mean before the end of
[9] the night you can go back and do that. And we can have a
[10] brand new sign up sheet for that only if you like, if you
[11] care for it. So -- okay. So I'm going to go ahead and
[12] get started -- it is Windows, it shut down on me, it will
[13] come back up.
[14] As I said, I'm going to speak about the site
[15] background, the site description, the site history, and
[16] previous site work. I'm also going to speak about the
[17] post record of decision, which you'll here me say many
[18] times ROD. And when I say the word ROD I'm speaking
[19] about the post -- I mean the record of decision. The
[20] sampling locations that we sampled at the Himco dump.
[21] And I'm going to briefly discuss the analytical results,
[22] basically from 1995 to 2000. The ROD had already been
[23] written.
[24] Basically a ROD is just briefly -- one quick
[25] thing though, I do have a list of definitions here that's

Page 11

[1] going to be some of the words that I'll use here, and you
[2] can get that later and all it will be is just definition
[3] of words that I'll use. I thought we passed it out
[4] earlier, but we have not, so we won't hold up any other
[5] time we'll just go ahead.
[6] I'm going to talk about an area we call the
[7] construction debris area. And I'll show you all this.
[8] I'm going to speak about the ground water, the samples
[9] that we investigated, the soil samples that we collected,
[10] and soil gas that we collected. There's also a
[11] residential area east of the landfill. I'm going to
[12] speak about its ground water samplings that we collected,
[13] and the soil gas that we collected.
[14] I'm going to tell you about the recommended
[15] changes. The 1993 ROD had a remedy in it, and we decided
[16] to change that remedy and I'm going to speak about the
[17] changes for that remedy. And then I'm going to tell you
[18] what the next steps are.
[19] Basically Himco dump is a closed landfill
[20] covering approximately 60-acres. It operated between
[21] 1960 and it closed in September of 1976. The site was
[22] owned by Mr. -- privately owned by Mr. Charles Himes and
[23] was operated by Himco Waste Away Service, Inc. Of
[24] course, everybody knows. I asked for a show of hands.
[25] The site is located at the intersection of

Page 12

[1] County Road 10 and Nappanee Street extension in the town
[2] of Elkhart. Elkhart County, Indiana. This is a visual
[3] of the site, it's an aerial photograph. The red here is
[4] the boundary of the site. The yellow line, dotted line
[5] here, is the footprint of the landfill. This area down
[6] here is the construction debris area.
[7] I'm sure you all are familiar with this pond
[8] that exists off Nappanee Street. To give you your
[9] barings here. This is Nappanee Street extension right
[10] here (indicating). This is County Road 10 (indicating).
[11] But this, again, is the landfill proper. This is where
[12] we did the original 1993 work that was performed here.
[13] And now we were -- basically after the 1993,
[14] basically in 1995, we started focussing down here which
[15] is called a construction debris area. The area was
[16] initially a mixture of marsh and grassland. When the
[17] landfill was in operation there was no liner, or leachate
[18] collection system, or gas recovery system constructed as
[19] a part of the landfill. As far as we could tell.
[20] And an estimated two-thirds of the waste in the
[21] landfill was calci -- was where calcium sulfate was
[22] deposited from Miles Laboratories at the time. It's now
[23] Bayer. So -- and we believe that as much as 60 tons a
[24] day, per day, of calcium sulphate was dumped in the
[25] landfill over an unknown period of time. There were

Page 13

[1] other wastes accepted in the landfill, including
[2] household and commercial refuse, construction, demolition
[3] debris, as well as medical waste, and industrial waste.
[4] The area bordering on the southern perimeter of
[5] the landfill consists of construction rubble mixed with
[6] nonnative soil, and has been named the construction
[7] debris area. And this was the area I showed you south of
[8] the landfill.
[9] The construction debris area boundaries are
[10] defined primarily by thirteen tes trenches that were
[11] excavated in 1991. And this is the study that did the
[12] excavation it was our Remedial Investigation/Feasibility
[13] Study performed by Donohue. He was one of the EPA
[14] contractors.
[15] The construction debris area is about four
[16] acres in size and is subdivided into seven residential
[17] parcels, one commercial parcel. The residential
[18] properties are currently occupied. And we talked about
[19] south of the landfill near County Road 10 -- correction,
[20] north of 10, but south of the landfill. And there's one
[21] commercial parcel that's not operating right now.
[22] The existing homes on these residential
[23] properties are connected to the local municipal water
[24] supply. However, these homes, we are understand, still
[25] have their private wells operable.

Page 14

[1] Again, I just want to show you another
[2] photograph of the landfill. This is the landfill here in
[3] red. The area of concern here is this construction
[4] debris area, this yellow area down here (indicating).
[5] These are the parcels of land -- these are, like, little
[6] houses and everything that exists south of that landfill.
[7] And that's the area we're calling the CDA area, or the
[8] construction debris area.
[9] Okay. The previous site work that was
[10] performed on this site was in 1971. Indiana State Board
[11] of Health first identified the site as an open dump. In
[12] 1974 the Indiana State Board of Health, after receiving
[13] complaints about the color, taste, and odor, they
[14] analyzed the samples from residential wells in the
[15] construction debris area.
[16] The analysis indicated the presence of high
[17] levels of manganese and iron. Mr. Himes was advised by
[18] the Indiana State Board of Health to replace the six
[19] shallow water wells to the deeper water wells for the
[20] residents south of County Road 10. That's still the
[21] construction debris area.
[22] And what I did here is I showed you what was
[23] shallow is anywhere from 15 to 22 feet below ground
[24] surface is what we considered shallow wells. And then
[25] 152 to 172 feet deep below ground surface is what we

Page 15

[1] called deep wells.
[2] In 1975 Mr. Charles Himes Sr. signed an
[3] agreement with the Indiana State Board of Health Stream
[4] Pollution Control Board to close the dump by September
[5] 1976 with application of final cover consisting of
[6] calcium sulfate overlain by sand.
[7] 1984 the United States Geological Survey --
[8] better known as the USGS in cooperation with the Indiana
[9] Department of Natural Resources and the Elkhart Water
[10] Works completed a study to determine the extent of the
[11] leachate potentially emanating from the site by using
[12] bromide concentration in the ground water as an
[13] indicator.
[14] So basically what they did was -- when I say
[15] leachate plume, this is just what contaminants are moving
[16] out of the landfill. So that's what I mean by leachate
[17] plume. And for some reason or another, the bromide was
[18] there as a natural tracer that we could study the site
[19] and figure out how the ground water was flowing, and what
[20] direction it was flowing, and what concentration of
[21] bromide we were finding.
[22] And that study -- I mean, that study by the
[23] USGS is -- if you wanted to get further information it's
[24] entitled the Hydrologic Chemical Evaluation of Ground
[25] Water Resources of Northwest Elkhart County, Indiana.

Page 16

[1] The Imbrigotta and Martin. And this was done in 1981.
[2] In 1984 EPA field investigation team -- we call
[3] them FIT prepared a Hazard Ranking System, HRS, scoring
[4] package for the site. Basically an HRS scoring package
[5] is where we go and look at potential sites, contaminated
[6] sites, hazardous waste sites. We score them. And based
[7] on their HRS there is a national priorities list based on
[8] their score that they make. And it has to be 28.5 in
[9] order to get placed on this national priorities list.
[10] And as the name says "national priority list",
[11] these are based on the score of 28.5, or more. We
[12] developed a list of the whole United States. And this is
[13] our national priority that we're focussing on. And Himco
[14] scored high enough to get on the list. And if you hear
[15] people talk about NPL that's the National Priority list.
[16] It's a list that's basically associated with
[17] the whole United States, not just limited to particular
[18] states, but the whole United States. And they rank them
[19] in terms of severity, the need to be cleaned up. And
[20] that's the national priority list. And that list exists
[21] today.
[22] And the monitoring wells were previously
[23] installed by USGS. Now, that is the down gradient ground
[24] water. When I say down gradient I just mean the water
[25] moving down was contaminated with inorganics, semi

Page 17

[1] volatile organic compounds and volatile organic
[2] compounds.
[3] This is a slide to just show you -- this is
[4] Himco Dump. They're both here. This is -- this is
[5] Nappanee Street extension. And all these little -- well,
[6] the circles are the wells the USGS placed into and around
[7] the landfill to do their monitoring of that study in
[8] 1981.
[9] These triangles are the wells that the United
[10] States Environmental Protection Agency put in. And you
[11] can see the location of these wells. There's one there,
[12] there. It is not just limited to the landfill, but we
[13] really wanted to know the extent of the contaminants
[14] moving off of this site.
[15] So we just didn't stop there. So we went
[16] further south. We went east. And the north wells were
[17] considered our background wells. Because it didn't have
[18] an influence of the landfill. And the ground water flow
[19] is in this direction. The ground water flow is coming
[20] from up here travelling south, and southeast. This is
[21] why we consider this our background well because it
[22] wouldn't have gone through the landfill.
[23] In 1984 these were the metals that were
[24] detected in the landfill. We detected aluminum; arsenic,
[25] barium, beryllium, cadmium chromium, cobalt, copper,

Page 18

[1] lead, manganese, mercury nickle, cellenium, and zinc.
[2] Now, we detected these metals, it doesn't
[3] necessarily mean that they were over a limit. But these
[4] are the things that we found in the water. And I'll get
[5] back to those. The VOC's, or volatile organic compounds
[6] which we detected were; acetone, benzene, 2-butanone,
[7] chloroethane, trans-1,2-dichloroethene, freon,
[8] 4-methylphenol, phenol and pyrene. And these are just
[9] the laundry list of chemicals that we found in the water
[10] when we did our sampling in 1984.
[11] Okay. So now, it's June 1988. The site was
[12] proposed for the national priorities list based on the
[13] chemicals that we found in the ground. In that
[14] preliminary study we decided that based on the score that
[15] this site should be placed on the national priorities
[16] list.
[17] In 1988 -- '89. A remedial investigation study
[18] was initiated by Donohue under a contract for the U.S.
[19] EPA. Basically in 1989 we decided we needed to go and
[20] investigate the site to try and understand what's going
[21] on at the site. And that's called a remedial
[22] investigation. A feasibility study basically tells you,
[23] okay, now we know what's going on at the site, what's
[24] feasible to clean the site up.
[25] In February 1990 the place site was placed on

Page 19

[1] the NPL. So it went from being proposed to actually
[2] being placed on the NPL. In April of 1990 the residents
[3] with private wells living south of the landfill, which is
[4] the construction debris area, started to complain about
[5] the taste, odor, and color of their water again. Because
[6] remember they had complained before and they started to
[7] complain again.
[8] The EPA's emergency response branch sampled 27
[9] residential wells in late April 1990. The water quality
[10] analysis indicated relatively high concentration of iron
[11] manganese, and sodium. So iron was there before the
[12] neighbors complained. The manganese was there. Now, we
[13] picked up sodium.
[14] And we have an agency called the Agency for
[15] Toxic Substances and Diseases we call them the ATSDR.
[16] They recommended an alternative water supply due to the
[17] high level of sodium that was found. It wasn't the iron.
[18] It wasn't the manganese. It was because of the sodium.
[19] And we were concerned about people who might have
[20] hypertension, or heart problems, or diabetes, or anything
[21] like that. And that was the reason why they was placed
[22] on the water.
[23] September '91. Test pits were excavated to
[24] characterize the sites constituents during the remedial
[25] investigation. Remember I told you we were trying to

Page 20

[1] investigation what was going on at this site. That
[2] started in 1991.
[3] During one of the excavations near the southern
[4] edge of the landfill, large quantities of leachate --
[5] which was just seepage -- were observed flowing from the
[6] landfill's fill materials. Leachate was analyzed and
[7] found to contain ethylbenzene at 6,400 parts per billion,
[8] 2-hexanone at 29,000 parts per million, toluene at
[9] 480,000 parts per million, and xylene at 44,000 parts per
[10] million.
[11] And basically that's when they were digging.
[12] You can imagine digging into the ground and something
[13] start to ooze, and it's not oil. And that's what we
[14] found after we analyzed it. We found this.
[15] And parts per million simply is one part -- say
[16] if you had a swimming pool and you put one teaspoon of
[17] salt in and a million teaspoons of water, and that's kind
[18] of what parts per million sort of correlates with. Go
[19] ahead.
[20] In 1991 because of the sodium, municipal water
[21] service was provided to the residents living south of the
[22] landfill. Himco Waste Away, Miles Laboratories, and the
[23] City of Elkhart paid for the water services to be
[24] extended to the resident.
[25] In May 1992 U.S. EPA initiated an emergency

Page 21

[1] removal action which located and removed 71 55-gallon
[2] drums that were containing VOC's which included, ethyl
[3] benzene and toluene.
[4] So from that oozing that wasn't oil, they
[5] decided to dig some more and they found that there were
[6] drums buried. And in those drums 71 of them were
[7] recovered. They contained the ethyl benzene and toluene
[8] inside of the drums buried in the landfill.
[9] In 1992 the remedial investigation, which is
[10] entitled Himco Dump Remedial Investigation and
[11] Feasibility Study was reviewed. So that was in 1992. In
[12] 1992 field work, RI field work, remedial investigation
[13] field work, included geophysics, surveying, trenching,
[14] soil sampling, monitoring well installation, ground
[15] water, leachate sampling, landfill waste mass sampling,
[16] residential basement gas sampling, surface water and
[17] sediment sampling, and wetland determination. So
[18] basically we tried to really understand what was going on
[19] in this site by doing all these samples and collecting
[20] all the samples in 1992.
[21] In 1992 we performed what we called a Baseline
[22] Risk Assessment. And that risk assessment indicated that
[23] the potential excess lifetime cancer risk for the site
[24] exceeded the acceptable Superfund carcinogenic risk range
[25] of 1 times 10 to the minus 4, to one times 10 to the

Page 22

[1] minus 6.
[2] And I'll have our toxicologist explain to you,
[3] real briefly, what those numbers are all about.
[4] MS. VAN LEEUWEN: Well, EPA has what they
[5] call an acceptable risk range, but that includes the
[6] concept called a point of departure. So when we go out
[7] and we look at the risk posed by chemicals, if someone
[8] can come in contact with the chemical and get that
[9] chemical into their body, and incur a risk, if the risk
[10] is greater than one in a million we say that we are now
[11] within the risk range where EPA has to do an
[12] investigation, and look at the risks.
[13] If we get one times 10 to the minus 4, or one
[14] in 10,000 risk, then we say we have reached a risk which
[15] we think is appropriate to do some sort of remedial
[16] actions. But within that risk range between ten to the
[17] minus 4 and ten to the minus 6 we'll look at the
[18] exposures, we'll look at the toxicity of the chemicals,
[19] we'll look at the long term side effects, health effects.
[20] And determine what the remedy, or what needs to be done
[21] to reduce that risk to a level which is acceptable and a
[22] level we can live with.
[23] And often the level that we choose within that
[24] range is determined by how confident we are about the
[25] risk. How much sampling we've done, whether we know

Page 23

[1] precisely, with good confidence -- when I say precisely,
[2] I mean we know with good confidence, and we've done
[3] enough sampling, and we know about the health effects of
[4] that chemical whether we need to clean up the site to a
[5] lower level to be more conservative. Because we aren't
[6] certain we have to leave a little larger margin for
[7] error. Or we can clean it up to a higher level because
[8] we have great confidence that we know a risk, and we know
[9] what the potential for a health effect is.
[10] MRS. MASSENBURG: So basically just to
[11] kind of reiterate what she said is, we consider risks
[12] such that we're not sure that you will get cancer, or any
[13] kind of disease from it. But you're at risk of getting
[14] those things.
[15] It's sort of like crossing the street when no
[16] traffic is coming. You can cross the street without any
[17] risk of getting hit by a car. But if you try to cross
[18] the expressway the risk increases. And this is sort of
[19] what we're speaking about here. If the wrist -- if the
[20] risk of one times 10 to the minus 4 says that there is a
[21] one in a thousand tenths that you may get some type of --
[22] I mean one in 10,000, I'm sorry -- chance that you may
[23] get some type of adverse reaction from this.
[24] And so we just have a range where we say it's
[25] acceptable, or it's -- or the probability is that you

Page 24

[1] won't get hit by that car. But then once you get to the
[2] range that you may get hit by the car that's where EPA
[3] says we [redacted]
[redacted] Is that over the life -- I'm
[5] sorry, I'm [redacted] -- is that over a lifetime of
[6] exposure, or after one incident of exposure?
[7] MRS. MASSENBURG: That's a good
[8] observation. It's over seven years of exposure.
[9] MS. VAN LEEUWEN: Right. But for cancer
[10] we do not consider that there is a threshold. We
[11] consider that any exposure that is great enough to cause,
[12] you know, any exposure to a concentration that's high
[13] enough to cause a risk can cause cancer, any time within
[14] the lifetime. But we extrapolate over a lifetime for
[15] cancer risk.
[16] [redacted] So your number is based on
[17] over a lifetime?
[18] MS. VAN LEEUWEN: It's over a lifetime for
[19] cancer risks. Now, we also --
[20] [redacted] Would the risk be the
[21] same --
[22] MS. VAN LEEUWEN: It also is for
[23] noncarcinogens.
[24] [redacted] Would the risk be the same
[25] where somebody came in contact with one single incident

Page 25

[1] versus someone who had constant contact?
[2] MS. VAN LEEUWEN: Well, you get into a
[3] question about whether you have long term low level
[4] exposure to the chemical, which is what we usually
[5] consider. It's also possible to have short term exposure
[6] to higher levels to get into what we call chronic, or
[7] subchronic, or usually EPA's numbers, the potency factors
[8] that Gwen will talk about, are considered long term
[9] chronic exposure. But we can calculate short term
[10] exposures. And at this time our agency does do that.
[11] MRS. MASSENBURG: And just to bring the
[12] point home; if you try to cross the street and there's a
[13] lot of cars coming, see, like a contaminate, your chances
[14] of getting hit by one of those cars is greater. That's
[15] that one time exposure, that one time of crossing the
[16] street of a high concentration of whatever carcinogen
[17] that's there.
[18] So you realize that if you try to cross the
[19] street and there's a lot of cars there that your chances
[20] of getting hit by one of those cars is great. But if you
[21] try to cross the street over seven years and there's one
[22] or two cars coming across your chances of getting hit by
[23] the car is smaller. But you still have a chance of being
[24] hit by a car. It's just that it's diminished over seven
[25] years.

Page 26

[1] Yes, sir.
[2] [redacted]: My name is [redacted]. Now,
[3] you're mentioning the threshold of -- if they did reach
[4] the threshold, so something should be done. What was the
[5] number of cars coming down the street.
[6] MRS. MASSENBURG: We'll get to that.
[7] [redacted]: Okay.
[8] MRS. MASSENBURG: We'll get to that. So
[9] the risk --
[10] UNIDENTIFIED SPEAKER: Excuse me. Why
[11] eleven years go by before we we're ever notified. I
[12] never even got a letter for this meeting.
[13] MRS. MASSENBURG: Okay.
[14] UNIDENTIFIED SPEAKER: Why we're we told
[15] then don't drink the water.
[16] MRS. MASSENBURG: That's not -- because
[17] there wasn't a reason for anybody to tell you as far as
[18] we know there. We tell you as we know. We tell you what
[19] we know. And remember all the people that I was talking
[20] about, that we felt like that needed to be known were the
[21] people that lived south of landfill.
[22] UNIDENTIFIED SPEAKER: That's me.
[23] MRS. MASSENBURG: Well, you should have
[24] been told that.
[25] UNIDENTIFIED SPEAKER: No, I never

Page 27

[1] received nothing. Not even --
[2] MRS. MASSENBURG: Oh, I --
[3] UNIDENTIFIED SPEAKER: I'm -- I found
[4] about this meeting from this.
[5] MRS. MASSENBURG: Okay. Let me ask you
[6] this. Were you in the area called construction debris
[7] area? See there's an impact of the ground water. Ground
[8] water could have -- you could be living south of the
[9] landfill, but not be effected by the landfill. We
[10] base -- our consideration is based on how the ground
[11] water was flowing. And if you lived immediately south,
[12] or east of the landfill that's where the ground water was
[13] flowing. But if you lived -- if you lived kind of
[14] southwest to the landfill then we weren't really
[15] concerned. And perhaps you lived southwest, and not --
[16] MS. VAN LEEUWEN: If you lived south of
[17] County Line Road and was on municipal water.
[18] UNIDENTIFIED SPEAKER: I live on the east
[19] side and I never got anything in the mail.
[20] MRS. MASSENBURG: We'll get to that,
[21] you'll see. If you guys would just be patient a little
[22] bit we'll get to a whole lot of the questions that you're
[23] asking. And if I don't get to it then please ask a them
[24] again. Okay. Because those are concerns -- those are
[25] questions that we were concerned about, and we appreciate

Page 28

[1] your concern.
[2] UNIDENTIFIED SPEAKER: Just we'll quickly
[3] I think I counted like 27 metals and chemicals this you
[4] have listed there. Do I understand that every one that's
[5] listed is of a dangerous, or toxic level?
[6] MRS. MASSENBURG: Potentially they could
[7] be, but they were not. The reason we didn't give you any
[8] numbers is because there weren't any numbers of concern.
[9] This is just what we found in the water. But EPA has
[10] numbers, they have what we call maximum contaminate
[11] limits of how much of a particular chemical can exist in
[12] ground water.
[13] And all those chemicals that were listed they
[14] were in the ground water, but they weren't over that
[15] level, that maximum contaminate level that we have for
[16] drinking water. We don't regulate wells, private water
[17] wells, we regulate the municipal water and we tell the
[18] municipal system you can only have X amount of these
[19] contaminates in the water. And not be concerned about
[20] it.
[21] UNIDENTIFIED SPEAKER: So do I understand
[22] that all of these now are above the acceptable limits of
[23] the water?
[24] MRS. MASSENBURG: No.
[25] MS. VAN LEEUWEN: Maybe I can answer your

Page 29

[1] question. Most of the metals that you saw may have been
[2] naturally occurring. But in order to be considered in a
[3] risk assessment we have to find them at levels that
[4] exceed --
[5] MRS. MASSENBURG: Right.
[6] MS. VAN LEEUWEN: -- the background for
[7] the naturally occurring level. Now, none of the organic
[8] compounds that Gwen has listed as volatile organic
[9] compounds, or semi volatile organic compounds are
[10] naturally occurring. And so if you find those in the
[11] ground water there must be a source of those chemicals.
[12] So when we do a risk assessment we only do the chemicals
[13] that we backgrounds, or should not be there because
[14] they're unnaturally occurring.
[15] MRS. MASSENBURG: And I just wanted to
[16] make -- and I apologize if I'm over simplifying, but I
[17] just want to make a visual word picture. Basically it's
[18] just like the chemicals or the components are making the
[19] cake. And as long as you keep those components in the
[20] right proportion everything is fine and the cake is
[21] beautiful. But if you put too much egg, or too much
[22] sugar, or too much salt, then the cake does not turn out
[23] the way that it should be turned out.
[24] And this is basically what happened here,
[25] although they're chemicals, unfortunately, but there are

Page 30

[1] chemicals that we eat every day from the grocery store
[2] because they too have a limit of what pesticides, or
[3] whatever can be acceptable in the grocery store. And
[4] then once they leach past that limit then you have to do
[5] something.
[6] And so that's why I didn't put any numbers
[7] there. But remember I did list those numbers that were
[8] 44,000 because there were past the --
[9] Please -- yes, sir.
[10] [redacted]: [redacted]. My name is
[11] spelled; [redacted]. Last name [redacted] I moved out
[12] of the area in 1951. And Miles Laboratory was dumping
[13] out there at that time. And -- but I didn't know it.
[14] And we were also living there in the water over there, in
[15] that big hole over there. So how dangerous is what the
[16] calcium sulphate.
[17] MRS. MASSENBURG: Yes, sir.
[18] [redacted]: That's what they were dumping
[19] over there back in the early 50's.
[20] MRS. MASSENBURG: The calcium sulphate.
[21] MR. SCHONHOFF: My name is Phil Schonhoff.
[22] The calcium sulphate is -- it's almost like gypsum, which
[23] is the same stuff they make drywall out of. In and of
[24] itself it's not that toxic.
[25] MRS. MASSENBURG: Yes, sir.

Page 31

[1] [redacted]: I was wondering -- my name
[2] is [redacted], just like it sounds.
[3] I was wondering what the water table on the site is
[4] sitting at.
[5] MRS. MASSENBURG: The water table ranges
[6] at anywhere the 15 to 20 feet. Easily.
[7] [redacted] Okay.
[8] MRS. MASSENBURG: And we'll get to all of
[9] that. Yes, sir.
[10] [redacted]: [redacted]. The minerals that
[11] you have on there, if you look at the One-A-Day vitamin
[12] box that's what you're taking, the vitamins. A lot of
[13] them are in there, it's not bad. You need a trace
[14] element -- traces of all of that for your body to
[15] function properly. So it's not all bad.
[16] MRS. MASSENBURG: Yeah, too much of
[17] anything is bad. But, you know.
[18] [redacted]: Too much water is bad.
[19] MRS. MASSENBURG: That's right. So -- but
[20] we'll get to a whole lot of these questions that you're
[21] asking. And let's just move on and again. If you feel
[22] like I haven't answered your question please feel free to
[23] ask the question. Okay. Let's just go back one.
[24] I just wanted you to know when we talk about
[25] risks we're talking about risks from ingesting, drinking,

Page 32

[1] eating, risks from dermal contact, touching your skin.
[2] Kids playing in the yard, rubbing the skin, you taking a
[3] shower. Inhalation, just simply breathing.
[4] And that's how we -- those are what we look at
[5] when we look at risks. And that's how we define what
[6] risks are. Either risks from drinking, risks from
[7] eating, risks from smelling, or breathing, or risks from
[8] just being in contact.
[9] Now, we're going to talk about hazardous index
[10] and the hazardous index for humans interacting with the
[11] site exceeded the acceptable hazardous index of 1.0. And
[12] again I'll refer to my toxicologist, I'll let her explain
[13] to you what a hazardous index is.
[14] MS. VAN LEEUWEN: When we talked about a
[15] risk range for chemicals that can cause cancer, that are
[16] considered carcinogens, for cancer, for chemicals that
[17] can cause other effects such as dermatitis; skin
[18] irritations, stomach irritation that would lead to
[19] nausea, and upset stomachs, impairment of the kidneys,
[20] problems with the liver, problems with the blood system.
[21] Maybe effecting the immune system, cause respiratory
[22] problems, cause central nervous system problems,
[23] dizziness. Cause reproductive problems; lowering of
[24] sperm count, and miscarriage rates. Those chemicals are
[25] considered noncarcinogenic.

Page 33

[1] And we look at all of these affecting -- we
[2] look at the effect of each compound individually, and
[3] that we have a value of, a concentration at which that
[4] chemical may trigger an effect. And that's called a
[5] hazard quotient for that chemical.
[6] And the hazardous index is the sum of the
[7] hazard quotient for all of the chemicals that can cause
[8] similar effect. So if we have three or four chemicals
[9] that can affect the central nervous system and can cause
[10] dizziness -- many chlorinated solvents that we talk about
[11] can do that. Each one of them will be looked at
[12] individually to see if they exceed the hazard quotient
[13] for that chemical. And then all of them will be summed
[14] to see whether they exceed the hazard index for the
[15] effect.
[16] And if the hazard index is greater than one
[17] then we say that there is a potential for the effect.
[18] And that doesn't mean that you necessarily have the
[19] effect, but there is a potential for the effect.
[20] MRS. MASSENBURG: The thing that I want
[21] you to keep in mind is, in a the hazardous index, we use
[22] that number when we were talking about chemicals that are
[23] known that does not cause cancer.
[24] When we're talking about chemicals that do
[25] cause cancer then we use another number. That was one --

Page 34

[1] that's one times ten to minus four. So that's the way
[2] that we kind of separate the noncarcinogen, or the
[3] noncancer causing chemicals from those that could cause
[4] cancer.
[5] We have to have a standard for them, and the
[6] standard can't be the same for the chemicals that cause
[7] cancer. So we had to figure out another way to find out
[8] what is associated because it doesn't cause cancer.
[9] Okay.
[10] So this is all the preliminary studies. We're
[11] still in 1992 just to reiterate where we are. We're
[12] still in 1992. And for the future use of ground water
[13] beneath the landfill the hazardous index values, those
[14] are the noncancer causing values, were 500 to a thousand.
[15] And antimony was the primary contributor to that risk.
[16] So, in other words, that was the number that
[17] we -- this number is the number that was calculated in
[18] the risk assessment back in 1992. And as you find -- as
[19] I go through this slide that we realize that maybe we
[20] should have calculated it in a different way because
[21] their number is ridiculous. It is compared to one. It's
[22] ridiculous.
[23] So we were forced to look at it in a different
[24] way, and we'll get to the way that. We looked at it and
[25] come up with a better way than this. Because this is

Page 35

[1] just outrageous. The other chemicals.
[2] Okay. Antimony was the chemical that was
[3] contributing to that risk. It was just that one chemical
[4] that gave us a number like this. The other chemicals
[5] contributing to the risk included, arsenic beryllium,
[6] cadmium, chromium, vanadium, alpha-chlordane, and
[7] nitrate, and nitrite. And we'll get to -- this all will
[8] come together in a few minutes.
[9] Okay. In September '92 we proposed a clean up
[10] plan and it was issued to the public for review and
[11] comment. So we've been here before. And we're here
[12] again. But basically we've been here before. And we
[13] gave you all of that historical information, probably in
[14] much more detail back then in that time.
[15] At in a time on September 30th 1993, EPA issued
[16] a ROD -- again, that's the record of decision, and that's
[17] our decision document -- for the site. The purpose of
[18] the selected remedial action as specified in the record
[19] of decision was to eliminate, or reduce, the migration of
[20] contaminates to ground water, and to reduce the risks
[21] associated with exposure to the contaminated materials.
[22] Okay. Back in 1993, the major components of
[23] that record of decision was to construct a composite
[24] barrier over the landfill. Basically we call it a cap.
[25] Consisting of the following components -- and this is in

Page 36

[1] the top down, so if you would imagine, let me go from the
[2] ground surface up.
[3] So the ground surface is here (indicating).
[4] The landfill, as it exists, we were going to put a soil
[5] buffer layer of variable thickness to attain the State of
[6] Indiana grade requirements -- grading requirements. In
[7] other words, we were going to slope it such that -- that
[8] the water would drain off properly.
[9] We were going to put a two foot thick low
[10] permeability clay liner on top of that. Then we were
[11] going to put a 40-mil high density polyethylene flexible
[12] membrane liner. Basically a tarp. But it's the
[13] expensive part. Plastic. Yeah. A six inch thick sand
[14] drainage layer. And then we were going to put an 18 inch
[15] thick vegetative layer.
[16] So if you can imagine -- again, this is the
[17] bottom, this is the ground surface. And all of this was
[18] going to be built on top of that landfill. That was in
[19] 1993.
[20] We were also going to use institutional
[21] controls on the landfill property to limit land and
[22] ground water use. All this is saying is, we were going
[23] to put some kind of control on the landfill to say that
[24] you can't use the land and you can't use the ground
[25] water.

Page 37

[1] We asked that an installation of an active gas
[2] collection system. Because when you have landfill you
[3] have the components in the landfill breakdown. And as
[4] these components breakdown -- as the bacteria that's in
[5] the ground breaks the components down they give off gas.
[6] So we wanted to collect that gas as it was coming off the
[7] landfill, and treat the gas from the landfill.
[8] We wanted to monitor the ground water to insure
[9] that the cap that we put on the landfill was going to be
[10] effective and remain effective. And we wanted to take
[11] mitigative measures to have as minimal adverse impacts
[12] that we could on the wetland areas.
[13] Okay. We're in the present. So that ROD was
[14] never implemented. That decision document was never
[15] implemented. We never did those things. And in 1995 the
[16] Army Corps of Engineers went out to do what we call post
[17] ROD investigations before -- while it was during their
[18] design they were going to design this cap that we had
[19] just spoke about.
[20] And in doing that they wanted to see -- the
[21] last sampling that occurred was in 1992 -- so they did
[22] some additional sampling in 1995 just to see if things
[23] changed so they could make sure that the design fit the
[24] change. So the -- basically the over all objective of
[25] the post ROD activities beginning in 1995 was to conduct

Page 38

[1] additional data to supplement additional data that
[2] already existed, such as; the soil gas investigation.
[3] And that was leading to supplement. And this
[4] is just the final predesign technical memorandum document
[5] for a Superfund site. And it was in 1996 that the EPA
[6] wrote the report. So these reports that I have in
[7] italics should be in your local library. If not we're
[8] going together get them there. But these should be
[9] there. And this is the report telling what they did.
[10] And they also wanted to perform a supplemental
[11] human health risk evaluation that was needed for the site
[12] in the construction debris area. Because basically what
[13] we did was we didn't look at the construction debris area
[14] by itself, we sort of like moved the people off the
[15] construction debris area and moved them onto living on
[16] the landfill, and that's why the numbers were so high.
[17] We're saying these people are not living where
[18] they're living in the construction debris area. In the
[19] recent assessment we had a scenario where it said the
[20] people were actually living on the landfill and drinking
[21] the water from the landfill. That would never happen.
[22] And that's basically where we are today.
[23] We realize that people would never live on the
[24] landfill and they would never drink the water underneath
[25] the landfill, although they might drink the water coming

Page 39

[1] off the landfill. They're not going to drink the water
[2] on the landfill proper. So that's how we did the risk
[3] back then.
[4] [redacted]: [redacted].
[5] [redacted] I used to swim there as a little girl.
[6] MRS. MASSENBURG: In the ponds?
[7] [redacted]: In the pond. I used to swim
[8] there and play in the dirt. It was recreation for all
[9] the kids that lived in the area. I still live there now.
[10] It scares me to death. I didn't even know that Himco
[11] owns it, I considered it as being a Miles' dump area.
[12] When I got the letter in the mail of Himco I had no idea
[13] that that was called Himco.
[14] MRS. MASSENBURG: Okay. Okay. The
[15] purpose of this supplemental risk investigation was to
[16] conduct a human health evaluation for the sites off
[17] property areas that were not addressed in the 1992
[18] baseline risk assessment. Which I basically said that we
[19] wanted to look at the area as where it is now, and not
[20] place it on the landfill. We wanted to see what was
[21] actually happening to the construction debris area and
[22] the people living in that area, where they live and not
[23] imagine that they would live on the landfill. And we
[24] wanted to direct additional ground water data to insure,
[25] again, that remedial action would work.

Page 40

[1] We haven't implemented this cap that I just
[2] showed you, but we just wanted to make sure of the
[3] numbers that existed. And since it had been a couple of
[4] years since they took the sample, and the supplemental
[5] investigation included the September 1995 sampling -- and
[6] that's detailed in the document the Final Pre-Design
[7] Technical Memorandum for this dump. And that was done by
[8] Himco -- excuse me, U.S. Army Corps of Engineers. That's
[9] USACE is U.S. Army Corps of Engineers. So this is 1995.
[10] So this is what happened.
[11] So in 1996, and in 1998, the investigations
[12] were done. The data was collected from the construction
[13] debris areas. These are the samples we collected; we
[14] collected soil samples, we collected soil gas samples,
[15] and we collected ground water samples from the area down
[16] gradient. Because the water flow is coming down through
[17] the landfill, down south through the construction debris
[18] area of the landfill.
[19] The investigation was conducted during April.
[20] Then we did some more investigations; April, May, and
[21] November 2000. So which involved characterizing the
[22] ground water migrating east.
[23] And I'll tell you a little story about that,
[24] but basically what happened was when we was collecting
[25] the soil gas samples from the people living from -- I

Page 41

[1] mean, in the area south of the landfill, we said; well,
[2] let's go up Nappanee Street extension to see how far the
[3] gas migrated. And we didn't expect anything.
[4] So when we got our results back we found out
[5] that, yes, in fact, not only was the soil was coming down
[6] from the two, you know, down south of the landfill, but
[7] it was also going east. And while we were over east
[8] we -- so we got our results from that and then we
[9] realized that the gas was actually moving east. So we
[10] wanted to find out how far east is it moving.
[11] And so what we did was we -- the people living
[12] on Westwood Drive we knocked on the door and said can we
[13] take soil gas samples in your yard, and they said yes.
[14] And the few people we asked -- we didn't ask everybody,
[15] because again we're only working from the data that we
[16] collected and it gave us an indication of to see how far
[17] it's moving. And when we did that people said; well, how
[18] come you never sampled my water. And we said; what.
[19] We didn't know that -- I didn't know it. I was on the
[20] scene then in 2000. In 1999 I came on the scene. And they
[21] said; why didn't you sample our water. We didn't realize that
[22] the water had not been sampled. And the only thing I can
[23] realize there is they didn't think the landfill was impacting
[24] the people east of the landfill. Southeast of landfill there
[25] was no way that they thought the landfill was impacting them.

Page 42

[1] So we thought, okay, we can have one last shot at this
[2] site, why not sample the water. We didn't expect to get any
[3] hits from the water, but unfortunately we did. And that's where
[4] we are today.
[5] We found out that some of the homes closest to the
[6] landfill that are located on Westwood Drive did have hits. Now,
[7] when I say "hits" that means that there were things in the water
[8] that shouldn't be in the water. But that doesn't necessarily
[9] mean that it was outside of that gradient.
[10] One second, I'll -- I just want to make my point. But
[11] there was one residence that exceeded the range out of all the
[12] samples their's --
[13] UNIDENTIFIED SPEAKER: My house is east of
[14] landfill too, and I live just -- our water and our
[15] neighborhood was tested.
[16] UNIDENTIFIED SPEAKER: Michelle
[17] (inaudible). I was wondering why there was no --
[18] there -- we never received anything to test our water
[19] also.
[20] MRS. MASSENBURG: Okay.
[21] UNIDENTIFIED SPEAKER: We just live a
[22] little north and west.
[23] MRS. MASSENBURG: Right. Again, we are
[24] sampling the landfill. We're sampling the people who we
[25] felt like are impacted by the landfill. So you can live

Page 43

[1] right across the street, and there isn't any impact.
[2] Because, again, we're looking at what's
[3] happening underground. And how the ground water is
[4] flowing underground. And you can live right next door to
[5] the landfill, but the ground water that's coming through
[6] the landfill -- we're looking at the water that's coming
[7] through the landfill and into the water. And so there's
[8] a good possibility, based upon the data we collected, we
[9] made an educated guess that your house wasn't impacted.
[10] Okay. That's an educated guess. All right.
[11] UNIDENTIFIED SPEAKER: So --
[12] MS. VAN LEEUWEN: That was the first round
[13] of sampling.
[14] MRS. MASSENBURG: Yeah. The first round
[15] of sampling. So take into consideration this is 1993.
[16] 2000. And we had no idea that the residents living east
[17] of the landfill were impacted.
[18] UNIDENTIFIED SPEAKER: Are we going to
[19] have our water tested? I think we should.
[20] MRS. MASSENBURG: I'll get to that.
[21] UNIDENTIFIED SPEAKER: I have children I
[22] don't want --
[23] MRS. MASSENBURG: That's a good concern.
[24] UNIDENTIFIED SPEAKER: Why didn't you tell
[25] anybody if you found something bad?

Page 44

[1] MRS. MASSENBURG: Hold --
[2] UNIDENTIFIED SPEAKER: I'm talking about
[3] the road right here.
[4] UNIDENTIFIED SPEAKER: I was never
[5] informed.
[6] MRS. MASSENBURG: But, it's -- for us to
[7] know -- put it this way --
[8] UNIDENTIFIED SPEAKER: You mentioned right
[9] was the street.
[10] UNIDENTIFIED SPEAKER: Four years ago.
[11] MRS. MASSENBURG: We'll get to that. Be a
[12] little patient. We'll get to all of that. We're not
[13] trying to have you drink the water you shouldn't be
[14] drinking. Just keep that in mind we're on your side,
[15] trust us.
[16] The reason why we didn't sample ground water
[17] we -- again, we felt like it -- there shouldn't have been
[18] any impact on the water. Unfortunately -- unfortunately
[19] we found that, and we went out again. And we moved to
[20] the next -- across the street where we didn't find
[21] anything. We didn't find anything.
[22] That doesn't mean that nothing exists because
[23] the problem that exists for us over in your neighborhood
[24] is we don't know where your wells are screened. You
[25] follow me. Some people have their wells screened

Page 45

[1] anywhere from 30 feet to 35 feet where they collect the
[2] water. Somebody's living right next to you and their --
[3] their well is down at 60 feet. So we're trying to
[4] understand that.
[5] But keep in mind also, on the east side of the
[6] landfill we have monitoring wells. So it's not like
[7] we're just leaving you guys out there to be exposed to
[8] the contaminates. We were monitoring that landfill and
[9] that monitoring well never gave us any indication that
[10] anything was happening east of the landfill. It just
[11] didn't. So we were looking. It's just unusual.
[12] MS. VAN LEEUWEN: Can I say something.
[13] Often when EPA goes out to do some early testing, what
[14] we'll do is look at the area of highest potential risk,
[15] and do the sampling there to see whether we find anything
[16] in an area. And if we do find it then we'll spread out.
[17] MRS. MASSENBURG: Move over.
[18] MS. VAN LEEUWEN: Go --
[19] UNIDENTIFIED SPEAKER: Like go all the way
[20] around. The whole water system all the way around the
[21] whole area. The whole area around it.
[22] MS. VAN LEEUWEN: But the whole area may
[23] not be impacted. So what we have to do is look for the
[24] worse case. First to determine, one; is there an impact
[25] that's occurring in the area. And you'll find that when

Page 46

[1] we talk about the soil gas.
[2] But we want to know, is there a way by which
[3] the chemicals can get to the people in the area. So
[4] we'll look at the area that's most likely to be impacted.
[5] The first question we have to answer is; can these people
[6] be impacted.
[7] MRS. MASSENBURG: Right.
[8] MS. VAN LEEUWEN: And if they can be
[9] impacted then we'll go on to try to move on to and area.
[10] And --
[11] UNIDENTIFIED SPEAKER: But people in our
[12] neighbor have cancer, and all kinds of stuff. And we're
[13] worried about it.
[14] MRS. MASSENBURG: And that's unfortunate.
[15] And I'm not trying to make light of your questions. The
[16] problem we have is, there are people who are living
[17] nowhere near the landfill that's dieing of cancer.
[18] UNIDENTIFIED SPEAKER: Right.
[19] MRS. MASSENBURG: So we can't really
[20] directly correlate it. But what we can try to do is
[21] protect you, and that's what we're trying to do is be
[22] there and protect you. If you can give me just a little
[23] bit more patience I do have photographs of how the ground
[24] water is flowing, which you don't see, which is
[25] underground.

