

0001

IN THE CIRCUIT COURT OF ST. CLAIR COUNTY, ALABAMA
PELL CITY DIVISION

THOMAS C. and CHARLOTTE)
G. DYER,)

Plaintiffs,)

VS.)

MONSANTO COMPANY, A)
Delaware corporation,)
Defendants.)

CIVIL ACTION NUMBER
CV-93-250 consolidated
with CV-94-50-PH for
discovery only

DEPOSITION OF:
ALAN G. FAUST

SHELTER COVE MANAGEMENT,)
INC., et al.,)
Plaintiffs,)

VS.)

MONSANTO CORPORATION,)
et al.,)

CIVIL ACTION NUMBER

CV-94-50-PH

S T I P U L A T I O N

IT IS STIPULATED AND AGREED, by and between
the parties through their respective counsel, that the
deposition of:

ALAN G. FAUST,
may be taken before Jill Sanders, Commissioner and
Notary Public, State at Large, at the Law Offices of
Burr & Forman, 3000 SouthTrust Tower, 420 20th Street
North, Birmingham, Alabama, on the 16th day of
September 1998, commencing at approximately 10:00 a.m.

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IT IS FURTHER STIPULATED AND AGREED that the
signature to and reading of the deposition by the
witness is not waived, the deposition to have the same
force and effect as if full compliance had been had
with all laws and rules of court relating to the
taking of depositions.

IT IS FURTHER STIPULATED AND AGREED that it
shall not be necessary for any objections to be made
by counsel to any questions, except as to form or
leading questions, and that counsel for the parties
may make objections and assign grounds at the time of
the trial, or at the time said deposition is offered
in evidence, or prior thereto.

* * * * *

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A P P E A R A N C E S

FOR THE PLAINTIFF:

BURR & FORMAN

BY: E. Clayton Lowe, Jr., Esq.

Peter A. Grammas, Esq.
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FOR THE DEFENDANT:
LIGHTFOOT, FRANKLIN & WHITE
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ALSO PRESENT:
Mr. Mike Kelly

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I, Jill B. Sanders, a Court Reporter of
Birmingham, Alabama, and a Notary Public for the State
of Alabama at large, acting as commissioner, certify
that on this date, pursuant to Rule 30 of the Alabama
Rules of Civil Procedure and the foregoing stipulation
of counsel, there came before me on the 16th day of
September 1998, at the Law Offices of Burr & Forman,
3000 SouthTrust Tower, 420 20th Street North,
Birmingham, Alabama, commencing at approximately
10:00 a.m., ALAN G. FAUST, witness in the above cause,
for oral examination, whereupon the following
proceedings were had:

ALAN G. FAUST,
being first duly sworn, was examined and testified as
follows:

MR. PECK: we would like him to read and
sign.

EXAMINATION BY MR. LOWE:

Q State your full name for us, please, and
Page 2

21 spell it for the court reporter.
 22 A Alan, A-l-a-n, G. Faust, F-a-u-s-t.
 23 Q where do you reside, Mr. Faust?
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 01 A Anniston, Alabama.
 02 Q How long have you lived in Anniston?
 03 A A little over two years.
 04 Q where are you employed, Mr. Faust?
 05 A Solutia, Incorporated.
 06 Q And how long have you worked for Solutia?
 07 A Solutia and/or Monsanto since June of '91.
 08 Q So you worked for Monsanto before Solutia
 09 was spun off in -- what was it, '97? Is that right?
 10 A Correct.
 11 Q what are your duties? You obviously
 12 presently work for Solutia, Inc. rather than Monsanto;
 13 is that right?
 14 A Right.
 15 Q what were your duties or what are your
 16 duties for Solutia?
 17 A I'm the manager of remedial projects
 18 specifically assigned for the Anniston plant.
 19 Q So you're solely responsible for projects at
 20 Anniston and nowhere else; is that right?
 21 A Correct.
 22 Q what is your educational background?
 23 A I have a bachelor's degree in geology from
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 01 Southwest Missouri State University in Springville,
 02 Missouri. I graduated in 1980. I have an MBA from
 03 Oklahoma City University, and received that in '89, I
 04 believe.
 05 Q where did you work from 1980 to 1991 when
 06 you started at Monsanto?
 07 A From 1980 until -- actually '81 until '89 I
 08 worked for City Service Oil and Gas and then later
 09 when they were bought out by Occidental Petroleum.
 10 Then from '89 to '91 I moved to St. Louis and worked
 11 for an environmental consulting firm, McClellan
 12 Consultants.
 13 Q what did you do for City Service Oil and Gas
 14 and later Occidental?
 15 A City Service and Occidental I worked in
 16 their exploration division as a geologist and a
 17 geophysicist.
 18 Q what did that job entail, since I don't know
 19 what any of that is?
 20 A I was responsible for different geographical
 21 areas in the continental United States, looking at
 22 data and determining whether or not there were viable
 23 exploration sites for oil or gas. And then promoting
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 01 those to my management for drilling.
 02 Q what did you do for McClellan Consultants in
 03 St. Louis?
 04 A I was a geologist, hydrogeologist for
 05 McClellan. My responsibilities were overseeing and
 06 conducting site assessments, and for a short period I
 07 was in charge of their drilling and investigation
 08 operation.
 09 Q what parts of the country did that take
 10 place in?
 11 A The majority of it was the midwest. That

12 was in St. Louis.
 13 Q well, how did you come to be employed by
 14 Monsanto in 1991?
 15 A In '91 I had heard that there was an opening
 16 in the remedial -- I guess at that time it was called
 17 engineering technologies group, the remedial
 18 technology portion of that. There was an opening for
 19 a hydrogeologist and I applied.
 20 Q Had you had any experience in remediation
 21 projects before joining Monsanto in 1991?
 22 A With McClellan, yes.
 23 Q What were those? What was the nature of

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01 those projects and what did you do on them?
 02 A The majority of those were investigations
 03 and remediations for underground storage tanks as well
 04 as an investigation on some refinery and industrial
 05 facilities.
 06 Q Were any of these underground storage tank
 07 industrial facilities owned by Monsanto?
 08 A Not that I'm aware of.
 09 Q Did any of these underground storage tank
 10 industrial facilities or any other remediation
 11 projects that you were involved in while employed at
 12 McClellan involve PCBs?
 13 A Not that I'm aware of.
 14 Q Normally what type of chemicals were you
 15 involved in, I guess for a lack of a better word,
 16 remediating?
 17 A Right. A lot of the investigations that we
 18 did would be a normal phase or phases of investigation
 19 and site assessments. Phase one would be to go in and
 20 investigate historical data, any data on record about
 21 the site. If that -- if something in that
 22 investigation appeared that actual sampling was
 23 warranted, we would go in and do that. In a phase

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01 two, if it went that far, in a phase two, you know,
 02 partly based on your historical understanding, but
 03 also just some general scans were done and in some
 04 instances PCBs would be one of those analyzed, would
 05 be one of the things we analyzed for because a lot of
 06 the facilities would have had capacitors or
 07 transformers that may have had PCBs in the past.
 08 Q So these assessments were just assessing for
 09 any toxic or hazardous chemicals that may have been
 10 present where these storage tanks were located or
 11 these industrial facilities, is that what you're
 12 telling me?
 13 A It's a broad based screening basically.
 14 Q Is that what you were doing?
 15 A Right.
 16 Q And then what did you do or what was your
 17 involvement in any remediation of the sites, assuming
 18 you found some contamination?
 19 A Particularly with the USTs would be to go in
 20 and remove the UST and investigate the extent of any
 21 impact from that UST.
 22 Q Tell us what a UST is.
 23 A Underground storage tank. I'm sorry.

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01 Q Were these underground storage tanks at
 02 gasoline stations or were they more industrial tanks

03 at plants?

04 A Wide range.

05 Q When you found that a tank had to be
06 removed, did you get involved in the process of how it
07 was removed and where it was taken or how it was
08 dismantled or whatever the process was?

09 A In some instances, yes.

10 Q What sort of training do you have in that
11 area? Did you have any classroom training or is this
12 all on-the-job training?

13 A Well, it was using my geology and
14 hydrogeology background. Where you're looking at is
15 in the soil and ground water to determine impact.
16 Based on that, there are certain regulations in
17 whatever state or municipality you're in that direct
18 you as to how to remove those tanks.

19 Q As the manager of remedial projects at
20 Anniston, what are your duties?

21 A My duties are to oversee projects that are
22 ongoing and determining -- with the help of a team
23 involved, determining what projects need to be done

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01 and procuring contractors and, you know, making those
02 projects happen, reporting the status and future
03 projects to upper management.

04 Q You noted earlier that you have a master's
05 in business administration degree. Are you a business
06 manager or are you a geologist for the company? Which
07 hat do you normally wear? Are you running a business
08 or are you a geologist?

09 A I do both. My responsibilities are to
10 allocate the resources, financial as well as
11 personnel, which lends towards the business side of
12 it, but discussing issues with either my management or
13 others on the team require the scientific geology
14 portions as well.

15 Q Who is your immediate supervisor?

16 A Michael Foresman.

17 Q He's in St. Louis; is that right?

18 A Yes.

19 Q How often do you report to Mr. Foresman?

20 A It varies. We'll converse by phone several
21 times a week depending on what the status of issues
22 might be. He generally visits the site once a month
23 for a review and site tour.

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01 Q To your knowledge is there anyone above Mr.
02 Foresman that he reports to regarding the Anniston
03 facility?

04 A Yes, Michael Pierle.

05 Q That's P-i-e-r-l-e?

06 A I think so.

07 Q Does Mr. Pierle visit the site or has he
08 ever visited the site to your knowledge?

09 A I believe he's visited once in the last -- I
10 think it was last year.

11 Q What was his purpose for visiting the site?

12 A To get an overview of activities and to, you
13 know, refresh his memory of the site.

14 Q Has he given any directives regarding
15 remediation at the site that you're presently involved
16 in?

17 A He may have given directives to Mr.

18 Foresman, but nothing specific to me.
 19 Q Okay. Well, knowing how things flow
 20 downhill, did you get any directive from Mr. Foresman
 21 then with the statement or indication that it came
 22 from Mr. Pierle?

23 A Not that I'm aware of.

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01 Q Was Mr. Foresman giving you any directives
 02 regarding remediation at the site?

03 A To manage the site and convey to him the
 04 issues at hand or in the future and update him on a
 05 regular basis of the status.

06 Q Okay. I'll try to remember to come back to
 07 that in a minute. That's pretty broad. Before we get
 08 too far away, let's go back to when you were first
 09 told that you were going to be sent to the Monsanto
 10 Anniston facility. Were you working in St. Louis at
 11 that point?

12 A Yes.

13 Q Who directed you or told you that you were
 14 going to be transferred to Anniston?

15 A In early '96 there was a discussion of the
 16 possibility of someone being located in Anniston to
 17 direct those projects. I was aware of that and I told
 18 my boss, Michael Foresman, that I would like to be
 19 offered that opportunity.

20 Q While you were still in St. Louis with
 21 Monsanto were you involved with any remediation
 22 projects at that point?

23 A Yes.

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01 Q What were they?

02 A I don't know specifically, but my
 03 responsibilities at that time were oversight of
 04 Monsanto's responsibilities at about a half dozen
 05 Superfund sites we were involved in.

06 Q Did any of those sites involve cleanup of
 07 PCBs?

08 A I think PCBs were present. You know, I
 09 don't know that that was a driving force of the
 10 cleanup.

11 Q Was it fair to say that the driving force
 12 then for cleanup at the Anniston plant was PCBs?

13 A I would say the driving force at the
 14 Anniston plant was and is determining the impact that
 15 our plant has had by its operations. PCBs is one of
 16 those.

17 Q What are the other chemicals? Are there any
 18 chemicals that you would say exceeded the output of
 19 PCBs in terms of impact on the surrounding community?

20 A I can't -- you know, that is fairly general.
 21 Whatever the impact is, we're taking actions to
 22 mitigate that.

23 Q What was the reason for your call then to

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01 Anniston in 1991? Was there something that prompted
 02 this alert to Monsanto that somebody needed to be
 03 on-site?

04 A I don't think it was an alert necessarily,
 05 it was at that point in time we had entered into the
 06 1996 consent order.

07 Q I'm talking about 1991 now, when you first
 08 went there -- I'm sorry. You went there in '96?

09 A Yes.
10 Q I'm confused. I'm sorry. So you first went
11 to the Anniston plant in 1996?
12 A In my current responsibilities, yes.
13 Q Prior to 1996 were you visiting or involved
14 in the Anniston process?
15 A When I joined Monsanto in 1991 I was on the
16 technical staff in engineering technology. And one of
17 the plants I was assigned was Anniston.
18 Q So you were familiar with the Anniston
19 situation from the moment you started with Monsanto, I
20 assume?
21 A I was familiar with Anniston's current
22 environmental issues.
23 Q And so that was one of the half dozen
0017 projects you were working on before you were actually
02 transferred to Anniston in '96?
03 A No. In '91 -- '91 to I believe '95 I was on
04 the technical staff that had consulting
05 responsibilities within Monsanto for a number of
06 plants. In '95 I was promoted to remedial project
07 manager and at that point I had a different set of
08 sites that I was responsible for.
09 Q All right. So is it fair to say that in '95
10 you first became involved with the issues at the
11 Anniston plant; is that right?
12 A No. '91 I was working as a hydrogeologist
13 within Monsanto. And Anniston was one of a handful of
14 sites that I had responsibilities for.
15 Q Right.
16 A In '95 I became a project manager, remedial
17 project manager. Those sites, those plants were
18 assigned to someone else. I moved to the remedial
19 management portion and were given six or so additional
20 different sites than I had previous and Anniston was
21 not one of them.
22 Q Tell me what the source of your first
23 knowledge regarding PCB or potential PCB contamination
0018 at the Anniston plant. What did you do to familiarize
02 yourself with what had happened there in the past and
03 how you were going to attempt to remediate any
04 problems that may exist there?
05 A Well, you know, being a part of the
06 division, the department that has responsibilities for
07 remediation across the entire company, I was aware
08 that PCB investigations were going on at the Anniston
09 site prior to me moving there in '96.
10 Q All right. What were your directives or
11 your goals when you were assigned to the Anniston
12 plant in 1996?
13 A My directives or goals were one, to
14 interface with the ongoing facility on any activities
15 that we were going to conduct, was to comply with and
16 fill out the requirements of the 1996 consent order,
17 and begin to develop a team to look at the RCRA
18 facility investigation which was at that point in
19 permit application stage. So implement a team to
20 determine the work plan and what field activities
21 needed to be done for that.
22 Q Now were you involved in the negotiation of
23 the consent order with ADEM in '96?

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01 A No.
 02 Q No input. Who did that?
 03 A I believe that was Bob Kaley and Mike
 04 Foresman.
 05 Q Is Bob Kaley someone you report to?
 06 A He's a member of a team, the Anniston team.
 07 He is a peer of mine.
 08 Q Who else is on the Anniston team for
 09 remediation?
 10 A It would be Bob Kaley, myself, John Loper
 11 and Mark Brown.
 12 Q Do John Loper and Mark Brown live in
 13 Anniston?
 14 A No.
 15 Q Where are they?
 16 A John Loper lives in Houston, and Mark Brown,
 17 I believe, is Syracuse.
 18 Q What is John Loper -- what is his function
 19 on the Anniston team?
 20 A He's the project manager for the RCRA
 21 facility investigation.
 22 Q What does that mean exactly, what does he
 23 do?

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01 A He coordinates any development of work plans
 02 with the rest of the team and implementation of any
 03 field activities that need to be conducted.
 04 Q Is he an engineer or manager or what?
 05 A I believe he is, I'm not exactly sure.
 06 Q What about Mark Brown, what does he do?
 07 A He is the manager for our off site portion
 08 of our facility investigation and similar
 09 responsibilities to John Loper.
 10 Q Is Mark Brown employed by Solutia?
 11 A He is a consultant to Solutia.
 12 Q What about Mr. Loper, is he employed by
 13 Solutia?
 14 A A consultant as well.
 15 Q What is the name of Mark Brown's consultant
 16 firm?
 17 A BB&L.
 18 Q What about Loper's firm?
 19 A Roux and Associates, R-o-u-x.
 20 Q What's Roux and Associates' expertise?
 21 A Site investigation and remediation.
 22 Q How about BB&L?
 23 A Similar.

