IN THE MATTER OF AN ARBITRATION BEFORE A TRIBUNAL
CONSTITUTED
IN ACCORDANCE WITH THE TREATY BETWEEN THE U.S.A. AND THE
REPUBLIC OF ECUADOR CONCERNING THE ENCOURAGEMENT AND
RECIPROCAL PROTECTION OF INVESTMENT, SIGNED AUGUST 27, 1993
(THE "TREATY")

and

THE UNCITRAL ARBITRATION RULES 1976

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In the Matter of Arbitration : Between: 
Claimants, : PCA Case No. : 2009-23
and :
Respondent. : 
---X---

TRACK 2 HEARING SHUSHUFINDI-55 SITE VISIT

Monday, June 8, 2015

Coca (Francisco de Orellana)
Republic of Ecuador

The Shushufindi-55 Site Visit in the
above-entitled matter convened at 1:44 p.m. before:

MR. V.V. VEEDER, Q.C., President

DR. HORACIO GRIGERA NAÓN, Arbitrator

PROFESSOR VAUGHAN LOWE, Q.C., Arbitrator
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OPENING STATEMENT BY COUNSEL FOR RESPONDENT

Mr. Ewing: Good afternoon, Members of the Tribunal. We are now at Shushufindi-55, the third site on our Site Visit per the Protocol. Today, we will be sitting here under this tent for a while, hopefully, as long as it's raining. And hopefully when it stops raining, we will walk to your left around where the yellow markings are and up on top of this hill behind me. From there we will then walk down to the stream to see the sedimentary area that LBG has sampled.

Just in case it's helpful, we are now at Shushufindi-55, south of where we just were from Aguarico-06, so we are here at Shushufindi-55. And again, we started out at Coca, and we will go back home the same way we came today. All right.

So, I want to explain why we chose this site. First, it's easy to trace the responsibility for what we see at this site. This, again, is a TexPet-only operated site. There has never been any Petroecuador operations at this site.

This site also allows us to see what does oil look like that is at least 32 years old. As I will get into, that is when this well was last producing. Ultimately, what we say is that Chevron's conclusions are just not true, and looking around you can see that for yourself.

This site is also important. (Pause.)

Mr. Ewing: This site is also important because it allows us to--

(Pause.)

Mr. Ewing: This site shows us the variability of contamination in the streams, and Dr. Garvey will explain this much more. But, as he said at Aguarico-06, one sample just is not enough to characterize an area like a stream, like an estuary. It just is not adequate. And he'll explain that more why.

And this site I had mentioned this morning that the sites are originally planned to be reversed. Shushufindi-55 adds one layer of complexity to Shushufindi-34. So, Shushufindi-34, we saw a pit with oil and just soil samples and groundwater samples. There was no stream nearby that we were particularly focused on. At this site, we have a pit, which I will explain in a second, but we also have a stream that's behind you where those trees are. So it adds that level of complexity for you to understand what's going on at these sites.

And I think I mentioned this before, but many of the sites that we look at have streams nearby. Water is a necessary part of drilling, plus streams are pretty ubiquitous in the Amazon since it rains a lot.

And I mentioned at the last site about testimony from Dr. Hinchee. From Page 1975 of the Transcript for the Track 2 Merits Hearing, he said, which seems very appropriate right now, "Ecuador is a very wet, humid climate. There are many surface water features. Any time you have a spill you're going to be close to surface water. Spills often go across land and into creeks, streams, wetlands, and so part of many of these spill cleanups is--includes sediments," and that's Dr. Hinchee's testimony at Page 1975.

One question I want to start with for this site is why we focused on three of these sites which were not part of Judicial Inspection. So, Shushufindi-55, where we are now; Shushufindi-34, where we were yesterday; and Aguarico-06, where we were this morning, were not Judicial Inspection sites. Lago Agrio-2 was, where we will be tomorrow, but the first three were not Judicial Inspection sites. And I think, as you asked this morning, I think you asked this morning, Shushufendi-55 was assessed by Cabrera, but it was not a part of the Judicial Inspections, and his Report was not considered, so this is really sort of a separate site, not a part of Judicial Inspections.

But the first point, as I mentioned earlier, is that all of these sites are included in various documentation that was submitted to the Court, and I mentioned the HBT-Agra Report, the Pugro-McCllelland Report, the Woodward-Clyde Report. Those are just three examples of where information about all the sites in that Concession Area were submitted to the Court. But potentially the more important reason, at least for purposes of this Site Visit, is that we are attempting to separate out the issues so that we can understand each of them separately, and that's when I refer to adding layers of complexity at each of these sites. So Shushufindi-34, we are going to start off with a simple site that would allow you to see how TexPet oil operation occurred and what would happen with the hidden pits. This allows us to look at streams and sediments. Aguarico-06 added the complexity of having multiple undocumented pits, streams, and sediments, a few more exposure pathways. And
in Lago Agrio-2 tomorrow, we'll add in--take all of that in
a sense and give us some more complexity in terms of
dividing out liability, because Lago Agrio-2 is the first
site that we're going to look at where Petroecuador has
extracted oil--and the rest of the sites--and they
shall receive--the rest of the sites were TexPet only and
for extraction of oil.

So, let me give you a quick intro to the history
of this site, and I want to show you this aerial image.

This is an aerial image of Shushufindi-55 in 1975, and
there are a couple of things I want to point out.
First is this lighter area that's
semi-rectangular--and just so you guys know what we're
looking at, '75, and this should be Respondent's Tab
Number 1. This lighter area in the middle is the platform,
and we are currently sitting on the platform. The well was
approximately where this darker spot is in the middle, and
we are currently sitting--if you see right behind me,
you're asking what this is. This marker, concrete steel
2-C-02, is a marker of where the well originally was. When
a well is plugged and abandoned, which is a complete and
final non-reversible filling of the well with concrete at
the end of a life of a well, you put a marker in like this.
So, we are sitting in front of where the well used to be.
So, that is right here.

To the side--and this is to your left, you can see
Chevron's yellow flags--is the location of the pit that was
dug when this well was drilled. And this pit, like the one
at Shushufindi-34 that we saw to the side of that site, the
one that was likely below Aicuaro-06, I mentioned how
gravity was used to dispose of wastes. This was likely the
reserve pit. It's really the only pit that is obvious on
the aerial imagery, so it would have been where they put
the debris from drilling and then where initial tests of
the well may have gone. Initial produced water that came
out, et cetera, would have gone into this pit. And again,
that pit is off to your left marked by the yellow flags.
We'll talk about the size of that pit. We have
some slight discrepancy with where Chevron has placed their
flags, but suffice it to say, it's a rather large pit.
It's about the size of the platform.

PRESIDENT VEEDER: Please help us with the roads.
Have the roads changed?

MR. EWING: We drove in here. The road now
continues on, but the road at the time did not, so we drove
in from the south here, which is where we just came up.

PRESIDENT VEEDER: I see upside down.

MR. EWING: So, it's sort of facing the other
direction.

PRESIDENT VEEDER: I get it.
drilled. It was perforated or drilled in July of 1975, and then it was abandoned in 1996. So, this well drilled in 1975, and it stopped production in approximately 1983. It was shut in. From 1983 to 1996, it sat here untouched; and, in 1996, it was part of the RAP. TexPet or Woodward-Clyde, Chevron's contractor, came back and abandoned it. So, oil stopped production at this site in 1983.