Page 47

[1] And you can see that it doesn't really go as
[2] far east. The ground water is still coming your
[3] direction, but it's not effecting the landfill. And
[4] that's the whole thing that I want you to put in your
[5] mind is we're only concerned about the area that gets
[6] water after it leaves the landfill. Because the water is
[7] going to come -- and there's no landfill in between you
[8] and the water. That's the area that we're concerned
[9] with. Only the area that the is impacted as it passes
[10] through the landfill, and then gets to you.
[11] State your --
[12] [redacted], I live down
[13] the road from it. And it's been four years, and I
[14] figured this all out. And you try to say the water flow
[15] flows one direction. And so this lady can't get her
[16] water tested because there ain't no reason why you
[17] didn't.
[18] All right. Like, she said, if you're going to
[19] do it, do it right. All right. Nearly -- it's been
[20] eight years. It's been eight years, and you guys haven't
[21] done anything down there. You know, all these studies,
[22] and all this other stuff, it sounds good. You know, it
[23] sounds good --
[24] MRS. MASSENBURG: Right.
[25] [redacted] -- for government. But

Page 48

[1] you're going to wait until Bayer leaves town.
[2] MRS. MASSENBURG: No.
[3] UNIDENTIFIED SPEAKER: And the well --
[4] MRS. MASSENBURG: Of course it doesn't --
[5] it will look like --
[6] UNIDENTIFIED SPEAKER: I've been out here
[7] eight years.
[8] MRS. MASSENBURG: Bayer will leave town.
[9] And that's not limiting them --
[10] UNIDENTIFIED SPEAKER: (inaudible)
[11] paperwork. And, you know, Bull crap going on. And I'm
[12] just thinking, let's get something done here.
[13] MRS. FLISS: I want to say -- Jessica
[14] Fliss from IDEM. Once we give you guys a map later on
[15] during the presentation that will give you a good
[16] indication of why we did sample, or why we didn't sample
[17] certain residences. And we'll show you a map, and it
[18] will make it much more clearer why we sampled there, and
[19] did -- and why we chose not to sample at the same time
[20] where we chose not to.
[21] UNIDENTIFIED SPEAKER: If the fumes are
[22] coming off of -- fumes coming off of it are toxic --
[23] MRS. MASSENBURG: We tested the fumes. We
[24] know all of that. And honestly we have not been spinning
[25] our wheels. We know that human health is our major

Page 49

[1] concern and unfortunately. It looks like to the citizen
[2] were not doing anything, but boy are we working hard. We
[3] are really looking towards trying to protect your health.
[4] That is just a given to us. Whereas you're not on --
[5] you're not on my side so you can't see it. You're on the
[6] other side of the fence. And it seems likes we're not
[7] doing what we're suppose to be doing. But honestly we're
[8] trying to really understand what's happening to your
[9] neighborhood.
[10] Yes, sir.
[11] [redacted]: Yeah, Larry Wentland. How
[12] long have you guys known about the water on Westwood
[13] Drive and that area being contaminated?
[14] MRS. MASSENBURG: We just found it out in
[15] 2000.
[16] [redacted]: 2000. So we've been doing
[17] this three years, and I can tell you about 20 people on
[18] Westwood Drive who had new wells put in and the County
[19] had not done something to stop that. What's the idea of
[20] putting wells in if we're to tap into city water?
[21] Where's the protection for the people?
[22] MRS. MASSENBURG: Let me just say this
[23] sir -- and this is something for future reference for all
[24] of you all, because you may not stay in the area all of
[25] the time. That is, if you have concerns talk to your

Page 50

[1] county health department.
[2] [redacted] Well, you guys should have
[3] notified County Health Department --
[4] [redacted] We did.
[5] [redacted] -- to stop issuing water
[6] permits.
[7] MRS. MASSENBURG: We did. And the thing
[8] is we issued bottled water to those people who we found
[9] that needed to get off of the water. We went to every
[10] house that was impacted on Westwood Drive. We knocked on
[11] every door on Westwood Drive.
[12] [redacted] Where's the impact at?
[13] MRS. MASSENBURG: If you give me a chance
[14] I'll show you. We went to every house on Westwood Drive
[15] and we found out people were already drinking bottled
[16] water, but it's not from the chemicals of the landfill,
[17] it was the taste and odor that was naturally occurring in
[18] that particular area of where you live. There's a lot of
[19] iron in the water. That's not a contaminate of concern
[20] for us.
[21] So these people evidently didn't like the taste
[22] of the water coming out of their wells and decided to
[23] drink bottled water on their own.
[24] Yes ma'am.
[25] [redacted]: My name is [redacted]

Page 51

[1] [redacted]sic), and I lived over off of Willard Road, and I
[2] played in the bottom of that pit that's full of water now
[3] and played in that dump. I'm one of the people that got
[4] hit by that truck. I've had breast cancer. We buried my
[5] sister.
[6] UNIDENTIFIED SPEAKER: Me too.
[7] [redacted]: My mother has cancer
[8] twice. And instead of going around worrying about the
[9] drinking water why don't you knock on everybody's door
[10] and say how many people in your family has died of
[11] cancer, and how many people have miscarriages. Start
[12] there instead of worrying about the ground water and
[13] giving people bottled water. Find out what it's done to
[14] us already, and what it may do to me later on.
[15] UNIDENTIFIED SPEAKER: Or couldn't have
[16] children.
[17] UNIDENTIFIED SPEAKER: Better yet, why
[18] don't you hook everybody up to city water.
[19] MRS. MASSENBURG: The process that you are
[20] all talking about seems reasonable, it really does.
[21] UNIDENTIFIED SPEAKER: That's the only
[22] reason I'm here, personally. Is right now you're running
[23] city water from Bristol Street to a new aeroplex park by
[24] the airport.
[25] MRS. MASSENBURG: We're not doing that

Page 52

[1] sir.
[2] UNIDENTIFIED SPEAKER: Well the city is.
[3] And you guys are in charge of --
[4] MRS. MASSENBURG: No, no, no.
[5] UNIDENTIFIED SPEAKER: -- of this EPA
[6] clean up program.
[7] MRS. MASSENBURG: Only for Himco. We're
[8] not responsible for anything else.
[9] UNIDENTIFIED SPEAKER: Find out that the
[10] area has toxic substances. There's only two neighbors in
[11] this whole area that's to the south, and to the east.
[12] Find that out. We have a problem. We need to get those
[13] people city water.
[14] I asked construction workers by my house that
[15] were running that water two blocks away from my house;
[16] are you going to run me city water. No. Why. I've got
[17] a toxic lagoon an eighth of a mile away from my home.
[18] MRS. MASSENBURG: Remember this, we
[19] weren't going to get into discussion. We were going to
[20] simply answer questions. Hold up. And I'm hoping that
[21] everything that I show you tonight will educate you to
[22] give you a better understanding of what's going on.
[23] UNIDENTIFIED SPEAKER: You just told me
[24] that I'm going have to walk with my daughter across the
[25] street and take a chance of getting hit by a car.

Page 53

[1] MRS. MASSENBURG: You misinterpreted that.
[2] I was trying to give you a good illustration of what
[3] risks were. I didn't mean to say that you were being at
[4] risk right now. You misinterpreted it.
[5] UNIDENTIFIED SPEAKER: I --
[6] MRS. MASSENBURG: Excuse me.
[7] [redacted]. You say you have
[8] the sample -- the sampling wells, or the monitoring
[9] wells. How often are they sampled?
[10] MRS. MASSENBURG: Monitoring wells, I
[11] think from 1995 we sampled them in '95, '96. '98. And
[12] then 2000. So --
[13] [redacted]: It's periodically.
[14] MRS. MASSENBURG: It's periodically.
[15] [redacted]: Once a year, six months.
[16] MRS. MASSENBURG: No. We're still trying
[17] to understand. Basically what happens is we did the
[18] sampling, we got the results. We looked at the results
[19] and decided we need to do additional sampling. And from
[20] that sampling -- that's the way it works. We just don't
[21] go out to --
[22] [redacted]: According to some of your
[23] statements some of the information we've dug up on this,
[24] it was estimated that this plume would expand at the rate
[25] of a hundred and 21 feet a year.

Page 54

[1] MRS. MASSENBURG: Okay. That was in the
[2] remedial investigation.
[3] [redacted]: If that was the case --
[4] MR. SCHONHOFF: Are you talking about the
[5] linear --
[6] [redacted]: Yes.
[7] MR. SCHONHOFF: The rate at which the
[8] ground water travels.
[9] [redacted]: The potential of this is
[10] expanding, potentially, at a hundred and 21 feet per
[11] year.
[12] MR. SCHONHOFF: In this aquifer that's a
[13] little high.
[14] [redacted]: Let's say a hundred feet a
[15] year.
[16] MR. SCHONHOFF: That's right.
[17] [redacted]: In 30 years we're talking
[18] 3,000 feet.
[19] MR. SCHONHOFF: That's reasonable.
[20] MRS. MASSENBURG: So, is --
[21] MS. VAN LEEUWEN: I think what Gwen is
[22] trying to tell you, if she gets to finish it. She's
[23] trying to put into perspective what has happened at this
[24] site, and how we got to be where we are.
[25] Because when Gwen and I got involved in this

Page 55

[1] site there was a record of decision for this site. And
[2] that record of decision did not include addressing your
[3] ground water to the east of the site. It did not include
[4] looking at any soil gas that's migrating off of the site.
[5] And it did not include removing soil and debris, and
[6] chemicals in what she called the construction debris
[7] area.
[8] And since the time she took over a lot of data
[9] has had to be collected to determine that the record of
[10] decision that we had might not be totally appropriate.
[11] And that we might want to do some additional things.
[12] And as we have found, that there are chemicals
[13] in these areas in the water. We have tried to put in
[14] place interim remedies, as she has said, the bottled
[15] water. Because we know the process goes much slower than
[16] any of us would like it to go.
[17] MRS. MASSENBURG: And as --
[18] MS. VAN LEEUWEN: But we're moving in that
[19] direction.
[20] MRS. MASSENBURG: And I just want to add
[21] that you guys apparently have lived next to that landfill
[22] for a long time. This meeting has happened before. And
[23] the thing -- the issues that you are all are talking
[24] about are things that, unfortunately, if you could have
[25] voiced those back then. Because we're here now, we're

Page 56

[1] like cavalry trying to rescue what was improperly done.
[2] We're not going to say everything was done
[3] correctly, we're not going to say that everything was
[4] done incorrectly. We're just trying to fix where we are.
[5] And that's basically where we are.
[6] We understand that back in 1992 -- I'm sure
[7] they had this meeting -- or 1993. They had the same
[8] meeting. And unfortunately a lot of these questions --
[9] [redacted]: All the houses north of County
[10] Road 10 --
[11] MRS. MASSENBURG: Or who are you sir?
[12] [redacted]: [redacted]. And all of a
[13] sudden, they got city water. In fact, after the first
[14] inspection, 1993. Nobody's claimed responsibility of who
[15] paid for that or not paid or that. All of a sudden five
[16] of six houses all got city water. I don't know where it
[17] came from.
[18] MRS. MASSENBURG: I went to that slide and
[19] said that Mr. Himes, and Bayer, and the City was also
[20] instrumental, and so was the City.
[21] [redacted]: I think what it was you guys
[22] tried to solve the problem and keep it quiet.
[23] MRS. MASSENBURG: No.
[24] [redacted]: And eight years down the road
[25] you're going say we're going to fix it.

Page 57

[1] MRS. MASSENBURG: No. Basically what
[2] happened was the people living south of the landfill were
[3] the people we felt were impacted. It was only because of
[4] sodium, it wasn't because of the chemicals that we talked
[5] about.
[6] And if it had not been because of the sodium
[7] chemicals being high those people would not have gotten
[8] the water. They would not have gotten the water.
[9] [redacted]: Well, I --
[10] MRS. MASSENBURG: And I just want you to
[11] know that we'll only talk to people who are effected.
[12] There's no need for me to come to you and talk to you
[13] about --
[14] [redacted]: I understand that. I
[15] understand that ma'am, you have to do this thing right.
[16] MRS. MASSENBURG: We're doing it right.
[17] [redacted]: For eight years you haven't
[18] done anything in eight years.
[19] MRS. MASSENBURG: Yes we have.
[20] MR. HILL: Excuse me please. We're
[21] getting into a discussion now sir. Mark we appreciate
[22] all of your concerns and everyone is concerned. We would
[23] like to get through this. If you'll bear with us please
[24] and let us finish our presentation. And explain the
[25] proposed remedies that we have offered tonight.

Page 58

[1] And if -- there are a number of us who will be
[2] available as long as the room is available to us. We
[3] technically have this until 9:00 in the evening. We'll
[4] be happy to stay after the meeting. But I'm sure there
[5] are some people who would like to see this done rather
[6] expeditiously, so if we could proceed. Thank you.
[7] MRS. MASSENBURG: Okay. So back in April,
[8] May, and November of 2000 we started characterizing the
[9] ground water migrating east and south -- east and south
[10] in a south gradient to the landfill which is an unusual
[11] flow of the water, it's unusual. And then as the
[12] investigation -- the data was collected, and the recent
[13] evaluation was done to get additional information to
[14] determine if further remedial efforts were necessary and
[15] warranted in the construction debris area there south of
[16] landfill as well as the area surrounding the landfill
[17] effected by the ground water migrating from the site.
[18] So basically, just to reiterate that, we
[19] started to look at what was going on east of the landfill
[20] because the ground water flow was suppose to be going
[21] south, not east. So we found out it was going east.
[22] Okay. A complete list of the contaminants and
[23] the sampling results and analysis from 1995 to 2000 is in
[24] your public library. If it's not there today it will be
[25] there tomorrow. It should be there today. But -- it's

Page 59

[1] there. You've seen it. Okay. Thank you.
[2] [redacted]: Our's south of town, not the
[3] one across the street, but the one south of town.
[4] UNIDENTIFIED SPEAKER: They no longer have
[5] it there, they sent it all up town.
[6] [redacted]: They sent it up town. In the
[7] main library.
[8] MRS. FLISS: The one across the street.
[9] MRS. MASSENBURG: I know sometimes people
[10] might say; why do you put it in the library over there
[11] south and not over here. Sometimes we call the library
[12] and the library says, we don't want it.
[13] UNIDENTIFIED SPEAKER: We went over there
[14] and asked about it. And --
[15] MRS. MASSENBURG: Okay. So we put it
[16] there and they moved it over here. So I don't know
[17] what's all of that. Okay. But it's in your library. If
[18] you want to get all of the information about the
[19] sampling, what we found, the number -- the exact number,
[20] all of that information is in that library. In your
[21] library. And it's probably in the reference section.
[22] UNIDENTIFIED SPEAKER: Reference.
[23] MRS. MASSENBURG: Yes, ma'am. Okay. Now,
[24] this is the summary of the site risk that we found. This
[25] 2000 supplementary risk assessment identified the CDA

Page 60

[1] area, the construction debris area, and the eastern
[2] residential area as exposure pathways for the site.
[3] Basically it's saying that the site is, these
[4] are the pathways that the site is impacting the area
[5] south of landfill, and the area east of landfill. And
[6] then, again, I'm reiterating the exposure routes is the
[7] dermal contact with the ground water, such as showering
[8] or bathing. Contact with the soil. Inhalation of vapors
[9] breathing from the ground water. Drinking the ground
[10] water, or ingesting the soil.
[11] Just because I say that doesn't necessarily
[12] mean that's what's going to happen at your house. I'm
[13] just telling you what we're looking at when we look at
[14] risks. These are parameters and numbers we look at when
[15] we look at risks, but it doesn't necessarily mean this is
[16] what's happening at your house.
[17] Again, this is picture of the construction -- I
[18] mean, of the landfill. That's the pond we tested. The
[19] pond -- there was no contamination in the pond, so those
[20] of you who were swimming in the pond you probably had a
[21] good swim because we tested the pond. The fish living in
[22] the pond today, they don't have green eyes, or big lips,
[23] and 15 fingers, and all of that.
[24] UNIDENTIFIED SPEAKER: They're big.
[25] MRS. MASSENBURG: They're big. Because

Page 61

[1] nobody is fishing them out. So they just grow big again.
[2] That's the construction debris area. Right
[3] here the yellow -- and this is Westwood Drive and we'll
[4] get to that. I just wanted to show you again.
[5] Now, this is a sample of all the water wells.
[6] Okay. This is the landfill, the slide is kind of skewed
[7] because I tried to stretch it across the screen. All of
[8] these lines are where we're sampling the water, and this
[9] is around the landfill, even past the landfill,
[10] everything.
[11] So we are really looking at what risks of
[12] exposure are you guys being exposed to. And again, we
[13] have these levels that are built in, and if we ever was
[14] to cut a sample and find out that these levels exceeded
[15] our removal level we have to immediately do something.
[16] So the reason why we haven't been doing
[17] anything is because the levels are being so low. So just
[18] keep that in mind. There is a level where we have to
[19] respond in emergency response. There is a level that
[20] exists. So we're not --
[21] UNIDENTIFIED SPEAKER: Are you going to
[22] (inaudible).
[23] MRS. MASSENBURG: No. Now, here's this
[24] EPA sampling location. So now what I -- I had showed you
[25] on the previous site are the USGS wells is --

Page 62

[1] unfortunately that's a smaller slide, but I'll try to
[2] point it out to you.
[3] These are the wells. Here, here, here
[4] (indicating). Wait, let me just show you this. This is
[5] total landfill. These are the wells to show you that we
[6] are sampling all the way around the landfill, so we are
[7] aware of what's happening off of this landfill. These
[8] are the houses that we sampled. If you gave us
[9] permission to sample your houses -- I've I knocked on
[10] some of the doors and they told me no we don't want you
[11] to test the water.
[12] UNIDENTIFIED SPEAKER: Not my house.
[13] UNIDENTIFIED SPEAKER: Ma'am, on a heavy
[14] dew night when I drive down County Road 10 I get like an
[15] onion smell. I don't know what that is, but it don't
[16] happen all the time. A lot of times -- I mean, if my
[17] window is shut I still smell it. Now, it's just west of
[18] that construction area, I guess. But I'm sure I'm not
[19] the only one driving down there that smells it.
[20] MRS. MASSENBURG: Okay.
[21] UNIDENTIFIED SPEAKER: I don't know what
[22] you said about the rain and snow.
[23] MRS. MASSENBURG: Okay.
[24] UNIDENTIFIED SPEAKER: There's an awful
[25] smell, what's that?

Page 63

[1] MRS. MASSENBURG: What you have to keep in
[2] mind is what we're sampling is what's under the ground
[3] and the soil and everything. So what you're smelling
[4] could be wild onions smelling, I don't know. I'm not
[5] trying to make it light, but it could be wild onions. I
[6] smell it sometimes too and I'm nowhere near Himco. I
[7] know you can smell grass when it's freshly cut, so ...
[8] So, again, in the construction debris area we
[9] looked at the ground water and the maximum contaminate
[10] level for drinking water has not been exceeded recently
[11] from 1998 to 2000. I don't know that it's -- it's
[12] probably been exceeded once in the construction debris
[13] area, one time. After all of these monitoring that we've
[14] done -- and you can go to the library and see is -- there
[15] is a table that shows you each well, and what we found at
[16] each well from 1995 to 2000. And there also is a
[17] document in there that will show you the remedial
[18] investigation and feasibility study that will show what
[19] they found in '92 when they first started working on the
[20] site. Only one time that we exceeded the contaminate.
[21] Once.
[22] And that's why you all probably feel like you
[23] don't know anything because there was no need to alarm
[24] you because we didn't find anything. Okay. We found
[25] contaminates, but it wasn't over our level. Okay. So we

Page 64

[1] didn't want to alarm the whole neighborhood and making
[2] them think that you're drinking bad water, you weren't
[3] drinking bad water.
[4] MR. SCHONHOFF: Phil Schonhoff with IDEM.
[5] When she talks about maximum contaminate levels in ground
[6] water that -- correct me if I'm wrong -- but you're
[7] dealing with the amount of the contaminate that's allowed
[8] in the ground water, and in the municipal water supply.
[9] So for instance benzene is in the ground water, but
[10] that's five parts per million. A municipality will have
[11] one part per million. And you're going to be getting it
[12] every day, but it's below the concentration.
[13] So the problem is when you have -- when you see
[14] it's there, and you have to be here for it to go up. So
[15] she doesn't want to over alarm you it's not that kind of
[16] thing.
[17] MRS. MASSENBURG: Right.
[18] MR. SCHONHOFF: We're not talking about
[19] high concentrations, we're talking low concentrations,
[20] very low concentrations.
[21] UNIDENTIFIED SPEAKER: I understand. But
[22] I can't believe you can't do an on-site investigation
[23] inspection every six months. They have somebody here at
[24] the health department that can do that. It's not just my
[25] concern they're letting it go. And, like they said, two

Page 65

[1] years ago now everything is okay for right now. I mean,
[2] nothing's changed. That's all I'm saying. I don't think
[3] it's been monitored very well.
[4] I've -- and I've been out there for 18 years
[5] when I watch though people out there for EPA I think,
[6] what are they doing out there, and to me I thought they
[7] were wasting their time. And all of a sudden they're
[8] gone, and all of a sudden what got accomplished here, you
[9] know, nothing.
[10] MRS. MASSENBURG: We haven't --
[11] UNIDENTIFIED SPEAKER: I'm talking about
[12] --
[13] MRS. MASSENBURG: I'm go to move a little
[14] faster so we can get through this, so we have time for
[15] questions and answers. So, please, if you have any
[16] questions right now -- because it's already 8:30 -- if
[17] you can kind of remember your question and then ask the
[18] question at the end because we're getting behind, and we
[19] have a few more slides to go. Okay.
[20] Okay. So the maximum contaminate level had not
[21] been exceeded. The noncancer hazardous risk for child
[22] residents however is unacceptable for the ground water in
[23] the CDA area. The ground water. These are things
[24] that -- this is what we found. This -- we have a
[25] hazardous index of 46.0, and that's for the noncancer

Page 66

[1] causing chemicals; antimony, arsenic, iron, manganese,
[2] thallium, 1,2-dichloropropane, benzene, and vinyl
[3] chloride. We've already explained what the hazardous
[4] index is, so I don't need to go through that slide again.
[5] Okay. And then for the CDA soil. For surface
[6] soils we have a screening level where everything has
[7] standards. And you have to pass that standard in order
[8] to get something down. And the screening level was 400
[9] milligrams per kilogram for lead in the soil. If we find
[10] anything that's over 400 milligrams per kilogram then we
[11] have to do something. And there was one parcel that had
[12] 695 which is higher than 400 milligrams in the
[13] construction debris area. And lead was also detected in
[14] other surfaces in the construction debris area, but
[15] never -- well, as far as we know -- it was not detected
[16] over this concentration so we're going to do something
[17] about this. We're going to do something about it because
[18] it has exceeded our level, so we have to do something.
[19] This is just a picture to you where the sample
[20] location where, this is the construction debris area
[21] right here. This -- my pen goes away -- but it's the
[22] dotted line. And all the round circles with the half
[23] black thing this is where we actually took the sampling.
[24] We went to some residential parcels; no, we don't want
[25] you to sample our well.

Page 67

[1] So, I mean, as you can see, this particular
[2] parcel right doesn't haven't a little circle there, it's
[3] not because we didn't want to sample, it's because the
[4] person didn't want us to sample. So we have had to honor
[5] it. Just like ground water they didn't want us sampling
[6] the ground water.
[7] Okay. So we have two phases of soil gas.
[8] Because the soil gas south of the construction debris --
[9] and we did a few sample areas southeast of the area. We
[10] didn't think it was migrating east, and once we did the
[11] sampling we realized; hey, this is moving east too.
[12] Now, moving east doesn't necessarily mean
[13] you're breathing it. We're just telling you it's
[14] flowing. And I'll show you a picture to give you an
[15] indication of what's going on.
[16] So we did Phase I, 43 soil vapor samples from
[17] those that that would allow us to get on the property and
[18] do the sampling. And we analyzed it for VOC's, volatile
[19] organic compounds in the southern construction debris
[20] area. All of the compounds appeared to be distributed
[21] with higher concentrations measured just off boundary of
[22] the landfill, right next to the landfill and tended to
[23] increase the concentration away from the landfill.
[24] So the closer you were to the landfill the more
[25] concentrations were as you moved away from the landfill

Page 68

[1] the gas concentration dropped. In all occasions of all
[2] the samplings we did, the highest detected concentration
[3] was found in the southeast corner of the landfill. And
[4] that's right at the intersection of Nappanee Street
[5] extension and County Road 10. That was where we found
[6] the highest concentration for everything we measured.
[7] What we found were chemicals called carbon
[8] disulfide BTEX compounds, chlorinated ethenes,
[9] chlorinated ethanes. And I'll tell you what those are.
[10] Now, these little triangles are the samples that we did
[11] 12/98 of soil gas. And you can see the open triangle --
[12] the open triangles are the ones we did 11/98. It took us
[13] two months to do this.
[14] And as you can see we sampled all up an down --
[15] we sampled a lot of the areas south of the landfill, and
[16] a few samples on the east side, on the east side of the
[17] landfill. That's Phase I. We just sampled a few.
[18] Next slide. This is what is called an iso
[19] concentration map. And what it shows us is this dashed
[20] line here -- I got to show you this. This is the boarder
[21] of the landfill (indicating)that dashed line. Remember I
[22] that the concentrations was high. This is like 10,000.
[23] It's high. Closest to the landfill.
[24] Move a little further back it's a hundred.
[25] Move a little further back it's 10. And this line goes

Page 69

[1] all the way across. This is a concentration, not just at
[2] this point, all the way across. By the time we get here,
[3] that furthest line away, the concentration is one.
[4] UNIDENTIFIED SPEAKER: Could you point out
[5] which ones are which, where they're at?
[6] [redacted]: You can't see the road.
[7] MRS. MASSENBURG: This is County Road 10.
[8] UNIDENTIFIED SPEAKER: Okay.
[9] MRS. MASSENBURG: We're still talking
[10] about the construction debris area. We only did a few
[11] samples here because we didn't think the gases migrated
[12] here.
[13] UNIDENTIFIED SPEAKER: That's the John
[14] Weaver Parkway.
[15] MRS. MASSENBURG: That's the John Weaver
[16] Parkway. And you can see all the little triangles
[17] samples. We directed, as I said, closest to the landfill
[18] the concentration is higher.
[19] This is the corner that I'm talking about that
[20] had the highest concentration. This is 10,000, but by
[21] the time you move here it's one. This is the street
[22] right here (indicating). So this is the landfill. When
[23] I say "the corner" I don't mean right here at the corner
[24] but this -- I'll try to give you an idea of where the
[25] samples are.

Page 70

[1] Go ahead. Go back. I'm sorry. I just wanted
[2] to explain to you what BTEX is; benzene, toluene,
[3] ethylbenzene, toluene, etyhlbenzene. And this should be
[4] xylene. Sorry. I looked at toluene. That's what BTEX
[5] is, and we did detect that. Those are the chlorinated
[6] ethenes that we detected.
[7] And the chlorinated ethenes, again, as you get
[8] closest to the landfill the concentrations are high. For
[9] this particular compounds it's all up this side here, and
[10] this is Phase I. We didn't think we would even get
[11] numbers out here, but we did. Even though the numbers
[12] was low. We wanted to resample this number here at the
[13] 4, this .02 compared to right in here was 10,000
[14] (indicating). So right off the landfill. And again this
[15] is chlorinated ethanes.
[16] Again. The concentration is here. Pretty
[17] much -- well, it's not as bad as the chlorinated ethane.
[18] But, again, this is a hundred. You get down here this
[19] concentration is .76.
[20] Phase I, vinyl chloride. This shows you heavy
[21] concentration of vinyl chloride. This first line here
[22] was at 18,000. Then it gets smaller, a thousand, a
[23] hundred, 10. At these lines. And then by the time you
[24] get here, which is closest to where the people are --
[25] because the people are living here.

Page 71

[1] Let me just point this out. These are the
[2] houses right here (indicating), they're drawn here. And
[3] all of this is important. If you want to look at this
[4] very closely these are the houses, and these are the
[5] concentrations that we're finding. And if we find a
[6] concentration of .21 we're not concerned about. We're
[7] concerned about what's still going on out here, and these
[8] are where the people are living.
[9] So, again, I showed you all the east side. We
[10] only took a few samplings. And we didn't expect to get
[11] any hits out there. So once we got the hits we decided
[12] we needed to characterize what's happening out there. We
[13] want to find out how far is the gas moving. Because we
[14] didn't look at that.
[15] Oh, and the compounds that were detected in
[16] soil gas -- I mean, the soil gas Phase II was carbon
[17] disulfide, which was detected in one. Styrene that was
[18] not detected in one. Dichlorobenzene,
[19] 1,2-dichloropropane. BTEX again. The chlorinated
[20] ethanes, and ethenes. And the halogenated methanes;
[21] chloroform and bromomethane. They weren't detected
[22] before. Freon and ketone. Those weren't detected. This
[23] is on the east side.
[24] Again, we say all detected compounds appear to
[25] be distributed with higher concentrations closer to the

Page 72

[1] landfill. As you moved away from the landfill the
[2] concentration dropped. It just dropped in all cases.
[3] The results were consistent with observations made from
[4] Phase I soil gas investigations. And the extent of the
[5] detected concentration had been delineated.
[6] So we found out how far it was moving. A total
[7] of 49 samples was taken this time trying to find out how
[8] far east it was moving. Before we did 43 in the south
[9] area, now we did 49. And this, again, are the chemicals
[10] that we detected.
[11] And I'm just breaking out, what is a
[12] halogenated methane is chemicals called chloromethane
[13] chloroform, chloromethane. We picked up ketone
[14] compounds. And the ketone compounds are things like
[15] acetone, 2-butanone, and 4-methyl-2-pentanone. And these
[16] are what are called ketones. And this just showing you
[17] what the name of chemicals are.
[18] Now this is -- these little triangles are the
[19] sampling locations. These little black triangles --
[20] these things here are the houses that exist on the east
[21] side of the landfill. This house, this house, this house
[22] this house. On Westwood Drive. Okay. And these are the
[23] samples.
[24] So you can see we not only sample behind the
[25] house we sample in front of the house to try to

Page 73

[1] understand where that gas was moving. And this is what
[2] we detected the BTEX compounds; benzene, toluene,
[3] ethylbenzene and xylene. As you can see these are --
[4] MR. SCHONHOFF: Where's the zero line?
[5] Where's zero line? Is that the zero line?
[6] MRS. MASSENBURG: This one is a no detect.
[7] We didn't pick up anything.
[8] MR. SCHONHOFF: That's important to know.
[9] MRS. MASSENBURG: You see these are where
[10] the houses are located. We didn't pick up anything for
[11] BTEX.
[12] MR. SCHONHOFF: You're not showing that.
[13] What you're doing in that is gas that's in the soil
[14] between two saturated water tables and the top of the
[15] ground.
[16] MRS. MASSENBURG: Yeah. This is in the
[17] ground, this is not --
[18] MR. SCHONHOFF: As soon as you get away
[19] from the landfill --
[20] MRS. MASSENBURG: Landfill is here
[21] (indicating). The landfill is here. Again these are the
[22] houses. And this is where we picked up no detection.
[23] That's no detection. This is 10, a hundred, and a
[24] thousand.
[25] As you get closer to the landfill. That's

Page 74

[1] BTEX. These are the chlorinated ethanes. They moved a
[2] little further in terms of houses. But, again, these are
[3] no detects. All of these samples are where we didn't
[4] pick up anything.
[5] This line we picked up 10,000 of these
[6] compounds. This line a thousand. A hundred. 10. And
[7] then nothing. This last line is the nothing line.
[8] Again, just a different compounds. No detect
[9] (indicating). Nothing.
[10] Now -- and that's a typo though -- we did
[11] ground water. We're looking at ground water. We just
[12] got through looking at soil gas. We did pick up the MCL
[13] for 1,2-dichloropropane is 5 micro grams -- that's a
[14] typo, not milligrams, but 5 micro grams. And that's the
[15] level that EPA says, once you hit this number and above,
[16] then you've exceeded the maximum concentration we allow
[17] you was --
[18] MS. VAN LEEUWEN: In a municipal water
[19] system.
[20] MRS. MASSENBURG: In a municipal water
[21] system, not a private monitoring well.
[22] So we picked that up in one house on Westwood
[23] Drive. We sampled a whole a lot of houses, we picked
[24] that up on Westwood Drive. And the risks associated with
[25] that is 5 times 10 to the minus four, which exceeds the

Page 75

[1] one times 10 to the minus four. I mean 5.5 is greater
[2] than one. So that's that one compound that we found in
[3] that one house. And it exceeded our acceptable risk
[4] range.
[5] That's what's driving this whole thing that's
[6] getting ready to happen, one house. You guys believe it
[7] or not. One house. Okay. Go ahead.
[8] This is just to show you the ground water flow
[9] how the ground water is flowing underground. And --
[10] MR. SCHONHOFF: Go ahead.
[11] MRS. MASSENBURG: Well, basically --
[12] MR. SCHONHOFF: You want me to do it. Go
[13] ahead.
[14] MRS. MASSENBURG: Basically these are just
[15] ground water contours right here. But it's showing you
[16] the direction of the landfill the water that's flowing
[17] underneath the ground and. That was done, mind you, in
[18] September of 1995. This is what we -- and this table
[19] comes from, is from the USGS.
[20] And this is what they proposed was happening to
[21] the ground water flow. That it was flowing in this
[22] direction here. Like that (indicating). These are just
[23] the contours. But it's -- you draw a line, a straight
[24] line in between.
[25] So you see how you can live right here on

Page 76

[1] Westwood Drive -- oh mind you, and the landfill is right
[2] here. Right down here. So you can live on Westwood
[3] Drive, but the water does not come through the landfill
[4] before it gets to you. It's only the people living
[5] south, the area right here. Because the water is coming
[6] like this (indicating). And then southeast right down in
[7] here. But we have houses all over in here too.
[8] So that's the importance of understanding the
[9] ground water flow. That even though the ground water --
[10] even though you're close to the landfill the water that's
[11] coming to you may not go through the landfill first. And
[12] that's very important to know. Again this is 1995.
[13] This is recent, like 1998/2000. The lines look
[14] different now. And basically what this map is showing,
[15] this is the residences on Westwood (indicating). There's
[16] Plainfield Drive right there. There is County Road 10
[17] (indicating). And what we're proposing is this line
[18] right here, is the red line that we were looking at
[19] before. But we think there may be some mounding because
[20] if they put soil here that it would change the way that
[21] the ground water would flow. And still --
[22] MR. SCHONHOFF: Seasonal runoff. Runoff
[23] off the landfill, and the adjoining sites, and for very
[24] short -- in effect, for a short period of time. A matter
[25] of days and weeks can effect ground water flow locally.

Page 77

[1] It will normalize back out, but if you have a big storm
[2] event it can change your ground water flow for a short
[3] period of time and then tend to correct itself. So you
[4] have to --
[5] MRS. MASSENBURG: Is that snow and rain?
[6] MR. SCHONHOFF: Yeah. Things that can
[7] have a big bearing on ground water flow.
[8] MRS. MASSENBURG: So I just wanted to show
[9] you the difference.
[10] This is the other map. The blue line is what
[11] it looked like. The red line is now because they built
[12] up on the landfill. The blue line would show you if
[13] there wasn't any construction activity in terms of
[14] putting --
[15] [redacted]: My name is [redacted]
[16] With the -- with the rain and the snow changing the way
[17] that the water goes, the city is currently putting in a
[18] sewer line to the industrial park on John Weaver. And
[19] they were pumping water from the wells because they're
[20] hitting water before they put the sewer line. How is
[21] that going to the effect the water table and that east
[22] side?
[23] MRS. MASSENBURG: That's a good
[24] observation. And it does effect the water. We didn't
[25] know about it because the City didn't come to us and ask

Page 78

[1] us could we put in sewer lines. They didn't tell us
[2] that. We just found out by reading through the papers.
[3] But I'm sure they looked into the -- all that. But it
[4] does effect the water.
[5] [redacted]: Can you guys put a stop to it
[6] right now so an investigation can be done?
[7] MRS. MASSENBURG: I think the only sewer
[8] line that I know is being put over here.
[9] [redacted]: It's going right now. Highland
[10] and Plainfield. And they're getting ready to go across
[11] Plainfield.
[12] MS. VAN LEEUWEN: On the gradient for a
[13] short period of time.
[14] [redacted]: Because I live there almost on
[15] the corner.
[16] MR. SCHONHOFF: On the Parkway?
[17] [redacted]: Yeah.
[18] MR. SCHONHOFF: Which side of road?
[19] [redacted]: East side.
[20] MRS. MASSENBURG: Right over here?
[21] [redacted]: Far east side, yeah.
[22] MR. SCHONHOFF: How deep is that line
[23] going?
[24] UNIDENTIFIED SPEAKER: They're hitting
[25] water.

Page 79

[1] MS. VAN LEEUWEN: It probably will have an
[2] impact for a short period of time, maybe not a long term.
[3] MR. SCHONHOFF: You know, we need to find
[4] out more about that.
[5] MRS. MASSENBURG: We do need to find out
[6] more.
[7] [redacted]: Niblock is the one that's doing
[8] the work.
[9] MRS. MASSENBURG: Who is doing that?
[10] MS. MAST: Niblock.
[11] UNIDENTIFIED SPEAKER: On County Road 5,
[12] whatever you prefer to call it. It's within a hundred
[13] yards of that. It runs up Highland. It crosses
[14] Edwardsburg and into the airport.
[15] MR. SCHONHOFF: Good point.
[16] MRS. MASSENBURG: We'll definitely look
[17] into it. Like I said, I didn't know about it. I thought
[18] it was just a sewer line.
[19] [redacted]: They've been working on it some
[20] time now.
[21] MRS. MASSENBURG: It will impact the flow
[22] of the ground water temporarily, there's no doubt about
[23] that.
[24] [redacted]: They've driven people's wells
[25] dry from the pumping already.

Page 80

[1] MRS. MASSENBURG: Would you --
[2] [redacted]: We know there's five wells
[3] pumped drive from that.
[4] MRS. MASSENBURG: Again, this was showing
[5] you -- that was the shallow aquifer. That slide I showed
[6] you was the shallow aquifer; anywhere from 20 to 45.
[7] This is intermediate aquifer from 35 to 75 feet. This --
[8] and this is showing the ground water flow. And again the
[9] direction is -- the water is flowing in this direction.
[10] So you can see that some of these houses are
[11] not going to be impacted because the water is flowing
[12] here. We're only concerned about the houses where the
[13] water flowed through the landfill and then into the
[14] houses. Those are the houses that we're concerned about.
[15] And those are the houses that were sampled based on what
[16] we know about the ground water flow.
[17] Even though you're close to the landfill you're
[18] not being impacted. Okay. The hazardous index for the
[19] eastern residential ground water that we found, the
[20] propane is 28.95, and that's why we're here today to do
[21] something about it. And those chemicals we found;
[22] arsenic, chromium, iron, manganese, thallium, and
[23] benzene, and 1,2-dichloropropane was not exceeding our
[24] standards that we're looking for. We only found that one
[25] chemical.

Page 81

[1] Again this Phase II soil gas detects for these
[2] compounds; chlorinated ethanes, halogenated methanes;
[3] ketone compounds.
[4] So we're at the phase now where we want to
[5] recommend changes to the 1993 ROD. We want to do
[6] something different to the 1993 ROD, and EPA proposes to
[7] amend that 1993 ROD to modify that cap. That cap that
[8] was going to be on the landfill, and to change the
[9] composite designed, and to establish a contingency for
[10] further ground water containment and remediation.
[11] If, during the long term monitoring of the
[12] ground water a hazardous constituent exceeds a trigger
[13] number -- a trigger number is based on our standards --
[14] we want you to know that a contingency remedy will be
[15] implemented. This is what we're proposing to do.
[16] I'm -- okay. I'm talking about triggers. And
[17] all that basically -- EPA triggers will be based on the
[18] multiple exposure; drinking, eating, drinking, skin
[19] contact, showering, inhalation. All of that is what
[20] we're going to take into consideration.
[21] And here's an example. Dichloropropane, for
[22] example, the suggested trigger for dichloropropane, a
[23] carcinogen, could be 16 ppm.
[24] MS. VAN LEEUWEN: Ppb.
[25] MRS. MASSENBURG: Ppb. I'm sorry. That's

Page 82

[1] another typo. Parts per billion, not million.
[2] If we find in our monitoring wells this being
[3] exceeded, then we would have them do a -- either put more
[4] people on water, or do something to that water as it
[5] comes off the landfill. So we are looking at it as it
[6] comes off the landfill. And we have a number -- and this
[7] is just as an example.
[8] For every chemical we'll look at, if we find
[9] that laundry list of chemicals we're going to look at it,
[10] because each one has a unique trigger number. They're
[11] not all 16, but each has a unique trigger number. That's
[12] just an example.
[13] When we found in a that one residence his water
[14] was 10. But we're still going to do something about it.
[15] But it wasn't -- it's much lower than 16. Okay. And for
[16] a noncarcinogens, the chemicals that does not cause
[17] cancer, the trigger levels measured would be any value
[18] greater than one again. So that's still that trigger for
[19] that particular compound -- I mean, the carcinogens.
[20] The rational for modifying that 1993 cap is as
[21] follows; since the landfill waste is in contact with the
[22] ground water the effectiveness of that 1993 cap is
[23] minimized and therefore is not cost effective. The waste
[24] and the water are in contact with each other. So if you
[25] put something on an impermeable surface. It doesn't

Page 83

[1] matter because the waste and the water is in contact with
[2] each other. The 1993 cap will not remove the potential
[3] threats to the receptor because it's in contact with the
[4] water.
[5] In this proposed plan that we're talking about,
[6] the receptor, which are the residents, will be connected
[7] to -- we're proposing to connect them to the local
[8] municipal water supply, and therefore the increased cost
[9] of the 1993 cap is not necessary. We'll get into that.
[10] It's not all about cost. We just wanted to
[11] explain to you it's not going to make any difference if
[12] they were going to put the remedy in place in 1993. The
[13] people -- we found the contaminants over on the east side
[14] still would have had the contaminant. It might have
[15] taken 2009 to find it because it slows it down, but it's
[16] still moving because the waste is in contact with the
[17] water.
[18] [redacted] Would it not help minimize
[19] future, or slow down the whole process and give it a
[20] chance to decay down.
[21] MRS. MASSENBURG: That's what we're
[22] proposing to try to do. Okay. Because it's already in
[23] contact. And you'll see what we're proposing to do. The
[24] structure of that cap of 1993, to protect it, the
[25] integrity of it, would have increased the cost, or

Page 84

[1] prohibited the potential redevelopment of the site.
[2] We don't want to put a fence up and leave that
[3] landfill just like it is. We wanted to help the City of
[4] Elkhart, or some other city, somebody might want to put
[5] the land to productive use. That's what we're hoping,
[6] but if we kept the same remedy in 1993 that would have
[7] been impossible. There's no way we could reuse the land.
[8] And we're also proposing that an extensive ground water
[9] system would be implemented to insure the that -- the
[10] residents are protected. And we want to monitor the
[11] water. And you'll see that in the next slide.
[12] The second thing I spoke about, and this is
[13] what Mr. Hodgson is going to speak about, is that we, as
[14] the EPA, has given the City of Elkhart a grant to try and
[15] figure out how can we reuse the property. Because we
[16] don't want the property to just put a fence around it --
[17] back at a day 1995 and previous we would just put a fence
[18] around the hazardous waste sites and walk away. But
[19] today is a new day, and we're trying to reuse the sites.
[20] And basically what this grant has been given to
[21] the City. And you all would have a good impact on what's
[22] going to be done. And he'll speak with you more about
[23] that. We are hoping to reuse the property so it won't
[24] just have a fence around it.
[25] Now, what we're proposing to do to this

Page 85

[1] modified soil cover is we want to -- a modified soil
[2] cover will be placed over the footprint of that 60-acre
[3] landfill. So that circle that I drew around the landfill
[4] is about 60-acres. We want to contour and grade the
[5] existing cover, the land surface. Now, we want to put 30
[6] inches of soil on top of the landfill.
[7] Now, the reason for doing that 30 inches is we
[8] know that at least 24 inches is impacted by your winter,
[9] your freeze and your thaw, and basically what that does
[10] to soil -- and I don't know if you notice, but I notice
[11] in my own yard the freeze/thaw in my soil, I have all the
[12] cracks in my topsoil. And you can see it. And it's just
[13] a phenomena of the soil of having ice and water inside of
[14] it. And when it thaws it sort of like lives the cracks
[15] in there.
[16] And we know in this area of Indiana you have a
[17] 24-inch layer that will be impacted by the freeze/thaw
[18] phenomena. So we want to put 30 inches of soil so that
[19] the last six inches will not get cracked from the
[20] freezing and thawing. And that will keep the
[21] permeability, or the ability for water to percolate.
[22] It will get easier and easier in that first
[23] 24 inches over time. But that six inches will not be
[24] effected. And we're asking that the six, that the 30
[25] inches of the soil have this permeability constant.