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01 Q When was Mark Brown's company retained for
 02 its off site portion of the investigation?
 03 A Well, Mark Brown and his company have been a
 04 part of the Anniston team since '96.
 05 Q What is the off site portion -- well, what
 06 investigation are you talking about?
 07 A Our post-closure permit, RCRA post-closure
 08 permit requires -- like every post-closure permit,
 09 requires that you do an evaluation of all past
 10 practices at the plant and identify which of those
 11 solid waste management units require investigation to
 12 determine if they've impacted the environment.
 13 Q And that's the overall investigation you're
 14 referring to?

15 A Yes.
 16 Q And you're in charge of that investigation
 17 for the Anniston plant; is that right?
 18 A I'm in charge of the Anniston plant, and one
 19 of the activities is that investigation.
 20 Q Right. And so Mr. Loper and Mr. Brown
 21 report to you regarding their activities; is that
 22 right?
 23 A Yes.

0022 Q What investigation have you or other people
 02 on your team made regarding past practices at the
 03 plant that have impacted the environment?
 04 A Well, the first activity they did was to
 05 look at all the historical activities at the plant.
 06 And we've been pumping ground water since the early
 07 '80s to determine the trends of that ground water
 08 impact. Also investigating and presenting in a report
 09 to ADEM all the solid waste management units that were
 10 identified in the earlier assessment and make a
 11 recommendation as to whether or not those need to be
 12 further investigated.

13 Q When you say you looked at historical
 14 activities at the plant, did you look back at any
 15 notes, memoranda, other documents regarding how the
 16 PCB manufacturing process was carried out?
 17 A All production units at the plant, PCBs
 18 being one of them, were looked at from the standpoint
 19 of where they were, what the activities were
 20 historically, where they were located, what their
 21 current condition or presence are. And that involved
 22 talking to plant people and looking at drawings and
 23 whatever information you needed to ascertain, you

0023 01 know, their location and current condition.
 02 Q Right. So did you make any determination of
 03 where, with regard to the PCB production process,
 04 there could have been or were discharges of materials
 05 that contained PCBs, where they discharged from the
 06 manufacturing process?

07 A Well, again PCBs like any other production
 08 unit we'll look at and have looked at the down radiant
 09 or downstream impacts from those units.
 10 Q Is your answer yes, we looked at where the
 11 discharges came out of the plant and where they may
 12 have flowed to?

13 A Yes.
 14 Q Who actually conducted that investigation?
 15 was that you or someone else on your staff?

16 A It was other people on my staff.
 17 Q Who were they?

18 A John Loper.
 19 Q So is it fair to say that no one else has
 20 been involved in this process besides you, Mark Brown,
 21 John Loper and perhaps Mr. Kaley?

22 A And people working with, you know, assisting
 23 them, you know, gathering documents and summarizing

0024 01 documents.
 02 Q Did you determine in your investigation that
 03 during the manufacturing process of PCBs at the
 04 Anniston plant that PCBs were in fact discharged from
 05 the plant into nearby ditches?

06 A We determined that there were impacted
07 sediments and soils downstream of that discharge point
08 impacted with PCBs.

09 Q I understand that, I mean, that's a given.
10 I think we all know that, but my question was, did you
11 determine from talking with plant employees, reviewing
12 records of the plant, that PCBs were in fact
13 discharged, flushed, so to speak, from the plant
14 through pipes which discharged into adjoining creeks?

15 A I think it would be safe to say the
16 investigation that we did looking at historical
17 production information, talking to people, that during
18 the manufacture of PCBs there were levels of PCBs
19 going out the discharge.

20 Q Did you make a determination as to the range
21 of the levels that were being discharged say on an
22 annual basis?

23 A No.

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01 Q would that be important to know?

02 A It would be important to know that during
03 production there was or could have been releases. Our
04 job is to look at the residuals from that release or
05 from any release, determine their location and their
06 impact.

07 Q Did you make any effort to determine whether
08 there were any other sources of PCBs in the immediate
09 area surrounding the plant other than Monsanto?

10 A No.

11 Q Is it fair to say that at least in the areas
12 adjoining the plant that Monsanto was the only source
13 for PCBs that were being tested for and/or actually
14 found there?

15 A I don't think it would be fair to say, I'd
16 say we're taking responsibilities for those impacted
17 sediments and soils that are found adjacent to the
18 plant. The plant sits in a fairly industrialized,
19 historically industrialized area where PCBs were more
20 than likely used.

21 Q Really. So what were the other sources,
22 possible sources, then?

23 A Well, again, we never went so far as to

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01 identify any of that. But any of the large
02 facilities, foundries, could have used capacitors or
03 transformers that were -- that had PCB oils.

04 Q And are you trying to infer that those may
05 have been dumped at these plants and flowed across the
06 Monsanto property?

07 A I'm not inferring anything. I'm just
08 saying --

09 Q I want this to be clear. Is it your
10 testimony that you're telling us that there is another
11 source of PCBs besides Monsanto with regard to the
12 area immediately around the Monsanto property in
13 Anniston, Alabama, and that you've identified that
14 source?

15 A I would say that the likelihood is -- based
16 on PCBs' wide use during its manufacturing, that
17 industrial sources could have used PCBs. We've not
18 identified any nor are we intending to identify any.

19 Q How many other companies in the Anniston
20 area to your knowledge manufactured PCBs at any time?

21 A I'm not aware of any.
22 Q Have you ever made an effort to determine
23 that?
0027
01 A Never.
02 Q Is there any reason to waste your time doing
03 something like that when you know there were no other
04 manufacturers of PCBs in Anniston?
05 A Right. My knowledge is that Monsanto was
06 the only manufacturing facility.
07 MR. PECK: Of PCBs?
08 THE WITNESS: Right.
09 Q When you began your work at the Anniston
10 facility was the ADEM consent order already in place?
11 A Yes.
12 Q Was that one of the -- I guess one of the
13 directives you relied upon in performing your duties
14 there in Anniston?
15 A It was one of the projects that we were
16 working on. It was not limited to that.
17 Q I assume you're thoroughly familiar with the
18 consent order?
19 A (Witness nods head affirmatively.)
20 Q This one I have in my hand, just so we don't
21 have so many pieces of paper attached to the
22 deposition, is marked as Bates number BSW64369 through
23 BSW64380.

0028
01 MR. PECK: Is there a date?
02 MR. LOWE: Yes, this is the '96. You can
03 look at this one.
04 MR. PECK: I just wanted to make sure we had
05 the right one.
06 A This is -- I don't see the date specifically
07 on it.
08 Q I was going on the document number. It's
09 signed.
10 A Yes, this is the order number for the March
11 '96 consent order.
12 Q This one is signed by Mr. Foresman, I
13 believe?
14 A Right.
15 Q On March 8th, 1996. Paragraph seven of this
16 order says, "Preliminary soil analysis conducted at
17 the Monsanto facility indicate the presence of
18 polychlorinated biphenyls (PCBs) both on and off site
19 of the Monsanto facility, to wit, in and around the
20 west end landfill, the east drainage ditch and the
21 northern drainage ditch." Let's take these one at a
22 time. You are familiar with the west end landfill,
23 are you not?

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01 A Yes.
02 Q Had the discovery of PCBs been made at that
03 landfill before you arrived at the plant in 1996?
04 A Yes.
05 Q Alabama Power had noticed the PCBs there,
06 hadn't they? Is that how it came to the knowledge of
07 Monsanto?
08 A Yes.
09 Q Other witnesses in this case testified that
10 they were informed and in fact went to look at this
11 west end landfill site and saw a black substance on a

12 slope over there; is that accurate?
 13 MR. PECK: Object to the form of the
 14 question.
 15 A I can't speak to what they testified to.
 16 Q Did you go over to the west end landfill and
 17 look at what the Alabama Power Company had found?
 18 A When I came on in '96 the west end landfill
 19 cap closure was already in process, so the landfill
 20 was already in various stages of cover closure.
 21 Q Why was it being covered and closed?
 22 A An investigation earlier had determined
 23 presence of PCBs in soils on and around that plant --

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01 I'm sorry, landfill. And the approved closure plan
 02 approved by ADEM was to put a multi-layer RCRA cap on
 03 that landfill and close and control any impacted soils
 04 on the adjacent properties.
 05 Q Do you have any knowledge as to what volume
 06 of PCBs were found at the west end landfill?
 07 A No.
 08 Q You don't recall Alabama Power testing what
 09 they found oozing out of the ground as having over
 10 five hundred thousand parts per million?
 11 A I don't remember the specific concentration.
 12 Q Prior to capping the landfill, had ground
 13 water been washing over the top of the west end
 14 landfill to your knowledge?
 15 A Surface water, rain water, would have likely
 16 been washing on the landfill.
 17 Q And was one of your duties at this site to
 18 ascertain where the ground water flowed?
 19 MR. PECK: Surface water.
 20 Q I think of the ground as being where my feet
 21 touch. The surface water.
 22 A Yes.
 23 Q Where did you determine that the water, the

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01 surface water which flowed over the west end landfill
 02 was ending up?
 03 A It drained in a ditch to the north under
 04 railroad tracks and into a ditch that was north of the
 05 plant.
 06 Q Did you follow it any further than that?
 07 A We followed it to a point where it went into
 08 an underground storm sewer.
 09 Q Where was that? Did that go under a
 10 highway?
 11 A It is located on Tenth Street north of the
 12 plant.
 13 Q After it came out from under Tenth Street,
 14 where did it flow to?
 15 A It went into the pipe at Tenth Street, flows
 16 to the east and then into an open ditch north of the
 17 railroad tracks.
 18 Q Is that the east end drainage ditch?
 19 A It would be one of the east drainage
 20 ditches.
 21 Q And then along the railroad track?
 22 A Right.
 23 Q Is that Snow Creek?

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01 A Well, it would flow east and then eventually
 02 to Snow Creek.

03 Q Did you do any testing for PCBs at the west
04 end landfill site?
05 A There was an investigation done prior to
06 1996 looking at PCB impacts.
07 Q What were the results of that test?
08 A I don't remember specifically, but PCBs were
09 detected across the landfill as well as the adjacent
10 area.
11 Q Who conducted that test? Was it Monsanto or
12 Alabama Power?
13 A Monsanto.
14 Q Was there any effort made to determine
15 whether or not this surface water was transporting any
16 PCBs from the surface of the landfill to any adjoining
17 property at that point?
18 A Well, one of the directives in the '96
19 consent order was to determine the extent of surface
20 water downstream and adjacent to that west end
21 landfill.
22 Q Who did that study?
23 A Monsanto.

0033
01 Q And you were in charge of supervising that
02 and reporting those results?
03 A That was partly underway when I arrived and
04 my responsibilities were to bring that to, you know, a
05 conclusion, to determine the extent of that.
06 Q Were you testing for PCBs, the presence of
07 PCBs, in surface water that was flowing off the
08 Monsanto site in 1996?
09 A We tested -- at that point in time we were
10 in an application phase for our MPDS storm water
11 permit. We did test for PCBs in storm water.
12 Q And did you find the presence of PCBs in
13 storm water?
14 A I don't recall exactly what the results
15 were.
16 Q Well, actually the results were you found
17 the presence of PCBs in the storm water; isn't that
18 right?
19 A We found impacted sediments that had an
20 opportunity to flow in storm water. I can't remember
21 exactly what our water results were.
22 Q Now explain to us what impacted sediments
23 that could have the possibility of flowing in storm

0034
01 water means.
02 A Well, the presence of PCBs on the surface
03 where storm water would flow across that surface
04 would, depending on the size storm and where those
05 sediments or impacted soils are, could be eroded by
06 that storm and carried by storm water downstream.
07 Q Are you telling me you never found any PCBs
08 in storm water runoff that you tested?
09 A I'm not saying that. I'm saying that I
10 don't know the exact -- we did other testing of storm
11 water around the facility. Some were non-detect and
12 some were PCB detections.
13 Q What was your level for non-detect?
14 A The analytical method of the analysis?
15 Q Usually there is like a cutoff. I know for
16 your soil sampling you did in some of the adjoining
17 neighborhoods you had a minimum level of five parts

18 per million and anything below that you designated as
19 non-detect. Was there any similar cutoff for your
20 water testing?

21 A No.

22 Q So it was just an absolute zero?

23 A To the, you know, the detection limit, the
0035 analytical method.

02 Q Where did you set up your test points for
03 the ground water testing in the Anniston plant?

04 A Surface water?

05 Q Yes, and storm water.

06 A Storm water, okay. We sampled a point
07 downstream the northern extent of our property on the
08 west end landfill area, tested storm water there.

09 Q Where was that? I'm sorry.

10 A To the northern property boundary of the
11 west end landfill, the ditch leading from that.

12 Q Okay. Was that an area where you found the
13 presence of PCBs to be non-detect?

14 A Again, I don't remember the specific
15 concentrations there.

16 Q Well, were PCBs found there or not? Surely
17 you remember that.

18 A They were in soil, surficial soils.

19 Q Where else did you conduct surface water
20 runoff tests?

21 A We tested off the ditch that leads from the
22 plant on Clydesdale, which is east, on the eastern
23 side of the facility, as well as drainage ditches and
0036

01 culverts leading from properties we owned on the south
02 side of 202, which would be to the south of the
03 plant.

04 Q Anywhere else?

05 A As well as ditches that led off to the north
06 portions of the facility itself.

07 Q Were any PCBs detected in storm water runoff
08 in a ditch that leads off the plant property to the
09 Clydesdale area?

10 A I believe there were.

11 Q And these tests were conducted in 1996 or
12 when?

13 A I think it was the '95 and '96 time frame.

14 Q Were there PCBs detected in the storm water
15 runoff in the drainage from the property south of
16 Highway 202?

17 A Yes.

18 Q Were those tests also conducted in '95 and
19 '96?

20 A They were all conducted at the same time,
21 around the same time.

22 Q Which firm was conducting these tests?

23 A Monsanto did. I believe the firm at that
0037 time was Garretty and Miller.

02 Q And were they reporting these results to you
03 and you in turn were reporting them to whom?

04 A They were reporting those results -- that
05 was -- this sampling was done at or before the time I
06 got to the plant.

07 Q Who was receiving the results then?

08 A I think the plant would have gotten those

09 and I'm not -- I'm not sure exactly who got those
10 specific results.
11 Q who was in charge of this process before you
12 got there?
13 A That was Jo Hanson.
14 Q She was the plant manager; is that right?
15 A No, she was the remedial project manager.
16 Q Did she retire, is that the reason she
17 left?
18 A Yes.
19 Q Were PCBs found in the storm water flowing
20 to the ditches that lead off of the north end of the
21 plant property?
22 A No.
23 Q Rather than asking you to draw the plant for
0038
01 me, there are a series of drawings here that may help
02 you. If you can't find one that does help you, you
03 will need to draw it. But I want you to indicate for
04 us on a piece of paper or on one of these maps where
05 you found this storm water flowed at the time you were
06 dispatched to the plant or assigned to the plant in
07 1996. And my point is, I want to see how it existed
08 then and then we're going to compare it to what has
09 been done to remediate those flows since then.
10 A Okay.
11 Q With that in mind, here's a stack of
12 drawings that may or may not help. If they don't,
13 then let's just draw it out.
14 A (Reviews documents.) These came from the
15 RCRA facility work plan and they adhere to a specific
16 solid waste management, so they don't give a big
17 enough overview to show that. This one will do
18 probably -- well, not really. It doesn't go far
19 enough west or north. This isn't broad enough to show
20 (indicating).
21 Q Sorry. Take a shot at sketching it out. It
22 doesn't have to be --
23 A Not to scale.
0039
01 Q -- artist quality.
02 A (Witness complies.) I believe those are the
03 five locations where we sampled storm water.
04 Q Note on here which is north.
05 A Okay.
06 Q Let's put an Exhibit 1 sticker on it
07 somewhere.
08 (Plaintiff's Exhibit
08 Number 1 was marked for
09 identification.)
09
10 Q Take Adam's red pen here, please, and show
11 me where at the time in 1996 before any remediation
12 efforts took place under your direction where the
13 storm water flowed and where the discharge points were
14 off of the Solutia property.
15 A Okay. In the '96 time frame the storm water
16 flowed --
17 Q Draw an arrow, please.
18 A -- to the north. That would be it
19 (indicating).
20 Q All right. In your investigation regarding
21 past practices at the plant, particularly in the

22 production process, did you ascertain where there were
23 any discharge pipes coming from the Monsanto plant

0040

01 where PCBs may have been discharged?