A few auditors have come to this site and looked at it, and their Reports are in the Lago Record and in our record. Fugro-McClelland came here, HBT-Agra came here, and we'll talk about some of what they saw when we get up to the next vantage point.

There were no pre-inspections here. This was not a Judicial Inspection site, and there were no Judicial Inspections with the Judge. Like I said, Cabrera did sample. When Cabrera sampled, Chevron also took some samples. They called them the "Cabrera shadow team." I think it was Mr. Bjorkman, Bjorn Bjorkman, who came here and sampled either with Cabrera or following behind Cabrera or seems to be some of these were taken a few days or weeks later, and his results confirm what Cabrera found, and those can be seen at Respondent's Tab 17 and 18. And basically what they found is that this mound that we're about to work walk on top of is an oily mound, and what it seems to be is that the contents of the pit were mounded up potentially to make more room in the pit or otherwise to cover up the oily waste. But, when Cabrera looked in this mound, he found it to be an oily mound. And then both Cabrera and Mr. Bjorkman made observations of sediment contamination in the stream, which we're going to see.

We won't see their observations. We'll see the stream itself.

And there have been no workovers at this site. So, really this is a TexPet-operated site since 1983--or it's completed in 1983.

So, unless there are any questions, I'd like to take us on a little walk to the top of the hill.

PRESIDENT VEEDER: Let's do the walk.

(Pause.)

MR. EWING: Okay. We are now sitting on top of what has been described by the various auditors as an oily mound. Again, it seems to have been--the contents of the pit that you can see outlined by Chevron's yellow flags. One note, as I mentioned below that we have some slight discrepancy about the size of the pit and the exact location, and I was showing that the 1975--

(Vehicles honking horns.)
It's also possible that it was closed by the local
landowners. We have at least two families that live very
close here, and they may have just been fed up with having
an open pit that had been here for--1975 to 1990, so 25
years.

But what we do know about this pit that we're
looking at is that it was dug by TexPet, it was filled by
TexPet, and it was left open by TexPet, even after this
well was shut in in 1983.

So, regardless of who closed this pit, the point
is that the oil that was in this pit was put here by
TexPet, and, as the Lago Agrio Plaintiffs were allowed to,
the oil is what they were concerned about, not who covered
it. So, their suit was about who should clean up the oil
that is underlying this area.

Second, Claimants also claim that there was a
spill at this location. The background to that,
Petroecuador has gone through the Oriente and has attempted
to build a database of sources of contamination, and
they're looking at all of the old well sites to try and
identify what are the problems that they can really assess
what the issues are. And, as a part of that, Petroecuador
identified a spill--or they included it in their chart of
spills at this site.

When we took the coordinates for that spill, it's
actually about here, and we had some orange flags here
earlier in the week, but they have now disappeared, but I
put them, and they were right there when we did the GPS
coordinates.

So, to think about this as a spill defies a bit of
reason, the idea being that if it were a recent spill, it
would have required someone to come from the road, bring
barrels of oil up here, dump them out, or drop barrels of
oil here and dump them out. It's just not a reasonable
idea of what has happened at this location, much less that
it would have affected where LBG sampled down in the
sediment and the swamps.

But moreover, what it appears that Petroecuador
does determined this as an ongoing source of
contamination and that, in a sense, this hill and mound is
spilling oil, and it's not a spill in the immediate sense;
but, in the long term, this is a source of contamination.
So, there is not a spill here that we have any record of.

This site, as I mentioned below, was included in
the RAP, and that's how the well was closed. When
Woodward-Clyde came here, they found no pit. So they came
in 1995, and they said there is nothing here. They clearly
didn't look at the aerial images. They didn't look at any
historical documents.

Two years before that, HBT-Agra in 1993 had
identified that there was a pit, and Fugro-McClelland three
years before that had identified that there was a pit. So
their inspection must have been incredibly cursory to have
missed the pit. From our perspective, if you're looking
for this pit, the berms follow along the treeline behind
us. You can see it over here when you walk over there.
They're a little bit more eroded down, and then you can see
part of one, see the white chairs where Claimants will be
taking us. That's sitting on top of part of one of the
berms. And the aerial images seems to show that this is a
pit that is square on that side and then has a rounded or
cracked middle, and we're sort of sitting in that concave
area.

So, what I would like to do now is to take you
down to where LBG sampled and turn the floor over to
Dr. Garvey to explain what LBG has found at this site and
what it means from an expert point of view.

PRESIDENT VEEDER: Okay.

(Pause.)

PRESIDENT VEEDER: Ready when you are.

DR. GARVEY: Okay. Good afternoon.

We've talked to you a little bit about Louis
Berger's investigation of this wetland behind us here and
what we found.

Just to briefly outline it, when we're talking
about the presence of oil in this wetland, the
heterogeneity of the contamination when we sampled here,
how quickly it changes from one value to another. We'll
talk a little bit too about the different methods that
we've used to quantify the chemistry here, and then why we
collected these what we call "co-located cores," cores that
are close to each other, and then finally put this in the
perspective of why we selected so many TexPet-only sites
for your field trip here.

So, to begin, then, we note the history of this
site. HBT and Fugro-McClelland found that oil was seeping
from the pit where we were just sitting. The required
Remedial Investigation found that the stream had been
contaminated. Cabrera had also found high levels of
contamination in the swamp behind me as well. Okay.

There's actually oil present in the swamp
currently. Shane McDonald, my associate here, has just
gone in and pulled up a bucket of contaminated
sediment. I'll bring it up to you to have a look. You can
smell a little bit, but you can clearly see the sheening of
the oil on the surface. It's a significantly disturbed
sample; obviously, he dug it up from the bottom of a
streambed there, and you can see the oil on the surface.

So, this certainly is not as thick as what we've seen at
the other two sites, but it's still here. There's still
oil present in the contamination. And you can see its
effect on the surface there, the rainbow effect that it
causes. Okay. I will leave this here.

MR. Ewing: If you want to leave it there, Jamie
wants to smell it, I think.

Dr. Garvey: Please.

Ms. Miller: Thank you.

President Vedder: Do you want this?

Ms. Miller: I'm good. I'll use my nose. Thank
you.

Dr. Garvey: All right. All right. Very good.

So, anyway, the sediments in this swamp here are
still contaminated with oils that related to the TexPet
operations that occurred here. So, what we have here is
the opportunity to look at TexPet contamination in a wet
environment as opposed to the two sites we've seen before,
the pit and the swampy area, but it really wasn't as
saturated as this one is here. So, again, what we're
trying to look at here is what is the nature of TexPet
contamination at the present time. Is it still around? Is
it hardened? Does it become asphalt-like or is it still,
as I would argue for this bucket here, still available to
the environment, animals, plants, and whatever? And we
would conclude clearly from this bucket that it continues
to be contaminated and available.

Louis Berger found samples here between 1800 to
53,000 parts per million of TPH by our TEM method. If I
could have Respondent's Tab 4, 14, Page 1--excuse me.
That's it. Okay. What you see there are a bunch of double
diamonds. Okay. They represent what I call a "co-located
samples," two samples placed very close to each other,
separated only by about a meter. Okay. And the reason
that we do this is to see how the system varies on very
short distances, what kind of confidence can we place on an
individual sample when we collect it say, well how far can
we predict its neighbor? How well can we guess its
neighbor?