Page 86

[1] This basically tells you how fast the water
[2] will drip, or leach through the soil. So that's the
[3] permeability constant. And it slows it down. And we're
[4] asking that the soil that be placed on top of the
[5] landfill have the permeability constant where it slows
[6] the infiltration of the water down significantly.
[7] We just don't want any soil on top of landfill,
[8] we want soil on top of the landfill that will only allow
[9] to seep through -- only so many centimeters that the
[10] water will seep through. And that's basically what it
[11] is. That's just the permeability constant, or the
[12] specification that they will have to meet.
[13] And, again, I just spoke about it. The bottom
[14] six inches of soil will not be impacted by the 24, the
[15] potential of the 24 inch freeze/thaw phenomena. And we
[16] want to random fill existing waste that's kind of left
[17] over from the previous ROD. And also we want to use
[18] institutional controls on the landfill property to limit
[19] the land reuse to industrial, recreational or commercial.
[20] Basically that means that nobody can ever live
[21] on the landfill. That's the control we'll put on the
[22] landfill. We'll allow you to do some type of industrial,
[23] put another industrial thing there, or recreational thing
[24] there, or something commercial there, like a Wal-Mart
[25] that's commercial. Industrial will be something useful.

Page 87

[1] Yes, sir.
[2] [redacted]. If you're going to
[3] build something back there, isn't that going to mess up
[4] your layer of soil you've got going on there.
[5] MRS. MASSENBURG: That's the reason why we
[6] gave them the grant to make sure they have to consider
[7] all of that before they build anything. All of that has
[8] to be considered.
[9] But, you're right. Some things, like, it can't
[10] have a foundation, it has to be slab on grade. So you're
[11] absolutely right. Some things will effect it. We'll not
[12] allow -- the EPA will not ever walk away from the site.
[13] We're not going to allow anyone to come in and put
[14] anything on the landfill that's going to disturb the
[15] remedy that we've selected and that's going to compromise
[16] human health. We'll not allow that.
[17] They will have to come through us to do
[18] whatever they want to do. And you'll see some of the
[19] control things we're going to put on the landfill will do
[20] just that. The construction cover will be implemented to
[21] avoid, minimize adverse affects on the wetlands. There
[22] are wetlands that exist on the landfill, and we want the
[23] final grading of the total cover to be a slope of no less
[24] than 2%. After accounting for the anticipated
[25] settlement.

Page 88

[1] So basically we're trying to slope it such so
[2] that when it rains it won't sit there it will runoff.
[3] And that's what the 2% grade is all about.
[4] MR. SCHONHOFF: How you manage the water.
[5] Protect the erosion.
[6] MRS. MASSENBURG: Yes, sir.
[7] [redacted] You just made reference to
[8] settling. And if you build any structure on top of it, I
[9] was under the impression that any landfill would not have
[10] a structure be erected on it for X number of years. Is
[11] that true?
[12] MR. SCHONHOFF: It's modified soil.
[13] [redacted]: Yeah. [redacted]. This is a
[14] little bit atypical because of what was put in there.
[15] The landfill has calcium sulfate, which is still
[16] basically just a lot like gypsum, plaster of paris.
[17] Over time it hardens into a rock type
[18] structure. So the problem with most landfills you have
[19] trash in there, it's constantly degrading. And as it
[20] degrades it settles and compacts. The gypsum is pretty
[21] much an organic material.
[22] So now any structure will require extensive
[23] engineering studies of the subgrade to make sure it's
[24] going to hold up. We're not going to let them put a
[25] building up there that is going to start settling,

Page 89

[1] cracking, or basically failing over in a short period of
[2] time.
[3] So the remedy, or the ROD will allow for
[4] proposals for redevelopment. But they will have to be
[5] demonstrated that the redevelopment is consistent with
[6] protection of human health and environment, and not
[7] damage what's in place.
[8] MRS. MASSENBURG: This is a new day and
[9] we're trying to use the property as much as possible.
[10] And I see your hand, I'll get to you.
[11] And we're requiring any developer, or anybody
[12] to do the study, or demonstrate to us, that's not going
[13] to affect us. So we're not going to say anything could
[14] go there, or anybody can do anything. You have to show
[15] us, you have to demonstrate in writing that this is not
[16] going to impact the remedy. And that's part of the
[17] institutional control that will go on the landfill.
[18] Yes, sir.
[19] [redacted]: [redacted]. If I read
[20] that correctly. The plan is to raise the ground level by
[21] 5 feet.
[22] MRS. MASSENBURG: 30 feet. 30 inches.
[23] [redacted]: 30 inches?
[24] MRS. MASSENBURG: 30 inches.
[25] [redacted]: 30 inches total?

Page 90

[1] MRS. MASSENBURG: Yes.
[2] [redacted]: In any case, it appears that
[3] the rain runoff pattern would change considerably on 60
[4] acres of water coming off here. Is this likely to impact
[5] any of the residences? Would changes in the runoff --
[6] [redacted] [redacted] again, likely
[7] structure --
[8] [redacted]: Are you going to flood the
[9] roads?
[10] [redacted]: Any structure -- when we go to
[11] design phase, storm water management is a critical
[12] portion of design. So there will be surface water runoff
[13] structures. There will be ditches, retention ponds the
[14] water will be directed to. Just like putting in a
[15] development.
[16] [redacted]: Retained on the property
[17] then?
[18] [redacted] Retained on the property.
[19] MR. SCHONHOFF: Temporarily.
[20] [redacted]: Because it will be held back
[21] and then released.
[22] [redacted]: Thank you.
[23] [redacted]: Because there is also local
[24] drainage and zoning.
[25] MRS. MASSENBURG: Yes, sir.

Page 91

[1] [redacted]: Do you have somebody
[2] wanting to develop this area now?
[3] MRS. MASSENBURG: Not to my knowledge.
[4] [redacted]: Nobody's approached you
[5] about doing it?
[6] MRS. MASSENBURG: Back a long time ago
[7] they did, and not recently. And somebody that's
[8] approached me is for a golf course and they've not
[9] approached us recently. And I don't know what's going to
[10] happen. And that was under an old administration also,
[11] and recently nobody has done it.
[12] We're just going to give the grant to the City
[13] so they can see if something can be done. You know, it
[14] may not -- anything feasible may not be done, but there
[15] are several things that can be done. You can put
[16] basketball, for instance. Tennis court. These are just
[17] throwing out things. Not saying this is going to happen.
[18] Those would be considered recreational uses. And
[19] Mr. Hodgson, who works in the environmental department
[20] for the City, he's going to talk to you all briefly at
[21] the end of my presentation -- which I'm desperately
[22] trying to get to.
[23] Okay. We also want to install active gas
[24] collection system, which was also part of the original
[25] remedy, but now we see closest to that landfill we really

Page 92

[1] need it to keep the concentrations. Because once you put
[2] the soil on top of the landfill the lines that you saw
[3] are going to move. So we need something to keep the
[4] lines from moving. And we're going to put a gas
[5] collection system in there to keep the lines from moving,
[6] migrating even further. Because the soil we put on top
[7] is going to force that gas to keep moving. So we're
[8] going to ask that they put in an active gas collection
[9] system, and if necessary a thermal oxidation process will
[10] flare -- with a flare stack will be constructed as
[11] required by the Indiana Administrative Code.
[12] So there's a lot of rules and regulations that
[13] exist that you have to -- just like if you have wanted to
[14] build something on your house you have to get a permit.
[15] Well, these things don't go away, they're still here for
[16] us too. We have to make certain that things are met too.
[17] But this -- we're going to ask that it be
[18] monitored quarterly, once every three months that we come
[19] out and take a sample every three months. All the
[20] monitoring wells, plus the wells that we ask that they
[21] put in the neighborhood, just to make sure that the
[22] people who are not being placed on the water are going to
[23] be still protected.
[24] And keep in mind, we'll have monitoring wells
[25] on the landfill, and away from the landfill. So we're

Page 93

[1] trying to protect you guys, we really have are. And we
[2] also want quarterly monitoring of the soil gas to make
[3] sure that the gas collection system is working. Okay.
[4] We want semiannually for the next four years.
[5] So basically we're saying based on the -- based
[6] on the results, if everything is under control and
[7] everything, then we'll go to semiannually for the next
[8] four years. And if everything is under control. If
[9] everything is not under control in that first year then
[10] we won't allow you to monitor semiannually, we'll keep
[11] the quarterly manually going.
[12] Periodic inspections of the landfill gas
[13] collection system. And this is basically the things that
[14] we want; a complete inspection of the landfill cover
[15] system drainage structure, landfill gas collection
[16] system, and ground water wells, landfill collection
[17] probes will be conducted periodically during the post
[18] closure period.
[19] So we're going to be monitoring, as part of the
[20] remedy, we're going to put the soil cover, but we're
[21] still going to monitor -- just to protect the humans to
[22] make sure nothing has changed, the periodic inspections
[23] will be performed on a quarterly basis during the two
[24] years after post closure. Depending on what we find
[25] following this period periodic inspections will be

Page 94

[1] conducted on a semi annual basis.
[2] But, keep in mind, during the first two years
[3] if we find all the violations we're not going to stop
[4] them from doing it quarterly. They have to get it right
[5] for two years in a row with no problems whatsoever before
[6] we move it into the semi annual.
[7] [redacted]: Who's that?
[8] MRS. MASSENBURG: The people, r.p.
[9] [redacted]: The developer?
[10] MRS. MASSENBURG: No, the responsible
[11] party.
[12] [redacted]: Okay.
[13] MRS. MASSENBURG: I'm sorry. I didn't
[14] mean to use the pronouns. It's the responsible party
[15] that we're asking to do this. All of these things the
[16] remedy we're asking -- we're asking them also to perform
[17] operation and maintenance of the vegetation soil cover
[18] the soil gas collection and monitor the well network for
[19] a minimum of 30 years. We're asking them to do that.
[20] But the CDA, the construction debris area,
[21] we're going to ask that they excavate that lead parcel
[22] that exceeded the 400 level. We're going to ask that
[23] they remove that soil and put in clean soil. And we'll
[24] excavate that soil.
[25] All of this will be worked out in details, but

Page 95

[1] we're trying to show you all of the problems we
[2] identified. These are the remedies to the problems.
[3] We're going to ask that they remove all the construction
[4] debris area. The debris rubble. Because there was just
[5] a lot of dumping of aluminum, washing machines,
[6] everything in this construction debris area.
[7] We're going to ask them to clean that up and
[8] replace it with the soil. Because when you take out,
[9] like, a refrigerator then it leaves this big gaping hole.
[10] So we want them to cover the hole with clean soil. We
[11] want to get rid of the rubble, the cement and everything
[12] that's in the construction debris area.
[13] Those people who got placed on the municipal
[14] water on south of the landfill -- now, remember, when we
[15] first placed those people on the water we placed them on
[16] the water because of sodium. But then you saw all those
[17] other compounds that we have detected in the water. And
[18] we want those people who receive that municipal hook up
[19] in the CDA area now to have their wells abandoned. Their
[20] private wells abandoned.
[21] And the reason is people say; we don't use the
[22] water in the house. But we water our plants, and we feed
[23] the horses, or whatever. But the problem is now we have
[24] real contaminates in that water. We don't want you using
[25] the water. Because what's going to happen is sometimes

Page 96

[1] people who wash the car -- and for me I just take the
[2] water hose and drink the water. And we don't want that
[3] happening.
[4] Now, before it was only sodium that we were
[5] concerned about. But there are a lot of other chemicals
[6] we don't want you to be exposed to. So we want you to
[7] cap out the wells. And once the private wells are capped
[8] we're going to put a restriction that says you can't
[9] dig -- you can't put any more wells in the area. And
[10] that's to prohibit the future use of private wells and
[11] future ground water use in that area.
[12] Yes, sir.
[13] [redacted]. [redacted]. Will, you
[14] also disclose that the sale of the property is near a
[15] dump?
[16] MRS. MASSENBURG: No. That has not been
[17] a -- the question was raised whether or not we would also
[18] put a deed restriction on the property that it was
[19] located on a dump.
[20] UNIDENTIFIED SPEAKER: That's already on
[21] my property.
[22] MRS. MASSENBURG: I don't know who put it
[23] there, we didn't.
[24] UNIDENTIFIED SPEAKER: As a matter of
[25] fact, I left several messages for Mr. Johnson. I spoke

Page 97

[1] with you on the telephone regarding this. This was a few
[2] months back, as a matter of fact.
[3] MRS. MASSENBURG: I don't know who put it
[4] there, it wasn't us.
[5] UNIDENTIFIED SPEAKER: Because --
[6] MRS. MASSENBURG: Do you know who put it
[7] there.
[8] UNIDENTIFIED SPEAKER: No, I don't. We
[9] went to get a -- we went to refinance our home, and part
[10] of the reason for the denial was because it was a
[11] Superfund site.
[12] MRS. MASSENBURG: That -- that's weird. I
[13] haven't heard anything of that. Larry? That's just
[14] something that I unfortunately. I don't know. That's
[15] something that the bank is telling you, because it's not
[16] coming from us. We didn't put that there. I don't know
[17] where it's coming from.
[18] UNIDENTIFIED SPEAKER: So when we
[19] purchased the house in '99 we were never told that that
[20] was a dump site there, that there was any contamination
[21] there. Never told nothing about it. And then when we
[22] went to refinance just a year or so ago now we can't
[23] because it's a Superfund site, and we can't sell it.
[24] MRS. MASSENBURG: That's unfortunate.
[25] Why -- that's out of our jurisdiction. We didn't do

Page 98

[1] that. We didn't do it.
[2] UNIDENTIFIED SPEAKER: Who has the
[3] authority to do that?
[4] MRS. MASSENBURG: I don't know. Anybody
[5] know who has the authority to do that?
[6] UNIDENTIFIED SPEAKER: I've talked to
[7] Elkhart County Zoning. Nobody knows.
[8] MR. JOHNSON: If there was a deed put in
[9] place after -- the deed restriction placed on your
[10] property you would have to be given notice. I don't know
[11] what the situation is. But it may be that a bank, or
[12] financing institution has become aware of some, you know,
[13] proximity or something. Their own policy is preventing
[14] you from financing. I don't know, that's just a guess.
[15] But that --
[16] MRS. MASSENBURG: It's not us that's doing
[17] it. It might be the bank.
[18] UNIDENTIFIED SPEAKER: This is what we're
[19] running into all along. I mean, right now we're trying
[20] to sell our house.
[21] MRS. MASSENBURG: I've been on County Road
[22] 10, and I've actually seen for sale signs.
[23] UNIDENTIFIED SPEAKER: Right. Our
[24] realtor -- as a matter of fact, I didn't come to this
[25] meeting because we're trying to sell our house.

Page 99

[1] MRS. MASSENBURG: That might be something
[2] that he's telling you. But unfortunately that's not
[3] anything we done.
[4] UNIDENTIFIED SPEAKER: How can I go about
[5] finding out who did this, and how can I clear this up?
[6] MRS. MASSENBURG: That's out of my
[7] jurisdiction.
[8] [redacted] [redacted] might end up --
[9] MRS. MASSENBURG: He'll --
[10] [redacted]: I'll talk to you.
[11] MRS. MASSENBURG: He'll talk to you later.
[12] He'll talk to you. Because that's out -- like he said,
[13] any deed restrictions that we put on your property you're
[14] going to know about it. You're going to know that we did
[15] it. Now, when you talk about things that somebody else
[16] is doing and we have no control over that. But he'll try
[17] to talk to you and give you a little bit more advice.
[18] Also in the area southeast -- I mean, east of
[19] the landfill we have identified 20 selected houses that
[20] we want to be placed on municipal water, and we also went
[21] a little bit further just to do it as, what we call, a
[22] buffer zone. And what we're going to do is it's a total
[23] of 35 residences in the east area. And we'll contact
[24] those residents individually as to who we are asking to
[25] be placed on municipal water.

Page 100

[1] We're also going to ask that they abandon the
[2] wells once they get the water. Again, this is based on
[3] that impact zone of the ground water flow and all that.
[4] And we're just adding a buffer zone. There's no need for
[5] us to place you on municipal water and then place the
[6] next row of people on municipal water. So we're going to
[7] go with the people who need the water, and an extra row.
[8] And then we're going to see -- like I said, we monitor
[9] people the next street over, and next street over. And
[10] we didn't pick up anything. And we're going to continue
[11] to monitor that.
[12] But the people that's living closest to the
[13] landfill on Westwood Drive, we're going to ask that they
[14] be hooked up to municipal water. We're going to
[15] establish a long term ground watch, watching travel and
[16] monitor the wells to make sure that the people who are
[17] using the water wells will not be impacted by the
[18] landfill.
[19] We're going to monitor the landfill wells as
[20] they exist. And we're going to continue to do the
[21] monitoring. And we just want to make sure that the
[22] triggers and everything has not been exceeded, or
[23] anything like that. But it should never extend past the
[24] buffer zone.
[25] And you'll find in the next slide. If we find

Page 101

[1] a hit in the buffer zone, it can't be just one hit, we'll
[2] ask over the 12 month period of time if they don't get
[3] the concentration down then they'll have to extend water
[4] to those people also, or they'll have to do something so
[5] the water comes off the land. So we're going to continue
[6] to monitor it.
[7] We're going to put nested monitoring wells.
[8] And all that nested monitoring wells are -- the problem I
[9] told you initially that we had with the neighborhood was
[10] we didn't know the screening depth of people's wells. So
[11] by placing nested monitoring wells we'll know exactly
[12] where the wells are screened. So we'll put in clusters,
[13] or nests, like, three groups of wells one in the shallow
[14] aquifer 25 to 33.
[15] The other is testing the water from 35 feet to
[16] 75 feet or a hundred feet. And the other one will be
[17] testing from a hundred feet to deeper. So that way we'll
[18] know if we find contamination in those wells where it is.
[19] But right now we don't know where it is in your
[20] neighborhood because, one, they weren't collecting the --
[21] keeping the records of well screens since 1996. You guys
[22] have been living in that neighborhood forever, you know,
[23] a long time. So we went to the DNR, the Department of
[24] Natural Resources and try to get your wells, and they
[25] didn't have a record of it. Only those that are newly

Page 102

[1] installed did they have a record of it, that's why we're
[2] putting in the wells where there's screen at so we know
[3] where the contaminates are existing.
[4] We're going to, again, monitor the ground
[5] water. And that's basically asking that all ground water
[6] monitoring wells be monitored for a minimum of 10 years,
[7] quarterly for the first two years. And in the first two
[8] years that's like every three months we're going to ask
[9] them to come out and take a sample. They'll take a look
[10] at the sample for the first two years. If we never
[11] exceed our MCL then we'll evaluate and say can you come
[12] out every six months instead of every three months, and
[13] that type of thing for a minimum of 10 years.
[14] And what we're hoping is since the
[15] concentrations that we found were not, only one exceeded
[16] the MCL there's a good possibility that the contaminate
[17] concentration is going down. And we want to monitor
[18] that. And that's called monitoring natural attenuation.
[19] Meaning that it's just going away through dilution, or
[20] whatever. Just not --
[21] MR. SCHONHOFF: Breaking down.
[22] MRS. MASSENBURG: It's just breaking down.
[23] Any time you leave waste on a site, which we'll be doing,
[24] we'll be putting the 30 inch soil cover on the landfill.
[25] We have to -- meaning EPA -- now have to do what we call

Page 103

[1] a 5 year review. Every 5 years we have to come out to
[2] the site. We have to come out to the site. This is a
[3] part that's separate from the quarterly monitoring of the
[4] soil gas and the ground water monitoring. But the U.S.
[5] EPA comes out to the site and inspects the site every 5
[6] years, or actually up to five years. Because we can do
[7] it any time but why can't allow 5 years to pass and not
[8] do the inspection.
[9] But basically what we do we call it 5 year
[10] review process. But basically in three and a half years
[11] I can come back and say; okay, let's see if what the
[12] responsible party has done is working. And if it's
[13] working the way that we say it's working -- but keep in
[14] mind they will give us monthly reports of what they're
[15] doing at the site. So this is us coming in. We'll say
[16] let us do -- they'll continue to give us the monthly
[17] reports and everything, and if we find something in the
[18] monthly reports -- keep in minds also that doesn't taste
[19] right for lack of a better choice of words -- we come out
[20] and do things. But it's mandatory by law any time you
[21] leave waste on a site, then we have to come back out and
[22] inspect everything to make sure it's working the way it
[23] should be working.
[24] We're going to implement institutional controls
[25] with deed restrictions. Now, these are the deed

Page 104

[1] restrictions we're going to put on the landfill. We're
[2] going to say that we want to limit the future ground
[3] water use; can't use that ground water on the landfill.
[4] We want to prohibit the installation of new private
[5] wells. This is the deed restriction.
[6] We want to implement or prohibit the
[7] installation of new private wells in the area of the
[8] landfill. There's no need to put those wells in when we
[9] know there's a potential that it can be impacted. This
[10] is what we're going to do.
[11] We're going to ask that no drilling or digging
[12] be done on the landfill cover itself. So any reuse or
[13] anything like that has to follow these rules. They have
[14] to follow the rules. So whatever use we come up with,
[15] and they follow these rules, that's what they're going to
[16] be doing in that feasibility study.
[17] We also want a perimeter fence around the site.
[18] We want a containment fence. Because we know there's a
[19] quasi fence now and people are just trespassing terrible,
[20] and we want to prevent that. We want a real fence with
[21] barb wire, and everything, around the landfill.
[22] Okay. We talk about landfill redevelopment.
[23] These are the limitations that we're going to put on any
[24] developer. We want the developer to determine the
[25] property suitability for a particular reuse. We want

Page 105

[1] them to have a future land use and feasibility study must
[2] be completed and approved by the EPA or IDEM before they
[3] can even do this, or for anybody that's responsible for
[4] trying to redevelop it. They have to come before IDEM
[5] and the U.S. EPA and convince us that this will not, one,
[6] compromise human health and environment, or two
[7] compromise what we've already done at the landfill.
[8] And, for example, any anticipated building
[9] constructed on the site will have to be evaluated to
[10] determine what the soil gas interaction, or impact on any
[11] structure on the landfill as well as displacement of the
[12] contaminated soils and waste. So, in other words, we're
[13] not just going to let anything be placed on the landfill.
[14] We have the make sure, again, that the human health is
[15] protected and the remedy that's placed, that that 30 inch
[16] soil cover will not be compromised either and compromise
[17] means effected to an adverse use.
[18] Again, this is just a recap of what the 5 year
[19] review period is going to do. We're going to look at the
[20] ground water results to determine if any trends of
[21] contaminant concentrations might exist. Basically what
[22] it's going to say is since you're monitoring quarterly
[23] every year, that's like three samples for every year,
[24] we're going to look at that in 5 years. That would be 15
[25] samples that would be taken. And see if we can develop a

Page 106

[1] trend and say first year they sampled, for instance,
[2] acetone concentration was 10 -- I won't give it units,
[3] just to make a point. Okay. The next year that's, six
[4] more samples down the road, the concentration was eight.
[5] And it looks like it's going down. Okay. Or it could
[6] very well be the acetone concentration that year was 10
[7] and the second year the concentration was 15, or -- and
[8] the concentration may be going up. And these are the
[9] trends that we're going to be looking for over that 5
[10] year review period.
[11] Each year we get the sample result we're not
[12] talking about exceeding anything, we're just talking
[13] about the trends. We also want to make sure that the
[14] effectiveness of the source control measures to prevent
[15] contaminate migration beyond the down grade boundary.
[16] We're going to be monitoring that also.
[17] We're going to see if we pick up a
[18] concentration on the landfill, and that's it. And if we
[19] pick up a concentration of the landfill, that's not the
[20] residence area, but if you pass the landfill and it might
[21] be 12 that's going to make us raise an eyebrow and say
[22] that's a possibility that the people that are way down
[23] the line could potentially be impacted. So we're going
[24] to look at all that.
[25] We may have to change things if after we look

Page 107

[1] at the 5 year review process and say things aren't
[2] getting better we may have to do things differently. And
[3] that's basically what the slide is doing.
[4] And the next step, that's my last two slides,
[5] basically what's going to happen next I'm just showing
[6] you what we're proposing to do. We haven't done this,
[7] this is what we're proposing to do. The next steps are
[8] we'll accept your oral comments tonight, in terms of what
[9] we've talked about in terms of what we're proposing to
[10] do.
[11] Through May 12th, 2003 -- you can either stay
[12] today or go home and say; hum, I should have said this
[13] about the remedy. You can write us. Write your comment
[14] down and send it to us. And we'll respond to those
[15] comments in our ROD. We have to respond to every comment
[16] that's being given. Well also, like I said, it will say
[17] that EPA will evaluate and respond to all comments
[18] received. So you don't have to feel pressured to give me
[19] a comment today, you have until May 12th to make all your
[20] comments.
[21] And those that fliers that you received in the
[22] mail have your contact people, as Mr. Hill has already
[23] said. So you can do that. And the clean up plan will be
[24] described in detail in a ROD amendment.
[25] So basically what's going to happen is while

Page 108

[1] you give me your comments I'm going to go back and write
[2] my decision document, that's my ROD. It's going to be
[3] amended because remember you have a 1993 ROD, so we have
[4] to amend that ROD. And basically it's going to be
[5] everything that you see here. But it's in very much
[6] detail.
[7] Then what's going to happen is we're going to
[8] talk with the responsible party, and ask the responsible
[9] party, or say to the responsible party that this is what
[10] we think that you should do to remedy this landfill. And
[11] that can take anywhere from three weeks to six months,
[12] nine months. Depending on how well, what we call the
[13] negotiation process, goes with them.
[14] Because what we want to do is we want them to,
[15] the responsible party, to do this work. In the event
[16] that the work doesn't get done, and we can't find a
[17] suitable agreement, then there's some legal things we can
[18] do to try to move forward. We're always trying to move
[19] forward, although it doesn't appear we're moving forward.
[20] We try to always move forward.
[21] And if everything goes well the responsible
[22] party will design -- just what we talked about tonight.
[23] They will design, like a prefinal designing. They will
[24] show us about the monitoring plan. They will give us the
[25] plan. We'll review the plan. And there's going to be a

Page 109

[1] lot of behind the scenes work going on. And then there
[2] will be the implementation of the remedial action.
[3] Yes, sir.
[4] [redacted]: Two questions. One, in one of
[5] the sites that we went through on the internet pulling up
[6] this to do some research on this for radioactive material
[7] it showed up as listed, this site. Is there anything in
[8] there to --
[9] MRS. MASSENBURG: They showed it? I never
[10] seen it.
[11] [redacted] It's on the -- yeah. Also.
[12] Number two --
[13] UNIDENTIFIED SPEAKER: Radioactive
[14] material.
[15] [redacted] Number two question. Is that
[16] there is still, under high water conditions, stuff oozing
[17] up out of the ground back in that area.
[18] MRS. MASSENBURG: Excuse me.
[19] [redacted]: There is still materials
[20] oozing up out of the ground back in the area, from people
[21] I've talked to that's walked it. Is that going to be
[22] addressed and taken care of?
[23] MRS. MASSENBURG: Yeah. I've never seen
[24] that. I've never seen that. Have you walked the site?
[25] MR. SCHONHOFF: I want to make one comment

Page 110

[1] about that if I may.
[2] MRS. MASSENBURG: Would you speak up
[3] please. Yeah.
[4] MR. SCHONHOFF: Phil Schonhoff. They put
[5] the calcium sulfate, which is like plaster of paris. I
[6] don't know what you know about acids and bases, it's on a
[7] the base side and tends to be caustic range. Water has a
[8] pH, it has a little lower pH. When they come into
[9] contact you can get some visible calcium sulphate will
[10] react with rain water because of the differences in pH.
[11] So I'm not trying to discount, or discredit
[12] anything that you're saying, I'm just saying we were out
[13] today looking at it and there's a lot of this calcium
[14] sulfate laying around. So it could very well. I'm sorry
[15] --
[16] [redacted] We've been back in that area.
[17] I'm on the fire department, and we've been back there
[18] from time-to-time when the marsh caught fire and have
[19] seen different color stuff.
[20] MR. SCHONHOFF: Odd colored stuff?
[21] [redacted]: Yeah. And that's not --
[22] MRS. FLISS: Ground water is high.
[23] [redacted]: Generally it's like a foam
[24] comes out. Like a bubble gum somewhat.
[25] MR. SCHONHOFF: You have to be kind of

Page 111

[1] careful. There's a lot of iron. A lot of things that
[2] can color --
[3] [redacted]: But not green.
[4] MR. SCHONHOFF: No, I would not say so.
[5] MRS. MASSENBURG: I just want to say
[6] something for the general public again. Now, you guys
[7] live here. We don't live here. And what I'm saying is,
[8] when you find things happening like what you just said,
[9] call us. Because we'll respond to questions, you know
[10] situations like that.
[11] But when we go out on the site, we don't see
[12] these things. And people who live here every day, who
[13] are out there, they see things. I would put some kind of
[14] stake down. Mark it.
[15] MR. SCHONHOFF: Locate it.
[16] MRS. MASSENBURG: So we can come back and
[17] come out and say; look, this is what I found. We have to
[18] follow-up on it. I may not come out, but we have people
[19] in the area who we call on scene coordinators who will
[20] come out and investigate whatever you identify.
[21] And if you see stuff and don't say anything
[22] then it frustrates you when you come to the meeting and
[23] it sounds like we're not working with you when we really
[24] want to work with you. We want to work with you. But
[25] you are our eyes and our ears. We don't live in the

Page 112

[1] community, you live in the community. And anything you
[2] identify to us we are obligated to follow-up on it. We
[3] might not fix it, but we can send somebody out there to
[4] look at that. We need you all to do that for us. So,
[5] you know, smelling of water, call the fire department.
[6] Call us. Let somebody know.
[7] Because we don't want you to be affected by
[8] things. And we just don't know. It's not that we're not
[9] doing things, we don't know.
[10] What he said about radiation, I've been working
[11] on the site 5 years and never heard about it. So now I
[12] have to go back home and investigate it. What is this
[13] all about.
[14] Yes, sir.
[15] [redacted]. Has anybody
[16] ever gone out with a Geiger counter, or radiation
[17] detector?
[18] MRS. MASSENBURG: Not since I've been on
[19] the site.
[20] [redacted]: When I've been on the site I
[21] found it.
[22] MRS. MASSENBURG: Did you have a gamma --
[23] what type of Geiger counter? Was it either beta or gamma
[24] emitter?
[25] [redacted]: I don't know. I'm not

Page 113

[1] sure. Something that detects radiation. I know that
[2] there is detection devices to detect it.
[3] MRS. MASSENBURG: Right. Right. Okay.
[4] And see, again, if you had done that, called us, marked
[5] that spot where you got the Geiger counter to go off, or
[6] whatever, we would have come back out and investigated
[7] it. We would have come out with our instruments that
[8] would have been either the beta emitters or the gamma
[9] emitters, or that type of thing. So we need you all to
[10] work with us.
[11] [redacted]: I didn't come out there to
[12] find any, it came up on the internet.
[13] MRS. MASSENBURG: Okay. I didn't know
[14] about it. So I have to go back home and investigate who
[15] wrote this. Because as far as we know this site is not
[16] listed on the sites of radiation sites as far as we know.
[17] So we have to go back now and investigate that.
[18] Okay. My last slide. I already spoke about
[19] that. So what we're going to do now, is quickly turn it
[20] over to Mr. Hodgson who will tell you about the
[21] redevelopment potential for the site. And then well
[22] entertain any questions or anything that you have. Thank
[23] you.
[24] (Recess taken; Recess concluded)
[25] MR. HILL: As you can probably tell we've

Page 114

[1] had a technological glitch here, and due to the -- due to
[2] the fact that we've left -- we brought experts, and
[3] everything, but -- and the computers with us, I think in
[4] the interest of time, and your time especially, all of
[5] those who have been so kind to bear with us for such a
[6] long time this evening, and in the interest of those who
[7] have prepared comments, or have formulated comments based
[8] on tonight's discussion and presentation, we'll move to
[9] the formal part of the meeting where you are allowed to
[10] make your comments for the record.
[11] We'll take those comments, and then well move
[12] to any questions, and answers. And we'll be happy to
[13] entertain the question and answer period for as long as
[14] it takes. Again, in making the comments, would you
[15] please, for the benefit of our court reporter, again,
[16] state your name, and any spelling that would be helpful
[17] to him. As good as he may be he can't remember all the
[18] names of all of the individuals who have spoken so far.
[19] So with that we'll move to the sector for
[20] public comment. I'll open the floor. And we'll, please,
[21] take one at a time. And if you have additional follow-up
[22] please wait until the rest of your fellow citizen's have
[23] made the comments. The floor is now --
[24] [redacted] [redacted].
[25] [redacted].

Page 115

[1] MR. HILL: Christy, will you please stand?
[2] [redacted] Will the houses that you
[3] propose to be switched to City water and sewage, will
[4] those be disclosed.
[5] MR. HILL: Christy, excuse me this is the
[6] comment period. If you have a comment, not a question.
[7] If you intend to make a statement about anything that we
[8] have said today please do so at this time. Would you
[9] hold any questions until after the comment period. Okay.
[10] Is that understood? John Hardy.
[11] [redacted]: I've spoken with several of
[12] the residents on County Road 10, and one particular, one
[13] Pat Rumsfield who said I could use her name, and I an
[14] sure if you go through there the data --
[15] MR. HILL: As a matter of fact,
[16] Mrs. Rumsfield called me and asked me to make a statement
[17] for her.
[18] [redacted]: And her basis on what she said
[19] to me she said her feelings were cap it. Take the gas
[20] out of it, put the big fence around it and let it sit.
[21] MR. HILL: That's what she said to me. So
[22] we'll duly note it that Pat Rumsfield has been entered
[23] into the record which she desperately wanted.
[24] [redacted]. [redacted] Yes.
[25] MR. HILL: And for the record, Mrs.

Page 116

[1] Rumsfield has indicated that she has a lengthy history
[2] near the site, and we might also make that known.
[3] [redacted] She was a primary
[4] investigator -- litigant on the whole thing.
[5] MR. HILL: And one of the litigants, yes.
[6] MR. HULEWICZ: John Hulewicz I'm with the
[7] Elkhart County Health Department. Last name
[8] H-u-l-e-w-i-c-z. I have a number of comments, and in the
[9] interest of brevity I'll only touch base on two.
[10] Historically EPA and IDEM have moved to make
[11] every effort to minimize exposure risks in these types of
[12] situations. One of the things that has been lacking in
[13] these situations is the potential for the responsible
[14] party to give an opportunity to the residents in the area
[15] to have some medical expertise given in two different
[16] types of quorums.
[17] And what I am suggesting is the potential that
[18] the public be allowed to ask questions in an environment
[19] where there might be an epidemiologist, toxicologist,
[20] other medical practitioners that are qualified to answer
[21] questions regarding the types of chemicals that
[22] individuals may have been exposed to in this setting, and
[23] that they receive answers to their questions from these
[24] medical practitioners.
[25] Secondly, we know that often times exposure

Page 117

[1] manifests problems in an individual 5, 10, 20 years down
[2] the road. In order to be able to determine what this
[3] exposure may have caused in that time frame, the medical
[4] practitioners have to have some type of understanding.
[5] The second forum would be one where individuals
[6] who are practicing medicine in this area would have an
[7] opportunity to meet, maybe to ground with some of these
[8] experts to have a better understanding of what the total
[9] exposure risks were, and what they might look for in
[10] longer periods other than the short acute exposure
[11] timeframes.
[12] The second item that I have concern with is an
[13] extension of water surfaces from the municipalities to
[14] these residents, and the costs involved to the residents.
[15] Historically areas that have not been annexed into the
[16] City of Elkhart pay a different rate for services.
[17] If the rate of service is higher than what it
[18] is to City residences, there seems to be an inequity
[19] there since the extension of those water mains will not
[20] be a cost to the City, but actually a benefit to the City
[21] in the long run if there are future plans of annexation
[22] in those areas. So I would ask that the EPA, and the
[23] responsible party have discussions with the City to look
[24] at what the costs are of water service to those
[25] residences, and making certain that they are equitable

Page 118

[1] and not exorbitant.
[2] MR. HILL: Thank you John. As you know,
[3] this was for comment, but we would like to invite you to
[4] make a written supplemental comment if you choose to do
[5] so.
[6] Yes, sir.
[7] MR. OSLAN: My name is Reed Oslan. And
[8] it's O-s-l-a-n. I'm a lawyer from Chicago. And I've
[9] been working with the Bayer and Miles people since 1989.
[10] This -- this sight is probably one of the oldest
[11] Superfund sites that I'm aware of. And like many of you
[12] have asked the same question that we at Bayer have asked,
[13] which is why is this taking so long.
[14] I think that what you heard a little bit of
[15] today suggests that what's taking so long here is that
[16] despite all the talk about 10 to the minus 4, and these
[17] big numbers about chemicals and so forth, EPA has never
[18] really found a risk at this site. Back in the early 90's
[19] when they made their proposal for the first remedies.
[20] Bayer hired some of the best environmental consultants
[21] around because Bayer was concerned about Elkhart. Bayer
[22] is concerned about the people of Elkhart.
[23] So we hired some of the best people around to
[24] say how could it possibly be that -- not possibly be that
[25] this site after all of these years, with all the calcium

Page 119

[1] sulphate in it -- which is not a hazardous chemical --
[2] how could it have the risk that EPA says. We submitted
[3] the comments to EPA like they're asking us to do again
[4] today.
[5] And what did EPA concluded after years and
[6] years of monitoring the site, they concluded that, in
[7] fact, we were right, that there was no risk as they told
[8] you there was back in 1990, '91, '92 and '93. The great
[9] news was EPA was wrong.
[10] Now, the problem with them being wrong is that
[11] they now scared the Hell out of everybody in Elkhart into
[12] thinking, as some of you did today, that this is one of
[13] these horrible environmental sites that we see reported
[14] on television. It isn't.
[15] So all this time that you've been concerned
[16] about the site, as we have, from Bayer, all this time has
[17] gone by because EPA first said it's a real bad site. We
[18] told them, we don't think you're correct. They've now
[19] agreed, what, 10 years later that we were right. And
[20] they're now trying again to embark on a clean up that we
[21] think frankly isn't any different than the last one 10
[22] years ago.
[23] What EPA didn't report to you today is all of
[24] the facts regarding this site. They've conducted
[25] thousand, thousands, of analyses, thousands. And maybe

Page 120

[1] out of those thousands of analyses guess how many hits
[2] they have that are of concern, six, 12. Some immensely
[3] small number.
[4] So what EPA has done, in our view -- and we
[5] support Elkhart, and we'll support Elkhart, and to make
[6] sure that whatever is suppose to be done, the right thing
[7] that needs to be done is done -- but what EPA has done in
[8] our view is highly arbitrary and irresponsible. They
[9] reached conclusions over the years. They reached these
[10] conclusions that were wrong. They took all these samples
[11] that showed nothing. No contamination, no problem. They
[12] ignored those. And they've now, again, found a handful
[13] of samples, and maybe 12, maybe 15, out of thousands and
[14] thousands.
[15] And what do they want to do. They want to
[16] clean up the whole area. Now, we don't want anybody to
[17] be concerned about their health. We never did. And
[18] while Bayer is one of the hundreds of companies that has
[19] used this landfill we all know that Bayer has had a
[20] significant presence in Elkhart. We all know that Bayer
[21] is here to support the effort to make sure that you're
[22] comfortable about where you live.
[23] Now, these years ago after the east side issue
[24] came up the RP's, which included Bayer, discussed with
[25] EPA -- and I think IDEM, I can't remember about that --

Page 121

[1] hooking up the east siders to city water not because
[2] there is any environmental reason to do it. Miss
[3] Massenburg here didn't say that any of you were at -- if
[4] any of you thought you were at risk, some environmental
[5] risk, then they have an obligation to go out that day and
[6] clean up.
[7] Now, here we are -- I started working on this
[8] site right out of law school in 1989. We're now 14 years
[9] later and nothing really has happened to the site other
[10] than a lot of investigations, a lot of investigations,
[11] which are, in our view, have left us not very far at all.
[12] So Bayer's view is we continue to support the
[13] effort. We think that EPA should find some reasonable
[14] resolution for the City of Elkhart. But for them to
[15] suggest, as they are again, that there is some enormous
[16] risk out there is just wrong. For you to go home tonight
[17] being scared to death is, again, arbitrary and
[18] irresponsible of EPA, to not be telling you that there
[19] are problems of this great magnitude in Elkhart. From
[20] this site. Because we don't think that they're there.
[21] And I don't think that EPA thinks so.
[22] Now, we're going to submit written comments to
[23] EPA. We've been working with them for years and years
[24] and years. And you can imagine the amount of money that
[25] Bayer has already spent trying to help EPA get this job

Page 122

[1] done in a way where you can use the site again for a golf
[2] course, or tennis courts, or whatever it is. We want it
[3] done.
[4] But for them to suggest, again, after conceding
[5] that there was no problem, when they said there was back
[6] in 1993, they're now again saying the same thing again
[7] that there's some big problem, and there isn't. So we're
[8] going to continue to work with them. We're going to
[9] support Elkhart.
[10] We think that what they've proposed once again,
[11] does not meet their standards. They've ignored all kinds
[12] of data which confirms, according to our experts, that
[13] this is not a site where you would spend 10, 20, 30,
[14] 40-million dollars of anybody's money to clean up. It's
[15] just irresponsible.
[16] And let me say the last point, if EPA thought
[17] there was a problem here they'd have to spend government
[18] money to clean it up. So when they talk about
[19] responsible party, or parties it's really irrelevant.
[20] Somebody is going to have to clean up an environmental
[21] problem, if there is a true environmental problem. And I
[22] submit to all of you that the reason the government has
[23] never done that here is because they never found data
[24] supporting the conclusion that you have a big problem at
[25] this site.