02 A The only discharge we would have had would
03 have been our plant discharge, which is this one right
04 here (indicating).

05 Q Okay. If I write plant discharge will that
06 be okay?

07 A Sure.

08 Q And for the record where -- in what
09 direction did that plant discharge flow?

10 A To the east.

11 Q Is there -- we have a red line here on
12 Exhibit 1, but when it goes to the east is it flowing
13 in a ditch, a culvert or a pipe?

14 A Well, I mean, I can't speak for historical,
15 but storm water currently --

16 Q I'm talking about when you arrived there in
17 '96 to start this remediation project.

18 A Where storm water flowed?

19 Q Yes.

20 A It would have flown to the east and joined a
21 ditch east of the plant and then flowed north to a
22 ditch along the railroad tracks and east to Snow
23 Creek.

0041

01 Q These are ditches?

02 A Yes.

03 Q So if I put on here "ditch," that would be
04 right?

05 A Uh-huh.

06 Q And this is also a ditch?

07 A Right.

08 Q And Tenth Street here, are you saying
09 there's a ditch along Tenth Street?

10 A There's a culvert under Tenth Street.

11 Q Somewhere around here there was a culvert?

12 A Right.

13 Q And then where does it go after the culvert?

14 A Then it goes to -- this track should go to
15 the east.

16 Q Now, I think you said to the east into Snow
17 Creek?

18 A Right.

19 Q All right. According to the ADEM consent
20 order entered in 1996 it determined that there was a
21 presence of PCBs in the west end landfill, which you
22 noted on your Exhibit 1, and the east drainage ditch,
23 which is this one or this one (indicating)?

0042

01 A Right. They're all considered the east
02 drainage ditch.

03 Q I'm going to write "east ditch." Even over
04 here from the south landfill, do we call those the
05 east drainage ditch?

06 A They're ditches east. I don't know -- I
07 don't think they determined a particular geographical
08 area, but ditches east of the plant.

09 Q Okay. Did you determine that there were
10 PCBs present in -- I'm looking at Exhibit 1 where we
11 have from the west end landfill an arrow pointing down
12 toward the railroad tracks to the north. Is this a

13 ditch?
14 A Yes.
15 Q I'm going to write on here "ditch," is that
16 right?
17 A Yes.
18 Q Were PCBs or the presence of PCBs found in
19 the sediment in this ditch?
20 A Yes.
21 Q And for the record, that is the ditch
22 between the west end landfill and the railroad tracks
23 to the north?
0043
01 A Yes.
02 Q Was any testing done to determine the
03 presence of PCBs in sediment on or around the south
04 landfill that's noted here on Exhibit 1?
05 A Yes.
06 Q Were PCBs found there?
07 A In several areas, yes.
08 Q Do you recall in which areas they were
09 found?
10 A They were generally confined to the ditch
11 along 202, which drains to this culvert, which is that
12 culvert (indicating).
13 Q We'll write on here "culvert."
14 A Right. And a concentration of impacted
15 soils generally in the center portion between the two
16 cells or two groups of cells.
17 Q Draw the cells on there for me, please.
18 A Again, I won't know the exact location.
19 This is generally the location of the cells
20 (indicating).
21 Q How did you determine the location of the
22 cells? I assume that south landfill was already
23 covered when you started working there, right?
0044
01 A Landfills were closed the latter stages of,
02 I believe, the early '80s, mid-'80s and the location
03 of those cells was documented by discussions with
04 plant people, air photos and just the general setting
05 at the time.
06 Q In your investigation and talking to the
07 employees or anyone else, did you try to ascertain the
08 types of chemicals that had been placed in the south
09 landfill?
10 A Our discussions or review we ascertained
11 that it was used for trash and demolition debris and
12 by-products of just general waste from the facility
13 while they were operational during, you know, for the
14 operation of the plant.
15 Q Did you do any boring or core samples to
16 determine the contents of the south landfill?
17 A No.
18 Q For the west end landfill did you make any
19 effort to determine what had been placed in that
20 landfill?
21 A Again that was historical photos and
22 discussion with -- that landfill ceased operations in
23 the '50s, I believe. The historical photos and
0045
01 mapping of that facility to determine the location
02 where the cell was.
03 Q If you would for us on Exhibit 1 take the

04 red pen and write where you recall finding presence of
05 PCBs on this map.

06 A From the surface soil sampling?

07 Q Right.

08 A I mean, this map doesn't lend itself very
09 well, but --

10 Q That's okay, you drew it.

11 A We can find the presence of --

12 MR. PECK: Here's a blue pen.

13 THE WITNESS: Yes, that would be better.

14 A The presence of PCBs across this area
15 (indicating).

16 Q You have made a series of blue diagonal
17 lines. Write PCB one of those lines.

18 A (Witness complies.)

19 Q Where else?

20 A (Indicating.)

21 Q So you've outlined all the areas basically
22 in blue where you or Monsanto found the presence of
23 PCBs in 1996, is that right, or '97, during the

0046
01 initial phases of your investigation to remediate the
02 property?

03 A '96, right. We should probably note that.

04 Q Right. Write on there -- you're going to
05 have to draw it again to show me what you've changed,
06 otherwise it will complicate this map too much. Just
07 write as of '96-'97, if that's correct.

08 A The blue would be as of '96.

09 Q That was the first stage of your remediation
10 process, I assume, was to identify the presence and
11 potential sources of PCBs on the Anniston facility
12 property?

13 A And the immediate ditches leading from the
14 facility.

15 Q All right. Do we have on this map, Exhibit
16 1, the actual property boundaries for the plant? You
17 know, this crosses under the railroad track and I
18 assume Solutia does not own that?

19 A Right.

20 Q What areas on the map are not Solutia
21 property?

22 A As of '96?

23 Q Right. We'll talk about what you did later
0047
01 by the property.

02 A All the areas identified in blue would be on
03 -- with the exception of a piece right about in here
04 which was Morris Hill Church, the rest of the blue
05 areas would be Monsanto property (indicating).

06 Q Draw the church in there for me. Use
07 whatever color you want.

08 A (Witness complies.)

09 Q Just write "church."

10

11 (Brief recess taken.)

12

13 Q Before we took a break we were working on
14 Exhibit 1.

15 A And just to clarify, like putting the church
16 in, there were other properties that at mid-'96 we
17 didn't own, but we do currently own.

18 Q Have you bought the church?

19 A We've bought -- this particular facility I
20 might have to let Adam answer that.

21 MR. PECK: We paid two and a half million
22 dollars, so I don't know if we have it or not.

23 Q After identifying the presence and sources
0048

01 of PCBs in 1996 on the Monsanto property in Anniston,
02 what was your next step in the remediation -- just so
03 the record is clear, we've talked about remediation,
04 could you explain for us what, in professional terms
05 to a geologist, what remediation means?

06 A Remediation means identifying areas that are
07 impacted, determining the extent of that impact, and
08 then putting in place controls that mitigate or
09 eliminate the potential for those impacted areas or
10 sources from continuing to impact anything, you know,
11 any other adjacent areas.

12 Q Well, were those your goals here, then, for
13 the Monsanto plant and the surrounding area when you
14 arrived there in 1996?

15 A The goals were to identify areas impacted
16 and to put together a remediation plan.

17 Q What you've shown us here on Exhibit 1 is,
18 in fact, the areas that you identified in the first
19 step of this remediation process?

20 A First several steps.

21 Q Well, it may have taken numerous steps, but
22 the first goal is to identify the areas with
23 contamination, right?

0049

01 A As of mid-'96 these were the areas, yes, at
02 the point I came onto the project and moved to
03 Anniston.

04 Q Well, I guess I'll jump ahead of myself.
05 When you say as of '96, are there other areas now that
06 have been identified as containing PCBs that's in the
07 scope of your remediation process?

08 A Yes.

09 Q Where are those? You don't have to put them
10 on this map.

11 A The consent order of '96 identified that we
12 were to continue investigation of impacted areas
13 around the plant, that investigation in particular to
14 the north of the plant.

15 Q Across Tenth Street?

16 A Across the railroad tracks. Between the
17 railroad tracks and Tenth Street. We investigated
18 that in '96 and determined there was a similar
19 drainage ditch that led to a storm water culvert that
20 had impacted sediments and soils.

21 Q Well, I misled you. Take the red pen and
22 show me where those are on Exhibit 1.

23 A (Indicating.)

0050

01 Q Again, write "PCBs".

02 A I've got to do my blue line.

03 Q Do we need --

04 A And then between Tenth Street and the
05 railroad track, that would be the areas.

06 Q Beyond what you've just added to Exhibit 1,
07 are there any other areas now that you've identified
08 as part of your remediation process that contain PCBs?

09 A Off the map we did some sampling in Snow

10 Creek.

11 Q When did you do that?

12 A That was part of -- that was done before I
13 came down. I believe it was done as part of the '95
14 consent order.

15 Q Which company did the testing for Monsanto?

16 A Garretty and Miller.

17 Q Did you review those results?

18 A Those were already conducted at the point I
19 came down. I've seen maps and presentations of that
20 data.

21 Q But you are familiar with the results is my
22 point?

23 A Right.

0051

01 Q What were the results of the Snow Creek
02 test?

03 A I don't remember the exact numbers, but we
04 had detections of PCBs in the sediment at the bottom
05 of Snow Creek that declined as you went downstream.
06 They were -- in my recollection would be that they
07 were in the ten to around fifty part per million
08 range.

09 Q At the highest point?

10 A That I recall. I don't remember exactly
11 what the levels were.

12 Q Why was Monsanto sampling Snow Creek in
13 1995?

14 A The ditches that led from the east of the
15 plant went into Snow Creek and we had detected PCBs in
16 those ditches, so it was a matter of carrying them to
17 determine if there were impacts in Snow Creek.

18 Q A matter of carrying them? I misunderstood
19 what you said or didn't hear you correctly. What did
20 you say?

21 A Ditches that flowed from the east side
22 carried storm water, conveyed storm water that might
23 have eroded impacted sediments.

0052

01 Q And by "impacted sediments" you mean that
02 sediment contained PCBs?

03 A Levels of PCBs, yes.

04 Q Here on Exhibit 1 where you've drawn the
05 east side drainage ditches --

06 A That's basically a series of ditches that
07 lead down to Tenth Street and under the railroad track
08 and then turn east to Snow Creek.

09 Q What other potential sources for PCBs did
10 you find between the Anniston plant, the south
11 landfill and the railroad track other than Monsanto?

12 A I would say we didn't identify any sources,
13 we identified areas that were impacted.

14 Q Sure. And we've noted all of those on the
15 map, the impacted areas?

16 A Right.

17 Q After determining that Snow Creek had
18 certain levels of PCBs, was there any efforts to
19 remediate that area?

20 A No.

21 Q Was there some reason that there wasn't?

22 A Well, there was no -- at that point in time
23 there was no efforts other than the west end landfill

0053

01 was the only remediation that had been planned and
 02 approved by ADEM.
 03 Q We started talking about Snow Creek because
 04 you mentioned that other areas off site had been
 05 tested for PCBs and you mentioned Snow Creek. Are
 06 there any other areas off site, meaning off the
 07 Solutia property, that have since been tested and you
 08 found the presence of PCBs?
 09 A As part of our investigation and the consent
 10 orders around the plant, this would be the extent of
 11 it.
 12 Q What about the neighborhoods across Tenth
 13 Street or to the west of the west landfill?
 14 A Right. That was all part of the
 15 investigation that was done that ascertained the
 16 levels that were found in the ditches.
 17 Q I hate to show my ignorance about the area
 18 around the plant, but on this map Exhibit 1 where are
 19 or were homes located before your remediation efforts
 20 began?
 21 A There are homes to the west of the west end
 22 landfill.
 23 Q Could you designate those on there, where
 0054
 01 they were in -- use one of the colored pens. This is
 02 as of '96 before any of them were purchased and
 03 destroyed, okay?
 04 A This was as of the investigation in '96.
 05 Q Okay.
 06 A In this general area here (indicating).
 07 Q With reference to Exhibit 1 and the areas of
 08 surface water flow that we've noted on there, how long
 09 had the water flowed in these directions to your
 10 knowledge?
 11 A I can't speak historically, but storm water
 12 flowed there in the past, prior to '96.
 13 Q Well, as a geologist, didn't you try to make
 14 some determination, or just looking at the amount of
 15 erosion besides the ditches and any other factors,
 16 couldn't you determine whether or not that water had
 17 flowed in that direction for a period of years as
 18 opposed to months?
 19 A Our investigation didn't determine there
 20 were any other ditches, so the water would have flowed
 21 in those ditches for some period in the past, yes.
 22 Q Well, isn't it fair to say that this is the
 23 direction the water flowed as noted on Exhibit 1,
 0055
 01 that's the way it flowed for many, many years?
 02 A I would say years in the past. I couldn't
 03 say how many.
 04 Q Okay. What was the next step in your
 05 remediation process after Exhibit 1? You've
 06 identified areas that had levels of PCBs. Now, you
 07 told me the next step was to determine the extent of
 08 impact; is that right?
 09 A Well, the investigation determined the
 10 extent of impact.
 11 Q By that you mean the areas that contained
 12 PCBs; is that right?
 13 A Right.
 14 Q And then the next step would be placing the
 15 controls to mitigate or stop the migration of PCBs; is

16 that right?
17 A Well, it would be doing an engineered design
18 and work plan that would be submitted -- was submitted
19 to ADEM for their review and approval.
20 Q Have you, Solutia, actually implemented
21 these changes in flow of surface water?
22 A We've done the remediation controls on those
23 PCBs areas.

0056
01 Q That's your next map.
02 A Good.
03 Q You did so well on the first one, let's try
04 a map showing the existing water flows as of today
05 that are the result of Solutia or Monsanto's
06 remediation efforts.
07 A (Witness complies.) Are you wanting me to
08 show where storm water flows at this point in time?
09 Q Right. The directive is to indicate on that
10 drawing where the storm water now flows as a result of
11 Solutia's remediation efforts.
12 A Okay.
13 Q Put the west landfill in there too.
14 A I will put a new feature on this one. That
15 would be a current depiction of storm water flow.
16 Q We'll mark this drawing as Exhibit 2.
17 (Plaintiff's Exhibit
17 Number 2 was marked for
18 identification.)
18

19 Q Explain for us, please, what you've done
20 here on Exhibit 2.
21 A This still goes that way. That hasn't
22 changed (indicating). What I've shown is where storm
23 water has been captured, piped and converges all to

0057
01 one point down to Tenth Street.
02 Q Okay. On this drawing you have a series of
03 red lines and arrows, what are those?
04 A Those would be flow lines or pipes that
05 we've captured and conveyed storm water in.
06 Q Can you indicate for us which of these red
07 lines are pipes or if it's easier to say which one is
08 not?
09 A This would be pipe. Those would depict the
10 pipelines (indicating).
11 Q So all the others then are still open
12 ditches?
13 A These are all pipes (indicating). Storm
14 water flows across the surface prior to being captured
15 in the pipes.
16 Q Indicate on here for us where it's still
17 surface flow and not a pipe.
18 A Well --
19 Q In any of these red lines -- now, is this a
20 pipe?
21 A That's a ditch.
22 Q Please write "ditch" by that.
23 A All of this would be surface flow and not

0058
01 piped. I don't know how you want to depict that.
02 Q Well, we have an arrow here coming from the
03 south landfill to the east basin, is that a pipe or a
04 ditch?

05 A Ditch. This would be -- not a ditch, I
06 guess I would call it a swell, which would be a gentle
07 ditch. We can call that surface flow.

08 Q Where you've written surface flow for a
09 swell, if I'm correct that is for any water runoff
10 coming down from the southern area of the property
11 north, prevents it from passing over that swell to the
12 east, is that right, it channels it towards these
13 pipes here on Tenth Street?

14 A Right. Well, general topography does that.

15 Q You put in a berm or swell to keep the water
16 from --

17 A We put a berm in to cover the pipes in order
18 to ensure their integrity. That berm has the added
19 effect of stopping storm water and conveying it into
20 pipe.

21 Q What is the east basin for?

22 A That captures storm water off of the area
23 between the diversion channel and 202.

0059

01 Q Are there any existing ditches along 202
02 that are running into your east basin other than --
03 those are depicted -- all of them are depicted on
04 here, right?