So, if we collect a bunch of these samples here
based on 8015--based on the TEM method and then we look a
meter over, we see that we can guess the value only to
about a factor of ten. So its neighbor, more often than
not, is ten times higher or ten times lower than the value
that we picked, that we originally--and not that we
originally selected it, but it's simply its nearest
neighbor. It doesn't matter which one we pick first. In
some instances you get the low one, the other one is ten
times higher. And you pick the high one, the other one is
ten times lower. Not always. Sometimes they match pretty
well. But on average as it turns out, it's about ten
25 times--about a ratio high over low of 10:1. Some of them
are as high as 20:1, 25:1. Some of them are low as let's
say 50 percent difference in the value. So, it's as you
might expect, okay, the variability varies. Some places
vary a lot, some places only vary a little.

But really the point of this exercise is to bring
home to you the fact that this is a very heterogeneous
environment. It's hard to sample it. When you go out and
sample and you collect a few, you throw a few darts, what
do you get? Well, depends on how lucky you were. Maybe
you got some high values; maybe you got some low values.
If you are only throwing a very limited number of darts,
you run the risk of mischaracterizing what's going on. We
threw about 10 darts here. All right. And the average is
probably around 10,000, maybe 20,000 parts--maybe even
higher--maybe 30,000 parts per million overall.

But that's not my point here per se. I mean, it
is what we find in this particular swamp, but the purpose
of this exercise was not necessarily to simply to
categorize the absolute level of contamination in the
swamp but rather to characterize the kind of variability we
find in the environment. Why is that important? Because
Chevron has made it a point to try to characterize the
extent of their contamination with a very limited number of
points at each site, 5 points, 10 points, spread over a
very great area. This isn't that far apart. Maybe this is
about 50 meters from one end to the other. We put in a
dozens points or so, 11 points. We're getting significant
amounts of variability. At that scale, Chevron might have
put in 1 point. Well, which one would you think they
picked? I'm not going to fathom a guess as to which it is,
but you can appreciate they could have gotten a number
that's all over the place. Okay. So it's clearly not a
simple matter to go in and investigate this area and just
throw a single dart. You need to recognize that this kind
of variability underlies the environment that's behind us.

And this leads me to another important point.
Louis Berger has taken basically a series of snapshots of
different kinds of conditions. He took a snapshot of the
pit at Shushufindi-34, a snapshot of the area at
Aguarico-06, taking a snapshot of this particular peak
feature here at Shushufindi-55. We were not trying to do
RIs. We were trying to emphasize that the process of doing
an RI, to really understand the level of contamination and
the amount of remediation that it will require is huge, a
huge effort. I mean these are big areas. We're talking
about many hundreds of meters in distance that span a given
site perhaps, and it's a big square area, and you're
subject to these kind of processes where water runs
downhill, contamination runs downhill and ends up in a
swamp like this one. When you try to go and sample it,
sometimes you get a high number, sometimes you get a low number. You really have to sample it extensively to get a good feel for what's there.

So, the point being ultimately is that it takes many more samples. You have to take multiple rounds of samples. We saw that at Aquarico-06. We had done--we'd been there as the--the Plaintiffs have pointed out, we'd been there for a year or two. The farmer came in and cleaned the forest, cleaned the forest up. We had a whole new elevation--elevation, excuse me.

Besides just seeing the fact that the drainage didn't go the way we thought it did, we actually stumbled on the additional contamination that you saw there. We can talk about why it's there, but that's for another day. But in any case, we still stumbled on it. We didn't know it was there. Okay.

So, the point being that, even as intensely as we've studied these little pockets, there's still a lot to learn, and we've only done--we've only scratched the surface using really, really large efforts to understand something like this and be able to remediate it properly, to be able to bring this system back to an acceptable level for human exposure, for the environment, and so on.

Now I'll come to the methodology here. We looked at Method 8015--I'm sorry, this is the TEM method, and I would point out this about the TEM method. It has a problem at low concentrations. It is subject to plant...
locations, eight matched--eight samples. We don't really have a basis to estimate the extent of contamination. We know, its average value, let's say, of about 20- or 30,000 parts per million, maybe a little bit less, but on that scale, but I certainly don't have enough to say this is where the contamination starts. This is where it starts.

Okay. I would point out that there on the Plaintiffs--that same map again. There's a point all the way downstream all by itself to the far right of the diagram there. Okay. It's a single point all the way downstream.

One might argue that sample comes out clean that all the contamination that's in the swamp hasn't passed that point. I would say you don't have a basis to judge that on a single point. You need to know a lot about the environment where that sample was collected, is it depositional or is it erosional? If it's erosional, it won't record any history of what's going by. If it's a depositional, yeah, and it came out clean than maybe it is, but I wouldn't want to rely on a single point. The whole point of this exercise is to say if you want to characterize the extent, you're going to need to sample fairly intensely.

MR. BLOOM: Can you explain what "depositional" is?

PRESIDENT VEEDER: Could you explain, nonetheless?

DR. GARVEY: Okay.

PRESIDENT VEEDER: You don't mean "depositions"?

DR. GARVEY: Not the way you mean.

PRESIDENT VEEDER: No, exactly.

(Laughter.)

DR. GARVEY: A depositional environment is one wherein as a stream travels its course, it picks up sediment and materials along the way. At various points in the stream the velocity slows down; passes into a little opening of a pond, and the velocity slows down. It loses its ability to carry the solids that it was carrying just a few minutes or a few feet upstream, and they begin to fall out of the water column, fall out of the water and fall to the bottom of the river. In that kind of an environment, if that happened steadily, you can build up a layer of depositional solids that we can then say, okay, these solids were deposited over the last 5, 10, 15 years, whatever period you might be interested in, and say this is the nature of a solid that the stream has been carrying.

Okay. There is a whole geochemical process that due the dating of those sediments and the like which is actually my specialty; but, suffice it to say, you look for those kinds of environments when you're trying to see what's coming from upstream and what's depositing there.

A good place to look, for instance, on a stream like this might be the inside of a turn. It's called a "point bar." As the velocity slows down on the inside of a turn, solids fall out. The velocity increases on the outside of a turn. The river erodes its bank and makes the big looping turns you may have seen in old rivers and the like. The inside of a turn is a depositional environment.

So, if I wanted to say--what's coming from here, have I contained this, is this still escaping--I would need to go to find such a depositional environment and try to sample it there.

I can't say anything to this location here as to what kind of an environment it is, but again, it's still only a single point. Okay.

So, well, one other point about this. We've identified the contamination within the stream itself, within this wetland is quite heterogeneous, that samples separated by on the scale of a meter can vary by an order of magnitude, by a factor of ten. However, when you think about streams and rivers in general, they have a lot of energy in them. A lot of flowing water, rainwater runs downhill, moves into the swamp, it's a relatively slow-moving water system, but it still has a lot more energy than if we're up on land. Up on land, there isn't any energy to mix soil even three feet apart, whereas a river may pick up sediment from one location and deposit it in another; it's not happening in the land in the same sense. So, as heterogeneous as this swamp is, we would expect the land to be even more heterogeneous because there isn't the energy in the system to mix soils even over short distances. So, a spill on that side of the tree won't show up on this side of the tree whereas that kind of distance within the swamp as it gets wet and rainfall might get mixed so that either one--sorry--it gets mixed to where I'm standing, and I could measure it here. Okay. That doesn't exist up on land.