Page 123

[1] So we'll do our best to continue to work with
[2] them. We don't think they're going down the right path,
[3] just like they didn't back in 1993. But my client Bayer,
[4] who's had me on the payroll all these years contacting
[5] Mr. Johnson, contacting Miss Massenburg and her
[6] predecessors, I've been here the whole time. We've had
[7] experts that have followed the data. We want to make
[8] sure the right thing is done. And what they've proposed
[9] is not the right thing. It's arbitrary. But we're going
[10] to keep working with them anyway.
[11] UNIDENTIFIED SPEAKER: I have one question
[12] for you. Where did you say you were from? Where do you
[13] live?
[14] MR. OSLAN: I live in Chicago.
[15] UNIDENTIFIED SPEAKER: That's what I
[16] thought. Okay.
[17] MR. OSLAN: But I am in Indiana.
[18] UNIDENTIFIED SPEAKER: Yeah.
[19] MR. HILL: Thank you counselor.
[20] Additional comments for the record? Yes,
[21] ma'am.
[22] [redacted].
[23] And I live near it. And you're saying all these people
[24] had all their companies, have all their stuff there, and
[25] you say that Bayer, was Miles, this wonderful company

Page 124

[1] that's doing so much for Elkhart. Three-fourths of the
[2] stuff back there is your garbage.
[3] And the people that have built these homes and
[4] have lived there -- when they built there in this nice
[5] clean air, nice clean water. Don't sit there and tell me
[6] that your company isn't a majority factor in what is
[7] smelling, and everything else. You have really upset me.
[8] MR. HILL: Additional comments. Sir.
[9] [redacted]. And
[10] I [redacted] just east of [redacted]
[11] [redacted]. And my home is right
[12] there which I purchased in 2001. So I have not put up
[13] with most of what you have right there. But my comment
[14] maybe supports his position, is what I have heard
[15] tonight, is there's not a lot of problems.
[16] You suggested a fix. I, in my own mind, have
[17] pictured that as a beautiful corner. I was there when
[18] the dump was done. But it's nice. It has it's trees and
[19] things like that. And my only observation is if we have
[20] it fixed -- I agree that, that would be great, let's get
[21] it done.
[22] But if that solves the problem why are we going
[23] to put a fence around 60-acres and make it look like a
[24] prison. That there describes it worse. So that's my
[25] recommendation. If it's fixed, there's no problem, don't

Page 125

[1] put a fence there. How could a developer but a
[2] recreational or commercial or property there and be
[3] inside the fence. There would be nobody that would visit
[4] that site. So please reconsider that solution.
[5] MR. HILL: Additional comments please.
[6] Yes, sir.
[7] [redacted]: Yeah. May name is [redacted]
[8] [redacted] And I live near the site for six or eight years.
[9] And some of the smells that came from that area were
[10] really obnoxious. My water was tested by both the EPA,
[11] and the Elkhart health community. And my water was
[12] deemed to be okay. I've had to filter my water, soften
[13] my water to make it usable.
[14] In the meeting tonight there was mention of 71
[15] barrels of toluene found on the property. That would, in
[16] my estimation, that is a considerable pollutant for
[17] ground water contamination. And if there's more of that
[18] in that site, in my opinion, that needs to be taken away.
[19] We can't -- we can't just cover up something
[20] like that, that has already been found to have been
[21] there. Just cover it up, and expect to just let time --
[22] time go by and those chemicals to just go away. I think
[23] there probably should be some more investigation into
[24] what could be there that could be taken out, that could
[25] be cleaned up before it's capped, and left as is, left

Page 126

[1] alone.
[2] MR. HILL: Thank you sir. Additional
[3] comments? I'm like an auctioneer here. We're going
[4] once. We're going to 10:00 o'clock for that portion of
[5] it, and we'll just go right to the questions now.
[6] We'll -- for the -- you may direct your
[7] questions specifically, if you wish, to an individual.
[8] Otherwise, we'll just ask the most -- the person with the
[9] most -- who feels the most qualified to address the issue
[10] to answer the question. So we'll start, again, with --
[11] [redacted]: I stated my name earlier.
[12] I was wondering if you could disclose the houses, the
[13] addresses that you propose to be city water and sewage,
[14] or city water only. Whatever you're planning to do.
[15] MRS. MASSENBURG: The houses that we're
[16] proposing to do have mostly to do with the houses located
[17] on Westwood Drive.
[18] MRS. WENTLAND: Could you pull the map up
[19] and show me those houses. I am located on Westwood
[20] Drive.
[21] MRS. MASSENBURG: Both sides of the
[22] Westwood Drive.
[23] UNIDENTIFIED SPEAKER: Both sides of the
[24] street?
[25] MRS. MASSENBURG: Except -- you know where

Page 127

[1] the bend is?
[2] [redacted]: Right.
[3] MRS. MASSENBURG: And you know where
[4] Northwood is and Westwood, where the bend is. Right?
[5] [redacted]: Right.
[6] MRS. MASSENBURG: On Westwood nothing past
[7] Northwood. East of that. But Westwood and Northwood
[8] over to the -- closer to the landfill. Does that help
[9] you?
[10] UNIDENTIFIED SPEAKER: Where? Northwood?
[11] MRS. MASSENBURG: Westwood and South
[12] Northwood, not North Northwood. Because, you know, the
[13] ground water is moving south. So we're looking at
[14] Northwood -- okay. Westwood -- both sides. Then you get
[15] to the bend, and up to Northwood on the Westwood side.
[16] And there's about six houses on Northwood, south
[17] Northwood, three houses this way. And three houses that
[18] way.
[19] I have a map here. Just to give you an idea.
[20] This is -- these are houses on Westwood, and this is the
[21] bend that I'm talking about. All these houses on
[22] Westwood up to Northwood. Not these houses over here.
[23] On Westwood. These few houses down here.
[24] Can everybody see this. These are the houses
[25] on Westwood that -- and the landfill is right here. So

Page 128

[1] we're on both sides of Westwood all the way down
[2] including, all the way down to Northwood.
[3] UNIDENTIFIED SPEAKER: From Plainfield?
[4] MRS. MASSENBURG: From Plainfield.
[5] UNIDENTIFIED SPEAKER: Have you tested all
[6] the wells in that area?
[7] MRS. MASSENBURG: We've tested the wells
[8] that you allowed us to test.
[9] [redacted]: No, you never come to my
[10] house and said we're the EPA.
[11] MRS. MASSENBURG: Where do you live sir?
[12] UNIDENTIFIED SPEAKER: I live on Westwood.
[13] MRS. MASSENBURG: Where?
[14] [redacted]: Right -- this street.
[15] MRS. MASSENBURG: Right here.
[16] [redacted]: Yes.
[17] MRS. MASSENBURG: Remember this is north
[18] of the landfill.
[19] [redacted]: That's on Westwood. And
[20] you're saying you want to hook the whole street up.
[21] MRS. MASSENBURG: The reason why we want
[22] to do that, is because on Nappanee Street there's already
[23] a water line there, you cannot get your water hooked up.
[24] And if you don't want to we'll say that you're doing it
[25] at your own risk. But you're in the buffer zone.

Page 129

[1] I talked about the buffer zone. We didn't find
[2] any defects or anything. But we thought since we're
[3] running this line here why not hook everybody up here.
[4] We didn't test your water here at Plainfield because the
[5] ground water flows this way. We started right here
[6] because we thought the ground water flow would impact the
[7] houses. We didn't find anything in their water. So we
[8] didn't think about north of there. But we're going to go
[9] ahead and do the whole Westwood because we're going to
[10] put the line there.
[11] UNIDENTIFIED SPEAKER: Who pays for all
[12] the hook up?
[13] MRS. MASSENBURG: We hope Bayer pays for
[14] it. But as you see, Bayer doesn't -- we hope Bayer pays
[15] for it, but as they say nothing is happening here the
[16] operative word is there's no "big" problem. You heard
[17] that.
[18] UNIDENTIFIED SPEAKER: Who's going to pay
[19] for the water bills?
[20] MRS. MASSENBURG: We're hoping to ask
[21] Bayer to give you -- to pay for a year of your water
[22] bill, and after the year it's up to you.
[23] UNIDENTIFIED SPEAKER: What does the water
[24] bill run?
[25] MRS. MASSENBURG: I'm not really sure, but

Page 130

[1] we'll find all of that out in the design phase. I also
[2] know that there's a levy placed on people who are not in
[3] the City that has water that will be extra. We've worked
[4] with the City, and the City says that they will not
[5] charge you extra because you're not in the City.
[6] But we're hoping that Bayer will do all of this
[7] work. But you see, we have our hands full, and we need
[8] your support. Because they're saying no big problem is
[9] existing out is there. You all live there. You know
[10] different. So --
[11] [redacted]: For residents who have not
[12] had the opportunity to have their water tested maybe
[13] have -- will you come out and do that. You say you've
[14] been house to house, but we've never had a representative
[15] come to our home and ask for that, and I desire to have
[16] that done.
[17] MRS. MASSENBURG: Either you weren't home
[18] that day. But we did try to get every house.
[19] [redacted]: But I want the same
[20] opportunity as everyone else.
[21] MRS. MASSENBURG: And the reason why --
[22] I'll just tell you, we don't plan to do that. Because
[23] it's not going to give us any more information, because
[24] we don't -- do you know where your well is screened?
[25] UNIDENTIFIED SPEAKER: I've got a new well

Page 131

[1] in. I've got the paperwork with me.
[2] MRS. MASSENBURG: Yeah. I think we met
[3] you.
[4] MRS. WENTLAND: You're asking us to switch
[5] to city water, then, as individual homes then I would
[6] feel more comfortable if I knew my water was yea or nay,
[7] it's either contaminated or not. And that would be
[8] helpful to making a decision as to whether or not we want
[9] to participate in the hook up.
[10] MRS. MASSENBURG: The problems that exist
[11] with that is we can sample your water, and your water can
[12] come up negative, but it's only because where you have
[13] your water screened.
[14] [redacted]: But if you come to my
[15] house --
[16] MRS. MASSENBURG: That's what I'm talking
[17] about.
[18] [redacted]: That's what I'm saying. If
[19] you come to my house and test my water and I didn't have
[20] that opportunity I want that opportunity now. If you
[21] offered it before why can't you offer it to me now?
[22] MS. VAN LEEUWEN: We really feel that we
[23] need to test on a more repetitive basis because the water
[24] table does go up and down slightly, and that shouldn't
[25] change the contaminants, but it could influence the

Page 132

[1] contaminate levels slightly. So we would have to be
[2] doing repeat measurements in each person's individual
[3] private well, over time, before we determine whether
[4] those wells were safe.
[5] And rather than wait to find that, that now
[6] you've got a hit, and then we have to go back and make
[7] arrangements, it is more effective to hook up those
[8] people who have a potential.
[9] UNIDENTIFIED SPEAKER: So what you're
[10] saying is the north end of Westwood you've not had a hit.
[11] MRS. MASSENBURG: Right. Beginning about
[12] where Reverend -- what's his name?
[13] [redacted]: Hendricks.
[14] MRS. MASSENBURG: From his house. He
[15] wouldn't allow us to test his water, but we went to the
[16] house next door to him. There wasn't any hit. We tested
[17] the house second --
[18] [redacted]: That's my neighbor right
[19] across the street.
[20] MRS. MASSENBURG: I can't remember the
[21] lady's name.
[22] [redacted]: Hibaugh. Carol Hibaugh.
[23] MRS. MASSENBURG: Yeah. Hibaugh --
[24] B-a-u-g-h. And we didn't find anything. North of here
[25] we have a monitoring well coming from the landfill.

Page 133

[1] [redacted]: I know where that's at.
[2] MRS. MASSENBURG: So we didn't find
[3] anything in the monitoring well either. And that's why
[4] we weren't so concerned about these houses.
[5] But if you're going to lay a line down here, we
[6] thought we were doing you a favor by hooking you up to
[7] the water while the line is being laid. And we also --
[8] these people over here, we tested Mr. -- what's his name.
[9] At the corner of Westwood, and what's the name. Roberts?
[10] MRS. FLISS: Yeah.
[11] MRS. MASSENBURG: We tested his house way
[12] over here from the landfill. We picked up nothing. So
[13] we decided that we know that these people right here,
[14] from Miss Ellis' house down, because she didn't have any
[15] contaminates either. We knew that there were
[16] contaminants in that water. We know that the ground
[17] water flow is doing this.
[18] UNIDENTIFIED SPEAKER: They're getting
[19] hits.
[20] MRS. MASSENBURG: They're getting hits.
[21] UNIDENTIFIED SPEAKER: Are they doing
[22] anything? Can they drink this water?
[23] MRS. MASSENBURG: They were on the bottled
[24] water.
[25] UNIDENTIFIED SPEAKER: No. They did not

Page 134

[1] offer --
[2] MRS. FLISS: I'm sorry.
[3] UNIDENTIFIED SPEAKER: We're right.
[4] MRS. FLISS: Can I have that please?
[5] UNIDENTIFIED SPEAKER: And they never
[6] offered us bottled water.
[7] MRS. FLISS: That was about three years
[8] ago we tested the water. There was only one at this
[9] time. My name is Jessica Fliss I'm with the Department
[10] of Environmental Management. Some of you might remember
[11] we came and spoke with you once we got the results back.
[12] UNIDENTIFIED SPEAKER: You never went to
[13] my house, but go ahead.
[14] MRS. FLISS: Because you weren't tested.
[15] We went to the people's whose houses were tested, and the
[16] U.S. EPA has levels for ground water. This is removal
[17] action. And for them to be able to legally provide you
[18] an alternate water supply to those wells that you had
[19] tested had to be above that limit.
[20] UNIDENTIFIED SPEAKER: Uh huh.
[21] MRS. FLISS: IDEM does not have that kind
[22] of restriction. Now, the wells that we tested, except
[23] with one exception, were either below MCL's or there were
[24] things there that should not be there, but they were not
[25] above the levels that would be allowed in the municipal

Page 135

[1] water supply, which is what we feel would be a good
[2] comparison, you know, the people who have the water
[3] restrictions. You know, maybe you can --
[4] The people at IDEM felt because we didn't have
[5] the same restrictions that EPA did have, that until we
[6] knew what was going on -- because we did this after the
[7] first round -- that we would offer residents bottled
[8] water to make them feel more comfortable until we had a
[9] better idea of what was happening.
[10] Now, when we actually went out and talked to a
[11] lot of people, they said; hey, I'm already on bottled
[12] water, thanks, but no thanks, we appreciate, you know,
[13] the effort. We appreciate you asking, but we're already
[14] drinking bottled water. And we said; okay, fine.
[15] We asked the people whose wells we tested, and
[16] the people across the street, and next door to the wells
[17] we tested who had hits. And I have now seven people who
[18] are drinking bottled water, even after we found that
[19] maybe it wasn't necessary to have it right now.
[20] We needed to do something in the future. I
[21] didn't feel it was necessary to remove the bottled water
[22] program. It's not a very honorous thing for me to do, I
[23] just, you know, add people to the list.
[24] UNIDENTIFIED SPEAKER: You're with the
[25] County, right?

Page 136

[1] MRS. FLISS: I'm with the State.
[2] UNIDENTIFIED SPEAKER: With the State.
[3] UNIDENTIFIED SPEAKER: But you didn't
[4] offer that bottled water to everybody.
[5] MRS. FLISS: Only to the people's houses
[6] we tested who had hits in their wells, that we're still
[7] below MCL's. And even the house that was above MCL's and
[8] the people across the street whose wells we did not test,
[9] because it's going this direction (indicating). So I
[10] asked these people right here across the street because
[11] we weren't really sure how far this went.
[12] And then when we got a better handle on, you
[13] know, what was going on, we didn't feel the need to
[14] spread out in this direction.
[15] UNIDENTIFIED SPEAKER: See right here.
[16] There.
[17] MRS. FLISS: Where?
[18] UNIDENTIFIED SPEAKER: I'm right at the
[19] end of Highland or Midland, and you never asked me for
[20] bottled water.
[21] MRS. MASSENBURG: Who's that?
[22] UNIDENTIFIED SPEAKER: Randall.
[23] [redacted] Dan Randall.
[24] MRS. FLISS: I believe I did. Do you
[25] remember us coming and talking to you?

Page 137

[1] [redacted]: Yeah.
[2] [redacted]S. [redacted]: You said we were high on
[3] sodium.
[4] [redacted]: Which is what you said, and
[5] you never offered bottled.
[6] MRS. FLISS: I offered bottled water to
[7] all the names and phone numbers I've written down.
[8] [redacted]: I beg to differ, unless you
[9] have it written down where I said no.
[10] MRS. FLISS: I didn't force everyone to
[11] sign a denial form saying no we don't want bottled water
[12] because we weren't forcing you to take it.
[13] [redacted]: I understand that.
[14] MRS. FLISS: I was offering it as a
[15] comfort.
[16] [redacted]: If it was offered I may have
[17] took it. I'm just telling you it wasn't offered.
[18] MRS. FLISS: I'm sorry, I don't have it
[19] written down. But I do have a lot of other ones written
[20] down who said; no, I don't want it because we're already
[21] drinking bottled water. I can only offer my assurance.
[22] [redacted]: You say you did, but I'm
[23] saying you didn't. I'm the one that's not drinking
[24] bottled water.
[25] [redacted]S. [redacted]: And he's coming down with

Page 138

[1] the problem.
[2] MRS. MASSENBURG: What's the address?
[3] [redacted]: [redacted].
[4] MRS. FLISS: I think I have a nondetect on
[5] yours.
[6] MRS. MASSENBURG: Can you read --
[7] [redacted] You said the ones next to
[8] the ones that were detected you offered them bottled
[9] water.
[10] MRS. MASSENBURG: For what?
[11] MRS. FLISS: 231.
[12] MRS. MASSENBURG: He's not on the list,
[13] it's a nondetect.
[14] MRS. FLISS: You're not even on the -- oh,
[15] 54231, you are on the sodium list, I'm sorry. We were
[16] doing that for people who had volatile organic chemicals
[17] and carcinogenic.
[18] [redacted]: That's not what you said.
[19] You said you offered all the people bottled water and you
[20] didn't offer me that, that's what I'm getting at.
[21] MRS. FLISS: I apologize. I had your name
[22] written down, and phone number, and everything to me that
[23] signified that I asked. But apparently I didn't, I'm
[24] sorry.
[25] [redacted]S. [redacted] So they should be offered

Page 139

[1] it now.
[2] MRS. FLISS: I suppose I could add you to
[3] the list.
[4] [redacted]: Why don't you do that?
[5] [redacted]S. [redacted]: His damage is already done.
[6] MRS. MASSENBURG: What we only detected in
[7] your water was salt.
[8] [redacted]: Salt. Blood pressure.
[9] Blood pressure, heart problems.
[10] MS. VAN LEEUWEN: 54231 has 85 micrograms
[11] per liter of sodium, and --
[12] MRS. MASSENBURG: Right. But I don't
[13] know -- I didn't offer you the water, or not offer you
[14] the water. But I was just asking you if you have
[15] hypertension, or anything.
[16] [redacted]: Yeah, I do.
[17] [redacted]S. [redacted]: And my kids who are 27 and
[18] 30 they have thyroid problems now, and they have high
[19] blood pressure at their age. And we've lived there 27
[20] years. And now we're having medical problems. What do
[21] you do now?
[22] MRS. MASSENBURG: She's going to add you
[23] to the bottled water list.
[24] MRS. FLISS: If you want me to add you to
[25] the bottled water list. I apologize, I wasn't --

Page 140

[1] MRS. MASSENBURG: We don't live near
[2] landfills, that's the problem of what's correlating in
[3] your area. Like I said before, there's people who get
[4] the same symptoms, and everything -- I'm not trying to
[5] cut you short, or anything like that, that get the same
[6] symptoms that you all are experiencing, that don't live
[7] near hazardous waste sites. And it's difficult for us to
[8] say this is the reason why you're getting it.
[9] What I would suggest to people is that you talk
[10] to your doctor, and have them document those kinds of
[11] things. Because, as you know, paper trail, or paper,
[12] anything written is worth a lot when you're dealing with
[13] the Federal government, any kind of governmental agency,
[14] or anything like that, if you find yourself having
[15] problems.
[16] And unfortunately I wish I was here in '92
[17] because I would have told you these things. You know,
[18] talk to your doctor and tell him you live next to a
[19] landfill and ask him if there's any way there's a
[20] correlation so we can have some kind of documentation, or
[21] something like that. And I'm not saying that the
[22] problems you are -- that you're experiencing does not
[23] come from the landfill. I'm just saying that the reason
[24] why it makes it's difficult for us, as a risk assessor,
[25] is because these same problems that you're experiencing

Page 141

[1] happen to people who are not living near a landfill.
[2] [redacted]: Yeah n,we understand that.
[3] MRS. MASSENBURG: And it makes it
[4] difficult.
[5] UNIDENTIFIED SPEAKER: Now, this man that
[6] has – how do we get checking everyone out?
[7] MS. VAN LEEUWEN: Anyone who has any
[8] questions about any of the chemicals that are in the
[9] landfill, or any of the health effects from those
[10] chemicals, if you'll write down either my telephone
[11] number, or my e-mail address, I will answer any questions
[12] that you have.
[13] [redacted]: Okay.
[14] MS. VAN LEEUWEN: About any of the
[15] questions that you heard about.
[16] [redacted]: Thank you.
[17] UNIDENTIFIED SPEAKER: How long have you
[18] guys decided you were going to do this?
[19] MRS. MASSENBURG: Unfortunately with the
[20] government it's a process, and we stopped our sampling in
[21] 2000. Okay.
[22] UNIDENTIFIED SPEAKER: Then when did you
[23] actually decide; hey, we're going to run City water down
[24] to these people.
[25] MRS. MASSENBURG: We were going to

Page 142

[1] consider that all along, but we have to document
[2] everything we do.
[3] UNIDENTIFIED SPEAKER: You've been
[4] considering it?
[5] MRS. MASSENBURG: It took us two years to
[6] write the report, this report that I'm telling you about.
[7] What I did, myself, was I made my contractor compile all
[8] the data that was collected since 1995 because there was
[9] a piece here, a piece there, and it was so difficult for
[10] anybody to go to the library and find out what's going
[11] on.
[12] Because what was happening was they say refer
[13] to document X, Y, and refer to this document, and refer
[14] to that document. So what I decided to do, which I
[15] thought was being helpful, was have everything combined
[16] in one document so that you wouldn't have to keep running
[17] from one document to the other document trying to find
[18] out what was going on.
[19] And, like I said, we did our last sampling in
[20] November of 2000. And then we had to write this report.
[21] Well, in writing this report we had to approve the repot,
[22] because there were miscalculations of concentrations, and
[23] all of that, and it went back and forth, back and forth.
[24] And it went two years to write this report.
[25] UNIDENTIFIED SPEAKER: So you haven't done

Page 143

[1] any soil sampling since 2000?
[2] MRS. MASSENBURG: Since 1998.
[3] UNIDENTIFIED SPEAKER: So how do we know
[4] that the stuff hasn't come through the air and land on
[5] our ground, and our kids are playing in it and everything
[6] else. Because at the thing in Pierre Moran library it
[7] says it's airborne.
[8] MRS. MASSENBURG: I just showed you
[9] samplings that there is known for the concentrations.
[10] Unless there is something to make this happen, there's no
[11] reason for the concentrations to move out further.
[12] There's no reason for that to happen.
[13] UNIDENTIFIED SPEAKER: So it won't come
[14] out in the air.
[15] MRS. MASSENBURG: Not right down the
[16] landfill. That's why we say --
[17] MR. WENTLAND: But for the stuff to blow
[18] away, especially for the Randalls, they live right behind
[19] it.
[20] MRS. MASSENBURG: We tested the soil, not
[21] on top of the soil. We had to put borings in the soil.
[22] So it's not sitting on the top.
[23] UNIDENTIFIED SPEAKER: The topsoil, did
[24] you guys --
[25] MRS. MASSENBURG: Yeah. The -- like, the

Page 144

[1] first six inches, or something like that. So it's not
[2] just floating there, the winds would change the
[3] concentration.
[4] UNIDENTIFIED SPEAKER: That's what I'm
[5] asking.
[6] MRS. MASSENBURG: Yes, sir. Behind you.
[7] [redacted] My question is
[8] they've been pumping off north of us on Plainfield and
[9] all through the east of us down Highland for the last
[10] eight months to run this line in. Now, that had to
[11] significantly change the water direction.
[12] MRS. MASSENBURG: And it did, but consider
[13] what you just said.
[14] [redacted]: So now I'm a car wreck
[15] basically.
[16] MRS. MASSENBURG: Car --
[17] [redacted]: Your car analogy. All the cars
[18] are coming my direction now.
[19] MRS. MASSENBURG: Let me explain. You're
[20] absolutely right, but where they're pumping they're way
[21] north.
[22] [redacted] [redacted] Yeah. They're way north but
[23] the ground water flow -- and they're over on Highland,
[24] which is by Midland.
[25] MR. SCHONHOFF: We need to learn more

Page 145

[1] about it.
[2] MRS. MASSENBURG: We need to investigate
[3] that. We just found that out this week.
[4] [redacted]: That's what ticks me off. You
[5] guys are doing all the studies and writing all this stuff
[6] down, and the guys are getting the permits and pumping
[7] this off, and EPA doesn't know what's going on.
[8] MRS. MASSENBURG: And the only way we know
[9] what's going on is if you come and tell us.
[10] [redacted]: But it's a day late and a
[11] dollar short type of deal.
[12] MRS. MASSENBURG: But you knew from the
[13] day -- from the beginning sir.
[14] [redacted]: It's been happening since last
[15] year.
[16] MRS. MASSENBURG: Let me explain something
[17] to you. We're the Federal government, and we're the
[18] toppest tear, and there's so many layers that you get to
[19] before you get to us. And although we're investigating
[20] the site it starts at the local level.
[21] [redacted]: All right. Now, tomorrow --
[22] now you know all of this is being pump off, are you going
[23] to cleck this further and see --
[24] MRS. MASSENBURG: Yes, we are.
[25] MR. SCHONHOFF: This gentleman over here

Page 146

[1] and I just had the same discussion.
[2] [redacted]: Yeah.
[3] MR. SCHONHOFF: And we had to stop our
[4] discussion so we could listen up. You know, we're not
[5] aware of that. And City municipalities --
[6] [redacted]: Somebody had to be aware of it,
[7] somebody had to get a permit.
[8] MR. SCHONHOFF: Bear with me, if you don't
[9] mind. You know, they have to be able to continue their
[10] daily obligation. They have to be able to lay lines and
[11] they can't be required to obtain environmental permits
[12] for incidental --
[13] [redacted]: But -- I can understand that,
[14] but you have a Superfund site sitting right on your next
[15] door.
[16] MR. SCHONHOFF: Follow me a second.
[17] They're not going to pump this for ever. This will
[18] probably -- when they stop pumping --
[19] [redacted]: The water changes.
[20] MR. SCHONHOFF: Right .
[21] [redacted]: And I'm drinking, and I'm
[22] breathing, and everything else.
[23] MR. SCHONHOFF: I don't want to argue it.
[24] But how long have they been pumping on-site?
[25] [redacted]: Back in October of last year.

Page 147

[1] 24 hours a day. So much water that --
[2] MR. SCHONHOFF: Just to put it in
[3] perspective, and I'm not going to get carried with it --
[4] and as the gentleman over here mentioned, and it's not a
[5] bad number, about a hundred feet per year linear loss.
[6] Hundred feet per year linear loss if you pump it. That's
[7] two hundred feet. That's two hundred feet towards you,
[8] and then when they shut that off it's going to correct
[9] itself back. So --
[10] [redacted]: I can't believe that as much
[11] water as they've pumped out of there, 24 hours a day.
[12] That's a lot of water.
[13] UNIDENTIFIED SPEAKER: It's not just one
[14] well.
[15] [redacted]: They're doing three or four of
[16] them --
[17] MR. SCHONHOFF: Are these vertical wells,
[18] or horizontal transfers.
[19] [redacted]: Both.
[20] MR. SCHONHOFF: My question is. Do they
[21] have an open trench?
[22] [redacted]: Yes. Along --
[23] [redacted]: Yeah. When they're dumping off
[24] the extension it's right in the trench, and going down to
[25] the creek.

Page 148

[1] MR. SCHONHOFF: How long is the trench
[2] that's open?
[3] [redacted]: Two miles.
[4] [redacted]: Quarter mile.
[5] MR. SCHONHOFF: So six hundred feet open?
[6] [redacted]: Yeah.
[7] MR. SCHONHOFF: So 20 feet deep and the
[8] bottom of it is water that they're pumping, is that
[9] right?
[10] [redacted]: I don't know how deep they're
[11] pumping.
[12] MR. SCHONHOFF: Well, it's important
[13] because -- it's important because you -- it's probably
[14] not that deep because they're putting in line, and the
[15] lines they're laying is not that deep. So it has to be
[16] 15 foot maybe. Am I getting out of --
[17] UNIDENTIFIED SPEAKER: We're talking two
[18] things here. The one item is the vertical pipes that
[19] they're putting down to suck the water out of the ground,
[20] and the other is the trench where they're dumping the
[21] water out on the north part. That's two different
[22] topics.
[23] MR. SCHONHOFF: And so we have a
[24] withdrawal line, and injection point.
[25] [redacted]: I'm worried about the

Page 149

[1] withdrawal because the withdrawal is sucking out so much
[2] water that I'm getting water in the landfill coming my
[3] way now.
[4] MR. SCHONHOFF: I think it's been running
[5] a year, I think you're too far away. Where do you live?
[6] [redacted] I live on Southwood.
[7] MR. SCHONHOFF: On what?
[8] [redacted]: Southwood.
[9] MR. SCHONHOFF: Help me out.
[10] [redacted] Northwood, Southwood and
[11] Southwood.
[12] MR. SCHONHOFF: What's the distance from
[13] --
[14] [redacted] From Westwood?
[15] MR. SCHONHOFF: Yeah, that's okay.
[16] [redacted]: From Westwood to my house?
[17] MR. SCHONHOFF: Yeah.
[18] [redacted]: Two blocks. Eight -- s.
[19] MR. SCHONHOFF: Eight hundred feet.
[20] [redacted]: Probably.
[21] MR. SCHONHOFF: I would say you wouldn't
[22] want to be pumping like that for several years. You
[23] wouldn't want to pump like that for a couple years. Are
[24] they about done? We need to find that out.
[25] [redacted]: I don't know.

Page 150

[1] MR. SCHONHOFF: Let me know. They don't
[2] leave these trenches open like that. They're probably
[3] trying to lay a sewer line and they have to establish a
[4] grade.
[5] [redacted] [redacted] not worried about the
[6] trenches.
[7] MR. SCHONHOFF: Once it's shut off --
[8] they're not going to pump it forever.
[9] [redacted] No.
[10] MR. SCHONHOFF: Once it's shut off it will
[11] correct itself.
[12] [redacted]: But for about a year or so I'm
[13] going to be drinking maybe contaminated water.
[14] MR. SCHONHOFF: I kind of don't think so.
[15] I kind of don't think so.
[16] [redacted] That's a good gamble there.
[17] [redacted]: The gamble --
[18] MRS. MASSENBURG: We need to find this
[19] out. Yes, sir.
[20] [redacted]: My name is [redacted]. And
[21] you made the statement in the pond there was nothing
[22] wrong with that water.
[23] MRS. MASSENBURG: We tested the water.
[24] [redacted]: And that's perfectly good
[25] water?

Page 151

[1] UNIDENTIFIED SPEAKER: But that was two
[2] years ago.
[3] MRS. MASSENBURG: No. That was back in
[4] the 90's, early 90's. There's no reason why -- unless
[5] someone has done some dumping from the surface down but
[6] it's not been -- the ground water has not been affected
[7] by it. And unless there's some dumping into the pond
[8] after we test it there's no reason to test it after it's
[9] tested negatively.
[10] You follow what I'm saying? Either it's coming
[11] from the ground, or somebody's dumping it into it.
[12] [redacted]: It won't leach into it.
[13] MRS. MASSENBURG: Right. Unless somebody
[14] dumps into the ponds.
[15] [redacted]: I understand what you're
[16] saying, that water is good. But you're saying I'm having
[17] to hook onto water when I'm right across the street from
[18] it.
[19] MRS. MASSENBURG: Because you're drinking
[20] the water under the ground. You see, you're not drinking
[21] the pond water. Those are two different waters.
[22] [redacted]: It is.
[23] MRS. MASSENBURG: The pond is not being
[24] recharged by water underground, that's not the same
[25] water. Do you understand what I'm saying?

Page 152

[1] [redacted] If water comes off and runs
[2] out --
[3] [redacted]: It intermixes it, doesn't it?
[4] MRS. MASSENBURG: It does not intermix.
[5] No. That was a quarry pond. It has a rock cement
[6] bottom, and it doesn't mix with the ground water that's
[7] flowing underneath. It maybe one time when they was
[8] digging it out they probably hit water. But now the
[9] water --
[10] [redacted]: You're saying the ground
[11] water is anywhere 15 to 20-foot, right.
[12] MRS. MASSENBURG: Except in that area that
[13] they dugout and put cement blocks in. You following the
[14] difference?
[15] [redacted]: There's no cement blocks in
[16] there.
[17] MRS. MASSENBURG: There is some kind of
[18] rock quarry.
[19] [redacted]: It's a hard pan.
[20] MRS. MASSENBURG: All I'm saying is the
[21] water in the pond is not the same water that you're
[22] drinking, those are two different waters. The water in
[23] the pond does not seep down into the ground water and
[24] come to you. I'm -- I must be missing the point, I'm
[25] sorry.

Page 153

[1] [redacted]: The other point I'm trying
[2] to make out is you say that water is good.
[3] MRS. MASSENBURG: The water is not
[4] contaminated.
[5] [redacted]: When I stood back there and
[6] seen stuff come out of that dump and run into it.
[7] MRS. MASSENBURG: But it doesn't mean what
[8] you saw was contaminated.
[9] [redacted]: It was oily. What do you
[10] call it?
[11] MRS. MASSENBURG: I don't know what to
[12] say.
[13] MR. HULEWICZ: Maybe you should explain
[14] about volatile organics and their persistence in the
[15] environment as they are exposed to the atmosphere.
[16] For instance, if you take a can of gas you can
[17] see the fumes coming out of it, that's a volatile organic
[18] that's making the gas going in the air. If you let it
[19] sit long enough, sooner or later all the gas evaporates.
[20] It's the same thing if you pour the gas on the water,
[21] sooner or later it's going to evaporate given time
[22] exposure to sunlight, and exposure to heat.
[23] So certain chemicals are going to leave a
[24] surface body of water, a pond, a ditch and a creek, given
[25] the appropriate amount of time. So if it was

Page 154

[1] contaminated long ago, and I don't doubt that that pond,
[2] at some point in time, had contaminates in it, you know,
[3] because there had to be runoff in the landfill that got
[4] in that pond.
[5] But over time there was tremen -- the dump was
[6] closed in '76, and they tested it in '90. That's 14
[7] years. If you leave a can of gas out for 14 years you're
[8] going to have an empty can of gas. Does that make sense?
[9] [redacted]: It makes sense. But it
[10] still boils down, my well is about 200 feet from there.
[11] UNIDENTIFIED SPEAKER: But you're well is
[12] down in the ground water.
[13] [redacted]: That ground water is within
[14] 20 feet.
[15] UNIDENTIFIED SPEAKER: It's like a river
[16] underneath, it's way underneath the ground where you get
[17] water out of.
[18] MR. HULEWICZ: I think what would help you
[19] understands sir is if that pond is not, does not have a
[20] ground water/surface water interface by -- if there's no
[21] connection between the ground water and surface water, no
[22] spring that fills that ponds or no aquifer that supplies
[23] water to the that pond, you know, water main, that if
[24] there's nothing that supplies that pond in that manner,
[25] then there would be no association between that pond, and

Page 155

[1] the ground water source you're pumping from.
[2] [redacted]: My question is, does that --
[3] and that's the question that I asked here, because they
[4] have all the studies. Why doesn't that water ever
[5] evaporate back there?
[6] MRS. MASSENBURG: That's what we've just
[7] asked. Have you noticed a huge fluctuation in the pond?
[8] [redacted]: When you get a dry spell it
[9] doesn't go down.
[10] MRS. MASSENBURG: But that's not
[11] significant. I don't know.
[12] MR. SCHONHOFF: What's the question?
[13] UNIDENTIFIED SPEAKER: Is there ground
[14] water, surface water.
[15] MR. SCHONHOFF: You mean up there at the
[16] north end, sure there is. Sure there is. Sure there's
[17] an interface. Sure there is.
[18] MRS. MASSENBURG: But what was he saying,
[19] what was the original question.
[20] MR. SCHONHOFF: Basically you have a hole
[21] that interacts with the ground water. So since there is
[22] no sand there you have a pond see.
[23] [redacted]: Right. So that water is
[24] still coming in my well.
[25] MRS. MASSENBURG: This is the water from

Page 156

[1] the ponds.
[2] MR. SCHONHOFF: I don't know where you
[3] live at.
[4] [redacted]: Two hundred feet from it.
[5] MR. SCHONHOFF: Yeah. I would say you're
[6] probably getting a little. But not a lot. That's vague,
[7] but that's what it is.
[8] [redacted]: So if that pond water --
[9] MR. SCHONHOFF: Sir, don't forget one
[10] thing about all of this, we're talking distance.
[11] Distances have a lot to do. One reason in using distance
[12] scale you have the element of dilution. There is a lot
[13] of dilution if there isn't a little bit of contamination
[14] coming from the site. And what I'm hearing here tonight
[15] is I'm seeing a lot of marginal contamination. The
[16] reason EPA is here, is it's high enough to be concerned,
[17] but it's not so high that we need to be alarmed.
[18] [redacted]: If we don't have to be
[19] alarmed then why do I have to hook up to water. They're
[20] saying that they're making me.
[21] MR. SCHONHOFF: We're going to try to make
[22] it attractive.
[23] [redacted]: Pardon.
[24] MR. SCHONHOFF: Because you can't predict
[25] down the road how the waste that's in this landfill is

Page 157

[1] going to behave over time. We're talking forever. So
[2] rather than put you at risk for something down the road
[3] we're saying hook up to the City water and remove that
[4] risk. That's what we're saying. I know, people like
[5] their wells.
[6] MRS. MASSENBURG: Yes, sir.
[7] [redacted] My name is [redacted] I just
[8] wonder, I'm on my third well now, and I went from 44
[9] feet, to 77 feet, to a hundred, to a over a hundred feet.
[10] And it's still not good. I live down the bend on
[11] Westwood Drive.
[12] MRS. MASSENBURG: Yeah, I know where you
[13] live sir.
[14] [redacted]: And I guess my question is, I'm
[15] kind of looking forward to this City water. When am I
[16] going to get it?
[17] MRS. MASSENBURG: That's a good question.
[18] [redacted]: I'm tired of this junk ass
[19] water.
[20] MRS. MASSENBURG: That's a good question.
[21] We're hoping -- as you heard from the gentleman from
[22] Bayer, you can hear that they're not --
[23] [redacted]: Excited.
[24] MRS. MASSENBURG: -- excited about this.
[25] [redacted]: Can we sue -- if this is their

Page 158

[1] fault can we sue them?
[2] MRS. MASSENBURG: I can't advise you own
[3] that, I'm not an attorney. I guess if you want to pursue
[4] that you should talk to an attorney.
[5] [redacted] Not --
[6] MRS. MASSENBURG: I'm saying if you want
[7] to do that you should with an attorney.
[8] [redacted]: I couldn't do anything, I know
[9] that.
[10] MS. VAN LEEUWEN: Write to the newspaper
[11] every week.
[12] MRS. MASSENBURG: You know what I'm saying
[13] to you is, talk to an attorney and let the attorney talk
[14] to you about that. I can't advise you on that.
[15] What we're going to do is, you saw we had a
[16] representative tonight from Bayer and we're doing to what
[17] we call go into negotiations with Bayer, and get Bayer to
[18] do the work. And the negotiations, as you can see, is
[19] not going to be easy.
[20] [redacted] Is Bayer the only responsible
[21] party named?
[22] MRS. MASSENBURG: We're looking at other
[23] people, but Bayer is the major player. We're looking at
[24] other responsible players.
[25] UNIDENTIFIED SPEAKER: What about Himco?

Page 159

[1] MRS. MASSENBURG: We're looking at Himco.
[2] We're not going to exclude anybody because we want this
[3] work done. But to answer your question; how long is it
[4] going to take. I wish I could tell you. I don't know.
[5] UNIDENTIFIED SPEAKER: What would you say?
[6] MR. HULEWICZ: So is Gwen --
[7] MRS. MASSENBURG: Roughly between six to
[8] nine months. That's the best estimate. That's the
[9] negotiation period. By that time we'll know whether or
[10] not they're going to be in good faith.
[11] UNIDENTIFIED SPEAKER: Okay. If they're
[12] in good faith then what --
[13] MRS. MASSENBURG: Then they'll be
[14] implemented. We'll probably get the people off the water
[15] immediately before we start doing anything with the
[16] landfill. Then I can tell you this, Bayer is trying to
[17] separate, divide and conquer here. You heard that. And
[18] we have our back up against the wall. We're on your
[19] side. Bayer is not on your side.
[20] UNIDENTIFIED SPEAKER: We know that.
[21] [redacted]: We know that.
[22] MRS. MASSENBURG: I don't want to say that
[23] in a bad way. And again he's saying, according to what I
[24] was hearing, there's no big problem that exists out
[25] there. He didn't say there was no problem.