05 A Right.

06 Q So this is still an open ditch along 202?

07 A It's a concreted ditch along 202.

08 Q How about this small area from the south
09 landfill to the ditch on 202?

10 A That would be surface flow.

11 Q Now, what is this diversion channel that's
12 on the south side of the south landfill?

13 A That captures the water that falls on the
14 land uphill of the south landfill. It captures it,
15 conveys it by pipeline underground to Tenth Street.

16 Q This may be an obvious question, but what is
17 the purpose for these diversions that you've created
18 here in the topography?

19 A The reasons are to convey, segregate what
20 was once a combined flow in the ditches, segregate
21 those flows in pipeline. And the specific reason for
22 the diversion channel is to remove that storm water
23 from flowing across the south landfill, diverting it

0060

01 around the south landfill.

02 Q I see. Where we have diversion channel,
03 you've dug -- I guess you call it a ditch here?

04 A Yes, ditch and berm.

05 Q And that prevented any water from coming --

06 A From that point on it captures the water up
07 the mountain from the landfill.

08 Q It keeps it from flowing over the top of the
09 landfill and converts it around the landfill?

10 A Exactly.

11 Q Now, was anything done similar to that with
12 regard to the west landfill?

13 A Well, I need to upgrade because the water
14 actually flows like that (indicating). I should
15 probably make that change too. There is a ditch, but
16 the surface water eventually gets in either of those
17 ditches.

18 Q Write "ditch" on Exhibit 1. That was an
19 existing ditch?

20 A There was a ditch there that we -- that is
21 still there today, yes.
22 Q When you first learned of the problems with
23 the west landfill, there was the presence of erosion
0061
01 across the top of the west landfill, is that right,
02 which flowed into this ditch that you've indicated on
03 each of your exhibits at the bottom of the landfill?
04 A I know that storm water flowed across there,
05 I'm not specifically aware of erosion.
06 Q Well, I was under the impression that that
07 was one of the reasons that it was first discovered
08 because the top had eroded and there was some
09 substance visible. You don't know anything about
10 that?
11 A I don't know the specifics about it.
12 Q But you've heard of it?
13 A I've heard that they found detections of
14 PCBs.
15 Q My point in asking all of this is the
16 erosion or the surface water that was flowing across
17 the top of the west landfill did flow into this ditch
18 that you indicated on your map?
19 A It would flow into that ditch, yes.
20 Q Was there anything done to alleviate the
21 flow of water across the top of the west landfill or
22 to divert the flow?
23 A Yes. The final grade and shaping of the
0062
01 landfill raised it such that only waters that landed
02 on the landfill would move across the surface.
03 Q So were there any changes made on or around
04 Highway 202 that prevented water from running up on
05 the south side of the west landfill; is that what
06 you're telling me?
07 A Unlike the south landfill there wasn't a
08 great deal of water that ran across from an uphill
09 position that ran across the west landfill.
10 Q Now, we still have rain water falling at
11 least on the west landfill that drains into the ditch
12 that you noted on this drawing, right?
13 A Yes.
14 Q Now, what was done to prevent any further
15 runoff of PCBs in surface water from the west
16 landfill?
17 A The remediation that was done on the west
18 landfill was to shape the top of the landfill so that
19 it drained properly and there weren't any low spots
20 that would retain water. A multi-layer cap was put on
21 that, which is a series of layers beginning with a
22 forty mil density polyethylene liner welded together
23 then on top of that a drainage layer and then a
0063
01 minimum of fourteen inches of soil and then seeded and
02 grassed.
03 Q How long has that been in place?
04 A The liner was in place in '96.
05 Q Well, when you say the liner, that's the
06 whole system, the plastic and the clay and the
07 seeding, isn't that what a liner means, it's not just
08 one piece?
09 A Right, a multi-layer.
10 Q What about the south landfill, did you do

11 anything similar to that?
12 A Similar to that. Same multi-layer landfill
13 cap, multi-layer cap was put on there. We finished
14 that in '97.
15 Q Show me on Exhibit 2 where you have
16 monitoring points for ground water and surface water
17 discharge.
18 A The exact location of monitoring -- we have
19 a monitoring network represented by these circles.
20 Q Okay.
21 A Monitoring for ground --
22 Q Those you've written around the south
23 landfill, are those ground water or surface water?
0064
01 A Ground water.
02 Q Every one of them?
03 A Yes.
04 Q Okay.
05 A Those would be the surface water and -- a
06 general description of the surface water and ground
07 water monitoring points (indicating).
08 Q Explain to us the reason for placing ground
09 water and surface water monitors.
10 A For ground water the first thing you
11 determine is the flow, the direction that ground water
12 flows in the subsurface. They are placed at a point
13 down gradient from a particular unit you're wanting to
14 monitor so you can see the ground water that flows
15 beneath that unit as it gets out from down gradient of
16 it. Surface water is a point that represents storm
17 water flow from an area uphill, upstream, so to speak,
18 of that monitoring point to determine --
19 Q To determine volume?
20 A You determine volume, flow and presence of
21 any impacts to that storm water.
22 Q By impacts you mean chemicals, including
23 PCBs?
0065
01 A You do a chemical analysis, yes.
02 Q Who monitors these monitors? Let me
03 rephrase that. Who checks the monitors?
04 A We have a permit with the State of Alabama
05 that requires semi-annual monitoring of the ground
06 water wells and reporting of those results to the
07 state. We have a contractor that does that sampling
08 and compiles the data for us. We submit the report to
09 ADEM.
10 Q Who compiles the data? Who is the
11 contractor?
12 A Golder and Associates.
13 Q It's semi-annual and when is the last time
14 it was -- the monitors were checked and a report was
15 made?
16 A It would have been the first quarter of '98.
17 MR. PECK: You're talking about ground water
18 now?
19 MR. LOWE: I'm talking about monitors,
20 period.
21 A There is separate reporting requirements for
22 both. So for ground water it was first quarter of
23 '98.
0066
01 Q What about surface?

02 A Surface water is governed by a different
03 regulation. We have an NPDS permit for monitoring
04 storm water from our facility, our properties. That
05 is done on a quarterly basis and those results are
06 reported to ADEM water division.
07 Q When was the last report made?
08 A We sampled in July of '98.
09 Q Did Golder and Associates also do the
10 surface water test?
11 A Yes.
12 Q And then they give you their results and you
13 pass them along to ADEM, is that how it works?
14 A They give us the results and we pass them
15 along, yes.
16 Q So obviously you read the reports and you
17 see the results?
18 A Right.
19 Q The result of the ground water test in the
20 first quarter of '98, did it show the presence of
21 PCBs?
22 A No.
23 Q Did the surface water test in July of 1998
0067 show the presence of any PCBs?
02 A No.
03 Q Do you know anyone named Blake Hamilton?
04 A Yes.
05 Q Who is that?
06 A It's a site manager for Solutia.
07 (Plaintiff's Exhibit
07 Number 3 was marked for
08 identification.)
08
09 Q Let's mark this as Exhibit 3. It appears
10 that it is a document that says ADEM discharge
11 monitoring report for Solutia dated April-June of
12 1998. What is that document? Up at the top it says
13 April-June and then the date at the bottom is July
14 9th, 1998.
15 A Right. This would have been the sampling
16 done for the second quarter monitoring requirement for
17 the MPDS permit.
18 Q Does that indicate the presence or absence
19 of PCBs?
20 A These results show that in second quarter
21 there were PCBs detected in storm water.
22 Q So when you answered my question earlier you
23 were talking about the first quarter results, is that
0068 right, when you said there were no PCBs?
02 A I was talking about the third quarter
03 results. These are second quarter results.
04 Q I'm sorry. What did you do after getting
05 these results noted on Exhibit 3 to prevent any
06 further discharges of PCBs from the Monsanto/Solutia
07 property?
08 A We submit these on a quarterly basis and we
09 continued our remedies that were ongoing around the
10 plant.
11 Q Prior to the date noted on Exhibit 3, after
12 your monitors were in place did Monsanto/Solutia ever
13 detect the presence of PCBs in their monitors?
14 A State that again.

15 Q That wasn't very clear. You noted all the
16 monitors that you have in place here on Exhibit 2.
17 A Right.
18 Q Those were done in your remediation efforts
19 to divert the flows of water and also to detect any
20 runoff of chemicals from the plant sites; is that
21 right?
22 A The lines that are shown on Exhibit 2
23 represent the current and future flow of storm water.

0069
01 The surface water monitoring points are placed
02 strategically to monitor and be able to sample that
03 flow.
04 Q My question then is prior to July of '98,
05 the date that Exhibit 3 was signed, had any of the
06 monitors on the Monsanto Solutia property detected the
07 presence of PCBs in ground water or surface water?
08 A Sampling of storm water from the plant from
09 the areas we own showed low levels of PCBs in those
10 samples.
11 Q When was the -- what was the date of the
12 report immediately prior to Exhibit 3 then?
13 A It would have been -- I don't know the
14 specific date, but it would have covered the time
15 frame from January to March, end of March.
16 Q You believe in that time period PCBs were
17 detected in monitors?
18 A In the storm water samples, yes.
19 Q Storm water, that's the surface water, the
20 water that's running across the top of the properties?
21 A Right.
22 Q Which are still running into the Tenth
23 Street ditch; is that right?

0070
01 A Into the Eleventh Street ditch, yes.
02 Q Well, here on Exhibit 2 we've got Tenth
03 Street on here.
04 A Well, there was no ditch on Tenth Street, it
05 goes to pipe, the city storm water sewer.
06 Q So it's going under Tenth Street over to a
07 ditch at Eleventh which flows east to Snow Creek?
08 A Right.
09 Q When you began your remediation efforts at
10 the Monsanto plant in Anniston, did you ever
11 consider -- and when I say "you," Monsanto, Solutia or
12 management.
13 A Uh-huh.
14 Q -- ever consider removing any of the
15 materials that were present in the west landfill or
16 the south landfill?
17 A Again, at my presence the investigation and
18 the approved remedy had already been approved, so I
19 wasn't a part of that.
20 Q Well, in talking with other people who have
21 been involved in the process, to your knowledge was it
22 ever considered, although you may not have been
23 involved?

0071
01 A I can't say what was specifically
02 considered. I wasn't a part of that.
03 Q I understand, but people talk. They may
04 have said, you know, we thought about taking that
05 stuff out of there.

06 A Again, I can't speak for other people.
07 Q You don't recall anyone ever saying that?
08 A I don't recall that. I wasn't a part of
09 that discussion.
10 Q Well, was it discussed?
11 A I have no idea.
12 Q Okay. I don't know that it was ever
13 discussed, is that what you're trying to say?
14 A I don't know whether it was ever discussed.
15 Q Okay. What else has been done in your
16 remediation efforts in addition to the piping and the
17 diversion, or the diversionary system that you put in
18 and noted on Exhibit 2, what else has been done? You
19 also noted sampling in Snow Creek.
20 A Right.
21 Q Has there been anything else done?
22 A We've completed the sampling of all the
23 areas, the ditches leading from any of the property.
0072
01 we have implemented the remedies that we've discussed
02 here. We've developed additional work plans for other
03 projects. We've been doing the site investigation for
04 the RCRA facility investigation, which involves
05 sampling and ground water monitoring.
06 Q What other projects are you talking about?
07 You said other projects, what do you mean by that?
08 A Well, we've submitted a work plan to
09 investigate the -- determine an engineering controls
10 for this ditch along the railroad tracks.
11 Q Okay.
12 A We've designed and submitted and are
13 currently doing the remedy of the ditch north of the
14 railroad tracks west of Clydesdale, as well as
15 developing a work plan to do the investigation from
16 the railroad tracks on Snow Creek downstream.
17 Q What are you doing with regard to remedies
18 for the ditch north of the tracks and north of
19 Clydesdale?
20 MR. PECK: West of Clydesdale is what he
21 said.
22 A Well, there are two ditches. What we're
23 currently doing is north of the tracks, west of
0073
01 Clydesdale. We're doing the similar project that we
02 did east of Clydesdale, which is to capture storm
03 water in a pipe and direct pipe back to the storm
04 water piping on Tenth Street and then closing --
05 covering with synthetic fabric and a minimum of
06 fourteen inches of soil those impacted areas adjacent
07 to the ditch in the Tenth Street area.
08 Q Did you do any testing of the Tenth Street
09 area for PCBs?
10 A Yes, that was this area on Exhibit 1.
11 Q Okay. Just for the record, it's on the map
12 between the railroad track and where you've indicated
13 Tenth Street. Were homes in that area?
14 A There were some homes, yes.
15 Q What levels of PCBs were detected in that
16 area, what was the range?
17 A I don't know specifically. Honestly, I
18 don't know the specific concentrations.
19 Q Well, as part of the remediation process did
20 Monsanto determine that those properties or those

21 homes should be purchased?
 22 A As part of our overall remediation project
 23 and strategy we attempted to buy properties that were
 0074 impacted along the drainage ditches knowing that we
 01 were going to be having to reroute the ditches, put it
 02 in pipe, and implacing the cover on those materials
 03 and we attempted -- and in this case purchased the
 04 properties that we were going to have to do that work
 05 on.
 06 Q when you say you are going to reroute the
 07 ditches and put in pipe, was the purpose for doing
 08 that to prevent the further erosion or migration of
 09 affected soil?
 10 A To route and eliminate the flooding in the
 11 area as well as eliminating the potential for storm
 12 water to erode any other remedies that we put in
 13 place.
 14 Q which remedies do you think would have been
 15 eroded?
 16 A well, any of the areas if you just put soil
 17 down over it and didn't control the storm water would
 18 have the potential to erode.
 19 Q These areas where you bought the homes and
 20 found the presence of PCBs, was it one of your stated
 21 goals to prevent this soil containing PCBs in those
 22 area from being washed downstream?
 23
 0075 A Migrated with storm water downstream, yes.
 01 Q Tell us how PCBs will migrate in storm
 02 water.
 03 A The characteristics of PCBs are that they
 04 are very insoluble in water, that they have an
 05 infinity, an attraction to carbon molecules that would
 06 be present in the sediment or soil so they would
 07 adhere tightly to those sediments, fine grain
 08 sediments which would have carbon molecules, naturally
 09 occurring carbon molecules. As the storm water would
 10 move through those ditches the storm water would have
 11 an opportunity to erode those fine sediments and move
 12 them along in suspension with that storm water.
 13 Q In your training as a geologist, have you
 14 studied sediment flows particularly with regard to
 15 PCBs?
 16 A Not to any great deal, no.
 17 Q what's your source of knowledge and
 18 information then about PCB migration?
 19 A It is my general knowledge of PCB
 20 characteristics from a chemical standpoint as well as
 21 assistance from others on our team that are
 22 specialists in sediment transport.
 23
 0076 Q who are they?
 01 A It would be Mark Brown.
 02 Q So then you refer to him as the expert on
 03 sediment travel then?
 04 A Yes.
 05 Q what else have you done in the area of the
 06 homes that used to surround the plant? You've piped
 07 some of the ditches.
 08 A Uh-huh.
 09 Q Has anything else been done to prevent storm
 10 water from carrying off PCBs in soil?
 11

12 A The remedies that we have completed or are
13 in the midst of completing all have that as a primary
14 focus to mitigate any potential for PCBs to migrate.
15 Q Well, how many acres are we talking about?
16 A I would -- I don't know the exact number
17 offhand, but the areas that we have remediated for the
18 presence of PCBs would be roughly in the fifty acres.
19 Q You also mentioned that you were doing
20 investigations on the railroad from Snow Creek
21 downstream, how far have you gotten into that, what
22 have you done?

23 A The investigation in Snow Creek was

0077

01 conducted in 1995.

02 Q Right, I remember you saying that.

03 A That investigation took it to a point
04 downstream where Snow Creek is concrete lined and
05 there are no sediments in the bottom of that concrete
06 channel. And that investigation, as I stated earlier,
07 showed decreasing levels downstream to the point we
08 get to the concrete lined ditch -- creek.

09 Q Do you have any reason to believe that the
10 sediment containing PCBs are going to adhere to the
11 concrete portion of that ditch?

12 A No.

13 Q You talked about the migration of PCBs in
14 sediment and particularly in fast moving water, how
15 far could these PCBs travel in your opinion?

16 A I can't render an opinion. It depends on
17 the dynamics, the size and range of storms and the
18 creeks that are involved.

19 Q Would it be unreasonable to believe that
20 PCBs could be carried from these Tenth Street pipes
21 where it flows from the Solutia property at Tenth
22 Street all the way to Choccolocco Creek?