So, as heterogeneous as this system is, it's wet and aqueous, land is even more challenging. So that makes my point even stronger, that the need for intensive sampling to understand the nature and extent of contamination is what's needed here, a very, very large RI effort, Remedial Investigation effort.

So, okay. One last point on here. Again, these three sites show us how TexPet contamination looks now. We selected these sites even though they weren't part of the JI because they provided us with this unique opportunity to...
study TexPet-only contamination in a typical environment in
the Oriente, in the Concession Area. What we can infer
about TexPet contamination in these unique or single owner,
if you would, sites, we can apply to the conditions that we
see where both TexPet and Petroecuador have been Operators.
That's not to say we can attribute one to the other when we
start to look at these different sites, but rather by
establishing that TexPet contamination is still liquid,
still viable, still mobile. It's very clear that when we
start to look at these mixed use sites, mixed owner sites,
you can't differentiate TexPet from Petroecuador in any
simple kind of sense. Maybe with a lot of geochemical
study you might be able to age the oils but that's a lot
more work for another day, and that would be part of some,
again, some very intensive RI or perhaps part of some other
legal—and I will let Greg speak to this—legal type of
settlement.

But anyway, that's the reason that we brought you
to these JI sites—the non-JI sites, just because we could
isolate TexPet's related contamination and then infer from
that that these same conditions exist in the co-operated
sites. All right.

And with that, I hand it over to you.

MR. EWING: And with that, we actually turn the
floor to Claimants. It's a little early but...

MS. MILLER: Could we just have five minutes to
organize?

PRESIDENT VEEDER: Of course you can. Take more.
Whatever it takes.

(Pause.)

OPENING STATEMENT BY COUNSEL FOR CLAIMANTS

MS. MILLER: All right. Members of the Tribunal,
I haven't had the pleasure of formally speaking in front of
you, so just a brief introduction. I'm Jamie Miller, and I
represent Chevron.

And I want to start with a comment that Mr. Ewing
did at the last site, which was that this site, that in
this Site Visit, that the Claimants have largely conceded
the factual basis of this case, and that's absolutely
 untrue, and we have not conceded the facts, and I want to
take you through those facts up using Shushufindi-55. And
I want to do that where we always began, with the RAP, and
then I want to focus on the non-RAP features at this site
that Mr. Ewing and Dr. Garvey just walked you through, the
pit and the stream, both of which were not assigned to
TexPet under the RAP. And then we'll relocate briefly and
we'll finish on a summary of how Shushufindi-55 does not
support the Judgment.

So, like every other site, this site—for every
other site that was in the RAP, certain features were
assigned to TexPet, but TexPet was not required to
remediate the entire site. And, at this site, TexPet was
required to do two things: They were required to plug and
abandon the wells that we were sitting on with the yellow
pole, at the location of the wellhead, and that's inside
the RAP. And Chevron in this case, we rely on the
documents and we rely on the facts, and this document is
uncontested that we were required to plug and abandon.

This is in your big bundle that we gave you at Tab 4 and in
the mini at Page 22.

They were also required to remediate on the
platform where we were originally standing. They were
required to do some soil remediation, and that was assigned
in Table 3.3, again in the Claimants' Site Packs Tab
Number 4, in your mini-bundle Page 20, specifically
assigned these features and nothing else.

And yesterday, I believe you asked Mr. Ewing the
question of did Ecuador and Petroecuador provide oversight
during the operations, and respectfully I disagree with the
answer that Mr. Ewing gave, and Claimants have pleaded
that, and that's in the September 6, 2010, Memorial on the
Merits, Paragraphs 31 through 37, where we discuss the
oversight that Ecuador had over TexPet during the
operations.

But I believe what is undisputed, and even

Mr. Ewing would agree with me on, is that Ecuador certainly
oversaw the RAP. They were involved in the process. They
were involved in the assigning of the features of the RAP.
They were involved in checking and making sure that the RAP
was done. They selected a laboratory, an Ecuadorian
laboratory, to come out and sample during the RAP, and they
actually signed off on each and every feature that was
assigned to TexPet during the RAP, and that's all
well-documented. And we have for you the documentation for
this site. So there is an acta, Acta Number 12, that's in
your big Tab 8, in your mini-book Page 26, where the
remediation of contaminated soils was signed off, and
that's signed off by the Ministry of Energy and Mines, and
it's signed off by Petroproducción, Petroecuador, and
obviously TexPet.

They also signed off on the plugging and
abandonment of the well. So, if anything happened during
the plugging and abandonment of the well that caused a
problem and where TexPet would be required to do additional
items, that wasn't the case. They signed off on the
plugging and abandonment. Again, this is the signature of
the Ecuadorian official, Petroproducción, and TexPet, and
that big bundle Tab 10; mini, Page 12.

And then the final one is Acta Number 14, which I
believe this was the oversight of the plugging and
abandonment, and this was the actual signing off on the
plugging and abandonment.

And so, to say that Ecuador or Petroecuador wasn't
involved in this RAP process or that the RAP process was
somewhat improper or not enough is an unfair criticism to
put that only on TexPet. Ecuador was involved in this
process.

And then finally there is the Final Release where
TexPet was released of all liabilities for all sites, and
that was in 1998.

So, move now to the pit, and I'm going to go back
to the aerial photography. And, President Veeder, they are
a little bit confusing, and that's why certain people are
certified in looking at these and reviewing these, and
people are experts in analyzing these. Someone like me who
comes to this process, I have to rely on the experts to
understand these aerials.

Mr. Ewing said there is a little bit of a
disagreement on the placement of the pit. That was news to
me. I wasn't aware that was in dispute, but we have had
our experts analyze these photos. They have GPS references
so that you can put them into a GPS system. You can put
the house in. Well, we know where the house is today.
There's things that you can do to make sure you have
accurate coordinates for these items. So, simply
eyeballing and saying the pit goes all the way down to the
stream, respectfully I disagree with that.

And another reason I disagree with that is, at the
Hearing in D.C. you heard from Dr. Garvey, who said he's
not an expert in analyzing these aerial photos.

So, this is the pit, and it does show us, and this
one is easy for us to see, that it is open as of July 26,
1990. Now, that is after TexPet handed over operations, so
this is a fact.

What's also a fact is if we look at the later
aerial photography, which the next one that we have I
believe is January 2000, we see that the pit is closed. So
we do know sometime between 1990 and 2000 it was closed,
and we actually know it was closed somewhere between 1990
and 1993 because, by the time that the Pugro-McClelland
audit occurred in 1993, it had already been closed, and it
said "recently closed," and it was closed by Petroecuador.
Petroecuador was the Operator and had physical custody of
these sites. And so the insinuation today that TexPet was
suddenly running all over the Concession area and filling
in pits is just simply completely unsupported.