Page 160

[1] UNIDENTIFIED SPEAKER: I know.
[2] MRS. MASSENBURG: And those are the kinds
[3] of things we have to work through. We have to work
[4] through it.
[5] UNIDENTIFIED SPEAKER: Say, for example,
[6] everything clicks, how long are we looking before you
[7] guys lay the pipe line.
[8] MRS. MASSENBURG: Nine months.
[9] UNIDENTIFIED SPEAKER: Nine months is when
[10] you start?
[11] MRS. MASSENBURG: Yeah. And the reason
[12] why, we have all these instrumental I'm sure you guys
[13] understand.
[14] UNIDENTIFIED SPEAKER: Yeah.
[15] MRS. MASSENBURG: All the levels that it
[16] has to go through, and that type of thing. So we're
[17] saying roughly six to nine months if everything went
[18] well.
[19] UNIDENTIFIED SPEAKER: If everything went
[20] well?
[21] MRS. MASSENBURG: Six to nine months, yes.
[22] UNIDENTIFIED SPEAKER: So at the end of
[23] the year we could be hooked up to City water?
[24] MRS. MASSENBURG: Yes. That would be very
[25] good. It would make me feel very good if that was

Page 161

[1] happening.
[2] UNIDENTIFIED SPEAKER: And this
[3] contaminate in that well, that Himco dump isn't going
[4] make us have to move out of the houses and --
[5] MRS. MASSENBURG: Nothing -- we have not
[6] seen anything to suggest that. The bottom would have to
[7] fall out, and it would have to get through the landfill
[8] before it would get to you all. So we have not seen
[9] anything like that.
[10] UNIDENTIFIED SPEAKER: How can you guys
[11] tell what's down in there?
[12] MRS. MASSENBURG: We don't know.
[13] UNIDENTIFIED SPEAKER: You never will.
[14] MR. HILL: Excuse me, we've move into
[15] another discussion area here. We're not adverse to
[16] discussions, but let's move to discussions after we end
[17] the question period. Let's move to a closure here and
[18] then we can continue with discussions as long as we have
[19] the willingness of the people of the City here. We need
[20] to be considerate of them as well. We may have to move
[21] some of this outside. Okay. The question in the back.
[22] UNIDENTIFIED SPEAKER: What is the flow
[23] rate of this contamination?
[24] MRS. MASSENBURG: Flow rate?
[25] MR. HILL: That's been answered several

Page 162

[1] times.
[2] MR. SCHONHOFF: What was the question?
[3] MRS. MASSENBURG: Flow rate of the ground
[4] water.
[5] MR. SCHONHOFF: The speed the water
[6] travels?
[7] UNIDENTIFIED SPEAKER: Yeah.
[8] MR. SCHONHOFF: It depends on gradient.
[9] There was a gentleman that brought a number up that I
[10] didn't think was bad. I was thinking on the order -- I'm
[11] going to give you a range between 75 to a hundred feet a
[12] year. On that order.
[13] UNIDENTIFIED SPEAKER: So how many years
[14] are you saying before we actually get --
[15] MR. SCHONHOFF: Are you worried about the
[16] pumping?
[17] UNIDENTIFIED SPEAKER: No, no, no. I'm
[18] saying that you're saying that the contamination is right
[19] on the border now. And you have a line that there's no
[20] contamination on that one map that you have.
[21] MRS. MASSENBURG: With the circles, and
[22] lines. That was gas. That was soil gas. That wasn't
[23] water. That's different.
[24] UNIDENTIFIED SPEAKER: Okay. Where's the
[25] ground water contamination?

Page 163

[1] MR. SCHONHOFF: You know, the ground water
[2] contamination is kind of a funny thing because it's as a
[3] width. So, you know, we think in terms of vectors or
[4] lines. You saw the flow maps, the lines of equal
[5] elevation. Okay. If you draw a right angle at that
[6] point that's the direction that ground water goes at that
[7] point.
[8] So obviously the line moves. So the thing is
[9] the contamination has a width. So with that width, you
[10] know, you can be -- the width, if you can visualize,
[11] moves down gradient. And it just depends on where you
[12] fall within that width.
[13] Say -- I'm going to pull, one -- say it's six
[14] hundred feet across, or something like that. And the
[15] ground water flow changes it, and it does change, it
[16] fluctuates based on changes, and recharge. It has to do
[17] with your rain, your snow.
[18] My point is, how long does it take. If you're
[19] directly down gradient it, you know, a hundred feet per
[20] year you might get something. But again these levels are
[21] low.
[22] UNIDENTIFIED SPEAKER: Even coming direct?
[23] MRS. MASSENBURG: Yes that's a -- that's
[24] not a big problem.
[25] MR. SCHONHOFF: If you look due east --

Page 164

[1] let me come back, I'll give you a perspective.
[2] Let's say you live at Plainfield and John
[3] Weaver Parkway. You go due east of that a hundred feet.
[4] You're probably not going to get anything. Nothing. For
[5] example.
[6] MRS. MASSENBURG: Yes, ma'am.
[7] MR. SCHONHOFF: You know we haven't had
[8] great hits here. This is cause for concern. But it's
[9] nothing to cause you alarm. Something needs to be done.
[10] UNIDENTIFIED SPEAKER: I'm just saying --
[11] MR. SCHONHOFF: That's a good question. I
[12] don't mean to -- really, it's a good question.
[13] UNIDENTIFIED SPEAKER: I think you should
[14] have some type of neighborhood -- I live outside
[15] Netherlands Hills.
[16] MR. SCHONHOFF: Okay.
[17] UNIDENTIFIED SPEAKER: I think you need to
[18] have a neighborhood informational so these people
[19] understand.
[20] MR. HILL: That's right. I wanted to move
[21] to that as a suggestion. It's obvious that we need to
[22] have a discussion. If we could -- I understand and this
[23] is only a proposal that we get a number of water experts
[24] together, and contact the residents who have a potential
[25] for being the most effected in the area, and have a

Page 165

[1] meeting between those interested people where we talk
[2] about some generalized issues. As well, as some specific
[3] issues relative to ground water in general, and ground
[4] water specifically.
[5] This, you know, seems as though that that would
[6] be a wise thing for all of us to do. Rather than trying
[7] to understand a very difficult technical problem --
[8] MR. SCHONHOFF: We can get a map --
[9] MR. HILL: -- you know, in a very brief
[10] period of time.
[11] UNIDENTIFIED SPEAKER: Yes. I just don't
[12] know the objection to being hooked up to City water. You
[13] can see right there there's a huge lack of information.
[14] MR. HILL: That's very true. And it's
[15] very difficult to address all of these issues in the time
[16] that we have. That's why I propose that.
[17] UNIDENTIFIED SPEAKER: Sure.
[18] MR. HILL: If people were amenable to such
[19] a thing we could find it helpful that maybe they could
[20] look to facilitate, but we're not going to try to force
[21] it upon anybody.
[22] UNIDENTIFIED SPEAKER: Oh.
[23] MR. HILL: You know, it's our charge to
[24] try to make people understand, and to help them
[25] understand, and to give them the information to allow you

Page 166

[1] to make the decisions and the judgments that you want to
[2] make based on the information that we do.
[3] We just have to make certain that we give it to
[4] you correct, and as accurately as we can make it. We
[5] would be happy to pursue that. But I need some
[6] indication -- for example, sir would you be willing to
[7] attend?
[8] UNIDENTIFIED SPEAKER: Yeah, I would.
[9] MR. HILL: You and your family be willing
[10] to attend. Fine then we'll pursue that.
[11] UNIDENTIFIED SPEAKER: Okay.
[12] UNIDENTIFIED SPEAKER: I have a question
[13] it sounds like some people want the City water, and some
[14] people don't. Is there an option, or is it coming for
[15] the ones that they --
[16] MRS. MASSENBURG: We'll look at it more
[17] specifically when they start to design who is going to
[18] actually get hooked up. But the short answer to your
[19] question as far as I know today, the answer is no. If
[20] you want to get hooked up, and we're near your house, but
[21] we haven't proposed that you be hooked up as far as it
[22] being an EPA requirement, then you could probably pay to
[23] hook yourself up. But in terms of we're asking the RP to
[24] hook up for those people who are living in the
[25] neighborhood that we're asking that they be hooked up to

Page 167

[1] the water, and they don't want to be hooked up to the
[2] water, we can't force you to be hooked up to the water.
[3] All we can tell you is you'll be drinking the water at
[4] your own risk.
[5] And you have to inform people -- say you decide
[6] to move, you have to let these people know that water was
[7] proposed. You know, that municipal water was proposed to
[8] be hooked up to the house. We didn't decide to get it.
[9] That has to be disclosed to the new owner that -- that
[10] comes in.
[11] But if you live there now and decide not to get
[12] the water that's a risk that you're taking on yourself.
[13] UNIDENTIFIED SPEAKER: I just wondered,
[14] because I heard some say; yeah, we want it, and some
[15] said; no, we don't.
[16] MRS. MASSENBURG: Yeah. That's
[17] unfortunately what happens.
[18] MR. SCHONHOFF: There are some people that
[19] think hard about it, and maybe some people it's not
[20] facing them quite the same way.
[21] UNIDENTIFIED SPEAKER: Now, west of there,
[22] there was a lot of people that put new wells in, in the
[23] last year.
[24] MR. SCHONHOFF: Can I ask you a question?
[25] How deep does your well go to?

Page 168

[1] UNIDENTIFIED SPEAKER: I have the paper
[2] right here.
[3] MR. SCHONHOFF: I'll look at it later.
[4] MRS. MASSENBURG: Bring it down.
[5] UNIDENTIFIED SPEAKER: We just did this
[6] last month.
[7] MR. HULEWICZ: A comment that I'd like to
[8] make. The biggest concern here is the exposure of ground
[9] water, drinking water. So if you do an informational
[10] meeting, the soil gas vapors were great. And if you came
[11] out to the demolition debris was fine and talking about
[12] leads and soils is fine. But let's talk about the
[13] greatest exposure risk, and try to delineate or show
[14] where the potentials are, and what kind of levels you
[15] have. And some of the monitoring wells in, and around
[16] the landfill. Because right now I recognize that there's
[17] only one well that is exceeded any kind of standard --
[18] MRS. MASSENBURG: Right. Right.
[19] MR. HULEWICZ: -- that exists for drinking
[20] water quality other than some sodium standards.
[21] MRS. MASSENBURG: Right.
[22] MR. HULEWICZ: And heaven knows if you
[23] have high blood pressure you don't want sodium, but
[24] that's different than a carcinogen in your drinking
[25] water. And an understanding that you could potentially

Page 169

[1] be exposed to that if you don't hook up to City water.
[2] MR. HILL: Excellent suggestion John.
[3] We'll make sure that you're invited to the meeting.
[4] MR. HULEWICZ: Talk to Gwen, she'll invite
[5] me.
[6] MR. HILL: Yes. Other questions?
[7] [redacted]: Yeah. We're returning to
[8] looking at a different locations. We're down on County
[9] Road 10, the Alcoa factory that's on the opposite side of
[10] the road.
[11] MRS. MASSENBURG: Which way?
[12] [redacted]: I own the house just west of
[13] Alcoa.
[14] MRS. MASSENBURG: Okay.
[15] [redacted]: We have City water that goes
[16] down to right in front of Alcoa, there's a hydrant. It's
[17] less than a hundred feet from my house. And she's right
[18] directly across the street. And I was told back in '93,
[19] I believe it was, that I couldn't get hooked into that
[20] City water, and I'm in the City. My house is in the
[21] City.
[22] MRS. MASSENBURG: And you're on well
[23] water?
[24] [redacted]: I'm on well water, and they
[25] wouldn't hook me into that City water.

Page 170

[1] [redacted]: They wouldn't pay the expense.
[2] MS. VAN LEEUWEN: We're told that everyone
[3] is --
[4] MR. HULEWICZ: Is your line on the north
[5] side of the road and your house is on the south side?
[6] Are you on the south side of the road and the line is
[7] on --
[8] [redacted]: No. The line is on the south
[9] side, and I'm on the south side. I'm on the south
[10] side --
[11] MR. HULEWICZ: And they hooked up the
[12] houses on the north side.
[13] [redacted]: Her's is not.
[14] MR. HULEWICZ: It's not.
[15] [redacted]: So there's three houses right
[16] there. I mean, her's, and Mark -- the guy you probably
[17] remember back in the corner, the three of us --
[18] MR. HULEWICZ: You are annexed into the
[19] City?
[20] [redacted]: Yes.
[21] MR. HULEWICZ: You could make an effort to
[22] go to the Board of Works meeting and pose that question
[23] to the Board of Works.
[24] [redacted]: I went to the --
[25] MR. HULEWICZ: You would have a fee

Page 171

[1] involved. There would be a tap in fee, I'm sure,
[2] involved in it. But I think you're entitled -- if that
[3] is available to you, and you have a city residence, and
[4] you're being denied a service --
[5] [redacted]: I guess my question is
[6] because the -- I heard it said the water flows both south
[7] and south east. And if there's a possibility for us to
[8] be on the fringes. There was a statement that referred
[9] to being close to the edge. If these three houses are
[10] considered in that area, and we have City water that
[11] close, within just a hundred feet or so, would the EPA
[12] make the effort to get these three houses hooked into the
[13] City water? It's right there anyway.
[14] MRS. MASSENBURG: We have not tested any
[15] houses that far west.
[16] MS. VAN LEEUWEN: In general, the levels
[17] even by the landfill decrease as you go to the west. We
[18] have some monitoring wells.
[19] [redacted]: Yeah. Well, buffer zone.
[20] You talked about buffer zone.
[21] MR. HULEWICZ: Gwen, he can pose that
[22] comment for the record of decision requesting that to be
[23] done.
[24] [redacted]: Yeah. Yeah.
[25] MR. HULEWICZ: If those are the only three

Page 172

[1] houses in that area you can request that, and the EPA has
[2] too give it consideration.
[3] [redacted]: I want to formerly request
[4] that. And especially because the City water is already
[5] right there. We're not talking having to run a whole new
[6] line, it's right there closer than a --
[7] My name is Mike Stoner.
[8] MRS. MASSENBURG: But you know the meeting
[9] he's talking about.
[10] [redacted]: I'll go there.
[11] MRS. MASSENBURG: We were told everybody
[12] that lives south of County Road 10 was municipal water.
[13] MS. VAN LEEUWEN: And everyone that was,
[14] yeah, on that side of the street. Because the -- and the
[15] mobile home --
[16] [redacted]: Mine -- and my property backs
[17] right up to the mobile home lot, and they won't -- they
[18] won't give us City water.
[19] MR. HILL: Any additional questions?
[20] [redacted] [redacted] The City's
[21] had a history of requiring people hooking up to City
[22] water to sign a paper saying that they would not fight
[23] annexation before they're allowed to sign up. I
[24] understand that if they receive that, that the people
[25] that want to sign up -- or, I'm sorry, that want to get

Page 173

[1] the water to receive a letter from the Health Department,
[2] or EPA, or someone like an authority like this, that they
[3] can receive the water, get hooked up to the water, and
[4] still refuse to sign that paper.
[5] Is it possible for the EPA, or whomever, to
[6] issue these statements, or whatever, to those people that
[7] you recommended to hook up to the City water?
[8] MR. HILL: We can make note of that, that
[9] you've asked for that, and we can ask -- we can ask the
[10] City to give that consideration.
[11] MRS. MASSENBURG: That's the first I've
[12] heard of that too.
[13] MR. HILL: We can't -- we're not familiar
[14] with that. We certainly can't speak for the City. We
[15] can certainly ask that the City address that issue.
[16] [redacted]: I knew the standard
[17] operating procedure in the past administration, I'm not
[18] sure about the current City administration. But it was
[19] done in the past.
[20] [redacted]: Along with that if they would
[21] waive that they may come back and say we'll charge you
[22] three times the nominal rate, and that you need to
[23] clarify too. I mean, if you have to hook up for health
[24] reasons none of those issues should be put into it.
[25] And what he's referring to is the remonstration

Page 174

[1] waiver. Along with that they have what they call the
[2] Elkhart Compact. That if you sign up for the water to
[3] come through, and you get on the Elkhart Compact, you are
[4] then required to pay three quarters of what your tax
[5] would be inside the municipality each year as a
[6] surcharge.
[7] MS. VAN LEEUWEN: That's different.
[8] Because --
[9] [redacted]: That's all part of the --
[10] MS. VAN LEEUWEN: Because of a health
[11] reason.
[12] [redacted]: Correct. I don't know if
[13] that's waived for that.
[14] MRS. MASSENBURG: You understand what
[15] she's saying that. If it's for nonhealth reasons that
[16] they will charge you that three times -- I'll say
[17] penalty, or fee.
[18] [redacted]: Let's say if it's twenty
[19] dollars a month what your normal rent, or your normal
[20] rate for your water, you'll be charged sixty dollars a
[21] month for water, or three times the nominal rate. They
[22] don't charge you the nominal rate. If you sign up and
[23] agree with the Elkhart Compact then if your taxes are,
[24] let's say a thousand dollars a year for your home, and if
[25] you would be inside the City your taxes would be $1,500 a

Page 175

[1] year. They would be charging you three quarters of that
[2] difference, of 500 dollars, they charge you three
[3] quarters of it, each year, as a surcharge. That's the
[4] Elkhart Compact. Such a deal.
[5] MS. VAN LEEUWEN: Those are issues which
[6] will be worked out before --
[7] MR. HILL: I think it's safe to say that
[8] the EPA has had, at least, indication from the City of
[9] Elkhart that they're willing to work with the situation
[10] in order to be accommodating. So maybe we could -- maybe
[11] we could ask that they put all water related issues
[12] related to service, and costs, on the table for
[13] discussion. Relative to health issue.
[14] [redacted]: Prior to signing up though.
[15] MR. HULEWICZ: You do have a precedence
[16] because. You do have another Superfund site that had
[17] 1,200 city limits that were out of -- Conrail had a same
[18] type situation where residents were hooked up, extensions
[19] made. So I think you need to look at that as a
[20] precedence and see what the City was willing to do. And,
[21] at a minimum, look at that as a negotiation point. I'm
[22] not familiar with that arrangement.
[23] Another comment I will make later on for the
[24] public record when it comes to the ROD, is how do you
[25] deal with the fire hydrants. Because the water mains

Page 176

[1] will be installed according to City specifications and
[2] will include fire hydrants. In the Conrail area fire
[3] hydrants were installed and not activated. That was a
[4] significant public safety concern when you pull up to a
[5] fire hydrant and it's dry.
[6] So that would be something that -- as I said, I
[7] have numerous points to make, for the ROD. And I didn't
[8] want to be talking about that. But that was another one.
[9] MS. VAN LEEUWEN: The City has mentioned
[10] Conrail and what they've done from --
[11] MRS. MASSENBURG: Send me an e-mail.
[12] MR. HULEWICZ: Can I send it to you via
[13] e-mail.
[14] MRS. MASSENBURG: Yes.
[15] MR. HULEWICZ: And will you share that
[16] with the room if they want to send you a e-mail as well?
[17] MRS. MASSENBURG: Yes.
[18] MR. HULEWICZ: And the toll free number?
[19] MRS. MASSENBURG: Yes.
[20] MR. HULEWICZ: And the court reporter is
[21] tired.
[22] MRS. MASSENBURG: I have some business
[23] cards up here if anybody would like one. So if you have
[24] any concerns or anything that you find is going on in
[25] your neighborhood that you would like us to know about,

[1] please give me a call.
[2] MR. HILL: This concludes the formal
[3] portion of our public meeting.
[4] (Proceedings concluded)
[5]
[6]
[7]
[8]
[9]
[10]
[11]
[12]
[13]
[14]
[15]
[16]
7]
[18]
[19]
[20]
[21]
[22]
[23]
[24]
[25]

[1] STATE OF INDIANA)
) SS:
[2] ST.JOSEPH COUNTY)
[3]
[4] CERTIFICATE OF COURT REPORTER
[5] I, Timothy B. St. Clair, RPR, a Notary Public in and
[6] for the County of St. Joseph, State of Indiana, hereby
[7] certify that at the request of the U.S. EPA, that on the
[8] 23rd day of April, 2003, commencing at 7:00 o'clock p.m.,
[9] I reported in shorthand the proceedings had during the
[10] Public Hearing held in connection with the Himco Dump
[11] Superfund Site; that I did thereafter transcribe my said
[12] shorthand notes into typewriting truly and completely;
[13] that this transcribed typewritten manuscript is a true,
[14] correct, complete record of said public hearing.
[15] I further certify that I am neither counsel or attorney
[16] for, or related to or employed by any of the parties to
[17] this cause; nor am I financially or otherwise interested
[18] in the outcome of this cause.
[19] IN WITNESS WHEREOF, I have hereunto set my hand this
[20] 29th day of May, 2003.
[21]
[22]
[23] Timothy B. St.Clair, RPR
Notary Public, State of Indiana
[24] My Commission Expires; 2-4-2008
[25]

WORD INDEX

$

$1,500 174/25

'

'76 154/6
'89 18/17
'90 154/6
'91 19/23, 119/8
'92 35/9, 63/19, 119/8, 140/16
'93 119/8, 169/18
'95 53/11
'96 53/11
'98 53/11
'99 97/19

0

02 70/13

1

1 21/25
1,2-dichloropropane 66/2, 71/19, 74/13, 80/23
1,200 175/17
1.0 32/11
1.888.989.3376 1/25
10 12/1, 12/10, 13/19, 13/20, 14/20, 21/25, 22/13, 23/20, 56/10, 62/14, 68/5, 68/25, 69/7, 70/23, 73/23, 74/6, 74/25, 75/1, 76/16, 82/14, 98/22, 102/6, 102/13, 106/2, 106/6, 115/12, 117/1, 118/16, 119/19, 119/21, 122/13, 124/10, 169/9, 172/12
10,000 22/14, 23/22, 68/22, 69/20, 70/13, 74/5
10:00 126/4
11/98 68/12
12 101/2, 106/21, 120/2, 120/13
12/98 68/11
12th 4/17, 4/19, 4/20, 4/22, 107/11, 107/19
14 121/8, 154/6, 154/7
15 2/19, 14/23, 31/6, 60/23, 105/24, 106/7, 120/13, 148/16, 152/11
152 14/25
16 81/23, 82/11, 82/15
172 14/25
18 36/14, 65/4
18,000 70/22
1951 30/12
1960 11/21
1971 14/10
1974 14/12
1975 15/2
1976 11/21, 15/5
1981 16/1, 17/8
1984 15/7, 16/2, 17/23, 18/10
1988 18/11, 18/17
1989 18/19, 118/9, 121/8
1990 18/25, 19/2, 19/9, 119/8
1991 13/11, 20/2, 20/20
1992 20/25, 21/9, 21/11, 21/12, 21/20, 21/21, 34/11, 34/12, 34/18, 37/21, 39/17, 56/6
1993 11/15, 12/12, 12/13, 35/15, 35/22, 36/19, 43/15, 56/7, 56/14, 81/5, 81/6, 81/7, 82/20, 82/22, 83/2, 83/9, 83/12, 83/24, 84/6, 108/3, 122/6, 123/3
1995 10/22, 12/14, 37/15, 37/22, 37/25, 40/5, 40/9, 53/11, 58/23, 63/16, 75/18, 76/12, 84/17, 142/8
1996 38/5, 40/11, 101/21
1998 40/11, 63/11, 143/2
1998/2000 76/13
1999 9/14, 41/20

2

2% 87/24, 88/3
2-butanone 18/6, 72/15
2-hexanone 20/8
20 2/19, 31/6, 49/17, 80/6, 99/19, 117/1, 122/13, 148/7, 154/14
20-foot 152/11
200 154/10
2000 10/22, 40/21, 41/20, 43/16, 49/15, 49/16, 53/12, 58/8, 58/23, 59/25, 63/11, 63/16, 141/21, 142/20, 143/1
2001 124/12
2003 1/5, 107/11, 178/8, 178/20
2009 83/15
21 53/25, 54/10, 71/6
22 14/23
229 1/14
23 1/5
231 138/11
23rd 178/8
24 85/8, 85/23, 86/14, 86/15, 147/1, 147/11
24-inch 85/17
245 1/24
25 101/14
27 19/8, 28/3, 139/17, 139/19
28.5 16/8, 16/11
28.95 80/20
29,000 20/8
29th 178/20

3

3,000 54/18
30 3/9, 45/1, 54/17, 85/5, 85/7, 85/18, 85/24, 89/22, 89/23, 89/24, 89/25, 94/19, 102/24, 105/15, 122/13, 139/18
30th 35/15
33 101/14
35 45/1, 80/7, 99/23, 101/15

4

4 21/25, 22/13, 22/17, 23/20, 70/13, 118/16
4-methyl-2-pentanone 72/15
4-methylphenol 18/8
40-mil 36/11
40-million 122/14
400 66/8, 66/10, 66/12, 94/22
43 67/16, 72/8
44 157/8
44,000 20/9, 30/8
45 80/6
46.0 65/25
46546 1/25
480,000 20/9
49 72/7, 72/9

5

5 74/13, 74/14, 74/25, 79/11, 89/21, 103/1, 103/5, 103/7, 103/9, 105/18, 105/24, 106/9, 107/1, 112/11, 117/1
5.5 75/1
50's 30/19
500 34/14, 175/2
54231 138/3, 138/15, 139/10
55-gallon 21/1
574.291.9125 1/25

6

6 22/1, 22/17
6,400 20/7
60 12/23, 45/3, 90/3
60-acre 85/2
60-acres 11/20, 85/4, 124/23
695 66/12
6:30 3/9

7

71 21/1, 21/6, 125/14
75 80/7, 101/16, 162/11
76 70/19
77 157/9
7:00 1/16, 178/8

8

85 139/10
8:30 65/16

9

90's 118/18, 151/4
9:00 58/3

A

abandon 100/1
abandoned 95/19, 95/20
ability 85/21
accept 107/8
acceptable 21/24, 22/5, 22/21, 23/25, 28/22, 30/3, 32/11, 75/3
accepted 13/1
accommodate 3/25
accommodating 175/10
accomplished 65/8
accounting 87/24
accurately 166/4
acetone 18/6, 72/15, 106/2, 106/6
achieving 6/5
acids 110/6
acoustics 2/6
acres 13/16, 90/4
action 21/1, 35/18, 39/25, 109/2, 134/17
actions 22/16
activate 2/8, 2/10
activated 176/3
activates 3/1
active 37/1, 91/23, 92/8
activities 37/25
activity 77/13
acute 117/10
add 55/20, 135/23, 139/2, 139/22, 139/24
adding 100/4
address 2/7, 6/21, 126/9, 138/2, 141/11, 165/15, 173/15
addressed 8/5, 39/17, 109/22
addresses 126/13
addressing 55/2
adjoining 76/23
administration 91/10, 173/17, 173/18
Administrative 92/11
adverse 23/23, 37/11, 87/21, 105/17, 161/15
advice 99/17
advise 158/2, 158/14
advised 14/17
aerial 12/3
aeroplex 51/23
affect 33/9, 89/13
affected 112/7, 151/6
affecting 33/1
affects 87/21
affirmations 6/17
afraid 3/21, 3/23
age 139/19
Agency 17/10, 19/14, 25/10, 140/13
agree 124/20, 174/23
agreed 119/19
agreement 15/3, 108/17
air 124/5, 143/4, 143/14, 153/18
airborne 143/7
airport 51/24, 79/14
alarm 63/23, 64/1, 64/15, 164/9
alarmed 156/17, 156/19
Alcoa 169/9, 169/13, 169/16
allow 67/17, 74/16, 86/8, 86/22, 87/12, 87/13, 87/16, 89/3, 93/10, 103/7, 132/15, 165/25
allowed 64/7, 114/9, 116/18, 128/8, 134/25, 172/23
alpha-chlordane 35/6
alternate 134/18
alternative 19/16
aluminum 17/24, 95/5
amenable 165/18
amend 81/7, 108/4
amended 108/3
amendment 107/24
amount 28/18, 64/7, 121/24, 153/25
analogy 144/17
analyses 119/25, 120/1
analysis 14/16, 19/10, 58/23
analytical 10/21
analyzed 14/14, 20/6, 20/14, 67/18
angle 163/5
annexation 117/21, 172/23
annexed 117/15, 170/18
announce 5/4
annual 94/1, 94/6
answer 28/25, 46/5, 52/20, 114/13, 116/20, 126/10, 141/11, 159/3, 166/18, 166/19
answered 31/22, 161/25
answers 7/15, 65/15, 114/12, 116/23
anticipated 87/24, 105/8
antimony 34/15, 35/2, 66/1
apologize 4/21, 7/13, 29/16, 138/21, 139/25
application 15/5
appreciate 27/25, 57/21, 135/12, 135/13
approached 91/4, 91/8, 91/9
appropriate 22/15, 55/10, 153/25
approve 142/21
approved 105/2
APRIL 1/5, 4/17, 19/2, 19/9, 40/19, 40/20, 58/7, 178/8
aquifer 54/12, 80/5, 80/6, 80/7, 101/14, 154/22
arbitrary 120/8, 121/17, 123/9
area 7/17, 7/20, 11/6, 11/7, 11/11, 12/5, 12/6, 12/15, 13/4, 13/7, 13/9, 13/15, 14/3, 14/4, 14/7, 14/8, 14/15, 14/21, 19/4, 27/6, 27/7, 30/12, 38/12, 38/13, 38/15, 38/18, 39/9, 39/11, 39/19, 39/21, 39/22, 40/15, 40/18, 41/1, 45/14, 45/16, 45/21, 45/22, 45/25, 46/3, 46/4, 46/9, 47/5, 47/8, 47/9,

49/13, 49/24, 50/18, 52/10, 52/11, 55/7, 58/15, 58/16, 60/1, 60/2, 60/4, 60/5, 61/2, 62/18, 63/8, 63/13, 65/23, 66/13, 66/14, 66/20, 67/9, 67/20, 69/10, 72/9, 76/5, 85/16, 91/2, 94/20, 95/4, 95/6, 95/12, 95/19, 96/9, 96/11, 99/18, 99/23, 104/7, 106/20, 109/17, 109/20, 110/16, 111/19, 116/14, 117/6, 120/16, 125/9, 128/6, 140/3, 152/12, 161/15, 164/25, 171/10, 172/1, 176/2
areas 7/21, 37/12, 39/17, 40/13, 55/13, 67/9, 68/15, 117/15, 117/22
argue 146/23
Army 37/16, 40/8, 40/9
arrangement 175/22
arrangements 132/7
arsenic 17/24, 35/5, 66/1, 80/22
ass 157/18
Assessment 21/22, 29/3, 29/12, 34/18, 38/19, 39/18, 59/25
assessor 140/24
associated 16/16, 34/8, 35/21, 74/24
association 154/25
assurance 137/21
atmosphere 153/15
ATSDR 19/15
attain 36/5
attend 166/7, 166/10
attenuation 102/18
attorney 8/19, 158/3, 158/4, 158/7, 158/13, 178/15
attractive 156/22
atypical 88/14
auctioneer 126/3
authority 98/3, 98/5, 173/2
available 7/2, 58/2, 171/3
avoid 87/21

B

B-a-u-g-h 132/24
B-r-o-d-c-z-i 39/5
background 10/15, 17/17, 17/21, 29/6
backgrounds 29/13
backs 172/16
bacteria 37/4
bad 31/13, 31/15, 31/17, 31/18, 43/25, 64/2, 64/3, 70/17, 119/17, 147/5, 159/23, 162/10
bank 97/15, 98/11, 98/17
Baptist 2/4, 3/4, 3/12, 3/14
barb 104/21
barings 12/9
barium 17/25
barrels 125/15
barrier 35/24
base 27/10, 110/7, 116/9
based 16/6, 16/7, 16/11, 18/12, 18/14, 24/16, 27/10, 43/8, 80/15, 81/13, 81/17, 93/5, 100/2, 114/7, 163/16, 166/2
Baseline 21/21, 39/18
basement 21/16
bases 7/5, 110/6
basis 93/23, 94/1, 115/18, 131/23
basketball 91/16
bathing 60/8
Bayer 12/23, 48/1, 48/8, 56/19, 118/9, 118/12, 118/20, 118/21, 119/16, 120/18, 120/19, 120/20, 120/24, 121/25, 123/3, 123/25, 129/13, 129/14, 129/21, 130/6, 157/22, 158/16, 158/17, 158/20, 158/23, 159/16, 159/19
Bayer's 121/12
bear 57/23, 114/5, 146/8
bearing 77/7
beautiful 29/21, 124/17
beg 137/8
behave 157/1
bend 127/1, 127/4, 127/15, 127/21, 157/10
benefit 114/15, 117/20
benzene 18/6, 21/3, 21/7, 64/9, 66/2, 70/2, 73/2, 80/23
beryllium 17/25, 35/5
beta 112/23, 113/8
big 2/12, 30/15, 60/22, 60/24, 60/25, 61/1, 77/1, 77/7, 95/9, 115/20, 118/17, 122/7, 122/24, 129/16, 130/8, 159/24, 163/24
biggest 168/8
bill 129/22, 129/24
billion 20/7, 82/1
bills 129/19
bit 27/22, 46/23, 88/14, 99/17, 99/21, 118/14, 156/13
black 66/23, 72/19
blocks 52/15, 149/18, 152/13, 152/15
blood 32/20, 139/8, 139/9, 139/19, 168/23
blow 143/17
blue 77/10, 77/12
Board 14/10, 14/12, 14/18, 15/3, 15/4, 170/22, 170/23
boarder 68/20
body 2/4, 22/9, 31/14, 153/24
boils 154/10
border 162/19
bordering 13/4
borings 143/21
bottled 50/8, 50/15, 50/23, 51/13, 55/14, 133/23, 134/6, 135/7, 135/11, 135/14, 135/18, 135/21, 136/4, 136/20, 137/5, 137/6, 137/11, 137/21, 137/24, 138/8, 138/19, 139/23, 139/25
bottom 36/17, 51/2, 86/13, 148/8, 152/6, 161/6
boundaries 13/9
boundary 12/4, 67/21, 106/15
Box 1/24, 31/12
boy 49/2
boys 3/13, 3/18
branch 19/8
brand 10/10
breakdown 37/3, 37/4
breaking 72/11, 102/21, 102/22
breaks 37/5
breast 51/4
breathing 32/3, 32/7, 60/9, 67/13, 146/22
brevity 116/9
brief 7/17, 9/7, 165/9
bring 3/3, 25/11, 168/4
Bristol 51/23
Brodczi 39/4
bromide 15/12, 15/17, 15/21
bromomethane 71/21
brought 4/2, 114/2, 162/9
Brownfield 7/16
BTEX 68/8, 70/2, 70/4, 71/19, 73/2, 73/11, 74/1
bubble 110/24
buffer 36/5, 99/22, 100/4, 100/24, 101/1, 128/25, 129/1, 171/19, 171/20
build 87/3, 87/7, 88/8, 92/14
building 88/25, 105/8
built 36/18, 61/13, 77/11, 124/3, 124/4
Bull 48/11
bumping 3/1
buried 21/6, 21/8, 51/4
bus 3/22, 3/23
business 124/11, 176/22

C

C-o-r-a-i 30/11
cadmium 17/25, 35/6
cake 29/19, 29/20, 29/22
calci 12/21
calcium 12/21, 12/24, 15/6, 30/16, 30/20, 30/22, 88/15, 110/5, 110/9, 110/13, 118/25
calculate 25/9
calculated 34/17, 34/20
call 11/6, 16/2, 19/15, 22/5, 25/6, 28/10, 35/24, 37/16, 59/11, 79/12, 99/21, 102/25, 103/9, 108/12, 111/9, 111/19, 112/5, 112/6, 153/10, 158/17, 174/1, 177/1
came 24/25, 41/20, 56/17, 113/12, 120/24, 125/9, 134/11, 168/10
cancer 21/23, 23/12, 24/9, 24/13, 24/15, 24/19, 32/15, 32/16, 33/23, 33/25, 34/4, 34/7, 34/8, 46/12, 46/17, 51/4, 51/7, 51/11, 82/17
cap 35/24, 37/9, 37/18, 40/1, 81/7, 82/20, 82/22, 83/2, 83/9, 83/24, 96/7, 115/19
capped 96/7, 125/25
car 23/17, 24/1, 24/2, 25/23, 25/24, 52/25, 96/1, 144/14, 144/16, 144/17
carbon 68/7, 71/16
carcinogen 25/16, 81/23, 168/24
carcinogenic 21/24, 138/17
carcinogens 32/16, 82/19
cards 176/23
care 10/11, 109/22
careful 111/1
Carol 132/22
carried 147/3
cars 25/13, 25/14, 25/19, 25/20, 25/22, 26/5, 144/17
case 45/24, 54/3, 90/2
cases 72/2
CASKILL 91/1, 91/4
caught 110/18
caused 117/3
causing 34/3, 34/14, 66/1
caustic 110/7
cavalry 56/1
CDA 14/7, 59/25, 65/23, 66/5, 94/20, 95/19
cellenium 18/1
cement 95/11, 152/5, 152/13, 152/15
centimeters 86/9
central 32/22, 33/9
CERTIFICATE 178/4
certify 178/7, 178/15
chairs 4/1
Chambers 1/13, 4/2
chance 23/22, 25/23, 50/13, 52/25, 83/20
chances 25/13, 25/19, 25/22
change 11/16, 37/24, 76/20, 77/2, 81/8, 90/3, 106/25, 131/25, 144/2, 144/11, 163/15
changed 37/23, 65/2, 93/22
changes 11/15, 11/17, 81/5, 90/5, 146/19, 163/15, 163/16
changing 77/16
characterize 19/24, 71/12
characterizing 40/21, 58/8
charge 52/3, 130/5, 165/23, 173/21, 174/16, 174/22, 175/2
charged 174/20
charging 175/1
check 2/5, 7/9, 10/7
checking 141/6
Chemical 15/24, 22/8, 22/9, 23/4, 25/4, 28/11, 33/4, 33/5, 33/13, 35/2, 35/3, 80/25, 82/8, 119/1
chemicals 18/9, 18/13, 22/7, 22/18, 28/3, 28/13, 29/11, 29/12, 29/18, 29/25, 30/1, 32/15, 32/16, 32/24, 33/7, 33/8, 33/22, 33/24, 34/3, 34/6, 35/1, 35/4, 46/3, 50/16, 55/6, 55/12, 57/4, 57/7, 66/1, 68/7, 72/9, 72/12, 72/17, 80/21, 82/9, 82/16, 96/5, 116/21, 118/17, 125/22, 138/16, 141/8, 141/10, 153/23
Chicago 4/7, 118/8, 123/14
child 65/21
children 43/21, 51/16
chloride 66/3, 70/20, 70/21
chlorinated 33/10, 68/8, 68/9, 70/5, 70/7, 70/15, 70/17, 71/19, 74/1, 81/2
chloroethane 18/7
chloroform 71/21, 72/13
chloromethane 72/12, 72/13
choice 103/19
choose 22/23, 118/4
chose 48/19, 48/20
Christy 114/24, 115/1, 115/5
chromium 17/25, 35/6, 80/22
chronic 25/6, 25/9
circle 67/2, 85/3
circles 17/6, 66/22, 162/21
circulated 7/4
citizen 49/1
citizen's 114/22
City 1/13, 2/9, 7/21, 9/3, 20/23, 49/20, 51/18, 51/23, 52/2, 52/13, 52/16, 56/13, 56/16, 56/19, 56/20, 77/17, 77/25, 84/3, 84/4, 84/14, 84/21, 91/12, 91/20, 115/3, 117/16, 117/18, 117/20, 117/23, 121/1, 121/14, 126/13, 126/14, 130/3, 130/4, 130/5, 131/5, 141/23, 146/5, 157/3, 157/15, 160/23, 161/19, 165/12, 166/13, 169/1, 169/15, 169/20, 169/21, 169/25, 170/19, 171/3, 171/10, 171/13, 172/4, 172/18, 172/21, 173/7, 173/10, 173/14, 173/15, 173/18, 174/25, 175/8, 175/17, 175/20, 176/1, 176/9
City's 7/16, 172/20
claimed 56/14
Clair 1/24, 178/5
clarify 173/23
class 3/16
clay 36/10
clean 4/9, 4/16, 18/24, 23/4, 23/7, 35/9, 52/6, 94/23, 95/7, 95/10, 107/23, 119/20, 120/16, 121/6, 122/14, 122/18, 122/20, 124/5
cleaned 16/19, 125/25
clear 99/5
clearer 48/18
cleck 145/23
clicks 160/6
client 123/3
close 15/4, 76/10, 80/17, 171/9, 171/11
closed 11/19, 11/21, 154/6
closer 67/24, 71/25, 73/25, 127/8, 172/6
closest 42/5, 68/23, 69/17, 70/8, 70/24, 91/25, 100/12
closure 93/18, 93/24, 161/17
clusters 101/12
cobalt 17/25
Code 92/11
collect 37/6, 45/1
collected 11/9, 11/10, 11/12, 11/13, 40/12, 40/13, 40/14, 40/15, 41/16, 43/8, 55/9, 58/12, 142/8
collecting 21/19, 40/24, 101/20
collection 12/18, 37/2, 91/24, 92/5, 92/8, 93/3, 93/13, 93/15, 93/16, 94/18
color 14/13, 19/5, 110/19, 111/2
colored 110/20

combined 142/15
comfort 137/15
comfortable 4/3, 120/22, 131/6, 135/8
commencing 178/8
comment 7/24, 8/1, 8/2, 35/11, 107/13, 107/15, 107/19, 109/25, 114/20, 115/6, 115/9, 118/3, 118/4, 124/13, 168/7, 171/22, 175/23
comments 4/14, 4/22, 5/8, 7/25, 8/5, 107/8, 107/15, 107/17, 107/20, 108/1, 114/7, 114/10, 114/11, 114/14, 114/23, 116/8, 119/3, 121/22, 123/20, 124/8, 125/5, 126/3
commercial 13/2, 13/17, 13/21, 86/19, 86/24, 86/25, 125/2
community 2/2, 4/6, 112/1, 125/11
Compact 174/2, 174/3, 174/23, 175/4
compacts 88/20
companies 120/18, 123/24
company 123/25, 124/6
compared 34/21, 70/13
comparison 135/2
compile 142/7
complain 19/4, 19/7
complained 19/6, 19/12
complaints 14/13
complete 58/22, 93/14, 178/14
completed 15/10, 105/2
components 29/18, 29/19, 35/22, 35/25, 37/3, 37/4, 37/5
composite 35/23, 81/9
compound 33/2, 75/2, 82/19
compounds 17/1, 17/2, 18/5, 29/8, 29/9, 67/19, 67/20, 68/8, 70/9, 71/15, 71/24, 72/14, 73/2, 74/6, 74/8, 81/2, 81/3, 95/17
compromise 87/15, 105/6, 105/7, 105/16
compromised 105/16
computers 114/3
conceding 122/4
concentration 15/12, 15/20, 19/10, 24/12, 25/16, 33/3, 64/12, 66/16, 67/23, 68/1, 68/2, 68/6, 68/19, 69/1, 69/3, 69/18, 69/20, 70/16, 70/19, 70/21, 71/6, 72/2, 72/5, 74/16, 101/3, 102/17, 106/2, 106/4, 106/6, 106/7, 106/8, 106/18, 106/19, 144/3
concentrations 64/19, 64/20, 67/21, 67/25, 68/22, 70/8, 71/5, 71/25, 92/1, 102/15, 105/21, 142/22, 143/9, 143/11
concept 22/6
concern 14/3, 28/1, 28/8, 43/23, 49/1, 50/19, 64/25, 117/12, 120/2, 164/8, 168/8, 176/4
concerned 19/19, 27/15, 27/25, 28/19, 47/5, 47/8, 57/22, 71/6, 71/7, 80/12, 80/14, 96/5, 118/21, 118/22, 119/15, 120/17, 133/4, 156/16
concerns 27/24, 49/25, 57/22, 176/24
concluded 113/24, 119/5, 119/6, 177/4
concludes 177/2
conclusion 122/24
conclusions 120/9, 120/10
conditions 109/16
conduct 37/25, 39/16
conducted 40/19, 93/17, 94/1, 119/24
confidence 23/1, 23/2, 23/8
confident 22/24
confirmation 6/17
confirms 122/12
connect 83/7
connected 13/23, 83/6
connection 154/21, 178/10
conquer 159/17
Conrail 175/17, 176/2, 176/10
conservative 23/5
considerable 125/16
considerate 161/20
consideration 27/10, 43/15, 81/20, 172/2, 173/10
consistent 72/3, 89/5
constant 25/1, 85/25, 86/3, 86/5, 86/11
constituent 81/12
constituents 19/24
construct 35/23
constructed 12/18, 92/10, 105/9
construction 11/7, 12/6, 12/15, 13/2, 13/5, 13/6, 13/9, 13/15, 14/3, 14/8, 14/15, 14/21, 19/4, 27/6, 38/12, 38/13, 38/15, 38/18, 39/21, 40/12, 40/17, 52/14, 55/6, 58/15, 60/1, 60/17, 61/2, 62/18, 63/8, 63/12, 66/13, 66/14, 66/20, 67/8, 67/19, 69/10, 77/13, 87/20, 94/20, 95/3, 95/6, 95/12
consultants 118/20
contact 5/1, 5/8, 22/8, 24/25, 25/1, 32/1, 32/8, 60/7, 60/8, 81/19, 82/21, 82/24, 83/1, 83/3, 83/16, 83/23, 99/23, 107/22, 110/9, 164/24
contacting 123/4, 123/5
contain 20/7
contained 21/7
containing 21/2
containment 81/10, 104/18
contaminant 83/14, 105/21
contaminants 15/15, 17/13, 58/22, 83/13, 131/25, 133/16
contaminate 25/13, 28/10, 28/15, 50/19, 63/9, 63/20, 64/5, 64/7, 65/20, 102/16, 106/15, 132/1, 161/3
contaminated 16/5, 16/25, 35/21, 49/13, 105/12, 131/7, 150/13, 153/4, 153/8, 154/1
contaminates 28/19, 35/20, 45/8, 63/25, 95/24, 102/3, 133/15, 154/2
contamination 60/19, 97/20, 101/18, 120/11, 125/17, 156/13, 156/15, 161/23, 162/18, 162/20, 162/25, 163/2, 163/9
contents 5/21
contingency 81/9, 81/14
continue 100/10, 100/20, 101/5, 103/16, 121/12, 122/8, 123/1, 146/9, 161/18
contour 85/4
contours 75/15, 75/23
contract 18/18
contractor 142/7
contractors 13/14
contributing 35/3, 35/5
contributor 34/15
Control 15/4, 36/23, 86/21, 87/19, 89/17, 93/6, 93/8, 93/9, 99/16, 106/14
controls 36/21, 86/18, 103/24
convenience 4/18
conversation 6/13
convince 105/5
cooperation 15/8
coordinator 4/7
coordinators 111/19
copies 9/25
copper 17/25
copy 7/3, 10/2, 10/3, 10/4, 10/5
Corai 30/10
corner 68/3, 69/19, 69/23, 78/15, 124/17, 133/9, 170/17
Corps 37/16, 40/8, 40/9
correct 6/4, 64/6, 77/3, 119/18, 147/8, 150/11, 166/4, 174/12, 178/14
correction 13/19
correctly 56/3, 89/20
correlate 46/20
correlates 20/18
correlating 140/2
correlation 140/20
Corrigan 112/15
cost 82/23, 83/8, 83/10, 83/25, 117/20
costs 117/14, 117/24, 175/12
Council 1/13, 2/9, 4/2
councilman's 4/4
counsel 178/15
counselor 123/19
count 32/24
counted 28/3
counter 112/16, 112/23, 113/5
County 9/4, 12/1, 12/2, 12/10, 13/19, 14/20, 15/25, 27/17, 49/18, 50/1, 50/3, 56/9, 62/14, 68/5, 69/7, 76/16, 79/11, 98/7, 98/21, 115/12, 116/7, 124/10, 135/25, 169/8, 172/12, 178/2, 178/6
couple 40/3, 149/23
course 5/19, 11/24, 48/4, 91/8, 122/2
Court 1/24, 5/18, 5/19, 6/1, 91/16, 114/15, 176/20, 178/4
courts 122/2
cover 15/5, 85/1, 85/2, 85/5, 87/20, 87/23, 93/14, 93/20, 94/17, 95/10, 102/24, 104/12, 105/16, 125/19, 125/21
covering 11/20
covers 8/8
crack 2/19
cracked 85/19
cracking 89/1
cracks 85/12, 85/14
Craig 7/16, 7/19, 9/2
crap 48/11
creek 147/25, 153/24
critical 5/11, 90/11
cross 23/16, 23/17, 25/12, 25/18, 25/21
crosses 79/13
crossing 23/15, 25/15
currently 13/18, 77/17
cut 61/14, 63/7, 140/5