23 A I can't say that. We're in the midst of an

0078

01 investigation that's going to determine what the
02 downstream impacts are.

03 Q But as a geologist, I mean, is that
04 unreasonable to believe that that could happen?

05 A It's not unreasonable to believe that storm
06 water flowing in Snow Creek would continue downstream
07 to Choccolocco.

08 Q It also carries the sediments that contain
09 PCBs?

10 A I can't say that.

11 Q Why not?

12 A Because we don't have any information at
13 this point to say that that's the case.

14 Q I'm just asking you as a geologist, and you
15 apparently have some experience in water flow and
16 diverting surface water so as that it won't carry PCBs
17 off this property. And we're talking about -- how
18 many acres are we talking about here of all of this
19 solutia property in Exhibit 2?

20 A Exhibit 2 would basically be about four
21 hundred acres.

22 Q Okay. You're qualified to administer this
23 vast program of water diversion and flow and sampling,

0079

01 but you can't tell me that you think PCBs could travel
02 in sediment for any particular distance?

03 A I can't tell you what distance. We're
04 looking at the measures around the plant to mitigate
05 those very low levels that are in storm water or were
06 in storm water, and what their final disposition is.
07 We don't know at this point.
08 Q Well, let's assume we find PCBs in Snow
09 Creek, what is Solutia going to do about it?
10 A Solutia is going to investigate the presence
11 of PCBs and determine -- those PCBs that we're
12 responsible for we'll take responsibility for and
13 design, you know, an engineered control with the
14 approval of ADEM and implement that design.
15 Q How would you go about determining which
16 PCBs you are responsible for?
17 A We'd look at the pattern, location and
18 distribution of PCBs.
19 Q Pattern, location and distribution. How do
20 you determine -- explain those to me.
21 A We would sample or we will sample sediments
22 in Snow Creek and look at the trend of concentrations
23 as we move down the creek. Should there be a rise in
0080 concentration that would be anomalous, we would look
01 to where that rise in concentration might be coming
02 from.
03 Q Have you made any effort to determine
04 whether there are any other potential sources along
05 Snow Creek to Choccolocco Creek for the presence of
06 PCB -- let me rephrase that.
07 Have you made any investigation to determine
08 whether any other person or entity is responsible for
09 placing PCBs in Snow Creek or Choccolocco Creek?
10 A Not at this point.
11 Q Is that something that you expect to do?
12 A Yes, look at the entire drainage basin that
13 goes into Snow Creek and look at industries or
14 properties that would drain, storm water would drain
15 into.
16 Q Sitting here today do you know of any such
17 industries?
18 A Specifically just one.
19 Q Which one is that?
20 A Tull Manufacturing.
21 Q Have you made an effort to determine what
22 volumes of PCBs are expected or which you expect Tull
0081 to have released?
02 A No.
03 Q How do you know about Tull Chemical?
04 A My understanding of it is prior to my coming
05 on the project that there was some citing by ADEM as
06 to possible releases of PCBs.
07 Q How many years ago was that?
08 A I really don't remember.
09 Q You don't remember the volume?
10 A No.
11 Q You mentioned concentrations downstream, if
12 there is a higher concentration downstream that might
13 present an anomaly, I think you said. PCBs are
14 heavier than water, aren't they, which means they sink
15 if placed in water?
16 A I'm not sure of all forms of PCBs, but I
17 think generally they are denser than water.

18 Q Particularly if they are adhering to
19 sediment?
20 A They would fall out, yes.
21 Q So if you come to a deeper area of the
22 creek, so to speak, wouldn't you expect to find
23 heavier concentrations there rather than a shallow
0082 fast moving portion of the creek?
02 A Not necessary.
03 Q Why not?
04 A You might find a thicker layer of sediment
05 deposited there, but I can't say what the
06 concentrations would be.
07 Q What about on creek banks where in times of
08 flooding it was exceeding those banks, would you
09 expect to find more PCBs there?
10 A Not necessarily.
11 Q Why not?
12 A Again, you would find sediment that may have
13 settled out from storm water, but I can't say what
14 concentrations or presence of any chemical would be.
15 Q Let's go back to my initial question in this
16 area. How do you determine whether or not
17 Monsanto-Solutia is responsible for particular PCBs
18 that will be found in Choccolocco Creek and Lake Logan
19 Martin? How are you going to convince yourself or
20 deny that the PCBs are the result of activities by
21 Monsanto and Solutia?
22 MR. PECK: Object to the form of the
23 question.
0083
01 A The investigation that we're going to be
02 conducting will look at the sediments in the creek,
03 look at the storm flow, look at concentrations of
04 sediment, suspended solids in the storm flow. We'll
05 look at the presence of PCBs. At that point in time
06 once we've got that data we'll look at that and
07 determine what any or all sources of PCBs might be.
08 Q I apologize, but I'm just not clear. Even
09 though you look at the sediment and storm flow and the
10 suspended sediment in other sources, how is that going
11 to lead you to determine one way or the other whether
12 Monsanto-Solutia did or didn't release these PCBs or
13 allow them to be released into Snow Creek and
14 Choccolocco and on down to Logan Martin?
15 A Again as the investigation is completed and
16 we map the presence of PCBs in all the areas we
17 sample, we'll look back at other tributaries, other
18 drainages that come into Choccolocco Creek and Snow
19 Creek, which Snow Creek in and of itself is a
20 industrial drainage ditch and it has a lot of
21 industries along it, and look at the pattern of those
22 results.
23 Q What point can you rule out Monsanto?
0084
01 A I can't say because we're just now in the
02 early stages of that investigation.
03 Q When we started your deposition today we
04 talked about your investigation into past practices at
05 the plant just so you could get a flavor for what
06 discharges there may have been so you could patten
07 your remediation, do you remember that?
08 A Okay.

09 Q Do you remember that?
10 A Right.
11 Q In looking at those historical documents or
12 talking with some of the more tenured employees at the
13 plant about past practices regarding PCBs, did you
14 ever assess the volume in terms of pounds of PCBs that
15 were released on a monthly, daily or annual basis from
16 that plant?
17 A We knew that during the manufacturing of,
18 you know, the production of PCBs that there were
19 levels of PCBs in the stream leaving the plant, but as
20 far as total volumes, no.
21 Q Do you know the total volume of PCBs that
22 were being manufactured on an annual basis at the
23 Monsanto plant in Anniston?
0085
01 A That could probably be ascertained, but
02 personally I don't know.
03 Q Actually it was in the millions of pounds,
04 wasn't it?
05 A I can't say.
06 Q Okay. Knowing what you do about the ground
07 water -- not the ground water, excuse me, the surface
08 water flows off of the Solutia-Monsanto plant sites
09 that you noted on Exhibit 1 and the fact that
10 discharges were made over the period that PCBs were
11 manufactured at the Anniston site, isn't it fair to
12 conclude that some of those PCBs are likely to have
13 found their way into Choccolocco Creek?
14 A Again, I would say it's likely that storm
15 water flowing over those areas would have made their
16 way to Snow Creek and Choccolocco Creek.
17 Q And we've talked about storm water driving
18 or pushing sediment containing PCBs, right, we talked
19 about that?
20 A Storm water will migrate sediments, yes.
21 Q And isn't it likely that storm water flowing
22 across the Anniston plant prior to 1996 and perhaps
23 thereafter carried sediment that contained PCBs?
0086
01 A I can't say what was in those storm waters
02 other than they would have been representative of
03 storm water coming from our properties.
04 Q We know as of last year just from your own
05 monitors that PCBs were still being released into the
06 water system flowing out of this property?
07 A At very low levels storm water coming off of
08 the plant did show very low levels of PCBs.
09 Q Okay. That was after you put in this
10 elaborate drainage and monitoring system?
11 A That was during the implementation of those,
12 yes.
13 Q But now you're at zero discharge, you're
14 convinced you're cured?
15 A That's our --
16 Q The most recent report I grant you says
17 none.
18 A Right.
19 Q But we're talking about decades of PCB
20 production and decades before you put in this drainage
21 system, okay?
22 A Right.
23 Q And you're unwilling to say that it's fair

0087

01 to believe that PCBs from this plant site migrated in
02 storm water and sediment all the way to Choccolocco
03 Creek?

04 A I'm saying I have no data to support that.

05 Q Well, do you have any data to dispute it?

06 A I would say that we don't have storm water
07 data to say one way or the other.

08 Q Well, you investigated existing storm water
09 drainage when you showed up there in 1996?

10 A Uh-huh.

11 Q And you also studied the historical
12 practices of the plant in terms of discharging from
13 its production system, didn't you?

14 A We investigated where storm water was
15 flowing currently.

16 Q All right. But you still don't have any
17 basis to determine one way or the other whether any of
18 these PCBs that are presently existing in Choccolocco
19 Creek and Lake Logan Martin, you have no reason to
20 believe that they came from Monsanto, is that your
21 testimony?

22 MR. PECK: Object to the form of the
23 question.

0088

01 A My testimony is that for those areas around
02 the plant where we are currently in the midst of
03 remedying we have taken responsibility for those PCBs.
04 As we investigate Snow Creek, which again is an
05 industrial drainage ditch that may have in fact used
06 PCBs in the past, storm water flowing from those
07 industries also went into Snow Creek. Choccolocco
08 Creek, although called a creek is a very large
09 drainage system, would also take runoff from
10 industries along it as well as the Coosa River that
11 goes into Logan Martin has upstream drainage for a
12 long way all the way up into northwest Georgia,
13 industries draining into that.

14 Q At what point, then, do you determine that
15 Monsanto or Solutia is liable to remediate the PCBs
16 that exist at Choccolocco Creek or Lake Logan
17 Martin?

18 A At a point in time we understand where they
19 are, what their concentration and distribution is, we
20 will be able to make those.

21 Q I guess it's just my lack of scientific
22 knowledge, I mean, these PCBs don't have tags on them
23 where you can detect who they belong to. Now, how do

0089

01 you determine just from the fact of where they are
02 located and their contribution?

03 A Concentration.

04 Q Concentration, I don't know any science or
05 spelling. With those two factors, how do you trace
06 those back to Monsanto?

07 A Again, we'll look at the areal distribution
08 and vertical distribution in the sediment if they're
09 present and determine where the likely direction those
10 would have come from.

11 Q Okay. It's getting a little more clear
12 every time you talk to me. The areal distribution,
13 you take aerial photographs?

14 A No.

15 MR. PECK: Area, not aerial.
 16 Q He said aerial. So explain that to us.
 17 What does that mean? People outside this room are
 18 going to hear this some day.
 19 A We'll sample the extent of Snow Creek and
 20 Choccolocco Creek and put all of that into a data base
 21 and on a map and look at that distribution in area.
 22 Q Then vertical distribution in sediment, what
 23 do you mean by that?
 0090
 01 A During the investigation we'll take profiles
 02 in depth in the sediment.
 03 Q What is that going to show you?
 04 A It's going to show you what the historical
 05 sediment deposition is.
 06 Q What is that going to tell you, though? I
 07 understand that, I mean, it's going to have slices of
 08 sediments, you know, at various levels. It may have
 09 PCBs in the middle. What is that going to tell you?
 10 A It's going to tell you during a given time
 11 frame what the distribution of sediments and the
 12 presence or lack of presence of PCBs in those
 13 sediments.
 14 Q Is that going to work necessarily in a fast
 15 moving creek like Choccolocco Creek that has a rock
 16 bed?
 17 A I'm just telling you what our investigation
 18 is going to look at what the bottom of Choccolocco
 19 Creek looks like.
 20 Q Have you ever done this before or is this
 21 something Mr. Brown is telling you?
 22 A This is what our team has devised and it's
 23 been approved, at least the implementation of the work
 0091
 01 plan has been approved, by ADEM. Those on our team
 02 are experts on sediment transport.
 03 Q Why did you wait until 1998 to start on
 04 this, this regarding Choccolocco Creek and sampling
 05 and Logan Martin?
 06 A Well, the strategy that we developed with
 07 ADEM was to concentrate on those areas around the
 08 plant looking at impacts and ditches and soils
 09 eliminating those low level potentials to migrate into
 10 storm water. At a point in time we got all of those
 11 projects done, and considering the fact that the Snow
 12 Creek sample we had done showed declining
 13 concentrations downstream, that at a point in time we
 14 had completed all the projects around the facility we
 15 moved out into Snow Creek and move downstream into
 16 Choccolocco Creek.
 17 Q What are Monsanto's or Solutia's intentions
 18 regarding remediation if you find that the PCBs are
 19 traceable to Monsanto?
 20 A At that point in time we'll take
 21 responsibility for those PCBs and develop an
 22 engineered control remediation for those sediments.
 23 MR. LOWE: Let's take a lunch break.
 0092
 01 (Lunch recess.)
 02 Q All right. Before we took a break for lunch
 03 we were talking about your investigative process which
 04 involved looking for other potential sources of PCBs
 05 along Choccolocco Creek and Snow Creek and Lake Logan

06 Martin, and you mentioned looking to Georgia. What
07 were you talking about? Could you explain what you
08 meant?
09 A What we're looking at as we move out just as
10 we're around Snow Creek we'll be looking at
11 tributaries or ditches that would add storm water to
12 Snow Creek, similarly Choccolocco Creek. When you get
13 to Logan Martin, Logan Martin is made up of the Coosa
14 River chain, so we'll be looking upstream of
15 Choccolocco Creek and looking at what impacts or
16 potential impacts there might be upstream on the Coosa
17 River system.
18 Q You particularly mentioned Georgia, though.
19 A Well, it goes up to Georgia.
20 Q Is there any particular location you were
21 thinking about in Georgia?
22 A All locations on the Coosa River system.
23 Q Okay. Well, how would PCBs that emanate in

0093
01 Georgia make their way all the way down through the
02 Coosa River chain into Lake Logan Martin?
03 A Through storm water. There's a current in
04 Logan Martin that, you know, carries water. It's not
05 a stagnant body.
06 Q And it would move along in sediment, is that
07 right, or it can also move along in suspended water?
08 A Again, we're early in the stages of
09 understanding that system, but it has the potential to
10 move in suspended solids in water, suspended in water.
11 Q Okay. You're not waivering on me, you're
12 saying it could come all the way from Georgia?
13 A Right.
14 Q PCBs?
15 A It could come from any tributary or any
16 location that drains into Coosa River.
17 Q As well as the Monsanto plant site?
18 A As well as anything upstream of Logan
19 Martin.
20 Q Let's refer back to Plaintiff's Exhibit 1
21 which is your drawing of how the creek system and
22 discharge system existed at the plant site when you
23 first arrived there in 1996.

0094
01 A Uh-huh.
02 Q On this Exhibit 1 there is a notation that
03 says plant discharge and there's an arrow to it, and
04 it's my understanding that that was a pipe that came
05 out from under the vents. It's beneath the plant; is
06 that right?
07 A That --
08 MR. PECK: Are you talking about as he
09 inherited it in '96?
10 MR. LOWE: Right.
11 Q Let's talk about that first, how you
12 inherited it.
13 A That is a pipe that is visible on Clydesdale
14 that takes storm water collected in storm sewers on
15 the south and east portion of the plant, it comes out
16 that location.
17 Q Did you make a determination as to whether
18 or not there had ever been a storm water or a drain
19 that was used for disposal of by-products or wastes in
20 the manufacturing process?

21 A During the manufacture of PCBs storm
22 washdowns and waters from that unit as well as storm
23 waters that fell within that unit would come out that

0095
01 location.

02 Q Same spot as we have on Exhibit 1 that says
03 plant discharge?

04 A Right.

05 Q Once you came on-site in 1996, I know you
06 already testified that you did testing for PCBs in the
07 area of this plant discharge and you in fact found
08 some as noted by your blue lines that you have on
09 Exhibit 1. How many pounds of PCBs did you find at
10 this site where it says plant discharge? When I say
11 "you," I mean Monsanto or whoever tested on Monsanto's
12 behalf.

13 A We never determined any quantity.

14 MR. PECK: You mean right there

15 (indicating)?

16 MR. LOWE: Yes.

17 Q What was the PCB reading at the open of the
18 plant discharge sheet?

19 A I don't recall the specifics, but it was in
20 the low part per billion range.

21 Q Per billion?

22 A Part per billion.

23 Q Where did all those PCBs go that were

0096
01 discharged from there?

02 MR. PECK: Object to the form. No

03 foundation.