So, this is a non-RAP pit, and the only reason
that it's a non-RAP pit other than just not being in--or
not being in one of the tables in the RAP document is that
the RAP document--and I believe at Section 3.1.2--is very,
impacts.
Mr. Connor--oh, wait, one more item, I'm sorry.
I just wanted to note, too, that it's not surprising that there's impacts to the stream, but what is surprising is that we're hearing, and we've repetitively heard, that those impacts are migrating and continuing to migrate from this pit. And the reason that's so surprising is--Mr. Connor will explain as he has at the other sites--that the factual evidence does not support that.
But it's also so surprising because LBG came and LBG sampled here, and that's their conceptual site model. And if they wanted to test that, they could have tested, taken samples from the pit. We don't even know if there's oil in that pit. They could have tested in between the pit and the stream and then they could have tested it in the stream where they did, but they have no connection from this stream to this pit.
And I will now turn the floor to Mr. Connor.
Okay, thanks.
Okay, I will start with the stream, then we'll move backwards. First, the stream down here.
You will see a number of red markers that correspond to red markers that we put on this diagram. The same deal. We used the criteria from Decree 1215, we used the most conservative application, 1000 PPM. If it's higher, it's red; if it's lower, it's not.
So, what do we see down in this stream? There's an oil spill down in this stream that's been there since 1995. It was marked on a diagram that was prepared by Woodward-Clyde, the company that collected the information for the purpose of the 1995 RAP. They noted that in this stream, there was oil sheen and oily sediments. So, it's not a surprise to come here and find these. Mr. Cabrera came here and found these; right? So, is it really that variable? Is it really that surprising that we find these?
Everybody who came found them; right? And it's right here.
So, it's not--this is not that mysterious. And let's talk a little bit about heterogeneity in terms of the vertical distribution. I think Dr. Garvey gave you one theory that was because these two sample points were a meter apart, that showed there was tremendous spatial variability. One sample would have, say, 10,000 and the next sample would have less than 100. Well, there is another explanation for that, and let me show that to you.
When you have a surface spill, it will be on the surface; right? If we were to pour coffee on the ground here, you would have a higher concentration of coffee on the ground surface than you would have underneath. So when we look at data, we try to compare the data vertically, look at what's shallow to what's deep. If it's higher shallow, it came from above. If it's higher deep, it came from below. Let's look at that here.
I don't know if you all can see this. This is--it's in the mini-package. Is it Page 9? Do we actually have that right?
MR. CONNOR: Okay.
MS. RENFROE: It's the trifold.
MR. CONNOR: Okay. It's on the trifold. I can see you guys are jumping on that one.
Okay. So, let's look at this. We have a number of samples, as Dr. Garvey explained. They did co-located samples. Here's one. We have SE-00-5, that's a location ID, and SE-00-6. One, that is from zero to 0.4, is 3,650.
The one right next to it that's deeper, it's from 0.3 to 0.7 is lower; it's only 153. So these samples are oriented like this: One's up here and one's down here. The one that's deeper is way lower TPH. So again, we have a lot of TPH on the surface and very little right under it. These are about this close together; right?
Then let's look at another pair. Here's two pairs. See, I'm always getting confused by this. Here is a pair. Here's another pair. Here we have the shallow sample at SE-004, zero to 0.37, 9200 TPH, 8015. The sample that's right next it but deeper .5 to .62, 322. 9200, 322.
So what do we have? High concentrations on the surface of the sediment, low underneath. A surface spill.
There are some of these that aren't different; they're about the same. Here at SE-00-8 and SE-00-7, the samples are from the same depth interval and they're the same; right? You have 0.24 and zero to 0.4. They totally overlap. They're the same.
And some of the other samples also show exceedances both in the shallow and deep, but the pattern generally tells us it was a surface spill. And it doesn't tell us there's tremendous amount of heterogeneity. This is normal for a surface spill. However, we must remind ourselves that three different parties have come here and seen the same thing at the same place, so not hard to find it. Woodward-Clyde saw it in '95; Mr. Cabrera saw it, I believe, in 2007-2008; and the Ecuador Experts have sampled again, because they came to the same place. Okay. So, very predictable.
And the other point is that in doing an investigation like this, it's not necessary to take hundreds of samples. People don't take hundreds of samples. And why? Mr. Cabrera--I'm sorry. Dr. Garvey explained that to us at the last site, and I think we've...
seen that this week. When there is oil there, you can see it and smell it. You all have seen it and smelled it. We're not blindfolded. We don't have a cover on our nose. We can find oil. Oil is not that hard to find. But then the laboratory data is very helpful for confirming and measuring that concentration. So it doesn't take lots of samples. It takes lots of direct observations. All right? But it takes some samples to say that oil is coming from a pit and discharging into a stream. You've got to have some samples; right? You have to have some groundwater sampling between the pit and the stream. You have to have some sample up at the pit. Otherwise, it's a theory but not a fact. And here we have contrary evidence in the stream that we have high concentration on the surface and low underneath that says that it's not coming up from underneath. So that's a key concept with regard to extent--I mean with regard to the migration and to--and how it happened.

Let me go to two more points, then. What's--is it migrating and what's its extent? Well, it's been there since 1995 and three parties were able to come here and find it in the same place. It hasn't gone anywhere. It's a parked car. It's still there. So we don't have a case where this stuff is moving away.

But what's its extent? Well, we don't know. We don't have that information here. A huge oil spill that spreads up the sides of the banks but it hasn't been investigated to determine how far it goes. We don't know that.

We do know a couple of things about it, about this stream, that you all saw that. I think Professor Lowe or one of your colleagues had asked what's this orange stuff down here? The orange stuff is iron bacteria. You get iron bacteria in a stream like this when the bacteria run out of oxygen to eat. You have so much vegetation down here, and you have, as we'll see, sewage discharge in here. When you get that much organic in there, the bacteria eat up all the oxygen; and, when they eat up all the oxygen, they got to look for something else, and ferric oxide is one of the things they'll reach out for, and the bacteria will evolve. The bacteria has evolved to eat that. And, when it grows in a stream, very often streams that are receiving sewage, you will get that fuzzy orange stuff that's all around the plant roots.
Oh, one other issue that Dr. Garvey referred to, that in order to track--he said that it's very heterogeneous in the sediment but even more so in the soil. Well, the thing we need to understand is that the way chemicals move in the soil is like a snail. They use a snail trail. It always leaves a smear behind. It's pretty easy to find. It's not a bunny rabbit. It doesn't jump around and trick us like that. Usually, it's not that hard to track things in soil. It doesn't take that many samples, and there is a vast amount of experience in this. It doesn't take hundreds or thousands of samples to characterize a site of this nature. We know a lot about this site just from our boots. I think that's all I have to say.

PRESIDENT VEEDER: If I may ask a question.

MR. CONNOR: Yes.

PRESIDENT VEEDER: You agree there is an oil spill or some oil/petroleum there. But how did it get there, in your account?

MR. CONNOR: Well, that's a good question. I don't think we know. I think the fact that it's on the surface indicated it was some sort of a surface release, and that could happen two different ways that I think are possibilities. They're good possibilities here.

The first is, when this pit was covered--and it was covered after July 1990, we see it July 1990, we don't later. And we know that it was just covered. It wasn't remediated. So when you push dirt on top of a pit that has oil in it, that oil can overflow. And so that could result in sediment--in the sediments receiving that oil. Those sediments can hold that oil very tightly. Why? Because they're almost like a charcoal filter. They're full of carbon. They hold that stuff. And it's sticky oil.

The other possibility is a flowline break. The flowline is gone from here, but it was here. A very common problem and a challenge for the Operators out here in the past and today, are the flowline breaks. Sometimes they break due to corrosion. That's the pipeline that runs from the well into the station. You have seen those thin pipelines snaking along the road.