D

daily 146/10
damage 89/7, 139/5
Dan 24/5, 136/23, 172/20
dangerous 28/5, 30/15
dashed 68/19, 68/21
data 38/1, 39/24, 40/12, 41/15, 43/8, 55/8, 58/12, 115/14, 122/12, 122/23, 123/7, 142/8
daughter 52/24
Davis 8/25, 88/13
day 12/24, 30/1, 64/12, 84/17, 84/19, 89/8, 111/12, 121/5, 130/18, 145/10, 145/13, 147/1, 147/11, 178/8, 178/20
days 76/25
deal 145/11, 175/4, 175/25
dealing 64/7, 140/12
death 39/10, 121/17
debate 6/11
debris 11/7, 12/6, 12/15, 13/3, 13/7, 13/9, 13/15, 14/4, 14/8, 14/15, 14/21, 19/4, 27/6, 38/12, 38/13, 38/15, 38/18, 39/21, 40/13, 40/17, 55/5, 55/6, 58/15, 60/1, 61/2, 63/8, 63/12, 66/13, 66/14, 66/20, 67/8, 67/19, 69/10, 94/20, 95/4, 95/6, 95/12, 168/11
decay 83/20
decide 141/23, 167/5, 167/8, 167/11
decided 11/15, 18/14, 18/19, 21/5, 50/22, 53/19, 71/11, 133/13, 141/18, 142/14
decision 10/17, 10/19, 35/16, 35/17, 35/19, 35/23, 37/14, 55/1, 55/2, 55/10, 108/2, 131/8, 171/22
decisions 166/1
decrease 171/17
deed 96/18, 98/8, 98/9, 99/13, 103/25, 104/5
deep 3/7, 14/25, 15/1, 78/22, 148/7, 148/10, 148/14, 148/15, 167/25
deeper 14/19, 101/17
defects 129/2
define 32/5
defined 13/10
definition 11/2
definitions 10/25
degrades 88/20
degrading 88/19
delineate 168/13
delineated 72/5
demolition 13/2, 168/11
demonstrate 89/12, 89/15
demonstrated 89/5
denial 97/10, 137/11
denied 171/4
density 36/11
Department 6/20, 8/20, 9/5, 15/9, 50/1, 50/3, 64/24, 91/19, 101/23, 110/17, 112/5, 116/7, 134/9, 173/1
departure 22/6
depends 162/8, 163/11
deposited 12/22
depth 101/10
dermal 32/1, 60/7
dermatitis 32/17
describe 5/5
described 107/24
describes 124/24
description 10/15
design 37/18, 37/23, 90/11, 90/12, 108/22, 108/23, 130/1, 166/17
designed 81/9
designing 108/23
desire 10/2, 130/15
desperately 91/21, 115/23
detail 5/6, 35/14, 107/24, 108/6
detailed 40/6
details 94/25
detect 70/5, 73/6, 74/8, 113/2
detected 17/24, 18/2, 18/6, 66/13, 66/15, 68/2, 70/6, 71/15, 71/17, 71/18, 71/21, 71/22, 71/24, 72/5, 72/10, 73/2, 95/17, 138/8, 139/6
detection 73/22, 73/23, 113/2
detector 112/17
detects 74/3, 81/1, 113/1
determination 21/17
determine 15/10, 22/20, 45/24, 55/9, 58/14, 104/24, 105/10, 105/20, 117/2, 132/3
determined 22/24
develop 91/2, 105/25
developed 16/12
developer 89/11, 94/9, 104/24, 125/1
Development 9/3, 90/15
devices 113/2
dew 62/14
diabetes 19/20
Dichlorobenzene 71/18
Dichloropropane 81/21, 81/22
died 51/10
dieing 46/17
differ 137/8
difference 77/9, 83/11, 152/14, 175/2
differences 110/10
difficult 140/7, 140/24, 141/4, 142/9, 165/7, 165/15
dig 21/5, 96/9

digging 20/11, 20/12, 104/11, 152/8
dilution 102/19, 156/12, 156/13
diminished 25/24
direct 39/24, 126/6, 163/22
directed 69/17, 90/14
direction 15/20, 17/19, 47/3, 47/15, 55/19, 75/16, 75/22, 80/9, 136/9, 136/14, 144/11, 144/18, 163/6
dirt 39/8
disclose 96/14, 126/12
disclosed 115/4, 167/9
discount 110/11
discredit 110/11
discuss 7/19, 10/21
discussed 120/24
discussion 6/11, 8/2, 52/19, 57/21, 114/8, 146/1, 146/4, 161/15, 164/22, 175/13
discussions 5/23, 117/23, 161/16, 161/18
disease 23/13
Diseases 19/15
displacement 105/11
displeasure 6/18
distance 149/12, 156/10, 156/11
Distances 156/11
distributed 67/20, 71/25
disturb 87/14
disulfide 68/8, 71/17
ditch 153/24
ditches 90/13
divide 159/17
dizziness 32/23, 33/10
DNR 101/23
doctor 140/10, 140/18
document 35/17, 37/14, 38/4, 40/6, 63/17, 108/2, 140/10, 142/1, 142/13, 142/14, 142/16, 142/17
documentation 140/20
doesn't 2/15, 18/2, 33/18, 34/8, 42/8, 44/22, 47/1, 48/4, 60/11, 60/15, 64/15, 67/2, 67/12, 82/25, 103/18, 108/16, 108/19, 129/14, 145/7, 152/3, 152/6, 153/7, 155/4, 155/9
dollar 145/11
dollars 122/14, 174/19, 174/20, 174/24, 175/2
Donohue 13/13, 18/18
door 41/12, 43/4, 50/11, 51/9, 132/16, 135/16, 146/15
doors 62/10
dotted 12/4, 66/22
doubt 79/22, 154/1
drain 36/8
drainage 36/14, 90/24, 93/15
draw 75/23, 163/5
drawn 71/2
drew 85/3
drilling 104/11
drink 26/15, 38/24, 38/25, 39/1, 44/13, 50/23, 96/2, 133/22
drinking 28/16, 31/25, 32/6, 38/20, 44/14, 50/15, 51/9, 60/9, 63/10, 64/2, 64/3, 81/18, 135/14, 135/18, 137/21, 137/23, 146/21, 150/13, 151/19, 151/20, 152/22, 167/3, 168/9, 168/19, 168/24
drip 86/2
Drive 41/12, 42/6, 49/13, 49/18, 50/10, 50/11, 50/14, 61/3, 62/14, 72/22, 74/23, 74/24, 76/1, 76/3, 76/16, 80/3, 100/13, 126/17, 126/20, 126/22, 138/3, 157/11
driven 79/24
driving 62/19, 75/5
dropped 68/1, 72/2
drums 21/2, 21/6, 21/8
dry 79/25, 155/8, 176/5
drywall 30/23
dug 53/23
dugout 152/13
DUMP 1/12, 4/10, 9/9, 10/20, 11/19, 14/11, 15/4, 17/4, 21/10, 39/11, 40/7, 51/3, 96/15, 96/19, 97/20, 124/18, 153/6, 154/5, 161/3, 178/10
dumped 12/24
dumping 30/12, 30/18, 95/5, 147/23, 148/20, 151/5, 151/7, 151/11
dumps 151/14
during 6/8, 19/24, 20/3, 37/17, 40/19, 48/15, 81/11, 93/17, 93/23, 94/2, 178/9

E

e-mail 4/23, 141/11, 176/11, 176/13, 176/16
ears 111/25
Eash 87/2, 144/7
easier 85/22
Easily 31/6
east 11/11, 17/16, 27/12, 27/18, 40/22, 41/7, 41/9, 41/10, 41/24, 42/13, 43/16, 45/5, 45/10, 47/2, 52/11, 55/3, 58/9, 58/19, 58/21, 60/5, 67/10, 67/11, 67/12, 68/16, 71/9, 71/23, 72/8, 72/20, 77/21, 78/19, 78/21, 83/13, 99/18, 99/23, 120/23, 121/1, 124/10, 127/7, 144/9, 163/25, 164/3, 171/7
eastern 60/1, 80/19
easy 158/19
eat 30/1
eating 32/1, 32/7, 81/18
edge 20/4, 171/9
edify 6/12, 9/12
educate 52/21
educated 43/9, 43/10
Edwardsburg 79/14
effect 23/9, 33/2, 33/4, 33/8, 33/15, 33/17, 33/19, 76/24, 76/25, 77/21, 77/24, 78/4, 87/11
effected 27/9, 57/11, 58/17, 85/24, 105/17, 164/25
effecting 32/21, 47/3
effective 37/10, 82/23, 132/7
effectiveness 82/22, 106/14
effects 22/19, 23/3, 32/17, 141/9
effort 116/11, 120/21, 121/13, 135/13, 170/21, 171/12
efforts 58/14
egg 29/21
eight 47/20, 48/7, 56/24, 57/17, 57/18, 106/4, 125/8, 144/10, 149/18, 149/19
eighth 52/17
element 31/14, 156/12
elevation 163/5
eleven 26/11
eliminate 35/19
Elkhart 1/13, 1/15, 9/3, 9/4, 12/2, 15/9, 15/25, 20/23, 84/4, 84/14, 98/7, 116/7, 117/16, 118/21, 118/22, 119/11, 120/5, 120/20, 121/14, 121/19, 122/9, 124/1, 125/11, 174/2, 174/3, 174/23, 175/4, 175/9
Ellis' 133/14
emanating 15/11
embark 119/20
emergency 19/8, 20/25, 61/19
emitter 112/24
emitters 113/8, 113/9
emotions 4/15
employed 178/16
empty 154/8
end 5/18, 5/22, 6/15, 7/6, 10/8, 65/18, 91/21, 99/8, 132/10, 136/19, 155/16, 160/22, 161/16
engineer 9/1
engineering 88/23
Engineers 37/16, 40/8, 40/9
entered 115/22
entertain 9/19, 113/22, 114/13
entitled 15/24, 21/10, 171/2
environment 89/6, 105/6, 116/18, 153/15
Environmental 6/21, 8/20, 17/10, 91/19, 118/20, 119/13, 121/2, 121/4, 122/20, 122/21, 134/10, 146/11
EPA 4/7, 4/9, 5/5, 5/9, 5/12, 6/20, 13/13, 16/2, 18/19, 20/25, 22/4, 22/11, 24/2, 28/9, 35/15, 38/5, 45/13, 52/5, 61/24, 65/5, 74/15, 81/6, 81/17, 84/14, 87/12, 102/25, 103/5, 105/2, 105/5, 107/17, 116/10, 117/22, 118/17, 119/2, 119/3, 119/5, 119/9, 119/17, 119/23, 120/4, 120/7, 120/25, 121/13, 121/18, 121/21, 121/23, 121/25, 122/16, 125/10, 128/10, 134/16, 135/5, 145/7, 156/16, 166/22, 171/11, 172/1, 173/2, 173/5, 175/8, 178/7
EPA's 19/8, 25/7
epidemiologist 116/19
equal 163/4
equitable 117/25
erected 88/10
erosion 88/5
error 23/7
establish 81/9, 100/15, 150/3
estimate 159/8
estimated 12/20, 53/24
estimation 125/16
ethane 70/17
ethanes 68/9, 70/15, 71/20, 74/1, 81/2
ethenes 68/8, 70/6, 70/7, 71/20
ethyl 21/2, 21/7
ethylbenzene 20/7, 70/3, 73/3
etyhlbenzene 70/3
evaluate 102/11, 107/17
evaluated 105/9
Evaluation 15/24, 38/11, 39/16, 58/13
evaporate 153/21, 155/5
evaporates 153/19
evening 3/9, 5/19, 58/3, 114/6
event 77/2, 108/15
excavate 94/21, 94/24
excavated 13/11, 19/23
excavation 13/12
excavations 20/3
exceed 29/4, 33/12, 33/14, 102/11
exceeded 21/24, 32/11, 42/11, 61/14, 63/10, 63/12, 63/20, 65/21, 66/18, 74/16, 75/3, 82/3, 94/22, 100/22, 102/15, 168/17
exceeding 80/23, 106/12
exceeds 74/25, 81/12
exception 134/23
excess 21/23
Excited 157/23, 157/24
exclude 159/2
Excuse 4/20, 6/22, 26/10, 40/8, 53/6, 57/20, 109/18, 115/5, 161/14
exist 28/11, 72/20, 87/22, 92/13, 100/20, 105/21, 131/10
existed 38/2, 40/3
existing 13/22, 85/5, 86/16, 102/3, 130/9
exists 12/8, 14/6, 16/20, 36/4, 44/22, 44/23, 61/20, 159/24, 168/19
exorbitant 118/1
expand 53/24
expanding 54/10
expect 41/3, 42/2, 71/10, 125/21
expeditiously 58/6
expense 170/1
expensive 36/13
experiencing 140/6, 140/22, 140/25
expertise 116/15
experts 114/2, 117/8, 122/12, 123/7, 164/23
exposed 45/7, 61/12, 96/6, 116/22, 153/15, 169/1
exposure 24/6, 24/8, 24/11, 24/12, 25/4, 25/5, 25/9, 25/15, 35/21, 60/2, 60/6, 61/12, 81/18, 116/11, 116/25, 117/3, 117/9, 117/10, 153/22, 168/8, 168/13
exposures 22/18, 25/10
expressway 23/18
extend 100/23, 101/3
extended 20/24
extension 12/1, 12/9, 17/5, 41/2, 68/5, 117/13, 117/19, 147/24
extensions 175/18
extrapolate 24/14
eyebrow 106/21
eyes 60/22, 111/25

F

facilitate 7/11, 165/20
facing 167/20
fact 4/16, 7/3, 41/5, 56/13, 96/25, 97/2, 98/24, 114/2, 115/15, 119/7
factor 124/6
factors 25/7
factory 169/9
facts 119/24
failing 89/1
faith 159/10, 159/12
fall 161/7, 163/12
family 51/10, 166/9
fast 86/1
faster 65/14
fault 158/1
favor 133/6
feasibility 18/22, 21/11, 63/18, 104/16, 105/1
feasible 18/24, 91/14
February 18/25
Federal 140/13, 145/17
fee 170/25, 171/1, 174/17
feed 95/22
feelings 4/15, 115/19
feet 14/23, 14/25, 31/6, 45/1, 45/3, 53/25, 54/10, 54/14, 54/18, 80/7, 89/21, 89/22, 101/15, 101/16, 101/17, 147/5, 147/6, 147/7, 148/5, 148/7, 149/19, 154/10, 154/14, 156/4, 157/9, 162/11, 163/14, 163/19, 164/3, 169/17, 171/11
fellow 114/22
fence 49/6, 84/2, 84/16, 84/17, 84/24, 104/17, 104/18, 104/19, 104/20, 115/20, 124/23, 125/1, 125/3
field 16/2, 21/12, 21/13
fight 172/22
figure 15/19, 34/7, 84/15
fill 2/15, 20/6, 86/16
fills 154/22
filter 125/12
filtering 3/8
financially 178/17
financing 98/12, 98/14
find 29/3, 29/10, 34/7, 34/18, 41/10, 44/20, 44/21, 45/15, 45/16, 45/25, 51/13, 52/9, 52/12, 61/14, 63/24, 66/9, 71/5, 71/13, 72/7, 79/3, 79/5, 82/2, 82/8, 83/15, 93/24, 94/3, 100/25, 101/18, 103/17, 108/16, 111/8, 113/12, 121/13, 129/1, 129/7, 130/1, 132/5, 132/24, 133/2, 140/14, 142/10, 142/17, 149/24, 150/18, 165/19, 176/24
finding 15/21, 71/5, 99/5
fine 29/20, 135/14, 166/10, 168/11, 168/12
fingers 60/23

finish 54/22, 57/24
fire 110/17, 110/18, 112/5, 175/25, 176/2, 176/5
fish 60/21
fishing 61/1
FIT 16/3, 37/23
five 56/15, 64/10, 80/2, 103/6
fix 56/4, 56/25, 112/3, 124/16
fixed 124/20, 124/25
flare 92/10
flexible 36/11
fliers 107/21
Fliss 8/19, 48/14, 134/9
floating 144/2
flood 90/8
floor 7/22, 114/20, 114/23
flow 17/18, 17/19, 40/16, 47/14, 58/11, 58/20, 75/8, 75/21, 76/9, 76/21, 76/25, 77/2, 77/7, 79/21, 80/8, 80/16, 100/3, 129/6, 133/17, 144/23, 161/22, 161/24, 162/3, 163/4, 163/15
flowed 80/13
flowing 15/19, 15/20, 20/5, 27/11, 27/13, 43/4, 46/24, 67/14, 75/9, 75/16, 75/21, 80/9, 80/11, 152/7
flows 47/15, 129/5, 171/6
fluctuates 163/16
fluctuation 155/7
foam 110/23
focussing 12/14, 16/13
follow 44/25, 104/13, 104/14, 104/15, 146/16, 151/10
follow-up 111/18, 112/2, 114/21
followed 123/7
follows 82/21
'oot 36/9, 148/16
footprint 12/5, 85/2
force 92/7, 137/10, 165/20, 167/2
forced 34/23
forcing 137/12
form 137/11
formal 4/8, 4/12, 114/9, 177/2
format 6/6
Formsma 24/5, 89/19
formulated 114/7
forum 117/5
found 18/4, 18/9, 18/13, 19/17, 20/7, 20/14, 21/5, 27/3, 28/9, 41/4, 42/5, 43/25, 44/19, 49/14, 50/8, 50/15, 55/12, 58/21, 59/19, 59/24, 63/15, 63/19, 63/24, 65/24, 68/3, 68/5, 68/7, 72/6, 75/2, 78/2, 80/19, 80/21, 80/24, 82/13, 83/13, 102/15, 111/17, 112/21, 118/18, 120/12, 122/23, 125/15, 125/20, 135/18, 145/3
foundation 87/10
four 13/15, 33/8, 34/1, 44/10, 47/13, 74/25, 75/1, 93/4, 93/8, 147/15
frame 117/3
free 31/22, 176/18
freeze 85/9
freeze/thaw 85/11, 85/17, 86/15
freezing 85/20
freon 18/7, 71/22
freshly 63/7
fringes 171/8
front 72/25, 169/16
frustrates 111/22
fumes 48/21, 48/22, 48/23, 153/17
function 31/15
funny 163/2
future 34/12, 49/23, 83/19, 96/10, 96/11, 104/2, 105/1, 117/21, 135/20

G

gamble 150/16, 150/17
gamma 112/22, 112/23, 113/8
gaping 95/9
garbage 124/2
gas 11/10, 11/13, 12/18, 21/16, 37/1, 37/5, 37/6, 37/7, 38/2, 40/14, 40/25, 41/3, 41/9, 41/13, 46/1, 55/4, 67/7, 67/8, 68/1, 68/11, 71/13, 71/16, 72/4, 73/1, 73/13, 74/12, 81/1, 91/23, 92/4, 92/7, 92/8, 93/2, 93/3, 93/12, 93/15, 94/18, 103/4, 105/10, 115/19, 153/16, 153/18, 153/19, 153/20, 154/7, 154/8, 162/22, 168/10
gases 69/11
Geiger 112/16, 112/23, 113/5
generalized 7/3, 165/2
gentleman 145/25, 147/4, 157/21, 162/9
geological 8/22, 15/7
geophysics 21/13
girl 39/5
glitch 114/1
golf 91/8, 122/1
government 47/25, 122/17, 122/22, 140/13, 141/20, 145/17
governmental 140/13
grade 36/6, 85/4, 87/10, 88/3, 106/15, 150/4
gradient 16/23, 16/24, 40/16, 42/9, 58/10, 78/12, 162/8, 163/11, 163/19
grading 36/6, 87/23
grams 74/13, 74/14
grant 84/14, 84/20, 87/6, 91/12
grass 63/7
grassland 12/16
greater 22/10, 25/14, 33/16, 75/1, 82/18
greatest 168/13
Green 56/12, 60/22, 111/3
Greenlee 47/12
grocery 30/1, 30/3
GROOM 50/25, 51/1, 51/7
ground 11/8, 11/12, 14/23, 14/25, 15/12, 15/19, 15/24, 16/23, 17/18, 17/19, 18/13, 20/12, 21/14, 27/7, 27/10, 27/12, 28/12, 28/14, 29/11, 34/12, 35/20, 36/2, 36/3, 36/17, 36/22, 36/24, 37/5, 37/8, 39/24, 40/15, 40/22, 43/3, 43/5, 44/16, 46/23, 47/2, 51/12, 54/8, 55/3, 58/9, 58/17, 58/20, 60/7, 60/9, 63/2, 63/9, 64/5, 64/8, 64/9, 65/22, 65/23, 67/5, 67/6, 73/15, 73/17, 74/11, 75/8, 75/9, 75/15, 75/17, 75/21, 76/9, 76/21, 76/25, 77/2, 77/7, 79/22, 80/8, 80/16, 80/19, 81/10, 81/12, 82/22, 84/8, 89/20, 93/16, 96/11, 100/3, 100/15, 102/4, 102/5, 103/4, 104/2, 104/3, 105/20, 109/17, 109/20, 110/22, 117/7, 125/17, 127/13, 129/5, 129/6, 133/16, 134/16, 143/5, 144/23, 148/19, 151/6, 151/11, 151/20, 152/6, 152/10, 152/23, 154/12, 154/13, 154/16, 154/20, 154/21, 155/1, 155/13, 155/21, 162/3, 162/25, 163/1, 163/6, 163/15, 165/3, 168/8
groups 101/13
grow 61/1
guess 43/9, 43/10, 62/18, 98/14, 120/1, 157/14, 158/3, 171/5
gum 110/24
guy 170/16
guys 27/21, 45/7, 47/20, 48/14, 49/12, 50/2, 52/3, 55/21, 56/21, 61/12, 75/6, 78/5, 93/1, 101/21, 111/6, 141/18, 143/24, 145/5, 145/6, 160/7, 160/12, 161/10
Gwen 5/10, 6/7, 7/14, 8/10, 8/12, 25/8, 29/8, 54/21, 54/25, 159/6, 169/4, 171/21
gypsum 30/22, 88/16, 88/20

H

H-u-l-e-w-i-c-z 116/8
half 66/22, 103/10
hall 4/2
halogenated 71/20, 72/12, 81/2
hand 3/19, 89/10, 178/19
handful 120/12
handle 136/12
hands 3/16, 9/8, 11/24, 130/7
happiness 6/17
happy 58/4, 114/12, 166/5
hard 49/2, 152/19, 167/19
hardens 88/17
Hardy 26/2, 53/7, 115/10
Haye 157/7
Hazard 16/3, 33/5, 33/7, 33/12, 33/14, 33/16
hazardous 16/6, 32/9, 32/10, 32/11, 32/13, 33/6, 33/21, 34/13, 65/21, 65/25, 66/3, 80/18, 81/12, 84/18, 119/1, 140/7
health 6/24, 9/5, 14/11, 14/12, 14/18, 15/3, 22/19, 23/3, 23/9, 38/11, 39/16, 48/25, 49/3, 50/1, 50/3, 64/24, 87/16, 89/6, 105/6, 105/14, 116/7, 120/17, 125/11, 141/9, 173/1, 173/23, 174/10, 175/13
heart 19/20, 139/9
heat 153/22
heaven 3/17, 3/21, 168/22
heavy 62/13, 70/20
held 90/20, 178/10
Hell 119/11
help 6/4, 6/25, 83/18, 84/3, 121/25, 127/8, 149/9, 154/18, 165/24
helpful 7/1, 114/16, 131/8, 142/15, 165/19
Hendricks 132/13
Her's 170/13, 170/16
Hibaugh 132/22, 132/23
high 14/16, 16/14, 19/10, 19/17, 24/12, 25/16, 36/11, 38/16, 54/13, 57/7, 64/19, 68/22, 68/23, 70/8, 109/16, 110/22, 137/2, 139/18, 156/16, 156/17, 168/23
higher 23/7, 25/6, 66/12, 67/21, 69/18, 71/25, 117/17
highest 45/14, 68/2, 68/6, 69/20
Highland 78/9, 79/13, 136/19, 144/9, 144/23
highlight 9/22
Hill 2/1, 4/6
Hills 164/15
HIMCO 1/12, 4/9, 7/20, 9/9, 10/20, 11/19, 11/23, 16/13, 17/4, 20/22, 21/10, 39/10, 39/12, 39/13, 40/8, 52/7, 63/6, 158/25, 159/1, 161/3, 178/10
Himes 11/22, 15/2
hired 118/20, 118/23
historical 35/13
Historically 116/10, 117/15
history 9/16, 10/15, 116/1, 172/21
hit 23/17, 24/1, 24/2, 25/14, 25/20, 25/22, 25/24, 51/4, 52/25, 74/15, 101/1, 132/6, 132/10, 132/16, 152/8
hits 42/3, 42/6, 42/7, 71/11, 120/1, 133/19, 133/20, 135/17, 136/6, 164/8
hitting 77/20, 78/24
Hodgson 7/16, 9/2
hold 11/4, 44/1, 52/20, 88/24, 115/9
hole 30/15, 95/9, 95/10, 155/20
home 25/12, 52/17, 97/9, 107/12, 112/12, 113/14, 121/16, 124/11, 130/15, 130/17, 172/15, 172/17, 174/24
homes 13/22, 13/24, 42/5, 124/3, 131/5
honestly 48/24, 49/7
honor 67/4
honorous 135/22
hook 51/18, 95/18, 128/20, 129/3, 129/12, 131/9, 132/7, 151/17, 156/19, 157/3, 166/23, 166/24, 169/1, 169/25, 173/7, 173/23
hooked 100/14, 128/23, 160/23, 165/12, 166/18, 166/20, 166/21, 166/25, 167/1, 167/2, 167/8, 169/19, 170/11, 171/12, 173/3, 175/18
hooking 121/1, 133/6, 172/21
hope 5/2, 5/23, 6/4, 129/13, 129/14
hoping 52/20, 84/5, 84/23, 102/14, 129/20, 130/6, 157/21
horizontal 147/18
horrible 119/13
horses 95/23
Horwitz 96/13
hose 96/2
hours 147/1, 147/11
house 42/13, 43/9, 50/10, 50/14, 52/14, 52/15, 60/12, 60/16, 62/12, 72/21, 72/22, 72/25, 74/22, 75/3, 75/6, 75/7, 92/14, 95/22, 97/19, 98/20, 98/25, 128/10, 130/14, 130/18, 131/15, 131/19, 132/14, 132/16, 132/17, 133/11, 133/14, 134/13, 136/7, 149/16, 166/20, 167/8, 169/12, 169/17, 169/20, 170/5
household 13/2
houses 14/6, 56/9, 56/16, 62/8, 62/9, 71/2, 71/4, 72/20, 73/10, 73/22, 74/2, 74/23, 76/7, 80/10, 80/12, 80/14, 80/15, 99/19, 115/2, 126/12, 126/15, 126/16, 126/19, 127/16, 127/17, 127/20, 127/21, 127/22, 127/23, 127/24, 129/7, 133/4, 134/15, 136/5, 161/4, 170/12, 170/15, 171/9, 171/12, 171/15, 172/1
HRS 16/3, 16/4, 16/7
huge 155/7, 165/13
Hulewicz 116/6
hum 107/12
human 38/11, 39/16, 48/25, 87/16, 89/6, 105/6, 105/14
humans 32/10, 93/21
hundred 53/25, 54/10, 54/14, 68/24, 70/18, 70/23, 73/23, 74/6, 79/12, 101/16, 101/17, 147/5, 147/6, 147/7, 148/5, 149/19, 156/4, 157/9, 162/11, 163/14, 163/19, 164/3, 169/17, 171/11
hundreds 120/18
hydrant 169/16, 176/5
hydrants 175/25, 176/2, 176/3
Hydrologic 15/24
hypertension 19/20, 139/15

I

ice 85/13
idea 39/12, 43/16, 49/19, 69/24, 127/19, 135/9
identified 14/11, 59/25, 95/2, 99/19
identify 111/20, 112/2
ignored 120/12, 122/11
II 71/16, 81/1
illustration 53/2
imagine 20/12, 36/1, 36/16, 39/23, 121/24
Imbrigotta 16/1
immune 32/21
impact 27/7, 43/1, 44/18, 45/24, 50/12, 79/2, 79/21, 84/21, 89/16, 90/4, 100/3, 105/10, 129/6
impacted 42/25, 43/9, 43/17, 45/23, 46/4, 46/6, 46/9, 47/9, 50/10, 57/3, 80/11, 80/18, 85/8, 85/17, 86/14, 100/17, 104/9, 106/23
impacting 41/23, 41/25, 60/4
impacts 37/11
impairment 32/19
impermeable 82/25
implement 103/24, 104/6
implementation 109/2
implemented 37/14, 37/15, 40/1, 81/15, 84/9,

87/20, 159/14
importance 76/8
impossible 84/7
impression 88/9
improperly 56/1
in-depth 9/20
inaudible 42/17, 48/10, 61/22, 123/22
inch 36/13, 36/14, 86/15, 102/24, 105/15
inches 85/6, 85/7, 85/8, 85/18, 85/19, 85/23, 85/25, 86/14, 89/22, 89/23, 89/24, 89/25, 144/1
incident 24/6, 24/25
inconvenience 3/24
incorrectly 56/4
increase 67/23
increased 83/8, 83/25
increases 23/18
incur 22/9
index 32/9, 32/10, 32/11, 32/13, 33/6, 33/14, 33/16, 33/21, 34/13, 65/25, 66/4, 80/18
Indiana 1/15, 1/25, 8/20, 12/2, 14/10, 14/12, 14/18, 15/3, 15/8, 15/25, 36/6, 85/16, 92/11, 123/17, 178/1, 178/6
indicated 6/8, 14/16, 19/10, 21/22, 116/1
indicating 12/10, 14/4, 36/3, 62/4, 68/21, 69/22, 70/14, 71/2, 73/21, 74/9, 75/22, 76/6, 76/15, 76/17, 136/9
indication 41/16, 45/9, 48/16, 67/15, 166/6, 175/8
indicator 15/13
industrial 13/3, 77/18, 86/19, 86/22, 86/23, 86/25
inequity 117/18
infiltration 86/6
influence 17/18, 131/25
inform 6/12, 167/5
informal 6/7
information 5/7, 7/2, 7/11, 7/23, 9/12, 15/23, 35/13, 53/23, 58/13, 59/18, 59/20, 130/23, 165/13, 165/25, 166/2
informational 164/18, 168/9
informed 44/5
ingesting 31/25, 60/10
Inhalation 32/3, 60/8, 81/19
initiated 18/18, 20/25
injection 148/24
inorganics 16/25
inspect 103/22
inspection 56/14, 64/23, 93/14, 103/8
inspections 93/12, 93/22, 93/25
inspects 103/5
install 91/23
installation 21/14, 37/1, 104/4, 104/7
installed 16/23, 102/1, 176/1, 176/3
institution 98/12
institutional 36/20, 86/18, 89/17, 103/24
instrumental 56/20, 160/12
instruments 113/7
insure 37/8, 39/24, 84/9
integral 5/9
integrity 83/25
interacting 32/10
interaction 105/10
interacts 155/21
interest 114/4, 114/6, 116/9
interface 154/20, 155/17
interim 55/14
intermediate 80/7
intermix 152/4
intermixes 152/3
internet 109/5, 113/12
interrupt 6/1
intersection 11/25, 68/4
introduce 8/14
investigate 18/20, 111/20, 112/12, 113/14, 113/17, 145/2
investigated 11/9, 113/6
investigating 145/19
investigation 16/2, 18/17, 18/22, 19/25, 20/1, 21/9, 21/10, 21/12, 22/12, 38/2, 39/15, 40/5, 40/19, 54/2, 58/12, 63/18, 64/22, 78/6, 125/23
Investigation/Feasibility 13/12
investigations 37/17, 40/11, 40/20, 72/4, 121/10
investigator 116/4
invite 118/3, 169/4
invited 169/3
involvement 4/7
iron 14/17, 19/10, 19/11, 19/17, 50/19, 66/1, 80/22, 111/1
irrelevant 122/19
irresponsible 120/8, 121/18, 122/15
irritation 32/18
irritations 32/18
iso 68/18
issue 120/23, 126/9, 173/6, 173/15, 175/13
issued 35/10, 35/15, 50/8
issues 6/13, 6/22, 7/23, 55/23, 165/2, 165/3, 165/15, 173/24, 175/5, 175/11
issuing 50/5
italics 38/7
item 117/12, 148/18

J

J-a-c-k 31/2
J-e-w-e-l-l 30/11
Jack 31/2
Jerry 89/19
Jessica 8/19, 8/23, 48/13, 134/9
Jewel 30/10
job 121/25
Joel 112/15
John 26/2, 53/7, 69/13, 69/15, 77/18, 96/13, 115/10, 116/6, 118/2, 124/10, 164/2, 169/2
Johnny 3/20
Johnson 8/18
Joseph 178/6
judgments 166/1
June 18/11
junk 157/18
jurisdiction 97/25, 99/7

K

Kathleen 50/25
Kelly 31/10
ketone 71/22, 72/13, 72/14, 81/3
ketones 72/16
kidneys 32/19
Kids 32/2, 39/9, 139/17, 143/5
kilogram 66/9, 66/10
knock 51/9
knocked 41/12, 50/10, 62/9
knowledge 91/3
known 15/8, 26/20, 33/23, 49/12, 116/2, 143/9
knows 11/24, 98/7, 168/22

L

Laboratories 12/22, 20/22
Laboratory 30/12
lack 103/19, 165/13
lacking 116/12
lady 2/7, 47/15
lady's 132/21
lagoon 52/17
laid 133/7
land 14/5, 36/21, 36/24, 84/5, 84/7, 85/5, 86/19, 101/5, 105/1, 143/4
landfill 11/11, 11/19, 12/5, 12/11, 12/17, 12/19, 12/21, 12/25, 13/1, 13/5, 13/8, 13/19, 13/20, 14/2, 14/6, 15/16, 17/7, 17/12, 17/18, 17/22, 17/24, 19/3, 20/4, 20/22, 21/8, 21/15, 26/21, 27/9, 27/12, 27/14, 34/13, 35/24, 36/4, 36/18, 36/21, 36/23, 37/2, 37/3, 37/7, 37/9, 38/16, 38/20, 38/21, 38/24, 38/25, 39/1, 39/2, 39/20, 39/23, 40/17, 40/18, 41/1, 41/6, 41/23, 41/24, 41/25, 42/6, 42/14, 42/24, 42/25, 43/5, 43/6, 43/7, 43/17, 45/6, 45/8, 45/10, 46/17, 47/3, 47/6, 47/7, 47/10, 50/16, 55/21, 57/2, 58/10, 58/16, 58/19, 60/5, 60/18, 61/6, 61/9, 62/5, 62/6, 62/7, 67/22, 67/23, 67/24, 67/25, 68/3, 68/15, 68/17, 68/21, 68/23, 69/17, 69/22, 70/8, 70/14, 72/1, 72/21, 73/19, 73/20, 73/21, 73/25, 75/16, 76/1, 76/3, 76/10, 76/11, 76/23, 77/12, 80/13, 80/17, 81/8, 82/5, 82/6, 82/21, 84/3, 85/3, 85/6, 86/5, 86/7, 86/8, 86/18, 86/21, 86/22, 87/14, 87/19, 87/22, 88/9, 88/15, 89/17, 91/25, 92/2, 92/25, 93/12, 93/14, 93/15, 93/16, 95/14, 99/19, 100/13, 100/18, 100/19, 102/24, 104/1, 104/3, 104/8, 104/12, 104/21, 104/22, 105/7, 105/11, 105/13, 106/18, 106/19, 106/20, 108/10, 120/19, 127/8, 127/25, 128/18, 132/25, 133/12, 140/19, 140/23, 141/1, 141/9, 143/16, 149/2, 154/3, 156/25, 159/16, 161/7, 168/16, 171/17
landfill's 20/6
landfills 88/18, 140/2
large 20/4
larger 23/6
Larry 49/11, 97/13
later 11/2, 48/14, 51/14, 99/11, 119/19, 121/9, 153/19, 153/21, 168/3, 175/23
laundry 18/9, 82/9
law 103/20, 121/8
lawyer 118/8
lay 133/5, 146/10, 150/3, 160/7
layer 36/5, 36/14, 36/15, 85/17, 87/4
layers 145/18
laying 110/14, 148/15
leach 30/4, 86/2, 151/12
leachate 12/17, 15/11, 15/15, 15/16, 20/4, 20/6, 21/15
lead 18/1, 32/18, 66/9, 66/13, 94/21
leading 38/3
leads 168/12
learn 144/25
leave 23/6, 48/8, 84/2, 102/23, 103/21, 150/2, 153/23, 154/7
leaves 47/6, 48/1, 95/9
leaving 45/7
Leeuwen 8/17, 22/4, 24/9, 24/18, 24/22, 25/2, 27/16, 28/25, 29/6, 32/14, 43/12, 45/12, 45/18, 45/22, 46/8, 54/21, 55/18, 74/18, 78/12, 79/1, 81/24, 131/22, 139/10, 141/7, 141/14, 158/10, 170/2, 171/16, 172/13, 174/7, 174/10, 175/5, 176/9
left 86/16, 96/25, 114/2, 121/11, 125/25
legal 108/17
legally 134/17
lengthy 116/1
letter 26/12, 39/12, 173/1
level 19/17, 22/21, 22/22, 22/23, 23/5, 23/7, 25/3, 28/5, 28/15, 29/7, 61/15, 61/18, 61/19, 63/10, 63/25, 65/20, 66/6, 66/8, 66/18, 74/15, 89/20, 94/22, 145/20
levels 14/17, 25/6, 29/3, 61/13, 61/14, 61/17, 64/5, 82/17, 132/1, 134/16, 134/25, 160/15, 163/20, 168/14, 171/16
levy 130/2
library 38/7, 58/24, 59/7, 59/10, 59/11, 59/12, 59/17, 59/20, 59/21, 63/14, 142/10, 143/6
life 24/4
lifetime 21/23, 24/5, 24/14, 24/17, 24/18
light 46/15, 63/5
limit 18/3, 30/2, 30/4, 36/21, 86/18, 104/2, 134/19
limitations 104/23
limited 16/17, 17/12
limiting 48/9
limits 28/11, 28/22, 175/17
line 12/4, 27/17, 66/22, 68/20, 68/21, 68/25, 69/3, 70/21, 73/4, 73/5, 74/5, 74/6, 74/7, 75/23, 75/24, 76/17, 76/18, 77/10, 77/11, 77/12, 77/18, 77/20, 78/8, 78/22, 79/18, 106/23, 128/23, 129/3, 129/10, 133/5, 133/7, 144/10, 148/14, 148/24, 150/3, 160/7, 162/19, 163/8, 170/4, 170/6, 170/8, 172/6
linear 54/5, 147/5, 147/6
liner 12/17, 36/10, 36/12
lines 61/8, 70/23, 76/13, 78/1, 92/2, 92/4, 92/5, 146/10, 148/15, 162/22, 163/4
lips 60/22
list 10/25, 16/7, 16/9, 16/10, 16/12, 16/14, 16/15, 16/16, 16/20, 18/9, 18/12, 18/16, 30/7, 58/22, 82/9, 135/23, 138/12, 138/15, 139/3, 139/23, 139/25
listed 28/4, 28/5, 28/13, 29/8, 109/7, 113/16
listen 146/4
liter 139/11
litigant 116/4
litigants 116/5
little 2/16, 3/18, 14/5, 17/5, 23/6, 27/21, 39/5, 40/23, 42/22, 44/12, 46/22, 54/13, 65/13, 67/2, 68/10, 68/24, 68/25, 69/16, 72/18, 72/19, 74/2, 88/14, 99/17, 99/21, 110/8, 118/14, 156/6, 156/13
live 22/22, 27/18, 38/23, 39/9, 39/22, 39/23, 42/14, 42/21, 42/25, 43/4, 47/12, 50/18, 75/25, 76/2, 78/14, 86/20, 111/7, 111/12, 111/25, 112/1, 120/22, 123/13, 123/14, 123/23, 124/10, 125/8, 128/11, 128/12, 130/9, 140/1, 140/6, 140/18, 143/18, 149/5, 149/6, 156/3, 157/10, 157/13, 164/2, 164/14, 167/11
lived 26/21, 27/11, 27/13, 27/15, 27/16, 39/9, 51/1, 55/21, 124/4, 139/19
liver 32/20
lives 85/14, 172/12
living 19/3, 20/21, 27/8, 30/14, 38/15, 38/17, 38/18, 38/20, 39/22, 40/25, 41/11, 43/16, 45/2, 46/16, 57/2, 60/21, 70/25, 71/8, 76/4, 100/12, 101/22, 141/1, 166/24
load 3/22, 3/23
local 6/23, 13/23, 38/7, 83/7, 90/23, 145/20
locally 76/25
Locate 111/15
located 11/25, 21/1, 42/6, 73/10, 96/19, 126/16, 126/19
LOCATION 1/13, 9/9, 17/11, 61/24, 66/20
locations 10/20, 72/19, 169/8
loss 147/5, 147/6
loud 2/23
louder 2/16
low 25/3, 36/9, 61/17, 64/19, 64/20, 70/12, 163/21
lower 23/5, 82/15, 110/8
lowering 32/23