04 Q If you know.

05 A I can't speculate where they went.

06 Q They're persistent chemicals, aren't they?

07 A They have a very low degradation.

08 Q Which means they'll stay in the environment
09 for many, many years?

10 A They'll stay adhered to sediments and
11 residues, yes.

12 Q What is the estimated life then of a PCB
13 attached to sediment? Have you ever made that
14 determination?

15 A Not me specifically.

16 Q Have you ever read anything about that?

17 A Just that they will be persistent and
18 stay -- reside, you know, where they have been
19 distributed. As far as degradation rates, I can't
20 speak to that.

21 Q Have you done anything to keep abreast of
22 new information about PCBs and remediation processes
23 for PCBs?

0097
01 A I'm working with Bob Kaley and Mark Brown
02 using them as a resource. I have discussions with
03 them about current understandings and their
04 understandings of current assessments of PCBs.

05 Q So it's fair to say, though, you're not
06 attending seminars on PCB remediation or subscribing
07 to periodicals that discuss PCB remediation?

08 A Not me specifically, no.

09 Q So your source and sole source of
10 information regarding PCB remediation is Bob Kaley and
11 Mr. Brown?

12 A That would be my primary source.
 13 Q What in your opinion as a geologist happened
 14 to the PCBs that were originally discharged in this
 15 area on Exhibit 1 that says plant discharge?
 16 MR. PECK: Object to the form. No
 17 foundation.
 18 A Again, all I can speak to is that during the
 19 time that we were producing PCBs and since then storm
 20 water has flowed across those areas and storm water
 21 flows into Snow Creek.
 22 Q Well, is that your way of telling me that
 23 the PCBs were most likely carried downstream in
 0098 sediment and in storm water?
 01 A We don't know the amount or distribution of
 02 that. We know that there are impacted sediments in
 03 Snow Creek and we're going about doing the
 04 investigation to determine what those downstream
 05 impacts are.
 06 Q I understand you're doing an assessment to
 07 see how much is there. I'm just asking you as a
 08 geologist isn't it reasonable to believe since we
 09 don't have a high concentration of PCBs here at the
 10 plant discharge site out of the drain where you state
 11 you know or heard that they were discharging PCBs
 12 during the manufacturing process, we don't find high
 13 levels there, so where did they go in your estimate or
 14 estimation as a geologist?
 15 MR. PECK: Object to the form of the
 16 question. No foundation.
 17 A Again, my understanding would be that they
 18 went in the ditches and had the potential to move
 19 downstream.
 20 Q Certainly they have the potential to move
 21 downstream, but is it reasonable to believe that they
 22 did move downstream?
 0099
 01 A If they were attached to sediments that were
 02 in that storm water, they would have a chance to move
 03 downstream.
 04 Q Did they evaporate?
 05 A I can't speak for the past. I'm here to
 06 look at what the residuals are and what those impacts
 07 are.
 08 Q Well, your two sources of PCB knowledge, Bob
 09 Kaley and Mr. Brown, have they ever told you that
 10 these PCBs evaporate?
 11 A Not to my knowledge.
 12 Q Actually they tell you that they are very
 13 persistent chemicals in the environment; is that
 14 right?
 15 A They tend to be very stable, yes.
 16 Q And they travel with the sediment downstream
 17 during periods of rain and storm water runoff?
 18 A If that storm water erodes them, they would
 19 move, yes.
 20 Q Are you the person that is dealing directly
 21 with ADEM, Alabama Department of Public Health, and
 22 the EPA or is that someone else?
 23 A Bob Kaley and I are the primary contacts.
 0100
 01 Q Who do you deal with at ADEM?
 02 A Our current permit engineer is Jim

03 Grossiano.

04 Q Known as Rocky?

05 A I'm not sure. And Steve Cobb.

06 Q Who in Solutia has the final say so for what
07 remedial projects will be undertaken with regard to
08 this downstream investigation?

09 A As we go into the investigation our team
10 develops a plan that will be reviewed ultimately by
11 Mike Pierle.

12 Q Have there been made any budgetary
13 constraints for this project yet?

14 A No.

15 Q It's open-ended?

16 A We set reserves that are certain SEC
17 requirements that's determined at a point in time that
18 you have an idea, I think it's a fifty percent
19 probability of what your investigation or your
20 remediation costs are going to be, and you set aside
21 reserves for that. And that's a moving number.

22 Q Well, what is it today?

23 A I don't know the actual total reserves, but
0101

01 we've spent thirty million -- by the end of this year
02 we will have spent thirty million.

03 Q On what?

04 A On the activities and projects around the
05 plant.

06 Q Those being -- we talked about certain
07 things this morning, but just so this will be succinct
08 on one page of your deposition, what projects fell
09 within this thirty million dollar fee?

10 A Capping and covering of the south landfill
11 and west landfill, west end landfill, these storm
12 water piping projects, which consists of the diversion
13 channel and the piping to Tenth Street, the
14 construction of the east basin, the investigation
15 dating back to '94-'95, the RCRA facility
16 investigation that's going on now as well as property
17 purchases and the building of Bethel Missionary
18 Baptist Church.

19 Q The building?

20 A Uh-huh.

21 Q You're going to build another church
22 somewhere?

23 MR. PECK: Bethel. They've already built
0102

01 the other one.

02 Q I get those two confused. What reserves do
03 you have for the downstream investigation, monetary
04 reserves?

05 A Off the top of my head I don't know the
06 exact number of that, but we have -- I don't know the
07 exact number.

08 Q Well, has one been set?

09 A We have one that we projected the costs out
10 to beyond the year 2000, I think 2001 for
11 investigation and development of a remedial plan.

12 Q So you've projected it will take until at
13 least 2001 just to make an assessment of what may need
14 to be done?

15 A No, I'm saying we've got money set aside to
16 do the investigation. At a point in time we determine
17 that something needs to be done, you know, at that

18 point we'll allocate funds to do that.
19 Q Who set the projected cost reserve?
20 A That would have been Mike Pierle.
21 Q You don't recall even a ballpark of what's
22 been reserved to do this assessment?
23 A Well, the assessment cost for what we're
0103 going to do next year is a million and a half.
02 Q And that's going to be water and soil
03 sampling?
04 A Sediment, water, fish and soil from the
05 plant down into Logan Martin.
06 Q Why did you select that particular route to
07 investigate?
08 A That is -- in our permit, our RCRA
09 post-closure permit, one of the areas we are to study
10 is called AOCB, area of concern B, and that's
11 bracketed as downstream creeks from the facility to
12 Logan Martin.
13 Q What other assessments after the soil water
14 and fish sampling, what's next after that?
15 A After you gather all the data, if it's
16 determined by our team of experts and approved by ADEM
17 that there is sufficient data to go forward with a
18 corrective measure study, we'll go forward with that
19 and determine areas that need to be remedied.
20 Q How much is that going to cost? What have
21 you reserved for that?
22 A Corrective measure study?
23 Q Uh-huh.
0104 A We have an initial, I think, estimate of
02 three or four million. And that would include any
03 interim measures, any measures we need to do while
04 we're developing the overall strategy.
05 Q After the corrective measure assessment is
06 made, is there another step after that?
07 A That is --
08 Q Actual implementation?
09 A Submit it to the state and put out for
10 public comment and review, and upon approval by ADEM
11 concerning all comments we would implement that.
12 Q Have you reserved any funds for the
13 implementation?
14 A I'm not aware that we've got -- I'm not sure
15 what the reserves are for that. At this point in time
16 we don't know the extent, you know, and scope of that
17 corrective measures.
18 Q But there are reserves for the
19 implementation process, you just don't recall exactly
20 what they are?
21 A Right.
22 Q Is that right?
23 A Right.
0105 Q So does that mean you're more than fifty
02 percent certain that something is going to have to be
03 done in the implementation phase?
04 A We know that at a minimum there will have to
05 be monitoring that will have to be done in the future.
06 And again, at the point in time that we determine what
07 it is, we will reserve the appropriate funds.
08 Q Do you recall the ballpark number for the

09 implementation reserve?

10 A I really don't. I mean, I would say -- I
11 feel safe to say it was between five and fifteen
12 million.

13 Q Have you had any discussions with Mr. Kaley
14 or Mr. Brown regarding what their expectations are
15 with regard to remediation of Choccolocco Creek and
16 Lake Logan Martin?

17 MR. PECK: What was that, remediation?

18 MR. LOWE: Yes.

19 A Expectations?

20 Q What do they expect is going to happen?

21 A They expect that the remediation phase will
22 -- the end result of it will control any impacted
23 sediments downstream. Pretty broad.

0106

01 Q The end result of investigation is going
02 to --

03 A Implementation, you asked me implementation.

04 Q The implementation is going to impact the
05 end results downstream?

06 A No.

07 Q Say it for me again. I didn't follow you.

08 A My understanding of your question was did I
09 have any expectations what the implementation, and I
10 think you are referring to remediation.

11 Q Let me just start over. Have you talked
12 with Mr. Kaley or Mr. Brown about what they expect to
13 happen with regard to anything being done to remove
14 PCBs from Lake Logan Martin or Choccolocco Creek?

15 A Again, they're key parts of a team that's
16 working to develop that investigation and then
17 implementation of a corrective measure study. The
18 expectations of that study is to come up with the
19 corrective action that leads to the control of any
20 impacted sediments that might be impacting the
21 environment.

22 Q How often do you talk with Mr. Kaley?

23 A Maybe on a daily basis.

0107

01 Q What about Mr. Brown?

02 A Probably once a week.

03 Q I mean, do you guys hang around, eat lunch,
04 go out to the river, look at it, whatever? Do you
05 ever do that?

06 A Neither of them are located in Anniston, so,
07 no, we don't.

08 Q You don't -- you've never just been sitting
09 around in a room and someone said, well, here's how
10 this is going to work out, this is what I think?

11 A When we have meetings or we're in
12 discussion, sure we plan what we're going to be doing.

13 Q So what is it? How is it going to work out?
14 What do they say when somebody says, I bet this is
15 what happens?

16 A Well, I don't know.

17 Q What is it?

18 A I can't say that we've ever made those
19 discussions. It is that there is not enough
20 information in Snow Creek or Choccolocco Creek or
21 Logan Martin to know what the answer is.

22 Q But you readily admit there's been testing
23 done not just by the state and others but also by

0108

01 Monsanto that have shown elevated levels of PCBs in
02 fish in Choccolocco Creek?
03 A The presence of PCBs in fish and sediment,
04 yes.
05 Q When I say elevated levels, I mean more than
06 two parts per million.
07 A In fish, yes.
08 Q And also Lake Logan Martin; is that right?
09 A In fish in Logan Martin?
10 Q Yes.
11 A Yes.
12 Q You are certainly aware of the Alabama
13 Department of Public Health warnings all along
14 Choccolocco Creek and also sections of Logan Martin
15 Lake?
16 A The fish advisories, yes.
17 Q Did you or anyone on your team, the
18 remediation team, contact the Alabama Department of
19 Public Health and ask them why they concluded that
20 there should be a fish advisory or what data they
21 relied upon to issue such an advisory?
22 A I personally have never made that contact,
23 no.

0109

01 Q Did anyone to your knowledge do that?
02 A Bob Kaley would have talked with the
03 Department of Health.
04 Q Did he convey to you what he learned from
05 the department?
06 A Sure.
07 Q What was that?
08 A That the body burden in certain fish was
09 above the FDA advisory level and so their advisory was
10 put out there to let people know that.
11 Q Did Mr. Kaley or you or anyone else on your
12 team make a determination that Monsanto may be
13 responsible for those elevated levels of PCBs?
14 A No.
15 Q When this fish advisory was issued and Mr.
16 Kaley spoke with the Alabama Department of Public
17 Health and relayed to you that they had found levels
18 higher than two parts per million in tested fish, what
19 was Mr. Kaley's response? I would believe that in
20 most instances someone would say here's this thing
21 that we've gotten from the Department of Public Health
22 and now what are we going to do. Did that happen?
23 A We never got that advisory. They put an

0110

01 advisory out independently on Choccolocco Creek and
02 Logan Martin. And that, as I said, in our permit is
03 one of the areas we're required to study. So that
04 says that in our course of studying, you know, that
05 we'll have to determine if any impacts we had from our
06 plant are responsible for that.
07 Q Just so I'm clear. One of your goals in
08 this testing that's going to take place over the next
09 three years is to determine whether or not this fish
10 advisory issued by the Alabama Department of Health
11 years ago is a result of PCBs being placed in this
12 waterway by Monsanto?
13 A Our investigation, which will be next year,
14 will look at the distribution of impacted sediments in

15 Choccolocco and Logan Martin and look at their
16 availability either currently or in the past to be
17 taken up by fish and try and understand why those
18 levels are what they are. The trend of fish data
19 prior to '96 was declining, so what has happened since
20 that time to elevate those levels?

21 Q What leads you to believe that it was
22 declining?

23 A Data, fish data prior to '96.

0111

01 Q who did that come from?

02 A The State of Alabama.

03 Q Was that reported to you at Monsanto or is
04 that something Monsanto went out and obtained from the
05 State?

06 A We gathered all the information on fish data
07 that had been taken at Choccolocco Creek and Logan
08 Martin.

09 Q When did you first get fish data on
10 Choccolocco Creek and Lake Logan Martin?

11 A Again, that would have been prior to my
12 joining, but data exists back I believe before 1990.

13 Q So is there some good and sufficient reason
14 why Monsanto is waiting until 1999 to begin an
15 assessment regarding their potential impact on PCB
16 levels of fish in Choccolocco Creek if they had gotten
17 information back in 1990 or before?

18 A 1990 -- it wasn't until the '96 data that
19 the levels were as high as they are. So previous
20 datas didn't warrant pursuing that, as well as our
21 strategy approved by ADEM is to work from the plant
22 downstream.

23 Q well, your strategy as approved by ADEM was

0112

01 a strategy that you submitted to ADEM for approval,
02 wasn't it?

03 A In discussions with them.

04 Q You said, here's our plan, we think this is
05 a good plan, we think you should approve this good
06 plan and they did, isn't that it?

07 A We developed the work plans talking with
08 ADEM. We submit a formal work plan, they have
09 opportunity to comment, correct, change or whatever
10 they see fit to do. And it's only until they're
11 satisfied that the work plan is in their mind the
12 correct course of action.

13 Q What did they change from your proposed work
14 plan?

15 A I don't know.

16 MR. PECK: Are y'all talking about the RCRA
17 Part B permit or what?

18 MR. LOWE: I don't know. Whatever he's
19 talking about.

20 A The only ones that currently are approved
21 are the ones for the inner measures, which are the
22 thirty million that we talked about, and the RCRA
23 corrective action investigation that laid out the

0113

01 phases of working at the plant and downstream from the
02 plant after we're finished at the plant.

03 Q well, as head of the remediation project
04 here at the Anniston plant, wasn't one of your duties
05 to deal with ADEM on these issues?

06 A Sure.
 07 Q So you were involved in the process of
 08 submitting these applications and proposals to ADEM,
 09 weren't you?
 10 A Yes.
 11 Q Tell me in which instances ADEM objected to
 12 or changed your proposals?
 13 A I can't speak to specific instances.
 14 Q Did it happen?
 15 A I would say it would be safe to say every
 16 work plan we submitted they submitted comments on
 17 those work plans.
 18 Q Sure they did, but did they change the
 19 nature or extent or the time frame that you proposed
 20 for the work?
 21 A Not that I'm aware of.
 22 Q Let's go back to the levels of PCBs in the
 23 fish. You mentioned that there had been some testing
 0114
 01 done in 1990 yet you think the highest levels ever
 02 detected were after 1996?
 03 MR. PECK: Is that talking about Lake Martin
 04 or Choccolocco Creek?
 05 MR. LOWE: Let's talk about Choccolocco
 06 Creek.
 07 A My recollection is that '96 fish sampling
 08 had the higher results.
 09 Q And not being involved in this until 1996,
 10 what do you base that on? Are you absolutely certain
 11 there weren't any fish tested in Choccolocco Creek
 12 prior to 1996 that had more than two parts per million
 13 PCBs in their body fat?
 14 A I can't tell you the exact results, but the
 15 trend in the fish that was sampled was less than it
 16 was in '96.
 17 Q Do you understand the term bioaccumulation?
 18 A Yes.
 19 Q What is your understanding of that?
 20 A That speaks to the process where in a food
 21 chain things can accumulate in body mass.
 22 Q And you understand that occurs with PCBs in
 23 particular?
 0115
 01 A Yes, that has a potential to occur.
 02 Q Is this something Mr. Kaley and Mr. Brown
 03 told you or is this something you know as a geologist?
 04 A I knew that of PCBs, but that would be their
 05 expertise.
 06 Q Has Monsanto or Solutia identified a cleanup
 07 standard or a point at which cleanup will be triggered
 08 once you make all these fish samples, water analysis
 09 and sediment analysis?
 10 A That has not been established. It will be
 11 evaluated and determined what level of remediation
 12 needs to be done in any given area after all the data
 13 has been collected and look at its distribution and
 14 availability to impact, you know, environment.
 15 Q What has Mr. Brown told you about his
 16 efforts in remediating PCBs in other areas of the
 17 country?
 18 A He has experience in a number of other areas
 19 of the country dealing with sediments, studying and
 20 recommending remedial actions.