There is a challenge out here by all the Operators. First they maintain their pipes, and if they don't maintain the pipes, the pressure that is coming out of the well can cause that pipe to burst. But the most common problem, most common source of problems with those is vandalism. Petroecuador has this challenge, and they work very hard to keep that from happening, but there are--there is vandalism on these pipes sometimes. So flowline breaks are not that uncommon. A flowline break can cause a big impact to a stream. So those are two possibilities but I don't know exactly how it happened. I know it was a surface release.
photos so we can get a better idea of what this pit is and 2  what it's used for.

So, in the photo from January 2000 is the first time we see the outline of this pit. And if we go to the next photo--it's in your packet on Page 16. You see on your packet at Page 16--here you see a dark shape. Okay. 7 And that dark shape doesn't mean that the pit has oil in it because water pits will appear the same way. They will be dark as well. In this case, this is a tilapia pond. You will see that many of these are built on local residences as a supplemental source of income, and they often have this shape because it's the shape—they're about 5 feet deep--about 2 to 3 meters deep with that rectangular shape that allows not too wide so you can reach the fish out in the middle to harvest them. There's two of them right next to each other. As you drive along the highway, if you look out, you will see a number of these along the way. And that's what this is used for by this resident.

ARBITRATOR GRIGERA NAÓN: Is there any argument that this is contaminated?

MR. CONNOR: I don't believe there is any indication that this is contaminated. I think that the argument comes down to that this pit was tallied by Mr. Cabrera and included in the Judgment as a pit for which Chevron would have liability for remediation. But, as a fish pond, certainly we wouldn't expect it to be contaminated, and it certainly wouldn't be the responsibility of either of the oil companies or the current Operators out here.

MS. MILLER: So, we can briefly move down to the chairs where it's more comfortable.

(Pause.)

MR. EWING: As far as I'm aware, this is not a location that has been discussed in any of the pleadings in the arbitration or in--for our Site Visit Packets; if it is, I'm happy to be corrected. But, to me, this seems to be equivalent to the second location that we asked to go to which Claimants objected. So, if we're going to have a different location, I would just request that we have similar procedures, or it could be that I'm totally wrong.

PRESIDENT VEEDER: Can you explain to us why we're here?

MS. MILLER: I will. I will tell you Mr. Ewing when he is wrong. We are right here on the road, and you will see that we have marked a groundwater sampling point right here, which is why we're here. And so I respectfully disagree that this is not in the Site Packets, but rather a sampling location which is what we have been doing all day, is going to the various sampling locations and discussing the data, the sampling points that are in the record.

MR. EWING: I would disagree that one datapoint is enough argument to give us notice about what we're going to talk about here, but I leave that to you.

PRESIDENT VEEDER: Let's hear what counsel is going to say, and if you have an objection during that presentation, please restate it when we'll understand a bit more what we're being told.

MR. EWING: That sounds perfectly fair. Thank you.

PRESIDENT VEEDER: Thank you.

MS. MILLER: To orient you again, if that's necessary, we are standing right here. We just walked past the tilapia ponds--you're sitting. So we just walked past the tilapia ponds and you're sitting facing this ground water well, Groundwater Well 2, which we have marked with the--consistent with our flagging at the other sites--the green triangle which means that during the Cabrera shadowing, Chevron came here and took a groundwater sample at that location and found that it met all regulatory criteria.

They also took another sample point at an actual drinking water well. There is a residence. This resident was here during the Lago Agrio proceedings, and there was a water well used by the resident, a pivotal water well used by the resident that Chevron sampled as well, and we're not there, just we don't want to be intrusive and go on to the land. But there is another sampling location that also met all regulatory standards.

And, with that introduction, I'm going to hand the floor back over to Mr. McHugh--Dr. McHugh to discuss the human health-risk assessment.

DR. MCHUGH: Thank you.

PRESIDENT VEEDER: Just one moment.

Any further objections so far?

MR. EWING: I maintain the objection. But, if Dr. McHugh is going to talk here, we just ask that Dr. Garvey be able to respond, even though we have not briefed anything about this as well.

PRESIDENT VEEDER: Okay. Let's hear Dr. McHugh first, then we'll review the application.

MR. EWING: Yes, yes.

PRESIDENT VEEDER: Please continue.

DR. MCHUGH: I think this will be brief. I am going to try and just cover the same issues that I've covered at the other sites, and that is sources of clean water for the local residents and potential health concerns.

And so this residence, as you can see, is close to the well platform. And, as was just discussed, when Mr. Cabrera was out here, the Chevron representatives...
collected a couple of water samples. They collected a water sample from the hand-dug well that was being used by the residents at that time, which was--Chevron's policy was to always test the hand-dug wells when they were present, and that testing showed that that hand-dug well was free of petroleum and met all drinking water standards.

Mr. Cabrera, when he was out here, tested where that GW sign is. That's actually a spring that comes out, and he tested that, and the Chevron representatives also tested that. At the time the sewage discharge line that you see there was not present when Mr. Cabrera and the Chevron representatives tested, so that's definitely a change of conditions. It's hard to say what the conditions are of that spring today; but, when it was tested, that spring was free of petroleum and met all drinking water standards. So, it's evidence that the groundwater that's available to the residents is free of petroleum contamination.

The well that was tested at the time of the Cabrera visit was a hand-dug well. I understand from the follow-up that's been done just in the last couple of weeks was that that well has been replaced by a more modern well that's very close to that hand-dug well. So, my understanding is today they're using that more modern well. LBG elected not to test that well when they were out here,

so it hasn't been tested but, because we have the hand-dug well sample very close proximity, we have every reason to believe that that's still clean. So, that is a source of clean water.

And then the last is the human health-risk assessment issues. I think this will also be very brief. The LBG representatives did not include this site in their quantitative risk assessment. In my risk assessment, I included all of the data that was collected as part of the Judicial Inspection process, so that included the samples that were collected from this site during the Cabrera investigation.

I found that there was no risk, and I think you will see--you'll remember from visiting that location where there's the oil in the swamp, that that's a location where--it's just not a location where there is going to be significant human contact. And, as I explained in a hearing in D.C., that the presence of contamination itself is not a health risk. It's the dose. It's the level of exposure. And I think at that location it's quite clear that exposure to that weathered petroleum is going to be very limited, and that's not a health risk. And, in addition, because of the sewer discharge, any contact with this water area that's influenced by the sewage, it would just be unwise.
to drink. LBG, in its Report, trying to prove up this Judgment and in their confirmation where they have taken no groundwater samples at this site.

So, we move next to soil remediation, and that's the $5.4 billion for soil remediation, which as you're familiar, is based on the pit count and then an area per pit, and then the 100 PPM, and a cost per pit. LBG did not sample this pit. We have seen that this pit is a non-RAP pit, and we have also seen that they are including pits that weren't even in existence, and that Cabrera included that in the pit count which is our position that the 880 pit count comes from the Cabrera tables.

And so, Shushufindi-55 does not prove up the $5.4 billion of soil contamination. And, on top of that, LBG didn't even take a single soil sample at this site. Sediment is treated independently of soil, and they've collected no soil samples, and certainly no soil samples of the pits.

We then move to potable water. For simplicity of time, I'm just skipping over these because they're not argued very much by either of the Parties.

The potable water is $150 million, and again, we're at a site where LBG has collected no samples of potable water. The stream is not being used for potable water. The groundwater is being used for potable water. There is a physical monitoring well that was present and could have been sampled by LBG but they did not. Chevron did sample the potable water and they sampled the potable water at many of the other sites, and that confirms that there was no problem from petroleum at these sites and no need for a potable water system, at least as it refers to petroleum. There's other problems with the water.