M

M-a-s-t 77/15
machines 95/5
magnitude 121/19
mail 4/21, 4/24, 5/3, 27/19, 39/12, 107/22
main 9/22, 59/7, 154/23
mains 117/19, 175/25
maintenance 94/17
major 35/22, 48/25, 158/23
majority 124/6
man 141/5
manage 88/4
Management 6/21, 8/20, 90/11, 134/10
manager 5/10, 7/14, 8/13
mandatory 103/20
manganese 14/17, 18/1, 19/11, 19/12, 19/18, 66/1, 80/22
manifests 117/1
manner 154/24
manually 93/11
manuscript 178/13
map 48/14, 48/17, 68/19, 76/14, 77/10, 126/18, 127/19, 162/20, 165/8
maps 163/4
margin 23/6
marginal 156/15
Marie 77/15
mark 7/9, 47/12, 56/12, 57/21, 111/14, 170/16
marked 113/4
marsh 12/16, 110/18
Martin 16/1
Marv 124/9
mass 21/15
Massenburg 5/10, 7/14, 8/10, 8/12, 121/3, 123/5
Mast 77/15
material 88/21, 109/6, 109/14
materials 20/6, 35/21, 109/19
matter 3/20, 4/16, 76/24, 83/1, 96/24, 97/2, 98/24, 115/15
maximum 28/10, 28/15, 63/9, 64/5, 65/20, 74/16
MCL 74/12, 102/11, 102/16
MCL's 134/23, 136/7
Meaning 102/19, 102/25
measured 67/21, 68/6, 82/17
measurements 132/2
measures 37/11, 106/14
medical 13/3, 116/15, 116/20, 116/24, 117/3, 139/20
medicine 117/6
meet 86/12, 117/7, 122/11
meeting 2/3, 3/10, 4/8, 4/13, 4/17, 5/4, 5/20, 5/21, 26/12, 27/4, 55/22, 56/7, 56/8, 58/4, 98/25, 111/22, 114/9, 125/14, 165/1, 168/10, 169/3, 170/22, 172/8, 177/3
members 3/16
membrane 36/12
memorandum 38/4, 40/7
mention 125/14
mentioned 8/12, 44/8, 147/4, 176/9
mentioning 26/3
mercury 18/1
mess 87/3
messages 4/24, 96/25
met 92/16, 131/2
metals 17/23, 18/2, 28/3, 29/1
methane 72/12
methanes 71/20, 81/2
Michelle 42/16
micro 74/13, 74/14
micrograms 139/10
microphone 2/9, 2/14, 2/15, 2/18, 2/20
microphones 3/2
Midland 136/19, 144/24
migrated 41/3, 69/11
migrating 40/22, 55/4, 58/9, 58/17, 67/10, 92/6
migration 35/19, 106/15
Mike 125/7, 172/7
mile 52/17, 148/4
Miles 12/22, 20/22, 30/12, 118/9, 123/25, 148/3
Miles' 39/11
Miller 124/9
milligrams 66/9, 66/10, 66/12, 74/14
million 20/8, 20/9, 20/10, 20/15, 20/17, 20/18, 22/10, 64/10, 64/11, 82/1
mind 2/14, 4/4, 6/10, 33/21, 44/14, 45/5, 47/5, 61/18, 63/2, 75/17, 76/1, 92/24, 94/2, 103/14, 124/16, 146/9
minds 103/18
minerals 31/10
minimal 37/11
minimize 83/18, 87/21, 116/11
minimized 82/23
minimum 94/19, 102/6, 102/13, 175/21
ministers 2/4, 3/4
minus 21/25, 22/1, 22/13, 22/17, 23/20, 34/1, 74/25, 75/1, 118/16
minutes 2/19, 3/9, 35/8
miscalculations 142/22
miscarriage 32/24
miscarriages 51/11
Mishawaka 1/25
misinterpreted 53/1, 53/4
Miss 121/2, 123/5, 133/14
missing 152/24
mitigative 37/11
mix 152/6
mixed 13/5
mixture 12/16
mobile 172/15, 172/17
modified 85/1, 88/12
modify 81/7
modifying 82/20
mommy 2/22
money 121/24, 122/14, 122/18
monitor 37/8, 84/10, 93/10, 93/21, 94/18, 100/8, 100/11, 100/16, 100/19, 101/6, 102/4, 102/17
monitored 65/3, 92/18, 102/6
monitoring 16/22, 17/7, 21/14, 45/6, 45/8, 45/9, 53/8, 53/10, 63/13, 74/21, 81/11, 82/2, 92/20, 92/24, 93/2, 93/19, 100/21, 101/7, 101/8, 101/11, 102/6, 102/18, 103/3, 103/4, 105/22, 106/16, 108/24, 119/6, 132/25, 133/3, 168/15, 171/18
month 101/2, 168/6, 174/19, 174/21
monthly 103/14, 103/16, 103/18
months 53/15, 64/23, 68/13, 92/18, 92/19, 97/2, 102/8, 102/12, 108/11, 108/12, 144/10, 159/8, 160/8, 160/9, 160/17, 160/21
Moran 143/6
mother 51/7
mounding 76/19
mouth 2/23, 7/22
move 7/15, 9/19, 31/21, 45/17, 46/9, 65/13, 68/24, 68/25, 69/21, 92/3, 94/6, 108/18, 108/20, 114/8, 114/11, 114/19, 143/11, 161/4, 161/14, 161/16, 161/17, 161/20, 164/20, 167/6
moved 30/11, 38/14, 38/15, 44/19, 59/16, 67/25, 72/1, 74/1, 116/10
moves 163/8, 163/11
moving 15/15, 16/25, 17/14, 41/9, 41/10, 41/17, 55/18, 67/11, 67/12, 71/13, 72/6, 72/8, 73/1, 83/16, 92/4, 92/5, 92/7, 108/19, 127/13
Mr. 11/22, 133/8
Mr. Charles 11/22, 15/2
MR. CORAI 30/10, 30/18, 112/20, 113/11
MR. CORRIGAN 112/15, 112/25
MR. DAVIS 8/25, 88/13, 90/6, 90/10, 90/18, 90/20, 90/23
MR. EASH 87/2, 144/7, 144/14, 144/17, 144/22, 145/4, 145/10, 145/14, 145/21, 146/2, 146/6, 146/13, 146/19, 146/21, 146/25, 147/10, 147/15, 147/23, 148/3, 148/6, 148/10, 148/25, 149/6, 149/8, 149/10, 149/14, 149/16, 149/18, 149/20, 149/25, 150/5, 150/9, 150/12, 150/16, 155/2
MR. FORMSMA 24/4, 24/16, 24/20, 24/24, 89/19, 89/23, 89/25, 90/2, 90/8, 90/16, 90/22
MR. GREEN 56/9, 56/12, 56/21, 56/24, 57/9, 57/14, 57/17
MR. GREENLEE 47/12, 47/25
MR. HARDY 26/2, 26/7, 53/7, 53/13, 53/15, 53/22, 54/3, 54/6, 54/9, 54/14, 54/17, 59/2, 59/6, 69/6, 83/18, 88/7, 94/7, 94/9, 94/12, 109/4, 109/11, 109/15, 109/19, 110/16, 110/21, 110/23, 111/3, 115/11, 115/18, 115/24, 116/3, 147/19, 150/17, 151/12, 152/3, 155/8, 157/23, 170/1, 170/13, 173/20, 174/9, 174/12, 174/18, 175/14
MR. HAYE 157/7, 157/14, 157/18, 157/25, 158/5, 158/8, 158/20
MR. HILL 2/1, 2/25, 4/20, 9/17, 57/20, 107/22, 113/25, 115/1, 115/5, 115/15, 115/21, 115/25, 116/5, 118/2, 123/19, 124/8, 125/5, 126/2, 161/14, 161/25, 164/20, 165/9, 165/14, 165/18, 165/23, 166/9, 169/2, 169/6, 172/19, 173/8, 173/13, 175/7, 177/2
Mr. Himes 14/17, 56/19
MR. HODGSON 9/2, 84/13, 91/19, 113/20
MR. HORWITZ 96/13
MR. HULEWICZ 9/4, 116/6, 153/13, 154/18, 159/6, 168/7, 168/19, 168/22, 169/4, 170/4, 170/11, 170/14, 170/18, 170/21, 170/25, 171/21, 171/25, 175/15, 176/12, 176/15, 176/18, 176/20
Mr. Johnson 96/25, 98/8, 99/8, 99/10, 123/5
Mr. Larry 8/18
MR. MC 91/1, 91/4
MR. MILLER 124/9
MR. NEWCOMER 172/20, 173/16
MR. OSLAN 118/7, 123/14, 123/17
MR. RANDALL 136/23, 137/1, 137/4, 137/8, 137/13, 137/16, 137/22, 138/3, 138/7, 138/18, 139/4, 139/8, 139/16, 141/2, 141/13, 141/16, 147/22, 148/4, 159/21
MR. SCHONHOFF 8/22, 30/21, 54/4, 54/7, 54/12, 54/16, 54/19, 64/4, 64/18, 73/4, 73/8, 73/12, 73/18, 75/10, 75/12, 76/22, 77/6, 78/16, 78/18, 78/22, 79/3, 79/15, 88/4, 88/12, 90/19, 102/21, 109/25, 110/4, 110/20, 110/25, 111/4, 111/15, 144/25, 145/25, 146/3, 146/8, 146/16, 146/20, 146/23, 147/2, 147/17, 147/20, 148/1, 148/5, 148/7, 148/12, 148/23, 149/4, 149/7, 149/9, 149/12, 149/15, 149/17, 149/19, 149/21, 150/1, 150/7, 150/10, 150/14, 155/12, 155/15, 155/20, 156/2, 156/5, 156/9, 156/21, 156/24, 162/2, 162/5, 162/8, 162/15, 163/1, 163/25, 164/7, 164/11, 164/16, 165/8, 167/18, 167/24, 168/3
MR. SLEEPER 31/1, 31/7
MR. STONER 125/7, 169/7, 169/12, 169/15, 169/24, 170/8, 170/15, 170/20, 170/24, 171/5, 171/19, 171/24, 172/3, 172/10, 172/16
Mr. Stuart 2/13
MR. SWIHART 150/20, 150/24, 151/15, 151/22, 152/1, 152/10, 152/15, 152/19, 153/1, 153/5, 153/9, 154/9, 154/13, 155/23, 156/4, 156/8, 156/18, 156/23
MR. WADE 31/10, 31/18
MR. WENTLAND 49/11, 49/16, 50/2, 50/5, 50/12, 128/9, 128/14, 128/16, 128/19, 131/18, 132/13, 132/18, 132/22, 133/1, 143/17
MRS. FLISS 48/13, 59/8, 110/22, 133/10, 134/2, 134/4, 134/7, 134/14, 134/21, 136/1, 136/5, 136/17, 136/24, 137/6, 137/10, 137/14, 137/18, 138/4, 138/11, 138/14, 138/21, 139/2, 139/24
MRS. MASSENBURG 2/12, 8/11, 8/24, 9/6, 10/8, 23/10, 24/7, 25/11, 26/6, 26/8, 26/13, 26/16, 26/23, 27/2, 27/5, 27/20, 28/6, 28/24, 29/5, 29/15, 30/17, 30/20, 30/25, 31/5, 31/8, 31/16, 31/19, 33/20, 39/6, 39/14, 42/20, 42/23, 43/14, 43/20, 43/23, 44/1, 44/6, 44/11, 45/17, 46/7, 46/14, 46/19, 47/24, 48/2, 48/4, 48/8, 48/23, 49/14, 49/22, 50/4, 50/7, 50/13, 51/19, 51/25, 52/4, 52/7, 52/18, 53/1, 53/6, 53/10, 53/14, 53/16, 54/1, 54/20, 55/17, 55/20, 56/11, 56/18, 56/23, 57/1, 57/10, 57/16, 57/19, 58/7, 59/9, 59/15, 59/23, 60/25, 61/23, 62/20, 62/23, 63/1, 64/17, 65/10, 65/13, 69/7, 69/9, 69/15, 73/6, 73/9, 73/16, 73/20, 74/20, 75/11, 75/14, 77/5, 77/8, 77/23, 78/7, 78/20, 79/5, 79/9, 79/16, 79/21, 80/1, 80/4, 81/25, 83/21, 87/5, 88/6, 89/8, 89/22, 89/24, 90/1, 90/25, 91/3, 91/6, 94/8, 94/10, 94/13, 96/16, 96/22, 97/3, 97/6, 97/12, 97/24, 98/4, 98/16, 98/21, 99/1, 99/6, 99/9, 99/11, 102/22, 109/9, 109/18, 109/23, 110/2, 111/5, 111/16, 112/18, 112/22, 113/3, 113/13, 126/15, 126/21, 126/25, 127/3, 127/6, 127/11, 128/4, 128/7, 128/11, 128/13, 128/15, 128/17, 128/21, 129/13, 129/20, 129/25, 130/17, 130/21, 131/2, 131/10, 131/16, 132/11, 132/14, 132/20, 132/23, 133/2, 133/11, 133/20, 133/23, 136/21, 138/2, 138/6, 138/10, 138/12, 139/6, 139/12, 139/22, 140/1, 141/3, 141/19, 141/25, 142/5, 143/2, 143/8, 143/15, 143/20, 143/25, 144/6, 144/12, 144/16, 144/19, 145/2, 145/8, 145/12, 145/16, 145/24, 150/18, 150/23, 151/3, 151/13, 151/19, 151/23, 152/4, 152/12, 152/17, 152/20, 153/3, 153/7, 153/11, 155/6, 155/10, 155/18, 155/25, 157/6, 157/12, 157/17, 157/20, 157/24, 158/2, 158/6, 158/12, 158/22, 159/1, 159/7, 159/13, 159/22, 160/2, 160/8, 160/11, 160/15, 160/21, 160/24, 161/5, 161/12, 161/24, 162/3, 162/21, 163/23, 164/6, 166/16, 167/16, 168/4, 168/18, 168/21, 169/11, 169/14, 169/22, 171/14, 172/8, 172/11, 173/11, 174/14, 176/11, 176/14, 176/17, 176/19, 176/22
MRS. RANDALL 137/2, 137/25, 138/25, 139/5, 139/17
Mrs. Rumsfield 115/16
MRS. WENTLAND 114/24, 115/2, 126/11, 126/18, 127/2, 127/5, 130/11, 130/19, 131/4, 131/14
MS. BRODCZI 39/4, 39/7
MS. MAST 77/15, 78/5, 78/9, 78/14, 78/17, 78/19, 78/21, 79/7, 79/10, 79/19, 79/24, 80/2
MS. SMITH 123/22
MS. VAN 22/4, 24/9, 24/18, 24/22, 25/2, 27/16, 28/25, 29/6, 32/14, 43/12, 45/12, 45/18, 45/22, 46/8, 54/21, 55/18, 74/18, 78/12, 79/1, 81/24, 131/22, 139/10, 141/7, 141/14, 158/10, 170/2, 171/16, 172/13, 174/7, 174/10, 175/5, 176/9
MS. VANS 50/25, 51/7
multiple 81/18
municipal 13/23, 20/20, 27/17, 28/17, 28/18, 64/8, 74/18, 74/20, 83/8, 95/13, 95/18, 99/20, 99/25, 100/5, 100/6, 100/14, 134/25, 167/7, 172/12
municipalities 117/13, 146/5
municipality 64/10, 174/5

N

n,we 141/2
name 2/1, 4/6, 5/24, 5/25, 6/3, 7/9, 8/12, 8/25, 10/3, 16/10, 26/2, 30/10, 30/11, 30/21, 31/1, 50/25, 72/17, 77/15, 114/16, 115/13, 116/7, 118/7, 123/22, 124/9, 125/7, 126/11, 132/12, 132/21, 133/8, 133/9, 134/9, 138/21, 150/20, 157/7, 172/7
named 13/6, 158/21
names 114/18, 137/7
Nappanee 12/1, 12/8, 12/9, 17/5, 41/2, 68/4, 128/22
national 16/7, 16/9, 16/10, 16/13, 16/15, 16/20, 18/12, 18/15
Natural 15/9, 15/18, 101/24, 102/18
nauses 32/19
nay 131/6
necessary 4/25, 58/14, 83/9, 92/9, 135/19, 135/21
need 2/5, 2/10, 16/19, 23/4, 31/13, 52/12, 53/19, 57/12, 63/23, 66/4, 79/3, 79/5, 92/1, 92/3, 100/4, 100/7, 104/8, 112/4, 113/9, 130/7, 131/23, 136/13, 144/25, 145/2, 149/24, 150/18, 156/17, 161/19, 164/17, 164/21, 166/5, 173/22, 175/19
needed 18/19, 26/20, 38/11, 50/9, 71/12, 135/20
needs 22/20, 120/7, 125/18, 164/9
negative 131/12
negatively 151/9
negotiation 108/13, 159/9, 175/21
negotiations 158/17, 158/18
neighbor 46/12, 132/18
neighborhood 42/15, 44/23, 49/9, 64/1, 92/21, 101/9, 101/20, 101/22, 164/14, 164/18, 166/25, 176/25
neighbors 19/12, 52/10
neither 178/15
nervous 32/22, 33/9
nested 101/7, 101/8, 101/11
nests 101/13
Netherlands 164/15
network 94/18
new 10/10, 49/18, 51/23, 84/19, 89/8, 104/4, 104/7, 130/25, 167/9, 167/22, 172/5
Newcomer 172/20
news 119/9
newspaper 158/10
Niblock 79/7, 79/10
nice 124/4, 124/5, 124/18
nickle 18/1
night 10/9, 62/14
nine 5/12, 108/12, 159/8, 160/8, 160/9, 160/17, 160/21
nitrate 35/7
nitrite 35/7
nominal 173/22, 174/21, 174/22
noncancer 34/3, 34/14, 65/21, 65/25
noncarcinogen 34/2
noncarcinogenic 32/25
noncarcinogens 24/23, 82/16
nondetect 138/4, 138/13
nonhealth 174/15
nonnative 13/6
normal 174/19
normalize 77/1
north 13/20, 17/16, 42/22, 56/9, 127/12, 128/17, 129/8, 132/10, 132/24, 144/8, 144/21, 144/22, 148/21, 155/16, 170/4, 170/12
Northwest 15/25
Northwood 127/4, 127/7, 127/10, 127/12, 127/14, 127/15, 127/16, 127/17, 127/22, 128/2, 149/10
Notary 178/5
note 115/22, 173/8
notes 178/12
notice 85/10, 98/10
notified 26/11, 50/3
November 40/21, 58/8, 142/20
NPL 16/15, 19/1, 19/2
number 4/23, 24/16, 26/5, 33/22, 33/25, 34/16, 34/17, 34/21, 35/4, 58/1, 59/19, 70/12, 74/15, 81/13, 82/6, 82/10, 82/11, 88/10, 109/12, 109/15, 116/8, 120/3, 138/22, 141/11, 147/5, 162/9, 164/23, 176/18
numbers 22/3, 25/7, 28/8, 28/10, 30/6, 30/7, 38/16, 40/3, 60/14, 70/11, 118/17, 137/7

O

O-s-l-a-n 118/8
objection 165/12
objections 4/14, 6/17
objective 37/24
obligated 112/2
obligation 121/5, 146/10
obnoxious 125/10
observation 24/8, 77/24, 124/19
observations 72/3
observed 20/5
obtain 146/11
occasions 68/1
occupied 13/18
occurring 29/2, 29/7, 29/10, 29/14, 45/25, 50/17
October 146/25
Odd 110/20
odor 14/13, 19/5, 50/17
offer 131/21, 134/1, 135/7, 136/4, 137/21, 138/20, 139/13
offered 57/25, 131/21, 134/6, 137/5, 137/6, 137/16, 137/17, 138/8, 138/19, 138/25
offering 137/14
Office 1/24
official 8/7
oil 20/13, 21/4
oily 153/9
old 3/13, 9/13, 91/10
oldest 118/10
on-site 64/22, 146/24
One-A-Day 31/11
one-on-one 6/13
onion 62/15
onions 63/4, 63/5
ooze 20/13
oozing 21/4, 109/16, 109/20
open 2/3, 8/2, 14/11, 68/11, 68/12, 114/20, 147/21, 148/2, 148/5, 150/2
operable 13/25
operated 11/20, 11/23
operating 13/21, 173/17
operation 12/17, 94/17
operative 129/16
opinion 4/14, 125/18
opinions 6/16
opportunity 4/13, 6/16, 8/14, 116/14, 117/7, 130/12, 130/20, 131/20
opposite 169/9
option 166/14
oral 107/8
order 16/9, 29/2, 66/7, 117/2, 162/10, 162/12, 175/10
organic 17/1, 18/5, 29/7, 29/8, 29/9, 67/19, 88/21, 138/16, 153/17
organics 153/14
original 12/12, 91/24, 155/19
originally 3/6
Oslan 118/7
Our's 59/2
outcome 178/18
outrageous 35/1
overlain 15/6
overview 7/17
owned 11/22
owner 124/11, 167/9
owns 39/11
oxidation 92/9

P

p.m 1/16, 178/8
package 16/4
paid 20/23, 56/15
pan 152/19
paper 140/11, 168/1, 172/22, 173/4
papers 78/2
paperwork 48/11, 131/1
parameters 60/14
parcel 13/17, 13/21, 66/11, 67/2, 94/21
parcels 13/17, 14/5, 66/24
Pardon 156/23
paris 88/16, 110/5
park 51/23, 77/18
Parkway 69/14, 69/16, 78/16, 124/11, 164/3
part 5/9, 8/6, 12/19, 20/15, 36/13, 64/11, 89/16, 91/24, 93/19, 97/9, 103/3, 114/9, 148/21, 174/9
participate 5/15, 131/9
parties 122/19, 178/16
parts 20/7, 20/8, 20/9, 20/15, 20/18, 64/10, 82/1
party 94/11, 94/14, 103/12, 108/8, 108/9, 108/15, 108/22, 116/14, 117/23, 122/19, 158/21
pass 66/7, 103/7, 106/20
passed 11/3
passes 47/9
Pat 8/17, 115/13, 115/22
path 123/2
pathways 60/2, 60/4
patience 46/23
patient 27/21, 44/12
pattern 90/3
pay 2/23, 117/16, 129/18, 129/21, 166/22, 170/1, 174/4
payroll 123/4
pays 129/11, 129/13, 129/14
pen 66/21
penalty 174/17
percolate 85/21
perform 38/10, 94/16
performed 12/12, 13/13, 14/10, 21/21, 93/23
perimeter 13/4, 104/17
period 7/24, 8/1, 8/2, 12/25, 76/24, 77/3, 78/13, 79/2, 89/1, 93/18, 93/25, 101/2, 105/19, 106/10, 114/13, 115/6, 115/9, 159/9, 161/17, 165/10
Periodic 93/12, 93/22, 93/25
periods 117/10
permeability 36/10, 85/21, 85/25, 86/3, 86/5, 86/11
permission 62/9
permit 92/14, 146/7
permits 50/6, 145/6, 146/11
persistence 153/14
personal 4/15
personally 51/22
perspective 54/23, 147/3, 164/1
pesticides 30/2
pH 110/8, 110/10
Phase 67/16, 68/17, 70/10, 70/20, 71/16, 72/4, 81/1, 81/4, 90/11, 130/1
phases 67/7
phenol 18/8
phenomena 85/13, 85/18, 86/15
Phil 8/21, 30/21, 64/4, 110/4
phone 137/7, 138/22
photograph 12/3, 14/2
photographs 46/23
pick 73/7, 73/10, 74/4, 74/12, 100/10, 106/17, 106/19
picked 9/25, 19/13, 72/13, 73/22, 74/5, 74/22, 74/23, 133/12
picture 29/17, 60/17, 66/19, 67/14
pictured 124/17
piece 142/9
Pierre 143/6
pipe 160/7
pipes 148/18
pit 51/2
pits 19/23
place 18/25, 39/20, 55/14, 83/12, 89/7, 98/9, 100/5
placed 16/9, 17/6, 18/15, 18/25, 19/2, 19/21, 85/2, 86/4, 92/22, 95/13, 95/15, 98/9, 99/20, 99/25, 105/13, 105/15, 130/2
placing 101/11
Plainfield 76/16, 78/10, 78/11, 128/3, 128/4, 129/4, 144/8, 164/2
plan 4/9, 6/9, 35/10, 83/5, 89/20, 107/23, 108/24, 108/25, 130/22
Planning 9/3, 126/14
plans 117/21
plants 95/22
plaster 88/16, 110/5
Plastic 36/13
play 3/3, 39/8
played 51/2, 51/3
player 158/23
players 158/24
playing 32/2, 143/5
plume 15/15, 15/17, 53/24
plus 92/20
point 4/5, 5/22, 22/6, 25/12, 42/10, 62/2, 69/2, 69/4, 71/1, 79/15, 106/3, 122/16, 148/24, 152/24, 153/1, 154/2, 163/6, 163/7, 163/18, 175/21
points 5/12, 9/22, 176/7
policy 98/13
pollutant 125/16
Pollution 15/4
polyethylene 36/11
pond 12/7, 39/7, 60/18, 60/19, 60/20, 60/21, 60/22, 150/21, 151/7, 151/21, 151/23, 152/5, 152/21, 152/23, 153/24, 154/1, 154/4, 154/19, 154/23, 154/24, 154/25, 155/7, 155/22, 156/8
ponds 39/6, 90/13, 151/14, 154/22, 156/1
pool 20/16
portion 90/12, 126/4, 177/3
pose 170/22, 171/21
posed 22/7
position 124/14
possibilities 7/18
possibility 43/8, 102/16, 106/22, 171/7
possible 6/4, 6/7, 25/5, 89/9, 173/5
Post 1/24, 10/17, 10/19, 37/16, 37/25, 93/17, 93/24
potency 25/7
potential 7/20, 16/5, 21/23, 23/9, 33/17, 33/19, 45/14, 54/9, 83/2, 84/1, 86/15, 104/9, 113/21, 116/13, 116/17, 132/8, 164/24

potentials 168/14
pour 153/20
Ppb 81/24, 81/25
ppm 81/23
practicing 117/6
practitioners 116/20, 116/24, 117/4
Pre-Design 40/6
preamble 7/12
precedence 175/15, 175/20
predecessors 123/6
predesign 38/4
predict 156/24
prefer 2/13, 79/12
prefinal 108/23
preliminary 18/14, 34/10
prepared 5/17, 16/3, 114/7
presence 14/16, 120/20
presentation 2/20, 6/9, 7/14, 9/20, 10/1, 10/4, 48/15, 57/24, 91/21, 114/8
pressure 139/8, 139/9, 139/19, 168/23
pressured 107/18
pretty 9/20, 70/16, 88/20
prevent 104/20, 106/14
preventing 98/13
primary 34/15, 116/3
priorities 16/7, 16/9, 18/12, 18/15
priority 16/10, 16/13, 16/15, 16/20
prison 124/24
private 13/25, 19/3, 28/16, 74/21, 95/20, 96/7, 96/10, 104/4, 104/7, 132/3
privately 11/22
probability 23/25
probes 93/17
problem 2/6, 44/23, 46/16, 52/12, 56/22, 64/13, 88/18, 95/23, 101/8, 119/10, 120/11, 122/5, 122/7, 122/17, 122/21, 122/24, 124/22, 124/25, 129/16, 130/8, 138/1, 140/2, 159/24, 159/25, 163/24, 165/7
problems 3/11, 19/20, 32/20, 32/22, 32/23, 94/5, 95/1, 95/2, 117/1, 121/19, 124/15, 131/10, 139/9, 139/18, 139/20, 140/15, 140/22, 140/25
procedure 173/17
proceed 58/6
Proceedings 177/4, 178/9
process 4/12, 5/9, 6/14, 51/19, 55/15, 83/19, 92/9, 103/10, 107/1, 108/13, 141/20
productive 84/5
program 7/4, 7/7, 52/6, 135/22
prohibit 96/10, 104/4, 104/6
prohibited 84/1
project 5/10, 7/14, 8/13, 9/1
pronouncing 4/10
pronouns 94/14
propane 80/20
properties 13/18, 13/23
property 36/21, 39/17, 67/17, 84/15, 84/16, 84/23, 86/18, 89/9, 90/16, 90/18, 96/14, 96/18, 96/21, 98/10, 99/13, 104/25, 125/2, 125/15, 172/16
proportion 29/20
proposal 118/19, 164/23
proposals 89/4
propose 5/6, 115/3, 126/13, 165/16
proposed 4/9, 4/16, 6/9, 18/12, 19/1, 35/9, 57/25, 75/20, 83/5, 122/10, 123/8, 166/21, 167/7
proposes 81/6
proposing 76/17, 81/15, 83/7, 83/22, 83/23, 84/8, 84/25, 107/6, 107/7, 107/9, 126/16
protect 46/21, 46/22, 49/3, 83/24, 88/5, 93/1, 93/21
protected 84/10, 92/23, 105/15
Protection 17/10, 49/21, 89/6
provide 10/5, 134/17
proximity 98/13
PUBLIC 1/4, 35/10, 58/24, 111/6, 114/20, 116/18, 175/24, 176/4, 177/3, 178/5, 178/10, 178/14
publication 5/3
pull 126/18, 163/13, 176/4
pulling 109/5
pump 145/22, 146/17, 147/6, 149/23, 150/8
pumped 80/3, 147/11
pumping 77/19, 79/25, 144/8, 144/20, 145/6, 146/18, 146/24, 148/8, 148/11, 149/22, 155/1, 162/16
purchased 97/19, 124/12
purpose 35/17, 39/15
pursue 158/3, 166/5, 166/10
put 7/22, 17/10, 20/16, 29/21, 30/6, 36/4, 36/9, 36/11, 36/14, 36/23, 37/9, 44/7, 47/4, 49/18, 54/23, 55/13, 59/10, 59/15, 76/20, 77/20, 78/1, 78/5, 78/8, 82/3, 82/25, 83/12, 84/2, 84/4, 84/16, 84/17, 85/5, 85/18, 86/21, 86/23, 87/13, 87/19, 88/14, 88/24, 91/15, 92/1, 92/4, 92/6, 92/8, 92/21, 93/20, 94/23, 96/8, 96/9, 96/18, 96/22, 97/3, 97/6, 97/16, 98/8, 99/13, 101/7, 101/12, 104/1, 104/8, 104/23, 110/4, 111/13, 115/20, 124/12, 124/23, 125/1, 129/10, 143/21, 147/2, 152/13, 157/2, 167/22, 173/24, 175/11
putting 49/20, 77/14, 77/17, 90/14, 102/2, 102/24, 148/14, 148/19
pyrene 18/8

Q

qualified 116/20, 126/9
quality 19/9, 168/20
quantities 20/4
quarry 152/5, 152/18
Quarter 148/4
quarterly 92/18, 93/2, 93/11, 93/23, 94/4, 102/7, 103/3, 105/22
quarters 174/4, 175/1, 175/3
question 9/19, 25/3, 29/1, 31/22, 31/23, 46/5, 65/17, 65/18, 96/17, 109/15, 114/13, 115/6, 118/12, 123/11, 126/10, 144/7, 147/20, 155/2, 155/3, 155/12, 155/19, 157/14, 157/17, 157/20, 159/3, 161/17, 161/21, 162/2, 164/11, 164/12, 166/12, 166/19, 167/24, 170/22, 171/5
questions 5/23, 6/8, 6/10, 6/12, 6/22, 7/15, 8/9, 9/18, 27/22, 27/25, 31/20, 46/15, 52/20, 56/8, 65/15, 65/16, 109/4, 111/9, 113/22, 114/12, 115/9, 116/18, 116/21, 116/23, 126/5, 126/7, 141/8, 141/11, 141/15, 169/6, 172/19
quick 10/24
quiet 56/22
quorums 116/16
quotient 33/5, 33/7, 33/12

R

r.p 94/8
radiation 112/10, 112/16, 113/1, 113/16
radioactive 109/6, 109/13
rain 62/22, 77/5, 77/16, 90/3, 110/10, 163/17
rains 88/2
raise 89/20, 106/21
Raised 3/18, 96/17
Randall 136/22, 136/23
Randalls 143/18
range 21/24, 22/5, 22/11, 22/16, 22/24, 23/24, 24/2, 32/15, 42/11, 75/4, 110/7, 162/11
ranges 31/5
rank 16/18
Ranking 16/3
rate 53/24, 54/7, 117/16, 117/17, 161/23, 161/24, 162/3, 173/22, 174/20, 174/21, 174/22
rates 32/24
rational 82/20
RE 1/12
reach 26/3
reached 22/14, 120/9
react 110/10
reaction 23/23
read 4/21, 89/19, 138/6
reading 78/2
realtor 98/24
reason 2/3, 2/5, 3/4, 7/8, 15/17, 19/21, 26/17, 28/7, 44/16, 47/16, 51/22, 61/16, 85/7, 87/5, 95/21, 97/10, 121/2, 122/22, 128/21, 130/21, 140/8, 140/23, 143/11, 143/12, 151/4, 151/8, 156/11, 156/16, 160/11, 174/11
reasonable 51/20, 54/19, 121/13
reasons 173/24, 174/15
recap 105/18
receive 7/3, 95/18, 116/23, 172/24, 173/1, 173/3
received 5/3, 27/1, 42/18, 107/18, 107/21
receiving 14/12
receptor 83/3, 83/6
Recess 113/24
recharge 163/16
recharged 151/24
recommend 81/5
recommendation 124/25
recommended 11/14, 19/16, 173/7
reconsider 125/4
record 6/4, 8/7, 10/17, 10/19, 35/16, 35/18, 35/23, 55/1, 55/2, 55/9, 101/25, 102/1, 114/10, 115/23, 115/25, 123/20, 171/22, 175/24, 178/14
records 101/21
recovered 21/7
recovery 12/18
recreation 39/8
recreational 86/19, 86/23, 91/18, 125/2
red 12/3, 14/3, 76/18, 77/11
redevelop 105/4
redevelopment 7/23, 84/1, 89/4, 89/5, 104/22, 113/21
reduce 22/21, 35/19, 35/20
Reed 118/7
reference 49/23, 59/21, 59/22, 88/7
refinance 97/9, 97/22
refrigerator 95/9
refuse 13/2, 173/4
regulate 28/16, 28/17
regulations 92/12
related 175/11, 175/12, 178/16
relative 8/3, 165/3, 175/13
released 90/21
religious 3/8
remain 37/10
Remedial 13/12, 18/17, 18/21, 19/24, 21/9, 21/10, 21/12, 22/15, 35/18, 39/25, 54/2, 58/14, 63/17, 109/2
remediation 81/10
remedies 55/14, 57/25, 95/2, 118/19
remedy 11/15, 11/16, 11/17, 22/20, 81/14, 83/12, 84/6, 87/15, 89/3, 89/16, 91/25, 93/20, 94/16, 105/15, 107/13, 108/10
remember 19/6, 19/25, 26/19, 30/7, 52/18, 65/17, 68/21, 95/14, 108/3, 114/17, 120/25, 128/17, 132/20, 134/10, 136/25, 170/17
reminded 3/12
remonstration 173/25
removal 21/1, 61/15, 134/16
remove 83/2, 94/23, 95/3, 135/21, 157/3
removed 21/1
removing 55/5
rent 174/19
repeat 132/2
repetitive 131/23
replace 14/18, 95/8
report 38/6, 38/9, 119/23, 142/6, 142/20, 142/21, 142/24
reported 119/13, 178/9
reporter 5/18, 5/19, 6/1, 114/15, 176/20, 178/4
Reporting 1/24
reports 38/6, 103/14, 103/17, 103/18
repot 142/21
representative 130/14, 158/16
representatives 6/19, 6/23
reproductive 32/23
request 172/1, 172/3, 178/7
requesting 171/22
require 88/22
required 92/11, 146/11, 174/4
requirement 166/22
requirements 36/6
requiring 89/11, 172/21
resample 70/12
rescue 56/1
research 109/6
residence 42/11, 82/13, 106/20, 171/3
residences 48/17, 76/15, 90/5, 99/23, 117/18, 117/25
resident 20/24
residential 11/11, 13/16, 13/17, 13/22, 14/14, 19/9, 21/16, 60/2, 66/24, 80/19
residents 14/20, 19/2, 20/21, 43/16, 65/22, 83/6, 84/10, 99/24, 115/12, 116/14, 117/14, 130/11, 135/7, 164/24, 175/18
resolution 121/14
Resources 15/9, 15/25, 101/24
respiratory 32/21
respond 61/19, 107/14, 107/15, 107/17, 111/9
response 19/8, 61/19
responsibility 56/14
responsible 5/20, 52/8, 94/10, 94/14, 103/12, 105/3, 108/8, 108/9, 108/15, 108/21, 116/13, 117/23, 122/19, 158/20, 158/24
responsiveness 8/6
rest 114/22
restriction 96/8, 96/18, 98/9, 104/5, 134/22
restrictions 99/13, 103/25, 104/1, 135/3, 135/5
result 106/11
results 10/21, 41/4, 41/8, 53/18, 58/23, 72/3, 93/6, 105/20, 134/11
Retained 90/16, 90/18
retention 90/13
returning 169/7
reuse 7/20, 84/7, 84/15, 84/19, 84/23, 86/19, 104/12, 104/25
Reverend 132/12
review 35/10, 103/1, 103/10, 105/19, 106/10, 107/1, 108/25
reviewed 21/11
RI 21/12
rid 95/11
Risk 21/22, 21/23, 21/24, 22/5, 22/7, 22/9, 22/11, 22/14, 22/16, 22/21, 22/25, 23/8, 23/13, 23/17, 23/18, 23/20, 24/13, 24/15, 24/20, 24/24, 26/9, 29/3, 29/12, 32/15, 34/15, 34/18, 35/3, 35/5, 38/11, 39/2, 39/15, 39/18, 45/14, 53/4, 59/24, 59/25, 65/21, 75/3, 118/18, 119/2, 119/7, 121/4, 121/5, 121/16, 128/25,

140/24, 157/2, 157/4, 167/4, 167/12, 168/13
risks 22/12, 23/11, 24/19, 31/25, 32/1, 32/5, 32/6, 32/7, 35/20, 53/3, 60/14, 60/15, 61/11, 74/24, 116/11, 117/9
Rita 39/4
river 154/15
Road 12/1, 12/10, 13/19, 14/20, 27/17, 44/3, 47/13, 51/1, 56/10, 56/24, 62/14, 68/5, 69/6, 69/7, 76/16, 78/18, 79/11, 98/21, 106/4, 115/12, 117/2, 124/10, 156/25, 157/2, 169/9, 169/10, 170/5, 170/6, 172/12
roads 90/9
Roberts 133/9
rock 88/17, 152/5, 152/18
ROD 10/18, 10/22, 10/24, 11/15, 35/16, 37/13, 37/17, 37/25, 81/5, 81/6, 81/7, 86/17, 89/3, 107/15, 107/24, 108/2, 108/3, 108/4, 175/24, 176/7
room 2/15, 3/9, 3/18, 4/1, 6/25, 58/2, 176/16
round 43/12, 43/14, 66/22, 135/7
routes 60/6
row 94/5, 100/6, 100/7
RP 166/23
RP's 120/24
RPR 178/5
rubbing 32/2
rubble 13/5, 95/4, 95/11
rules 92/12, 104/13, 104/14, 104/15
Rumsfield 115/13, 115/22, 116/1
run 52/16, 117/21, 129/24, 141/23, 144/10, 153/6, 172/5
running 51/22, 52/15, 98/19, 129/3, 142/16, 149/4
runoff 76/22, 88/2, 90/3, 90/5, 90/12, 154/3
runs 79/13, 152/1