21 Q what has he told you specifically about
22 cleanup standards for those other projects? And by
23 cleanup standards I mean his cleanup goal in those

0116

01 projects.

02 A Is to mitigate or eliminate the potential
03 for PCBs to be available for migration.

04 Q Does that mean eliminating the source or
05 cleaning up the existing PCBs?

06 A It means eliminating the potential for
07 sediment that might have PCBs on it to be available to
08 migrate to impact the environment.

09 Q The reason I ask that, I know, for example,
10 in the adjoining property areas where you tested where
11 people were living if it was below five parts per
12 million you said it was non-detect, and I assume that
13 meant that wasn't one of the properties you needed to
14 be concerned with. Now, assuming you get to the point
15 that you want to remediate or clean up Choccolocco
16 Creek, the river banks and portions of Lake Logan
17 Martin, is there a standard that Mr. Brown has given
18 to you that is used in the past? For example, does he
19 try to remove soil to such level that it doesn't test
20 for a certain part per million or does he test the
21 water or does he just remove volumes of soil?

22 A No, he hasn't.

23 Q He's never talked to you about that?

0117

01 A It's all site specific as to where it
02 resides and what the dynamics of that system are,
03 stream, creek, lake, and what its potential for
04 impacting the environment in the future.

05 Q What other streams or lakes has he told you
06 that he's removed PCBs from?

07 MR. PECK: Removed?

08 Q Or attempted to remediate.

09 A Off the top of my head I don't know what
10 those sites were.

11 Q Who hired Mr. Brown, you, Mr. Kaley or Mr.
12 Foresman?

13 A Bob and I were part of a team that evaluated
14 Mark Brown and brought him on the team.

15 Q What criteria did you use to select Mr.
16 Brown?

17 A Knowledge in the field and past and current
18 involvement in sediment, impacted sediments.

19 MR. LOWE: Let's take a break.

20 (Brief recess.)

21 Q Before we took a break we were talking
22 about the reasons for selecting Mr. Brown as one of
23 the team members on this project.

0118

01 A Yes.

02 Q I wasn't real clear on exactly what his
03 prior experience in the field was. What was it?

04 A Specific projects that he worked on I can't
05 tell you here, but we reviewed resumes that
06 demonstrated that he had worked with impacted
07 sediments in many different regimes, lakes, creeks,
08 rivers, and had knowledge in sediment transport,
09 deposition, movement of water, and felt that was
10 expertise we needed.

11 Q Was Mr. Brown on-site at Anniston regularly?

12 A Not regularly.
 13 Q How often has he been there?
 14 A It depends. We have meetings where we'll
 15 get updates on progress of work, I would say it's safe
 16 to say every couple of months.
 17 Q Is he the person from his company that is
 18 primarily involved in this or does he send some other
 19 associate?
 20 A He is.
 21 Q He is?
 22 A Yes.
 23 Q He's doing it all?
 0119
 01 A He has associates that work with him, but
 02 he's ultimately responsible for the outcome.
 03 Q Who else in his company do you deal with it?
 04 A I don't know any names right off the top of
 05 my head.
 06 Q Do they ever write you any letters, sign
 07 their names to them?
 08 A All my correspondences are with Mark Brown.
 09 Q You don't get referred to these other people
 10 when you call and he's not there?
 11 A I may have, but I don't recall their names.
 12 Q Okay. Who else did you consider besides Mr.
 13 Brown?
 14 A We looked at qualifications from other
 15 consulting firms that we use.
 16 Q Yes, I thought you might say that, but who
 17 are they?
 18 A We do work with Garretty Miller, Woodward
 19 Clyde, Golder. I think those were the firms we
 20 referred to.
 21 Q You considered each one of those as a
 22 potential company to perform the remediation that
 23 we've talked about today for Choccolocco Creek and
 0120
 01 Logan Martin?
 02 A We looked at all of those to determine the
 03 qualified people to help us in determining what the
 04 investigation and study process was going to be.
 05 Q Have you determined that the best solution
 06 for this situation in your opinion would be just to
 07 leave the PCBs alone that exist in the river system?
 08 A We've not supposed anything.
 09 Q Have you attended any public meetings where
 10 the issue of PCBs at the Anniston plant and the river
 11 system were discussed?
 12 A Yes.
 13 Q When was that?
 14 A It could have been any of a number of
 15 meetings since '96.
 16 Q How many do you think there have been that
 17 you've attended?
 18 A That I've attended?
 19 Q Yes.
 20 A There were permit hearings in Anniston when
 21 the permit was under review. Those were a series of
 22 two meetings where the public was invited to comment
 23 and give comment on the permit. We've -- either
 0121
 01 myself or others in tandem with me have met with
 02 various community groups in Anniston. We've met with

03 the Logan Martin Protection Association in Pell City.
04 Q What was your reason for attending the Logan
05 Martin Lake protection group meeting?

06 A I was contacted by Don Greer, the president
07 of the association, and asked to give a formal
08 presentation. They also invited Dr. Kaley, Bob Kaley,
09 and ADEM operations division to give an update of what
10 we're doing around the plant, the status of our
11 investigations and remediations were and asked if Bob
12 Kaley would speak to PCBs, properties of PCBs, and his
13 knowledge of PCBs. And Brian Hughes of the Alabama
14 Department of Health was also there to discuss the
15 fish advisories.

16 Q In your discussions with these various
17 groups did you ever discuss the negative effects on
18 the environment of PCBs?

19 A I don't know if we phrased it like that, we
20 said that presence of PCBs in the environment is what
21 we were investigating to see what their impact was.

22 Q But at most of these meetings you spoke
23 about all these elaborate things you've done to

0122 prevent any further discharges from the plant
01 property. You always went through that, didn't you?

03 A We talked about what the results of the
04 investigation were, where they were located, because
05 of where they were near ditches or in ditches they had
06 the possibility of potential during a varied size
07 storm to be eroded and moved downstream.

08 Q Well, did you tell them that the PCBs were
09 going to continue to move downstream or that you had
10 stopped them at the source?

11 A I told them that the low levels that were in
12 storm water from our facility, our properties, we did
13 not feel was a continuing source of impacts
14 downstream, but the levels that we found in sediments
15 and ditches around the plant needed to be controlled
16 so that they wouldn't have an opportunity to go
17 downstream.

18 Q What was your goal in meeting with the Lake
19 Martin protection group -- Logan Martin?

20 A To inform them of what we're doing and what
21 our knowledge of PCBs were and to field any questions
22 they might have.

23 Q Did you inform them of the amount of PCBs
0123

01 that have been released in the past as opposed to
02 simply informing them that Monsanto had taken
03 sufficient efforts to prevent any further releases?

04 A I'm not sure what we said of the past, but I
05 did say that we were taking actions to eliminate the
06 potential for any low level migration in the future.

07 Q Right. But I assume that many if not all of
08 the questions that may have been posed to you would
09 have been in the form of, well, what are you going to
10 do about the PCBs that are already in the creek and in
11 the lake. What's your standard response for that?

12 A Well, that particular discussion Bob Kaley
13 was responsible for that particular part of the
14 program.

15 Q You weren't there listening?

16 A I was there listening.

17 Q What's the response?

18 A The response is to determine where they are,
19 if they are, what their possibility or potential for
20 being eroded and migrated and become available to fish
21 in the future.

22 Q All right. Let's change gears some. I've
23 heard that over and over. Let's talk about when

0124

01 Monsanto bought some of the adjoining properties and
02 houses and tore the houses down, removed them. Did
03 you hire subcontractors to do that work or did
04 Monsanto or Solutia do it?

05 A We hired subcontractors.

06 Q Were those subcontractors informed that
07 there may be hazardous substances on these properties
08 that they need to protect themselves and their
09 employees against?

10 A They were made aware of the sampling results
11 we had done and that PCBs like other regulated
12 chemicals were present and they needed to be aware of
13 that.

14 Q And that was actually in your subcontract
15 agreement with them, wasn't it?

16 A In the proposal, yes.

17 Q That is something you handled as the manager
18 of the remediation, isn't it, the contracts with the
19 subcontractors or contractor with their
20 subcontractors?

21 A I was part of that, yes.

22 Q But it was a specific portion or item in
23 these agreements that the contractor know and

0125

01 understand the site contains materials which are
02 hazardous?

03 MR. PECK: Object to the form.

04 A At certain levels those are considered
05 hazardous wastes. The levels that were present on
06 these properties were in varying concentration.

07 Q Did Monsanto have an agreement with some
08 company known as W.L. Haley, H-a-l-e-y, and Company,
09 Inc. for a sewer inspection and relining project at
10 the Anniston plant?

11 A Yes.

12 Q The section of the agreement states that
13 contractor will give any and all suits worn by
14 contractor's employees, subcontractors and their
15 employees, in the performances of the work that may
16 have been contaminated to Monsanto for disposal.
17 Monsanto will be responsible for proper disposal of
18 any and all such contaminated suits. Why would you
19 include that in this contract?

20 A Because in the course of doing that activity
21 if they had to wear suits in order to go -- they had
22 to go down into a sewer, that's a confined space
23 entry, so they had to take precautions for that for

0126

01 air breathing concerns. And they would wear clothing
02 so as to not get any impacted materials on their
03 clothing, so as to control -- should that get stained
04 or an impact on that clothing that we controlled the
05 final disposition of those garments.

06 Q When you said sewer, you didn't mean a
07 sanitary sewer, did you?

08 A No.

09 Q This is sort of discharge from the plant,
10 wasn't it, those pipes that ran under the plant?
11 A These are currently storm water sewers. And
12 after, I believe it was in the '80s when we put -- we
13 have a waste water treatment plant in place. The only
14 flow that went through those sewers were non-contact
15 cooling water and storm water.
16 Q That was after the '80s though, right?
17 A In the '80s.
18 Q But before that what were they used for?
19 A There was process water -- prior to our
20 waste water treatment plant there were waters coming
21 from the production units that went through there.
22 Q Right. Just so this is clear, when you say
23 process water that means water that was used in the
0127
01 production process that may contain PCBs?
02 A Or any --
03 Q Or any other chemical?
04 A It could contain anything from a production
05 unit, yes.
06 Q And it just so happened one of the things
07 being produced there at the time was PCBs?
08 A PCBs -- had stopped manufacturing PCBs in
09 '72.
10 Q Okay. That's another point. Where else in
11 the United States was Monsanto producing PCBs?
12 A We produced PCBs at the Crumrick plant in
13 St. Louis.
14 Q Now, have there been any remediation efforts
15 regarding PCBs at the St. Louis plant?
16 A I'm not -- that's not a site I had, you
17 know, knowledge of.
18 Q Surely you would know about it?
19 A They are -- I believe there are some ditches
20 leading from that facility that they're working with
21 the state of Illinois, but I don't know the extent or
22 anything to do with that.
23 Q Was it in Missouri or Illinois?
0128
01 A Illinois, east St. Louis, Illinois.
02 Q I assume these ditches would flow into the
03 Mississippi River?
04 A I'm not sure where they flow.
05 Q But you haven't been asked to assist in the
06 remediation there, have you?
07 A No, apparently not.
08 Q Is there anywhere else in the country that
09 PCBs were manufactured besides Anniston and this east
10 St. Louis plant?
11 A Not to my knowledge.
12 Q Have you talked with any of the property
13 owners around the lake and Choccolocco Creek?
14 A No. Logan Martin Protection Association is
15 the people I've talked with.
16 Q Have you talked with any of them about what
17 effects these fish advisories may have had on their
18 use of the lake?
19 A No.
20 Q Do you have any reason to doubt that such
21 fish advisory would adversely affect someone's use and
22 enjoyment of Choccolocco Creek and the lake?
23 MR. PECK: Object to the form.

0129

01 A Everybody's use and enjoyment is their own
02 doing. I can't speak for them.
03 Q Do you have any sort of corporate policies
04 regarding environmental safety and remediation?
05 A We have environmental guidelines set out by
06 the corporation.
07 Q How do you describe those or how would you
08 tell someone like me who may not know what you're
09 talking about how to find them?
10 A How to find them?
11 Q Yes. And what they are.
12 A Currently you can find them on our website.
13 Q The Solutia website; is that right?
14 A Yes.
15 Q Who issues these guidelines from within the
16 company?
17 A I don't know specifically, but it's --
18 they're developed within the corporation and Mr.
19 Pierle would have the ultimate responsibility for it.
20 Q What are your obligations as a Solutia
21 employee to follow such guidelines?
22 A We are to follow them.
23 Q Well, can you deviate from them with your

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01 own discretion or are these actually rules of the
02 company that you're expected to follow?
03 A I've not ever had an instance where that was
04 a question.
05 Q Well, as an employee of the company what do
06 you expect when you receive these guidelines that as
07 you say are stated on the website?
08 A Uh-huh.
09 Q Are these things you're supposed to follow
10 or are they just suggestions?
11 A They are guidelines that we are to consider
12 in the course of doing our work.
13 Q To consider or do you have to follow them?
14 A Consider and follow.
15 Q I guess in order to follow them you've got
16 to consider them first?
17 A Right.
18 Q Just so I'm clear, that's what you mean?
19 A Right.
20 Q That you have to follow them?
21 A Sure.
22 Q Do you have an estimation of what percentage
23 you reduced the discharge of runoff into Snow Creek

0131

01 after your remediation project here on Exhibit 2?
02 A Are you referring to levels of PCBs in storm
03 water?
04 Q No, just storm water, period.
05 A The actions that we've taken to control
06 storm water reduces our peak flow to Snow Creek by
07 approximately fifty percent.
08 Q And what percentage reduction did you obtain
09 for PCBs?
10 A Well, all I can speak to is our most recent
11 sampling analysis shows non-detect.
12 Q What did your first samples upon arriving
13 show? Did you do any sampling for discharges when you
14 arrived there in '96?