Then we have the health monitoring, which we combine with the health monitoring and the health program for cancer. That's about $2.2 billion. And again, we're at a site where LBG came, they had an opportunity to do a health-risk assessment, and they chose not to do one. Not a single sample here have they conducted a risk assessment on. The only risk assessment that was conducted is in the Lago Agrio Record, the one done by Dr. McHugh, which confirmed that there is no need and no link from TexPet contamination to any human health effect and no need for the health damages award in the Judgment.

So, I will leave you with the fact that I simply disagree with the thought that Shushufindi-55 shows you anything, any support that the Judgment is reasonable and, in fact, I think it shows you just the opposite.
1 exposing people, that that would be cleaned up, and that is
2 what we have seen by coming to these sites. And it is
3 similar to what the Lago Agrio Court saw when it went to
4 its Judicial Inspections, and it's similar to what the Lago
5 Agrio Court saw in the documentation that the Parties
6 provided to it. So, you have gotten a snapshot of some of
7 these sites.
8
9 Another point that I wanted to raise is you will
10 notice that when Claimants discuss liability, 1990 is a key
11 date for all of us. 1990 is the end date, June 1990, when
12 the operatorship changed hands from Texaco--or TexPet to
13 Petroecuador, and from June 1990 until 1992, TexPet was a
14 member of the Concession, but Petroecuador was the
15 Operator.
16
17 And you will notice, if you remember or you want
18 to go back to the Transcript, when Claimants talk about
19 pre-1990, they talk about the Operators, the
20 Concessionaires, it's the Concession's oil, it's
21 everybody's oil, we all share. And then, when you get to
22 June 1990, Petroecuador has exclusive control over the
23 area, and it's exclusively operating these sites, despite
24 the fact that they are simply assuming the same role that
25 TexPet took over.
26
27 I will pause just a moment again.
28 (Pause.)

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1 MR. EWING: The next point I would like to make, 2 and just so we're all on the same page, I'm looking at the 3 1975 aerial photograph again. Ms. Miller was talking about 4 the GPS coordinates and the disagreement between the 5 Parties. I just want to clarify, by no means that I mean 6 to intimate that I was assessing this and we were trying to 7 assess where these were. There are coordinates on the 8 side, and you can use though coordinates to assess where on 9 these maps, is my understanding of how these--where these 10 pits are. LBG has people who are experts in this, and did 11 this assessment, and they disagree with where Chevron does 12 it. So, just so we're clear, this is not just about 13 eyeballing a map and disagreeing. This is both Parties' 14 Experts have disagreements about where these pits exist. 15 I think it's not a huge deal at this site because 16 we do have a large pit either way, but just so we're on the 17 same page, this is a question about GPS and satellite 18 imagery experts, aerial imagery experts, assessing these 19 sites.
20
21 So, I would now like to turn the floor to
22 Dr. Garvey and let him address a few of the scientific
23 points.
24
25 DR. GARVEY: In Mr. Connor's discussion a few
26 minutes ago, he would have you believe that he can fully
27 understand the variation between sample points. He would
28 have you believe that we could explain all the variability
29 just based on variations in depth. That's the deeper
30 samples were less contaminated than the shallow ones. And
31 so the question might be: Why did we pick the deeper ones?
32 Why did we pick some shallow and some deep? We weren't
33 picking shallow and deeper, per se. We were using the PID
34 instrument, the one that you've seen that's sensitive to
35 molecules related to petroleum, as a basis to pick the
36 interval that we selected for sampling. So, in each core
37 we would pick the interval that gave us the highest
38 readings and also do a visual inspection to see that it
39 looked like if not the most contaminated layer in the core,
40 among the most contaminated. So between the visual
41 inspection that said yes, this looks contaminated, and the
42 PID reading that said, yes, this is giving us the highest
43 value, we picked that layer for analysis.
44
45 It turns out in three of the four pairs it is the
46 shallower layer that's higher. But, that said--so,
47 pointedly, that in each case we're screening for what we
48 thought was the maximum contamination. We were trying to
49 get the maximum contamination level at each core that we
50 observed. So, we don't expect that in the core where we
51 took the deeper layer that, in fact, the shallower layer is
52 less contaminated because it had a lower PID reading.
53 Presumably, this one also didn't look as visually
54 contaminated as the one beneath it.
55
56 But that begs another question, really, which is
57 that this oil reached this swamp somewhere perhaps in the
58 1990s; perhaps, arguably, in the 1980s, when this pit from
59 the--well was capped. So you have seen, for instance, at
60 Shushufindi-34, that the jungle consumes everything you
61 leave alone. It hates a vacuum, so to speak. It fills
62 over. It covers the tops of the pits. It quickly fills in
63 fields. If they're left neglected, it becomes a forest and
64 so on. That oil reached that swamp 25 to 35 years ago,
65 depending on when you think the mechanism was that
66 delivered that oil to that swamp; yet, it's at the surface,
67 despite leaf litter falling in there, despite material
68 being washed down into the stream, despite the fact that
69 that is a largely depositional environment, and so we
70 expect solids to accumulate in there as a result of the
71 farmer working his field, causing erosion to come off the
72 field, just material being washed down the hill naturally
73 as part of the normal runoff that comes off of this hill.
74
75 Yet, the contamination sit either at the surface or very
76 close to the surface. So I can't tell you why that oil is
77 sitting close. Could it be that it's being replenished by
78 contamination from the oily hill behind me here from the
79 former pit? Could it be that it's working its way to the
80 top as the material is burying it, so it's literally
working its way through the sediment? I don't have for you a pat answer. I'm not going to tell you I'm going to give you a nice smooth, polished answer that says this is the explanation for the problem. Clearly it is a problem. Clearly it exists to the present day. Clearly we can attribute it to oil that was generated during the period when Texaco was the primary Operator of this facility.

So, that said, I think—and this is our point really that we don't understand what's happening here well. We have some idea of some things, but we don't have a good characterization of how oil is transported here, how things reached the swamp, why the swamp still continues to be contaminated 25 to 35 years after it was originally--the insult originally arrived there, yet we are forced to recognize the facts as it is. Okay.

So, in that context, then, I would say that part of our assertions for Ecuador is that there's a lot about the contamination here that we don't understand, and it requires further study and further investigation. It's not possible for one Party to say, I know how much I'm responsible for, I know what's going to happen to it, and I can take care of it or walk away, or I'm no longer responsible because it's already taking care of itself. I would argue that this is a case in point where it hasn't.

I don't think I have anything else.

MR. EWING: Let me wrap this up, then, and we can head back and maybe enjoy the pool or relax a little bit for the evening.

Two or three main things I would like to just to close with.

One, we are now here at Shushufindi-55. We were at Aguarico-06 earlier this morning, and we were at Shushufindi-34 earlier today or yesterday. And one of the things we want you to see in being here is the significant time and cost and sort of expansiveness of what addressing and assessing these sites means, what it would--how much time it would cost to get access to the various areas, to find out where these pits actually do end up. Ms. Miller mentioned that we didn't take samples of this pit. It's true, we didn't. If we had our druthers, we would have completely characterized every site and be able to give you complete information about everything, but that is an incredibly time-consuming, incredibly costly process. So, to really understand these sites and what needs to be cleaned up, I can't be going with the amount of time that LBG had to assess these sites.