S

safe 132/4, 175/7
safety 176/4
sale 96/14, 98/22
salt 20/17, 29/22, 139/7, 139/8
Sam 150/20
sample 40/4, 41/21, 42/2, 44/16, 48/16, 48/19, 53/8, 61/5, 61/14, 62/9, 66/19, 66/25, 67/3, 67/4, 67/9, 72/24, 72/25, 92/19, 102/9, 102/10, 106/11, 131/11
sampled 10/20, 19/8, 41/18, 41/22, 48/18, 53/9, 53/11, 62/8, 68/14, 68/15, 68/17, 74/23, 80/15, 106/1
samples 11/8, 11/9, 14/14, 21/19, 21/20, 40/13, 40/14, 40/15, 40/25, 41/13, 42/12, 67/16, 68/10, 68/16, 69/11, 69/17, 69/25, 72/7, 72/23, 74/3, 105/23, 105/25, 106/4, 120/10, 120/13
sampling 10/20, 18/10, 21/14, 21/15, 21/16, 21/17, 22/25, 23/3, 37/21, 37/22, 40/5, 42/24, 43/13, 43/15, 45/15, 53/8, 53/18, 53/19, 53/20, 58/23, 59/19, 61/8, 61/24, 62/6, 63/2, 66/23, 67/5, 67/11, 67/18, 72/19, 141/20, 142/19, 143/1
samplings 11/12, 68/2, 71/10, 143/9
sand 15/6, 36/13, 155/22
saturated 73/14
saw 29/1, 92/2, 95/16, 153/8, 158/15, 163/4
scale 156/12
scared 119/11, 121/17
scares 39/10
scenario 38/19
scene 41/20, 111/19
scenes 109/1
scheduled 3/10
Schonhoff 8/21, 30/21, 64/4, 110/4
School 3/13, 3/14, 3/15, 3/19, 121/8
score 16/6, 16/8, 16/11, 18/14
scored 16/14
scoring 16/3, 16/4
screen 61/7, 102/2
screened 44/24, 44/25, 101/12, 130/24, 131/13
screening 66/6, 66/8, 101/10
screens 101/21
Seasonal 76/22
seats 4/4
Second 1/14, 42/10, 84/12, 106/7, 117/5, 117/12, 132/17, 146/16
section 7/5, 59/21
sector 114/19
sediment 21/17
seep 86/9, 86/10, 152/23
seepage 20/5
selected 35/18, 87/15, 99/19
sell 97/23, 98/20, 98/25
semi 16/25, 29/9, 94/1, 94/6
semiannually 93/4, 93/7, 93/10
send 107/14, 112/3, 176/11, 176/12, 176/16
sense 154/8, 154/9
sent 59/5, 59/6
separate 34/2, 103/3, 159/17
September 11/21, 15/4, 19/23, 35/9, 35/15, 40/5, 75/18
Service 11/23, 20/21, 117/17, 117/24, 171/4, 175/12
services 8/23, 20/23, 117/16
set 178/19
setting 116/22
settlement 87/25
settles 88/20
settling 88/8, 88/25
seven 13/16, 24/8, 25/21, 25/24, 135/17
severity 16/19
sewage 115/3, 126/13
sewer 77/18, 77/20, 78/1, 78/7, 79/18, 150/3
shallow 14/19, 14/23, 14/24, 80/5, 80/6, 101/13
share 7/23, 176/15
sheet 7/4, 7/6, 10/10
short 25/5, 25/9, 76/24, 77/2, 78/13, 79/2, 89/1, 117/10, 140/5, 145/11, 166/18
shorthand 178/9, 178/12
shot 42/1
show 3/15, 9/7, 9/16, 11/7, 11/24, 14/1, 17/3, 48/17, 50/14, 52/21, 61/4, 62/4, 62/5, 63/17, 63/18, 67/14, 68/20, 75/8, 77/8, 77/12, 89/14, 95/1, 108/24, 126/19, 168/13
shower 32/3
showering 60/7, 81/19
shows 63/15, 68/19, 70/20
shut 10/12, 62/17, 147/8, 150/7, 150/10
side 3/25, 22/19, 27/19, 44/14, 45/5, 49/5, 49/6, 68/16, 70/9, 71/9, 71/23, 72/21, 77/22, 78/18, 78/19, 78/21, 83/13, 110/7, 120/23, 127/15, 159/19, 169/9, 170/5, 170/6, 170/9, 170/10, 170/12, 172/14
siders 121/1
sides 126/21, 126/23, 127/14, 128/1
sight 118/10
sign 10/10, 137/11, 172/22, 172/23, 172/25, 173/4, 174/2, 174/22
sign-in 7/6
signed 15/2
signified 138/23
signing 175/14
signs 98/22
simplifying 29/16
single 24/25
sister 51/5
sit 88/2, 115/20, 124/5, 153/19
SITE 1/12, 5/13, 8/4, 8/13, 8/16, 9/9, 9/13, 9/14, 9/23, 10/14, 10/15, 10/16, 11/21, 11/25, 12/3, 12/4, 14/9, 14/10, 14/11, 15/11, 15/18, 16/4, 17/14, 18/11, 18/15, 18/20, 18/21, 18/23, 18/24, 18/25, 20/1, 21/19, 21/23, 23/4, 31/3, 32/11, 35/17, 38/5, 38/11, 42/2, 54/24, 55/1, 55/3, 55/4, 58/17, 59/24, 60/2, 60/3, 60/4, 61/25, 63/20, 84/1, 87/12, 97/11, 97/20, 97/23, 102/23, 103/2, 103/5, 103/15, 103/21, 104/17, 105/9, 109/7, 109/24, 111/11, 112/11, 112/19, 112/20, 113/15, 113/21, 116/2, 118/18, 118/25, 119/6, 119/16, 119/17, 119/24, 121/8, 121/9, 121/20, 122/1, 122/13, 122/25, 125/4, 125/8, 125/18, 145/20, 146/14, 156/14, 175/16, 178/11
sites 16/5, 16/6, 19/24, 39/16, 76/23, 84/18, 84/19, 109/5, 113/16, 118/11, 119/13, 140/7
sitting 31/4, 143/22, 146/14
situation 8/4, 98/11, 175/9, 175/18
situations 111/10, 116/12, 116/13
six 14/18, 36/13, 53/15, 56/16, 64/23, 85/19, 85/23, 85/24, 86/14, 102/12, 106/3, 108/11, 120/2, 125/8, 127/16, 144/1, 148/5, 159/7, 160/17, 160/21, 163/13
sixty 174/20
size 13/16
skewed 61/6
skin 32/1, 32/2, 32/17, 81/18
slab 87/10
Sleeper 31/2
slide 17/3, 34/19, 56/18, 61/6, 62/1, 66/4, 68/18, 80/5, 84/11, 100/25, 107/3, 113/18
slides 65/19, 107/4
slope 36/7, 87/23, 88/1
slow 83/19
slower 55/15
slows 83/15, 86/3, 86/5
small 120/3
smaller 25/23, 62/1, 70/22
smell 62/15, 62/17, 62/25, 63/6, 63/7
smelling 32/7, 63/3, 63/4, 112/5, 124/7
smells 62/19, 125/9
Smith 123/22
snow 62/22, 77/5, 77/16, 163/17
sodium 19/11, 19/13, 19/17, 19/18, 20/20, 57/4, 57/6, 95/16, 96/4, 137/3, 138/15, 139/11, 168/20, 168/23
soften 125/12
soil 11/9, 11/10, 11/13, 13/6, 21/14, 36/4, 38/2, 40/14, 40/25, 41/5, 41/13, 46/1, 55/4, 55/5, 60/8, 60/10, 63/3, 66/5, 66/9, 67/7, 67/8, 67/16, 68/11, 71/16, 72/4, 73/13, 74/12, 76/20, 81/1, 85/1, 85/6, 85/10, 85/11, 85/13, 85/18, 85/25, 86/2, 86/4, 86/7, 86/8, 86/14, 87/4, 88/12, 92/2, 92/6, 93/2, 93/20, 94/17, 94/18, 94/23, 94/24, 95/8, 95/10, 102/24, 103/4, 105/10, 105/16, 143/1, 143/20, 143/21, 162/22, 168/10
soils 66/6, 105/12, 168/12
solution 125/4
solve 56/22
solvents 33/10
solves 124/22
sort 20/18, 22/15, 23/15, 23/18, 38/14, 85/14
sound 3/5
sounds 31/2, 47/22, 47/23, 111/23, 166/13
source 29/11, 106/14, 155/1
South 1/14, 3/7, 13/7, 13/19, 13/20, 14/6, 14/20, 17/16, 17/20, 19/3, 20/21, 26/21, 27/8, 27/11, 27/16, 40/17, 41/1, 41/6, 52/11, 57/2, 58/9, 58/10, 58/15, 58/21, 59/2, 59/3, 59/11, 60/5, 67/8, 68/15, 72/8, 76/5, 95/14, 127/11, 127/13, 127/16, 170/5, 170/6, 170/8, 170/9, 171/6, 171/7, 172/12
southeast 17/20, 41/24, 67/9, 68/3, 76/6, 99/18
southern 13/4, 20/3, 67/19
southwest 27/14, 27/15
Southwood 149/6, 149/8, 149/10, 149/11
SPEAKER 4/19, 10/6, 26/10, 26/14, 26/22, 26/25, 27/3, 27/18, 28/2, 28/21, 42/13, 42/16, 42/21, 43/11, 43/18, 43/21, 43/24, 44/2, 44/4, 44/8, 44/10, 45/19, 46/11, 46/18, 48/3, 48/6, 48/10, 48/21, 51/6, 51/15, 51/17, 51/21, 52/2, 52/5, 52/9, 52/23, 53/5, 59/4, 59/13, 59/22, 60/24, 61/21, 62/12, 62/13, 62/21, 62/24, 64/21, 65/11, 69/4, 69/8, 69/13, 78/24, 79/11, 96/20, 96/24, 97/5, 97/8, 97/18, 98/2, 98/6, 98/18, 98/23, 99/4, 109/13, 123/11, 123/15, 123/18, 126/23, 127/10, 128/3, 128/5, 128/12, 129/11, 129/18, 129/23, 130/25, 132/9, 133/18, 133/21, 133/25, 134/3, 134/5, 134/12, 134/20, 135/24, 136/2, 136/3, 136/15, 136/18, 136/22, 141/5, 141/17, 141/22, 142/3, 142/25, 143/3, 143/13, 143/23, 144/4, 147/13, 148/17, 151/1, 154/11, 154/15, 155/13, 158/25, 159/5, 159/11, 159/20, 160/1, 160/5, 160/9, 160/14, 160/19, 160/22, 161/2, 161/10, 161/13, 161/22, 162/7, 162/13, 162/17, 162/24, 163/22, 164/10, 164/13, 164/17, 165/11, 165/17, 165/22, 166/8, 166/11, 166/12, 167/13, 167/21, 168/1, 168/5
specification 86/12
specifications 176/1
specified 35/18
speed 162/5
spell 5/25, 155/8
spelled 30/11
spelling 5/25, 114/16
spend 122/13, 122/17
spent 121/25
sperm 32/24
spinning 48/24
spot 113/5
spread 45/16, 136/14
spring 154/22
SS 178/1
ST.JOSEPH 178/2
stack 92/10
stake 111/14
stand 5/24, 115/1
standard 34/5, 34/6, 66/7, 168/17, 173/16
standards 66/7, 80/24, 81/13, 122/11, 168/20
standing 2/21
start 3/10, 20/13, 51/11, 88/25, 126/10, 159/15, 160/10, 166/17
started 3/8, 5/23, 10/12, 12/14, 19/4, 19/6, 20/2, 58/8, 58/19, 63/19, 121/7, 129/5
starts 2/19, 145/20
state 4/14, 5/24, 6/16, 6/20, 14/10, 14/12, 14/18, 15/3, 36/5, 47/11, 114/16, 136/1, 136/2, 178/1, 178/6
statement 8/3, 115/7, 115/16, 150/21, 171/8
statements 5/16, 5/18, 53/23, 173/6
States 15/7, 16/12, 16/17, 16/18, 17/10
stay 49/24, 58/4, 107/11
step 107/4
steps 11/18, 107/7
Steve 8/24, 8/25, 88/13, 157/7
stomach 32/18
stomachs 32/19
Stoner 125/8, 172/7
stood 153/5
stop 17/15, 49/19, 50/5, 78/5, 94/3, 146/3, 146/18
stopped 141/20
store 30/1, 30/3
storm 77/1, 90/11
story 3/12, 40/23

straight 75/23
Stream 15/3
Street 1/14, 12/1, 12/8, 12/9, 17/5, 23/15, 23/16, 25/12, 25/16, 25/19, 25/21, 26/5, 41/2, 43/1, 44/9, 44/20, 51/23, 52/25, 59/3, 59/8, 68/4, 69/21, 100/9, 126/24, 128/14, 128/20, 128/22, 132/19, 135/16, 136/8, 136/10, 151/17, 169/18, 172/14
stretch 61/7
structure 83/24, 88/8, 88/10, 88/18, 88/22, 90/7, 90/10, 93/15, 105/11
structures 90/13
Stuart 2/1, 4/6
studies 34/10, 47/21, 88/23, 145/5, 155/4
study 13/11, 13/13, 15/10, 15/18, 15/22, 17/7, 18/14, 18/17, 18/22, 21/11, 63/18, 89/12, 104/16, 105/1
stuff 30/23, 46/12, 47/22, 109/16, 110/19, 110/20, 111/21, 123/24, 124/2, 143/4, 143/17, 145/5, 153/6
Styrene 71/17
subchronic 25/7
subdivided 13/16
subgrade 88/23
submit 121/22, 122/22
submitted 119/2
Substances 19/15, 52/10
suck 148/19
sucking 149/1
sue 157/25, 158/1
sugar 29/22
suggestion 164/21, 169/2
suitability 104/25
suitable 108/17
sulfate 12/21, 15/6, 88/15, 110/5, 110/14
sulphate 12/24, 30/16, 30/20, 30/22, 110/9, 119/1
sum 33/6
summary 8/6, 59/24
summed 33/13
Sunday 3/13, 3/14, 3/15, 3/19
sunlight 153/22
SUPERFUND 1/12, 5/9, 5/13, 21/24, 38/5, 97/11, 97/23, 118/11, 146/14, 175/16, 178/11
supplement 38/1, 38/3
supplemental 38/10, 39/15, 40/4, 118/4
supplementary 59/25
supplies 154/22, 154/24
supply 13/24, 19/16, 64/8, 83/8, 134/18, 135/1
support 120/5, 120/21, 121/12, 122/9, 130/8
supporting 122/24
supports 124/14
surcharge 174/6, 175/3
surface 14/24, 14/25, 21/16, 36/2, 36/3, 36/17, 66/5, 82/25, 85/5, 90/12, 151/5, 153/24, 154/21, 155/14
surfaces 66/14, 117/13
surrounding 58/16
Survey 15/7
surveying 21/13
Swihart 150/20
swim 39/5, 39/7, 60/21
swimming 20/16, 60/20
switch 131/4
switched 115/3
symptoms 140/4, 140/6
system 2/9, 12/18, 16/3, 28/18, 32/20, 32/21, 32/22, 33/9, 37/2, 45/20, 74/19, 74/21, 84/9, 91/24, 92/5, 92/9, 93/3, 93/13, 93/15, 93/16

T

table 31/3, 31/5, 63/15, 75/18, 77/21, 131/24, 175/12
tables 73/14
talk 11/6, 16/15, 25/8, 31/24, 32/9, 33/10, 46/1, 49/25, 57/11, 57/12, 91/20, 99/10, 99/11, 99/12, 99/15, 99/17, 104/22, 108/8, 118/16, 122/18, 140/9, 140/18, 158/4, 158/13, 165/1, 168/12, 169/4
talked 13/18, 32/14, 57/4, 98/6, 107/9, 108/22, 109/21, 129/1, 135/10, 171/20
talking 26/19, 31/25, 33/22, 33/24, 44/2, 51/20, 54/4, 54/17, 55/23, 64/18, 64/19, 65/11, 69/9, 69/19, 81/16, 83/5, 106/12, 127/21, 131/16, 136/25, 148/17, 156/10, 157/1, 168/11, 172/5, 172/9, 176/8
talks 64/5
tap 49/20, 171/1
tarp 36/12
taste 14/13, 19/5, 50/17, 50/21, 103/18
tax 174/4
taxes 174/23, 174/25
teacher 3/15, 3/19
team 16/2
tear 145/18
teaspoon 20/16
teaspoons 20/17
technical 38/4, 40/7, 165/7
technological 114/1
telephone 4/24, 97/1, 141/10
television 119/14
ten 3/13, 22/16, 22/17, 34/1
tend 77/3
tended 67/22
tends 110/7
Tennis 91/16, 122/2
tenths 23/21
term 22/19, 25/3, 25/5, 25/8, 25/9, 79/2, 81/11, 100/15
terms 5/5, 16/19, 74/2, 77/13, 107/8, 107/9, 163/3, 166/23
terrible 104/19
tes 13/10
Test 19/23, 42/18, 62/11, 128/8, 129/4, 131/19, 131/23, 132/15, 136/8, 151/8
tested 42/15, 43/19, 47/16, 48/23, 60/18, 60/21, 125/10, 128/5, 128/7, 130/12, 132/16, 133/8, 133/11, 134/8, 134/14, 134/15, 134/19, 134/22, 135/15, 135/17, 136/6, 143/20, 150/23, 151/9, 154/6, 171/14
testing 45/13, 101/15, 101/17
thallium 66/2, 80/22
thank 4/21, 8/11, 9/6, 58/6, 59/1, 90/22, 113/22, 118/2, 123/19, 126/2, 141/16
thanks 135/12
thaw 85/9
thawing 85/20
thaws 85/14
their's 42/12
thermal 92/9
They've 79/19, 79/24, 91/8, 119/18, 119/24, 120/12, 122/10, 122/11, 123/8, 144/8, 147/11, 176/10
thick 36/9, 36/13, 36/15
thickness 36/5
third 157/8
thirteen 13/10
thousand 23/21, 34/14, 70/22, 73/24, 74/6, 119/25, 174/24
thousands 119/25, 120/1, 120/13, 120/14
threats 83/3
three 33/8, 49/17, 92/18, 92/19, 101/13, 102/8, 102/12, 103/10, 105/23, 108/11, 127/17, 134/7, 147/15, 170/15, 170/17, 171/9, 171/12, 171/25, 173/22, 174/4, 174/16, 174/21, 175/1, 175/2
Three-fourths 124/1
threshold 24/10, 26/3, 26/4
throwing 91/17
thyroid 139/18
ticks 145/4
TIME 1/16, 6/2, 9/17, 9/21, 11/5, 12/22, 12/25, 24/13, 25/10, 25/15, 30/13, 35/14, 35/15, 48/19, 49/25, 55/8, 55/22, 62/16, 63/13, 63/20, 65/7, 65/14, 69/2, 69/21, 70/23, 72/7, 76/24, 77/3, 78/13, 79/2, 79/20, 85/23, 88/17, 89/2, 91/6, 101/2, 101/23, 102/23, 103/7, 103/20, 114/4, 114/6, 114/21, 115/8, 117/3, 119/15, 119/16, 123/6, 125/21, 125/22, 132/3, 134/9, 152/7, 153/21, 153/25, 154/2, 154/5, 157/1, 159/9, 165/10, 165/15
time-to-time 110/18
timeframes 117/11
times 10/18, 21/25, 22/13, 23/20, 34/1, 62/16, 74/25, 75/1, 116/25, 162/1, 173/22, 174/16, 174/21
Timothy 178/5
tired 157/18, 176/21
toll 176/18
toluene 20/8, 21/3, 21/7, 70/2, 70/3, 70/4, 73/2, 125/15
Tom 87/2, 144/7
tons 12/23
top 36/1, 36/10, 36/18, 73/14, 85/6, 86/4, 86/7, 86/8, 88/8, 92/2, 92/6, 143/21, 143/22
topics 148/22
toppest 145/18
topsoil 85/12, 143/23
touch 116/9
touching 32/1
town 12/1, 48/1, 48/8, 59/2, 59/3, 59/5, 59/6
Toxic 19/15, 28/5, 30/24, 48/22, 52/10, 52/17
toxicity 22/18
toxicologist 8/18, 22/2, 32/12, 116/19
trace 31/13
tracer 15/18
traces 31/14
traffic 23/16
trail 140/11
trans-1,2-dichloroethene 18/7
transcribe 178/11
transcribed 178/13
transcribing 5/20
transcript 8/7
transfers 147/18
trash 88/19
travel 100/15
travelling 17/20
travels 54/8, 162/6
treat 37/7
trees 124/18
tremen 154/5
trench 147/21, 147/24, 148/1, 148/20
trenches 13/10, 150/2, 150/6
trenching 21/13
trend 106/1
trends 105/20, 106/9, 106/13
trespassing 104/19
triangle 68/11
triangles 17/9, 68/10, 68/12, 69/16, 72/18, 72/19
trigger 33/4, 81/12, 81/13, 81/22, 82/10, 82/11, 82/17, 82/18
triggers 81/16, 81/17, 100/22
truck 51/4
true 88/11, 122/21, 165/14, 178/13
trust 44/15
turn 29/22, 113/19
turned 29/23
twenty 174/18
two 25/22, 36/9, 41/6, 52/10, 52/15, 64/25, 67/7, 68/13, 73/14, 93/23, 94/2, 94/5, 102/7, 102/10, 105/6, 107/4, 109/4, 109/12, 109/15, 116/9, 116/15, 142/5, 142/24, 147/7, 148/3, 148/17, 148/21, 149/18, 151/1, 151/21, 152/22, 156/4
two-thirds 12/20
type 23/21, 23/23, 86/22, 88/17, 102/13, 112/23, 113/9, 117/4, 145/11, 160/16, 164/14, 175/18
types 116/11, 116/16, 116/21
typewriting 178/12
typewritten 178/13
typo 74/10, 74/14, 82/1

U

U.S 4/7, 18/18, 20/25, 40/8, 40/9, 103/4, 105/5, 134/16, 178/7
unacceptable 65/22
underground 43/3, 43/4, 46/25, 75/9, 151/24
unfortunate 46/14, 97/24
UNIDENTIFIED 4/19, 10/6, 26/10, 26/14, 26/22, 26/25, 27/3, 27/18, 28/2, 28/21, 42/13, 42/16, 42/21, 43/11, 43/18, 43/21, 43/24, 44/2, 44/4, 44/8, 44/10, 45/19, 46/11, 46/18, 48/3, 48/6, 48/10, 48/21, 51/6, 51/15, 51/17, 51/21, 52/2, 52/5, 52/9, 52/23, 53/5, 59/4, 59/13, 59/22, 60/24, 61/21, 62/12, 62/13, 62/21, 62/24, 64/21, 65/11, 69/4, 69/8, 69/13, 78/24, 79/11, 96/20, 96/24, 97/5, 97/8, 97/18, 98/2, 98/6, 98/18, 98/23, 99/4, 109/13, 123/11, 123/15, 123/18, 126/23, 127/10, 128/3, 128/5, 128/12, 129/11, 129/18, 129/23, 130/25, 132/9, 133/18, 133/21, 133/25, 134/3, 134/5, 134/12, 134/20, 135/24, 136/2, 136/3, 136/15, 136/18, 136/22, 141/5, 141/17, 141/22, 142/3, 142/25, 143/3, 143/13, 143/23, 144/4, 147/13, 148/17, 151/1, 154/11, 154/15, 155/13, 158/25, 159/5, 159/11, 159/20, 160/1, 160/5, 160/9, 160/14, 160/19, 160/22, 161/2, 161/10, 161/13, 161/22, 162/7, 162/13, 162/17, 162/24, 163/22, 164/10, 164/13, 164/17, 165/11, 165/17, 165/22, 166/8, 166/11, 166/12, 167/13, 167/21, 168/1, 168/5
unit 6/24
United 15/7, 16/12, 16/17, 16/18, 17/9
units 106/2
unknown 12/25
unnaturally 29/14
upbringing 3/8
upset 32/19, 124/7
urge 5/14
usable 125/13
USACE 40/9
useful 86/25
USGS 15/8, 15/23, 16/23, 17/6, 61/25, 75/19

V

vague 156/6
value 33/3, 82/17
values 34/13, 34/14
Van 8/17
vanadium 35/6
Vans 50/25
vapor 67/16
vapors 60/8, 168/10
variable 36/5
vectors 163/3
vegetation 94/17
vegetative 36/15
venture 9/15

vertical 147/17, 148/18
view 120/4, 120/8, 121/11, 121/12
vinyl 66/2, 70/20, 70/21
violations 94/3
visible 110/9
visit 125/3
visitor 2/2
visual 12/2, 29/17
visualize 163/10
vitamin 31/11
vitamins 31/12
VOC's 18/5, 21/2, 67/18
voice 2/12, 2/14, 2/19, 3/6, 4/23
voiced 55/25
volatile 17/1, 18/5, 29/8, 29/9, 67/18, 138/16, 153/14, 153/17

W

W-e-n-t-l-a-n-d 114/25
Wade 31/10
wait 48/1, 62/4, 114/22, 132/5
waive 173/21
waived 174/13
waiver 174/1
Wal-Mart 86/24
walk 52/24, 84/18, 87/12
walked 109/21, 109/24
wall 159/18
warranted 58/15
wash 96/1
washing 95/5
Waste 11/23, 12/20, 13/3, 16/6, 20/22, 21/15, 82/21, 82/23, 83/1, 83/16, 84/18, 86/16, 102/23, 103/21, 105/12, 140/7, 156/25
wastes 13/1
wasting 65/7
watch 65/5, 100/15
watching 100/15
water 11/8, 11/12, 13/23, 14/19, 15/9, 15/12, 15/19, 15/25, 16/24, 17/18, 17/19, 18/4, 18/9, 19/5, 19/9, 19/16, 19/22, 20/17, 20/20, 20/23, 21/15, 21/16, 26/15, 27/7, 27/8, 27/11, 27/12, 27/17, 28/9, 28/12, 28/14, 28/16, 28/17, 28/19, 28/23, 29/11, 30/14, 31/3, 31/5, 31/18, 34/12, 35/20, 36/8, 36/22, 36/25, 37/8, 38/21, 38/24, 38/25, 39/1, 39/24, 40/15, 40/16, 40/22, 41/18, 41/21, 41/22, 42/2, 42/3, 42/7, 42/8, 42/14, 42/18, 43/3, 43/5, 43/6, 43/7, 43/19, 44/13, 44/16, 44/18, 45/2, 45/20, 46/24, 47/2, 47/6, 47/8, 47/14, 47/16, 49/12, 49/20, 50/5, 50/8, 50/9, 50/16, 50/19, 50/22, 50/23, 51/2, 51/9, 51/12, 51/13, 51/18, 51/23, 52/13, 52/15, 52/16, 54/8, 55/3, 55/13, 55/15, 56/13, 56/16, 57/8, 58/9, 58/11, 58/17, 58/20, 60/7, 60/9, 60/10, 61/5, 61/8, 62/11, 63/9, 63/10, 64/2, 64/3, 64/6, 64/8, 64/9, 65/22, 65/23, 67/5, 67/6, 73/14, 74/11, 74/18, 74/20, 75/8, 75/9, 75/15, 75/16, 75/21, 76/3, 76/5, 76/9, 76/10, 76/21, 76/25, 77/2, 77/7, 77/17, 77/19, 77/20, 77/21, 77/24, 78/4, 78/25, 79/22, 80/8, 80/9, 80/11, 80/13, 80/16, 80/19, 81/10, 81/12, 82/4, 82/13, 82/22, 82/24, 83/1, 83/4, 83/8, 83/17, 84/8, 84/11, 85/13, 85/21, 86/1, 86/6, 86/10, 88/4, 90/4, 90/11, 90/12, 90/14, 92/22, 93/16, 95/14, 95/15, 95/16, 95/17, 95/22, 95/24, 95/25, 96/2, 96/11, 99/20, 99/25, 100/2, 100/3, 100/5, 100/6, 100/7, 100/14, 100/17, 101/3, 101/5, 101/15, 102/5, 103/4, 104/3, 105/20, 109/16, 110/7, 110/10, 110/22, 112/5, 115/3, 117/13, 117/19, 117/24, 121/1, 124/5, 125/10, 125/11, 125/12, 125/13, 125/17, 126/13, 126/14, 127/13, 128/23, 129/4, 129/5, 129/6, 129/7, 129/19, 129/21, 129/23, 130/3, 130/12, 131/5, 131/6, 131/11, 131/13, 131/19, 131/23, 132/15, 133/7, 133/16, 133/17, 133/22, 133/24, 134/6, 134/8, 134/16, 134/18, 135/1, 135/2, 135/8, 135/12, 135/14, 135/18, 135/21, 136/4, 136/20, 137/6, 137/11, 137/21, 137/24, 138/9, 138/19, 139/7, 139/13, 139/14, 139/23, 139/25, 141/23, 144/11, 144/23, 146/19, 147/1, 147/11, 147/12, 148/8, 148/19, 148/21, 149/2, 150/13, 150/22, 150/23, 150/25, 151/6, 151/16, 151/17, 151/20, 151/21, 151/24, 151/25, 152/1, 152/6, 152/8, 152/9, 152/11, 152/21, 152/22, 152/23, 153/2, 153/3, 153/20, 153/24, 154/12, 154/13, 154/17, 154/20, 154/21, 154/23, 155/1, 155/4, 155/14, 155/21, 155/23, 155/25, 156/8, 156/19, 157/3, 157/15, 157/19, 159/14, 160/23, 162/4, 162/5, 162/23, 162/25, 163/1, 163/6, 163/15, 164/23, 165/3, 165/4, 165/12, 166/13, 167/1, 167/2, 167/3, 167/6, 167/7, 167/12, 168/9, 168/20, 168/25, 169/1, 169/15, 169/20, 169/23, 169/24, 169/25, 171/6, 171/10, 171/13, 172/4, 172/12, 172/18, 172/22, 173/1, 173/3, 173/7, 174/2, 174/20, 174/21, 175/11, 175/25
water/surface 154/20
waters 151/21, 152/22
Weaver 69/14, 69/15, 77/18, 124/10, 164/3
week 145/3, 158/11
weeks 76/25, 108/11
weird 97/12
wells 13/25, 14/14, 14/19, 14/24, 15/1, 16/22, 17/6, 17/9, 17/11, 17/16, 17/17, 19/3, 19/9, 28/16, 28/17, 44/24, 44/25, 45/6, 49/18, 49/20, 50/22, 53/8, 53/9, 53/10, 61/5, 61/25, 62/3, 62/5, 77/19, 79/24, 80/2, 82/2, 92/20, 92/24, 93/16, 95/19, 95/20, 96/7, 96/9, 96/10, 100/2, 100/16, 100/17, 100/19, 101/7, 101/8, 101/10, 101/11, 101/12, 101/13, 101/18, 101/24, 102/2, 102/6, 104/5, 104/7, 104/8, 128/6, 128/7, 132/4, 134/18, 134/22, 135/15, 135/16, 136/6, 136/8, 147/17, 157/5, 167/22, 168/15, 171/18
Wentland 49/11, 114/24
west 42/22, 62/17, 167/21, 169/12, 171/15, 171/17
Westwood 41/12, 42/6, 49/12, 49/18, 50/10, 50/11, 50/14, 61/3, 72/22, 74/22, 74/24, 76/1, 76/2, 76/15, 100/13, 126/17, 126/19, 126/22, 127/4, 127/6, 127/7, 127/11, 127/14, 127/15, 127/20, 127/22, 127/23, 127/25, 128/1, 128/12, 128/19, 129/9, 132/10, 133/9, 138/3, 149/14, 149/16, 157/11
wetland 21/17, 37/12
wetlands 87/21, 87/22
wheels 48/25
width 163/3, 163/9, 163/10, 163/12
wild 63/4, 63/5
Willard 51/1
willing 166/6, 166/9, 175/9, 175/20
willingness 161/19
window 62/17
Windows 10/12
winds 144/2
winter 85/8
wire 104/21
wise 165/6
wish 4/3, 126/7, 140/16, 159/4
withdrawal 148/24, 149/1
WITNESS 178/19
wonder 157/8
wondered 167/13
wondering 31/1, 31/3, 42/17, 126/12
word 10/18, 29/17, 129/16
words 7/22, 11/1, 11/3, 34/16, 36/7, 103/19, 105/12
work 10/16, 12/12, 14/9, 21/12, 21/13, 39/25, 79/8, 108/15, 108/16, 109/1, 111/24, 113/10, 122/8, 123/1, 130/7, 158/18, 159/3, 160/3, 175/9
worked 94/25, 130/3, 175/6
workers 52/14
working 41/15, 49/2, 63/19, 79/19, 93/3, 103/12, 103/13, 103/22, 103/23, 111/23, 112/10, 118/9, 121/7, 121/23, 123/10
Works 15/10, 53/20, 91/19, 170/22, 170/23
worried 46/13, 148/25, 150/5, 162/15
worrying 51/8, 51/12
worth 140/12
wreck 144/14
wrist 23/19
write 107/13, 108/1, 141/10, 142/6, 142/20, 142/24, 158/10
writing 89/15, 142/21, 145/5
written 4/24, 10/23, 118/4, 121/22, 137/7, 137/9, 137/19, 138/22, 140/12
wrong 64/6, 119/9, 119/10, 120/10, 121/16, 150/22
wrote 38/6, 113/15

X

X 28/18, 88/10, 142/13
xylene 20/9, 70/4, 73/3

Y

yard 32/2, 41/13, 85/11
yards 79/13
year 3/13, 53/15, 53/25, 54/11, 54/15, 93/9, 97/22, 103/1, 103/9, 105/18, 105/23, 106/1, 106/3, 106/6, 106/7, 106/10, 106/11, 107/1, 129/21, 129/22, 145/15, 146/25, 147/5, 147/6, 149/5, 150/12, 160/23, 162/12, 163/20, 167/23, 174/5, 174/24, 175/1, 175/3
years 24/8, 25/21, 25/25, 26/11, 40/4, 44/10, 47/13, 47/20, 48/7, 49/17, 54/17, 56/24, 57/17, 57/18, 65/1, 65/4, 88/10, 93/4, 93/8, 93/24, 94/2, 94/5, 94/19, 102/6, 102/7, 102/8, 102/10, 102/13, 103/1, 103/6, 103/7, 103/10, 105/24, 112/11, 117/1, 118/25, 119/5, 119/6, 119/19, 119/22, 120/9, 120/23, 121/8, 121/23, 121/24, 123/4, 125/8, 134/7, 139/20, 142/5, 142/24, 149/22, 149/23, 151/2, 154/7, 162/13
yellow 12/4, 14/4, 61/3

Z

zero 73/4, 73/5
zinc 18/1
zone 99/22, 100/3, 100/4, 100/24, 101/1, 128/25, 129/1, 171/19, 171/20
zoning 90/24, 98/7

From: John Horwitz [lightrasp@netzero.net]
Sent: Wednesday, April 23, 2003 10:54 PM
To: clair@cyberlink.com
Subject: copy-Text of speech for this evening

Good evening, my name is John Horwitz, President of The Cleveland Township Association. We have represented the interests of more than 2500 families in Cleveland Township for over eight years. I am speaking on behalf of all of the concerned families who could not come to this meeting.

Our organization has brought a new library facility to the community and successfully stopped the expansion of a trailer park in the area which would have adversely affected the quality of life for our residents. In researching the impact of an additional 280 housing units in Cobus Green Mobile Home Park, we commissioned water studies from 1990 to 1993 along Cobus Creek, a natural cold water stream originating in southern Michigan and flowing south to the Saint Joe River. Our findings, conducted by St. Joe River Basin Commission / Michiana Area Council of Governments found heavy metals (Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, and Zink) in the waterway. This list is less than half of the material found in the water, however it mirrors what EPA found as contaminants in the ground and ground water at Himco Dump. Cobus Creek is within a credible distance from the Himco dump to be affected by a large scale migration of contaminants.

EPA Background: The Himco Site

The Himco Site covers approximately 60 acres at Country Road 10 and Napanee Street Extension. The dump is located above a continuous portion of the shallow aquifer system that is the sole source of drinking water for the community. A conservative estimate is that wells within 3 miles of the site serving 20,000 people may be effected. The Himco Waste Away Services owned this site and operated it between 1960 and September of 1976. Parts of the non-marshy area were excavated to a depth of 10-20 feet, and together with the marshy area were filled with general refuse, medical, pharmaceutical and other industrial wastes.

The Indiana State Board of Health responded to resident complaints in 1971 and identified the site as an open dump. Residents approximately 200 feet down-gradient experienced discoloration and foaming in water from their shallow wells as a result of contamination from leachate, a solution formed from water running through the landfill. Deeper wells were installed, but they became contaminated in time. These residents were finally connected to the Elkhart City water supply in 1990 by contractors paid for by Himco Waste-Away and Miles Inc.

Modern sanitary landfills are constructed to prevent leachate contamination of groundwater or surface waters. The bottom of the modern landfill is lined with impermeable layers such as clay and plastic. There has never been such an impermeable layer in this landfill. During an inspection in 1984, EPA also observed several streams of leachate, as well as gas odors and volatile gas organic compounds (VOCS), semi-VOCs, and metals. The landfill at the time was about 15 feet above the ground in the middle, and around 5 feet above ground at the edges. Additional sampling in 1990, 1991, and 1995 found low-level groundwater contamination outside the landfill boundaries. Another

problem specific to this site is that there are no existing natural barriers to pollution (no layers of clay, shale, or rock to confine the water table from pollutants). This is called an unconfined aquifer. Water tables in this area do not conform to land topography. Down-gradient is like down river, except that ground waters tend to have a much slower flow rate. In this case it is estimated that the water moves at 121 feet per year, which means pollution will remain in the ground and groundwater system for decades after the contamination source has been removed. Using this figure, the pollution in the ground may have already traveled as much as a mile from the source.

The EPA detected selenium, arsenic, copper, lead, mercury, zinc, manganese, and other metals in monitoring wells down-gradient of the site. Manganese is a toxic pollutant, and some studies at Dartmouth College in 1997 linked the pollutant to violent crime. English scientists have theorized that manganese pollution causes Variant Creutzfeldt-Jakob disease (vCJD). We are all too familiar with the animal component of CJD, it is Mad Cow Disease. Analysis of residential wells conducted in 1974 by the State, showed high manganese levels.

EPA Analysis:

Analysis of the groundwater in the area, collected from 1978 to 2000, shows that the Himco Dump Site continues to degrade groundwater in the area. It has been determined that benzene, 1,2 dicholorpane, trichloroethene, 1,1 dichloroethane, 1,2 dichloroethene, antimony, arsenic, bromine, chromium, iron, manganese, and thallium are all present in the groundwater below the site. There are a number of other pollutants as well. The highest concentrations were measured in the southeast corner of the site, northwest of the intersection of Country Road 10 and John
Weaver Parkway. The dump is also listed fourth on U.S. Radiation Sites, Indiana. as a Contaminated Site, and it was placed on the National Priority List for cleanup. In 1990 an alternative water supply was extended to residences with private wells living south of the landfill, and was funded by Miles Inc. and Himco. On May 7, 1992 a contractor for Himco conducted a site assessment and found numerous contaminants in buried leaking drums. Seventy one 55 gallon drums were found and removed in 1992 by Himco under a removal action consent order. A Record of Decision (ROD) was signed in 1993. It has been determined that residents in the area may have cause for concern if they come into contact with leached chemicals via drinking water, physical contact or consumption of soil, or through fishing or swimming in nearby water sources. EPA findings also estimate excessive cancer risks for nearby residents. Four cancer related deaths and one serious illness have been reported.

Proposed Cleanup

The EPA will put a cap on the landfill. This cap should limit rainfall runoff and direct contact with the waste, and contain escaping gas. It will not stop pollution already in the dump from reaching the water table. The EPA has stated that it does not need to do groundwater remediation outside the area because "data do not conclusively indicate that groundwater outside the boundaries of the contaminated areas is currently being impacted by the site contaminants." The EPA also states " During the rainy parts of the year, the landfill waste is in contact with the ground water..."

Consequences of a Landfill Cap

Studies have shown (1) that in developed watersheds the rainwater discharge could increase as much as 500 % compared to pre-development rates. While this study mainly focused on areas that had been industrialized, it raises the question of how diverting water from the top of a landfill to its' perimeter may affect the surrounding area. The EPA has established that the dump is partially submerged during

the wet season and has found contamination outside of the dump area. Diverting a large quantity of water over the top of the land fill would inevitably lead to absorption into the ground at a point that is already contaminated by the underground plume of pollutants that have had more than forty three years to migrate. This would cause the surrounding area to become super-saturated and hasten the spread of the plume of contaminants deeper into the community.

Future Use / Economic Impact

In an article in The Elkhart Truth, I learned that the City of Elkhart had been given a $ 40,000 grant to study possible re use of this dump site. It has been suggested that the area be used as an industrial park or a hockey rink.

The impact of industrializing this area would create additional air and waterborne pollution. It is unclear if the ground contamination could ever be removed to sufficiently guarantee the safety of our children. It has been estimated that a temporary remedy (the cap) would cost 14 million dollars and an additional 17 million dollars may need to be spent in the future to remediate water problems.

I would suggest that a better use for this land would be to establish Elkhart City Hall at the present Himco Dump Site. If our politicians are convinced that no threat to our health and safety exists, let them lead us by their example.

And finally to Mr. Hill of The EPA

I read your response this morning to my letter to the editor in Sundays Elkhart Truth. I have personally surveyed 50 area families about this matter. One was targeted in the dump area, the others were a random sampling of my community. Of those surveyed, only two families had gotten your letter. Our organization has provided the community with a beautiful library in the heart of Cleveland Township. Your documents should have been placed in our library, a location more convenient to the community affected by the dump. When I visited the branch library at Pierre Moran, only half of the library staff knew the whereabouts of your material.

It is our feeling that your plan merely offers to cover up the problem, not clean it up. Shame on you Mr. Hill

John Horwitz, President, Cleveland Township Association

29098 C. R. 12

Elkhart, IN. 46513

(1) ("Mitigating the Adverse Impacts of Urbanization on Streams: A comprehensive Strategy for Local Government," Metropolitan Washington Council of Governments (Schuler, 1987)

5/29/2003