15 A At '96 we were taking samples for the
16 application of our PDS permit. And then once we got
17 the permit I think the highest I recall is twenty
18 parts per billion.
19 Q That's in storm water?
20 A Storm water.
21 Q And that's not in sediment samples?
22 A Right.
23 Q Just so I'm clear, when you talk about
0132
01 reducing peak flow off the property of storm water,
02 where would you measure that from? There are two
03 areas where apparently it goes off the property into
04 this ditch that goes under Tenth Street. Where did
05 you measure the reduction?
06 A At our -- we've not completed these yet.
07 Q Just so this is clear, you have not
08 completed over here the --
09 A North of the facility.
10 Q -- north side of the facility which runs
11 around the west landfill and comes out under Tenth
12 Street?
13 A Right.
14 Q But you have completed over here on the
15 south -- east side?
16 A Right.
17 Q Where we have this confluence of pipes here
18 going under Tenth Street?
19 A Right.
20 Q So based on that, on the east side you
21 reduced flow by fifty percent?
22 A Right.
23 Q Is it your goal to reduce flow even further
0133
01 once you finish over on the west side?
02 A The outcome of the work we're doing north of
03 the tracks, between the tracks and Tenth Street, the
04 ultimate result of that will be a reduced peak of
05 flow.
06 Q Have any of the people that you've engaged
07 to work on the project ever estimated what the surface
08 level of PCBs would have to be in order to have a
09 water sample of twenty parts per billion?
10 A No.
11 Q Is that something that's possible or that
12 can be done?
13 A I'm not sure if it can or not.
14 Q With regard to the neighbors who used to
15 live around the Anniston plant before their property
16 was purchased, did Monsanto or Solutia give those
17 people any type of warnings regarding PCBs on their
18 property?
19 A When we were engaged in doing the
20 investigation we met with each -- we had to get access
21 agreements to sample and we discussed what we were
22 doing and the results of those investigations with
23 each of the property owners.
0134
01 Q So someone went to each home, knocked on the
02 door and said, you know, I'm from Monsanto, we want to
03 do some testing on your property, here's an agreement,
04 will you sign it? Is that basically how it worked?
05 A We explained the agreement and what we were

06 about to do.
07 Q Sure. Did you do that or did someone else?
08 A No, that was Bruce Eley.
09 Q Now, was he supposed to be prepared to
10 explain to anyone who asked him about potential health
11 effects caused by PCBs?
12 A No, he was to refer them to experts in that
13 field.
14 Q who were whom?
15 A I can't -- the name escaped me. Dr.
16 Forrester.
17 Q Is that a he or she?
18 A It is a he.
19 Q He's where?
20 A I believe at UAB. Renita Kimbrough, Dr.
21 Renita Kimbrough, and I don't recall her actual
22 location.
23 Q Is she an M.D. or Ph.D.?
0135
01 A I don't know.
02 Q How about Forrester?
03 A M.D.
04 Q Is there anyone else?
05 A Not that I can recall.
06 Q How were these reference doctors selected by
07 Monsanto?
08 A I don't know how those were selected.
09 Q Who selected them? Who told Mr. Eley to
10 refer any questions to these people?
11 A Bob Kaley would have had responsibility for
12 that.
13 Q Were there any warnings placed on these
14 adjoining properties similar to what the Alabama
15 Department of Public Health placed on Choccolocco
16 Creek and the lake? Any advisories?
17 A No, not that I'm aware of.
18 Q There were no warnings issued by Monsanto or
19 anyone else to your knowledge telling the neighbors to
20 the Monsanto property that there may be adverse health
21 consequences of having PCBs on the property?
22 A Not that I'm aware of.
23 Q Was it ever discussed among the management
0136
01 team here at Monsanto?
02 A We didn't feel that there was a health
03 problem and the Department of Health, Brian Hughes,
04 issued findings that there was no imminent health
05 concerns.
06 Q How long did it take him to do that?
07 A I don't recall.
08 Q Did Brian Hughes do the testing -- how did
09 he issue findings that there was no imminent health
10 concerns for these neighbors?
11 A They did sampling in the neighborhoods.
12 Q Blood tests?
13 A I believe so, but I'm not totally sure.
14 Q So based on Mr. Hughes' conclusions, then
15 Monsanto determined it was unnecessary to give any
16 type of warnings regarding PCBs on the adjoining
17 properties?
18 MR. PECK: Object to the form of the
19 question. No foundation for this witness.
20 A That again was Bob Kaley's

21 responsibilities. Our understanding of the findings
22 and knowledge of PCBs didn't warrant us to list any
23 postings, as well as taking the Department of Health's

0137 01 findings we had no reason to post anything.

02 Q Are you saying that that was a determination
03 then that was made by Bob Kaley?

04 A That would have been in consultation with
05 his knowledge of it, but the advisory would have been,
06 you know, the responsibility of the Department of
07 Health. He was in consultation with Brian Hughes of
08 the Department of Health.

09 Q I'm still confused that there weren't any
10 warnings given to the neighbors, yet in your contract
11 with companies you were having inspect the properties
12 you were requiring them to make their employees aware
13 of the potential health hazards and also conform with
14 certain guidelines in the contract regarding the safe
15 practices regarding their uniforms and clothing.

16 MR. PECK: Object to the form of the
17 question.

18 Q Did you try to waive either of those? Why
19 did you have contracts that required the contractors
20 to protect themselves but yet there was no warning
21 issued to the property owners who were actually living
22 on the PCBs?

23 A The requirements we have to inform our

0138 01 contractors are based in OSHA guidelines that on a
02 facility such as ours that we must warn them that
03 there's an opportunity of hitting impacted material
04 for any of a number of reasons. So as a precaution
05 they should wear protective clothing to -- for that
06 uncertainty.

07 Q So just because there is an OSHA guideline
08 regarding contractors you can follow that, but you're
09 not going to go beyond that to warn your neighboring
10 property owners, is that what you're telling me?

11 A I'm saying that's our requirements for
12 contractors coming onto our site. The presence of
13 impacted soils and sediments on adjoining property
14 owners, we made them aware of the -- of that presence
15 and the Department of Health made them aware that they
16 didn't consider that to be an imminent danger and we
17 referred them -- if they had any questions on PCBs, we
18 referred them to the other specialists.

19 Q How much did Monsanto or Solutia pay Dr.
20 Forrester or Dr. Kimbrough during this period of time?

21 A I don't have any knowledge.

22 Q Who is responsible for hiring them?

23 A I don't know if it's a hire or not. Those

0139 01 were the people that we informed residents to talk to.

02 Q Did you think that fell under Mr. Kaley's
03 auspices?

04 A Mr. Kaley would know if that was the
05 instance.

06 Q Is Solutia or does Solutia tell the world at
07 its website that it's an environmentally responsible
08 firm?

09 A I'm not sure if those exact words are used.

10 Q Well, that's what you want them to believe,
11 isn't it?

12 A Pardon me?
 13 Q That's what you want them to believe or that
 14 may be your goal, isn't it?
 15 A We are environmentally conscious, yes,
 16 responsible.
 17 Q Responsible. And a good neighbor?
 18 A Yes.
 19 Q And that's what you were trying to do here?
 20 A We were about informing our neighbors, yes.
 21 Q That they had PCBs on their property and if
 22 they had any questions about them to call these other
 23 doctors?

0140

01 A If they had any questions about the levels
 02 or where they were or if they had reason to desire
 03 additional sampling, we would work with them. If they
 04 wanted -- if they had questions or concerns we
 05 referred them to experts in those fields.
 06 Q How did the Alabama Department of Public
 07 Health inform these neighbors of yours at the Anniston
 08 plant that there was no imminent danger from PCBs and
 09 was that the term they used, no imminent danger?
 10 A No health threat. I'm not sure how they
 11 actually informed them.
 12 Q What makes you believe that they even
 13 informed them?
 14 A Because I recall -- well, I can't speak to
 15 that. I don't know how they informed them, but I know
 16 that they did. I believe it was letters to individual
 17 owners, but I can't speak to exactly how they did it.
 18 Q Do you think they sent a letter to every
 19 property owner; is that what you believe?
 20 A I don't know how they did it.
 21 Q Well, how did you determine which properties
 22 would be purchased by Monsanto or Solutia or whoever
 23 bought them?

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01 A We determined that the properties that were
 02 in the areas of the ditches that had impacted
 03 sediments or soils were the ones that we were going to
 04 need to do remedies on and thus would be ones that we
 05 would purchase.
 06 Q What was the level for you to deem it to be
 07 impacted soil?
 08 A Once we mapped out the results at a point
 09 that we got below our amino acetate value those were
 10 the areas that we concentrated on.
 11 Q All right. Well, you're going to have to
 12 explain that. I thought I was going to be able to
 13 follow you there for a minute.
 14 A Meaning -- I don't understand.
 15 Q Once you got below your amino acid point --
 16 that's a new term.
 17 A Our detection limit of five parts per
 18 million.
 19 Q See that makes more sense. You had a
 20 detection level of five parts per million of PCB in
 21 the soil to be tested on the property, is that right?
 22 A The analysis we used had a detection limit
 23 of five parts per million, which was agreed upon with

0142

01 ADEM that was a sampling they had done and the levels
 02 they had deemed to be of concern.

03 Q So thereafter Monsanto endeavored to
04 purchase all the properties where testing resulted in
05 five parts per million or more?
06 A No, we purchased those that were in the
07 areas of the drainage ditches and the remedies that we
08 were going to place.
09 Q We've talked about why you wanted to do the
10 remediation in the areas of ditches and drainage to
11 prevent any further migration.
12 A Right.
13 Q What did you do about -- let me ask this.
14 Did you test any properties that weren't in the areas
15 of the ditches and the drainage for PCBs?
16 A There were in the consent order areas, broad
17 areas that we were to test. Some of those were not in
18 the direct path of the ditch.
19 Q Where were those?
20 A We tested properties to the west -- the west
21 of the west end landfill. We tested properties to the
22 east of the east drainage ditches.
23 Q Is that it?
0143
01 A Yes.
02 Q Do those properties have any better
03 designation than just saying properties to the west of
04 the west landfill?
05 A Both of those areas had no storm water
06 flowing from our ditches.
07 Q Why would those be required to be tested
08 then?
09 A That's what ADEM required us to test.
10 Q Well, I assume those -- what were the
11 results for those areas?
12 A I don't know specifically. There were
13 random low level detection, but I think the general
14 results were no impact, which was similar to the
15 findings that ADEM and ADPH had got.
16 Q So is it fair to say then all the areas you
17 tested and found five parts per million or more you
18 purchased that property or attempted to?
19 A I would say that would be fair to say.
20 Q And that all falls within the thirty million
21 dollars that's been spent so far on this Anniston
22 project?
23 A Yes.
0144
01 Q What was the reason for ADEM selecting the
02 five parts per million standard, do you know?
03 A I don't know.
04 Q Was it because they believe above that it
05 might have some adverse health consequences on humans?
06 A I don't know.
07 Q You didn't have any discussions with ADEM
08 about the standards?
09 A That was established, I believe, in the '95
10 consent order.
11 Q Did it have anything to do with EPA
12 regulations regarding soil cleanup?
13 A Again, I don't know.
14 Q When you have an issue of what regulations
15 apply or what standards you've got to conform your
16 conduct to being the remediation manager, what do you
17 do? How do you find out the answer?

18 A Consult with people on my team, Bob Kaley.
19 Q Are you familiar with the guidance on
20 remedial actions for sites with PCB contamination
21 issues by the office of emergency and remedial
22 response, U.S. Environmental Protection Agency?
23 A Not specific. I don't know what you're
0145 talking about -- what you're referring to.
02 Q Have you ever heard of a PCB action level
03 for residential areas of one part per million?
04 A There are some guidelines that EPA has in
05 dealing with cleanup of spills from -- PCB spills.
06 Q What difference does it make whether it's
07 spilled there or why it got there?
08 A Well, that was established to handle current
09 spills of any handling of PCB transformers or
10 equipment.
11 Q We went by a five parts per million standard
12 for the property adjoining the Monsanto plant.
13 A That was the level used to determine the
14 impact to the adjacent areas.
15
16 (Brief recess taken.)
17
18 Q On the surrounding properties that were
19 purchased by Monsanto -- who purchased this, Monsanto
20 or Solutia?
21 A At the time we were Monsanto. Monsanto was
22 the purchasing agent, owner. When we became Solutia
23 ownership of those properties became Solutia's.
0146
01 Q Now, on any of these properties that were
02 purchased did Solutia and Monsanto remove any of the
03 dirt, the surface dirt?
04 A In the course of constructing any of the
05 remedies, if there was a need to remove dirt from a
06 construction standpoint to put a pipe in or to get a
07 certain final drainage pattern, we did excavate some
08 limited areas.
09 Q What did you do with that dirt?
10 A We, in all instances, in the east side south
11 landfill incorporated that as part of the remedy under
12 the cap.
13 Q Put it under the cap?
14 A Uh-huh. Secure it underneath the cover.
15 Q Why did you put it under the cap?
16 A That's where it was -- would have been had
17 we not had to excavate.
18 Q I'm not following you. Because it had PCBs
19 in it that's where it should have been, is that what
20 you're telling me?
21 A The areas that we capped and covered were
22 areas that were impacted by PCBs. If in that area we
23 needed to excavate and the focus was to minimize that
0147 excavation, but if something needed to be excavated in
02 order to get the proper design those were stockpiled
03 and moved to an area that would be under the final cap
04 and cover.
05 Q What were the parts per million in PCBs that
06 were present in the soil that you removed and placed
07 in the landfill under the cap?
08 A We didn't move any to the south landfill.

09 Q which landfill did you use then?
 10 A We -- there was two different phases of
 11 projects basically here. The west end landfill during
 12 the excavation of the -- at the toe of the landfill
 13 encountered -- we were excavating in areas with impact
 14 PCBs. We discussed that with ADEM and they concurred
 15 for us to put it underneath the cap cover just
 16 immediately adjacent to where we were excavating.
 17 Q So you didn't test it?
 18 A We had previously tested it.
 19 Q And its parts per million were what?
 20 A I don't recall.
 21 Q Was it over fifty?
 22 A I believe some of that was, yes.
 23 Q Why wasn't that taken to a hazardous

0148
 01 landfill such as Emelle or somewhere in Georgia?
 02 A Some of it was taken to Emelle and in
 03 discussions with ADEM we both agreed that removing
 04 that soil and transporting it to Emelle was taking
 05 added risk of it being distributed when we had a RCRA
 06 cap that was being placed adjacent to that, that would
 07 be the same security that Emelle would provide.

08 Q How did you come to disturb the toe of the
 09 landfill? Was that intentionally?
 10 A That wasn't -- I wasn't here at that part of
 11 the project.

12 Q What year was that then?
 13 A That was -- I think that was late '95.
 14 Q So why were they digging in that area at
 15 that time?

16 A Well, again, in order to shape the area to
 17 get the cover -- you have to anchor the membrane at
 18 the toe of it and specifically I don't know why the
 19 excavation was going on there.

20 Q How did they know that they had disturbed
 21 the toe of the landfill?

22 A The excavation was going on and the project
 23 manager noticed they were excavating in that area and
 0149
 01 said -- basically told them to stop.

02 Q Was there any visible evidence that the
 03 landfill had been disturbed other than the fact that a
 04 bulldozer may have been in an area where the plant
 05 manager thought the landfill existed?

06 A I wasn't present at the time. I have no
 07 knowledge of that.

08 Q No knowledge based on someone telling you --
 09 MR. PECK: Site manager, I think he said.

10 A Not me. Before I came to Anniston.

11 Q I understand, but you can tell me what
 12 you've learned since then.

13 A For whatever reason they knew those were
 14 impacted soils and needed to be dealt with.

15 Q I'm trying to understand. We're talking
 16 about soils that have more than fifty parts per
 17 million and I'm trying to get some idea whether this
 18 was something they dug out of the landfill or whether
 19 this was close to the surface, you know, was just
 20 right under the pad of the bulldozer.

21 A I can't speak to that. I wasn't present.

22 Q Did you or anyone else to your knowledge
 23 make any estimate of the volume of PCBs that were in

0150

01 this west landfill or even in the south landfill?
 02 A Not to my knowledge.
 03 Q ADEM never asked that?
 04 A Not that I'm aware of.
 05 Q As the remediation manager for this project,
 06 what do you do to inform yourself or satisfy yourself
 07 that you're conforming with all the various federal
 08 and state guidelines on this project?
 09 A One, constant communications with ADEM about
 10 all that we do. And all the work that we do is
 11 implemented per approved work plans as well as having
 12 a team of experts that are well informed in
 13 regulations and procedures.
 14 Q But do you make any effort to determine what
 15 levels of PCBs may be harmful to human beings or to
 16 nature?
 17 A Again, our task is to determine where they
 18 are and what their current impact in the environment
 19 is.
 20 Q And if you determine they have a current
 21 impact in the environment, is Solutia willing to clean
 22 it up?
 23 A At the point in time that we determine where

0151

01 the impacts are we will, as we have in the past, take
 02 responsibility for those materials and develop a plan
 03 to mitigate that.
 04 Q All right.
 05 MR. LOWE: That's it. Thank you.

06
 07 (End of deposition.)
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C E R T I F I C A T E

01
 02
 03 STATE OF ALABAMA)
 04 JEFFERSON COUNTY)
 05
 06 I hereby certify that the above and
 07 foregoing deposition was taken down by me in
 08 stenotype, and the questions and answers thereto were
 09 reduced to computer print under my supervision, and
 10 that the foregoing represents a true and correct
 11 transcript of the deposition given by said witness
 12 upon said hearing.

13
 14 I further certify that I am neither of
 Page 58

counsel nor of kin to the parties to the action, nor
am I in anywise interested in the result of said
cause.

Jill B. Sanders, Commissioner

SIGNATURE OF WITNESS

I, _____, do hereby
certify that on this _____ day of
_____ 1998, I have read the foregoing
transcript and to the best of my knowledge it
constitutes a true and accurate transcript of my
testimony taken by oral deposition on September 16,
1998.

WITNESS

Subscribed and sworn to
before me this _____
day of _____,
1998.

NOTARY PUBLIC

E R R A T A S H E E T
CORRECTION

PAGE LINE REASON