Instead, these sites were each meant to demonstrate individual aspects or pieces of the overall story. So each of these sites fits into the puzzle piece which is the Concession Area. So, Shushufindi-34 shows us an undocumented pit and what does that oil look like when it's covered by the jungle. Aguarico-06 is an incredible site to show an illustration of how much these sites change. In the amount of time that we've been--LBG has been here, we have seen--or they have seen that site has gone from dense jungle, as you saw in your pictures, to a cut open field with the trees and now corn growing in it.

Not only do the sites change because of what humans and--people are doing, but those changes in the sites themselves, our understanding of them is changing significantly. As a perfect example, just this week, we found this other seep, which we showed to you as an illustration of where the contamination is going. We spent a lot of time at Aguarico-06. LBG didn't find it. That is an indication or illustration of how much effort it is to truly understand the extent of the contamination at these sites.

And, at the end of the day, we are just--LBG and the Republic are just starting to scratch the surface. The Court in Lago Agrio had much more evidence before it. They did 45 Judicial Inspections with the competing sampling from both Parties. So, there is a large body of evidence, but we still don't know everything about these sites.

So, I want to now just quickly address Ms. Miller's conclusion. She started off with don't forget this Judgment is procured by fraud. We disagree. And, as I have the unique opportunity of being able to work on both our environmental side and our ghostwriting and fraud side, I would be happy to talk about you for as long as you'd want about the forensics and how it doesn't support their story; how Mr. Guerra's evidence doesn't support their story; how Mr. Borja, who they brought originally years ago, doesn't support their story, and we can continue on, and we did that at the Hearing, but I just don't want to leave that unrebutted. We obviously disagree and think that the facts don't support their story on the fraud either.

Leaving that there, since that isn't why we're here, I want to talk about the Judgment and the categories of damages that were included in the back of your Site Packet. I did notice they didn't include my amended version of that, which I guess I'm not terribly surprised. But the point for these Site Visits, to be very clear, is not to prove each category of damages at each site. So, for instance, Shushufindi-55, as Ms. Miller pointed out, is not a site that we're bringing you today to show you, oh, why this is why healthcare and monitoring costs should be the dollar values that they are. That is not what this site is for. This site is not about that. Dr. Strauss didn't do risk assessment here.
We talked about the groundwater. Again, this site is not about the groundwater. This site is about understanding what happens to the sediment, as the Judgment categorized it, the surface water, a category of damages that Ms. Miller didn’t address, and that is where cleanup of something like this would first take place.

There may be also some soil cleanup that needs to be taken care of with this pit. We don’t know because we didn’t sample it, but we do know that the--and both Parties agree--that this swampy area is contaminated. There is no question about that.

She also mentioned the potable water question and whether Shushufindi-55 shows why potable water is a necessary part of the Judgment. And yes, we didn’t take water samples here. We were focused on the sediment. We can’t and couldn’t do it all.

But Aguarico-06, where we were this morning, we see that the groundwater is no longer usable. Around Shushufindi-34, there is definitely groundwater contamination. We don’t know where it stops. Dr. McHugh continues to mention that people have other water sources, and what we found, and Dr. Strauss included in her interviews and Chevron also found in their interviews of local residents, is that people self-correct or self-fix this problem. So, when they find contamination and their water smells bad, they do install a rainwater catchment system. They do buy municipal water. They do find alternative sources because, as health guidelines say, smell and odor and taste are a very good indicator of when something is contaminated, and none of us would like to drink contaminated water. It turns out the people of the Oriente, when they smell and taste the petroleum, they find other water sources.

So, the fact that people have found clean water sources or some sites have clean water sources does not mean that the groundwater that could have been their original source or the surface water that could have been the original source is okay, and that is what the Judgment said. It said there is a certain group of people who need potable water brought to them. Some of them are already replacing it. Some of them are already putting in municipal water systems. Some of them are already using rainwater catchment, but the Judgment said those people should not be penalized because TexPet contaminated their groundwater, so just so we’re clear on what the potable water was.

So, with that I just--

DR. GARVEY: The point we wanted to make about groundwater and human exposure relating to the site down the road is that when Chevron collected those groundwater samples, they filtered them. So, they collected groundwater samples and filtered them before they tested them. Why is that pertinent? The people here who are going to take groundwater are not going to filter their water. They don’t have the means for it. The idea is not to add expense, and that means it requires pumps and so on and so forth, so they’re going to be drinking water that has suspension--has particles in it. Okay.

Additionally, that same water, the same process that filters the water to remove the solids will also gather any oil, because the filter will be sticky, it will remove some of the oil, the dissolved oil that’s in the sample, and it will stick on the filter as well. So, the groundwater samples that are filtered are not really reflective of what the people will be exposed to when they drink that groundwater.

The other point is, that they talked about, is that these people here right now don’t have a drinking-water problem. The groundwater is clean, and they’re drinking water under the current conditions. It ignores future conditions. And, as you have seen in the Oriente, and if you come back a few months or a year from now you will see much more vividly, this system is aerodynamic and changing quickly. Okay. People are developing, putting in new homesteads, and so on and so forth. So it’s a very high likelihood that many of these areas will be inhabited in the future.

In particular, I will point out that a platform like this one, that’s abandoned and left, is actually a very good homestead. Someone has done all the work for you to clear the forest out of the way. It’s a great place to put a house now. I don’t have to do all the work to cut the forest down to put my house here. So it’s, if you would, an attractive location, contamination aside.

So, I just wanted to make those two points.

Go ahead, Greg. Sorry.

MR. EWING: If you would like to read more about what Dr. Garvey was just saying, in LBG’s Site Investigation Reports, when they went to the various sites, they did find that people were building houses on these platforms. There’s much more about that in the Site Investigation Report.

So, with that, I will conclude our rebuttal, and just to go quick logistics.

PRESIDENT VEEDER: One moment.

MR. EWING: Unless you have questions.

PRESIDENT VEEDER: We just had one question. Just the reference to Chevron filtering the water samples.

QUESTIONS FROM THE TRIBUNAL

PRESIDENT VEEDER: At the site just down the road,
where would we find this in the evidence? Is that in one of your Reports or in one of hers?

DR. GARVEY: I have to ask Dr. Strauss for that information.

PRESIDENT VEEDER: You can tell us later. You don't have to tell us tonight.

DR. GARVEY: Okay.

PRESIDENT VEEDER: So, logistics.

MR. EWING: We will get the reference for you.

So, logistics, we just need to be careful of the road obviously and hop in the cars. Tomorrow, I think that we're going to try to leave at 7:00 a.m. tomorrow. So everyone, 7:00 a.m. in the hotel. I think that's actually all that I have for logistics, unless I'm forgetting something that someone else knows about.

PRESIDENT VEEDER: No? Thank you very much.

Thanks a lot.

(Whereupon, at 4:07 p.m., the Shushufindi-55 Site Visit was concluded.)

CERTIFICATE OF REPORTER

I, David A. Kasdan, RDR-CRR, Court Reporter, do hereby certify that the foregoing proceedings were stenographically recorded by me and thereafter reduced to typewritten form by computer-assisted transcription under my direction and supervision; and that the foregoing transcript is a true and accurate record of the proceedings.

I further certify that I am neither counsel for, related to, nor employed by any of the parties to this action in this proceeding, nor financially or otherwise interested in the outcome of this litigation.